

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 20-F

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2019**

Commission file number: 1-12102

YPF Sociedad Anónima

(Exact name of registrant as specified in its charter)

Republic of Argentina
(Jurisdiction of incorporation or organization)
Macacha Güemes 515
C1106BKK Ciudad Autónoma de Buenos Aires, Argentina
(Address of principal executive offices)

Diego M. Pando
Tel: (011-54-11) 5441-1276
Facsimile Number: (011-54-11) 5441-3726
Macacha Güemes 515
C1106BKK Ciudad Autónoma
de Buenos Aires, Argentina
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange on Which Registered</u>
American Depositary Shares, each representing one Class D Share, par value 10 pesos per share	YPF	New York Stock Exchange
Class D Shares	N/A*	New York Stock Exchange*
	YPDF	Bolsas y Mercados Argentinos S.A.

* Listed not for trading but only in connection with the registration of American Depositary Shares.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

The number of outstanding shares of each class of stock of YPF Sociedad Anónima as of December 31, 2019 was:

Class A Shares	3,764
Class B Shares	7,624
Class C Shares	40,422
Class D Shares	393,260,983
	<u>393,312,793</u>

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note – Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of “accelerated filer,” “large accelerated filer” and “emerging growth company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13 (a) of the Exchange Act.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued by the International Accounting Standards Board:

Other

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes No

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Conversion Table

1 ton = 1 metric ton = 1,000 kilograms = 2,204 pounds
1 barrel = 42 U.S. gallons
1 ton of oil = approximately 7.3 barrels (assuming a specific gravity of 34 degrees API (American Petroleum Institute))
1 barrel of oil equivalent = 5,615 cubic feet of gas = 1 barrel of oil, condensate or natural gas liquids
1 barrel of oil, condensate or natural gas liquids = 0.159 cubic meters
1 kilometer = 0.63 miles
1 million Btu = 252 termies
1 cubic meter of gas = 35.3147 cubic feet of gas
1 cubic meter of gas = 10 termies
1,000 acres = approximately 4 square kilometers

References

YPF Sociedad Anónima is a stock corporation organized under the laws of the Republic of Argentina (“Argentina”). As used in this annual report, “YPF,” “the Company,” “we,” “our” and “us” refer to YPF Sociedad Anónima and its controlled companies or, if the context requires, its predecessor companies. “YPF Sociedad Anónima” or “YPF S.A.” refers to YPF Sociedad Anónima only. “Repsol” refers to Repsol S.A., its affiliates and consolidated companies. We maintain our financial books and records and publish our financial statements in Argentine pesos. In this annual report, references to “pesos” or “Ps.” are to Argentine pesos, and references to “dollars,” “U.S. dollars” or “U.S.\$” are to United States dollars.

Disclosure of Certain Information

In this annual report, references to “Audited Consolidated Financial Statements” are to YPF’s audited consolidated statement of financial position as of December 31, 2019, 2018 and 2017, YPF’s audited consolidated statements of comprehensive income for the years ended December 31, 2019, 2018 and 2017, YPF’s audited consolidated statements of cash flows for the years ended December 31, 2019, 2018 and 2017, YPF’s audited consolidated statements of changes in shareholders’ equity for the years ended December 31, 2019, 2018 and 2017 and notes 1 to 38.

Unless otherwise indicated, the information contained in this annual report reflects:

- for the subsidiaries that were consolidated using the global integration method at the date or for the periods indicated, 100% of the assets, liabilities and results of operations of such subsidiaries without excluding minority interests, and
- for those joint operations whose results were consolidated using the proportional integration method, a *pro rata* amount of the assets, liabilities and results of operations for such joint operations at the date or for the periods indicated.

For information regarding consolidation, see Note 2.a to the Audited Consolidated Financial Statements.

Certain monetary amounts and other figures included in this annual report have been subject to rounding adjustments. Any discrepancies in any tables between the totals and the sums of the amounts are due to rounding.

Forward-Looking Statements

This annual report, including any documents incorporated by reference, contains statements that we believe constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include statements regarding the intent, belief or current expectations of us and our management, including statements with respect to trends affecting our financial condition, financial ratios, results of operations, business, strategy, geographic concentration, reserves, future hydrocarbon production volumes and the Company’s ability to satisfy our long-term sales commitments from future supplies available to the Company, our ability to pay dividends in the future and to service our outstanding debt, dates or periods in which production is scheduled or expected to come on-stream, as well as our plans with respect to capital expenditures, business, strategy, geographic concentration, cost savings, investments and dividends payout policies. These statements are not a guarantee of future performance and are subject to material risks, uncertainties, changes and other factors which may be beyond our control or may be difficult to predict. Accordingly, our future financial condition, prices, financial ratios, results of operations, business, strategy, geographic concentration, production volumes, reserves, capital expenditures, cost savings, WACC (weighted average cost of capital) investments and ability to meet our long-term sales commitments or pay dividends or service our outstanding debt could differ materially from those expressed or implied in any such forward-looking statements. Such factors include, but are not limited to, currency fluctuations, inflation, the domestic and international prices for crude oil and its derivatives, the ability to realize cost reductions and operating efficiencies without unduly

disrupting business operations, replacement of hydrocarbon reserves, environmental, regulatory and legal considerations, including the imposition of further government restrictions on the Company's business, changes in our business strategy and operations, our ability to find partners or raise funding under our current control, the ability to maintain the Company's concessions, and general economic and business conditions in Argentina, as well as those factors described in the filings made by YPF and its affiliates with the Securities and Exchange Commission, in particular, those described in "Item 3. Key Information—Risk Factors" and "Item 5. Operating and Financial Review and Prospects" YPF does not undertake to publicly update or revise these forward-looking statements even if experience or future changes make it clear that the projected results or condition expressed or implied therein will not be realized.

Oil and Gas Terms

Oil and gas reserves definitions used in this annual report are in accordance with Regulations S-X and S-K, as amended by the U.S. Securities and Exchange Commission's ("SEC") final rule, Modernization of Oil and Gas Reporting (Release Nos. 33-8995; 34-59192; FR-78; File No. S7-15-08; December 31, 2008) and relevant guidance notes and letters issued by the SEC's Staff.

The reported reserves contained in this annual report include only our proved reserves and do not include probable reserves or possible reserves.

The following terms have the meanings shown below unless the context indicates otherwise:

"acreage": The total area, expressed in acres or km², over which YPF has interests in exploration or production. Net acreage is YPF's interest in the relevant exploration or production area.

"basin": A depression in the crust of the Earth formed by plate tectonic activity in which sediments accumulate. Continued sediment accumulation can cause further depression or subsidence.

"block": Areas defined by concession contracts or operating contracts signed by YPF.

"concession contracts": A grant of access for a defined area and time period that transfers certain entitlements to produce hydrocarbons from the host country to an enterprise. The company holding the concession generally has rights and responsibilities for the exploration, development, production and sale of hydrocarbons, and typically, an obligation to make payments at the signing of the concession and once production begins pursuant to applicable laws and regulations.

"crude oil": Crude oil with respect to YPF's production and reserves includes condensate.

"field": One or more reservoirs grouped by or related to the same general geologic structural feature or stratigraphic condition.

"formation": The fundamental unit of lithostratigraphy. A body of rock that is sufficiently distinctive and continuous that it can be mapped.

"gas": Natural gas.

"hydrocarbons": Crude oil, natural gas liquids and natural gas.

"surface conditions": Represents the pressure and temperature conditions at which volumes of oil, gas, condensate and natural gas liquids are measured for reporting purposes. It is also referred to as standard conditions. For YPF these conditions are 14.7 psi for pressure and 60 degrees Fahrenheit for temperature. All volume units expressed in this report are at surface conditions.

Abbreviations:

“bbl”	Barrels.
“bbl/d”	Barrels per day.
“bcf”	Billion cubic feet.
“bcf/d”	Billion cubic feet per day.
“bcm”	Billion cubic meters.
“bcm/d”	Billion cubic meters per day.
“boe”	Barrels of oil equivalent.
“boe/d”	Barrels of oil equivalent per day.
“kboe/d”	Thousand barrels of oil equivalent per day.
“cm”	Cubic meter.
“cm/d”	Cubic meters per day.
“dam ³ ”	Cubic decameters (thousand cubic meters).
“GWh”	Gigawatt hours.
“HP”	Horsepower.
“km”	Kilometers.
“km ² ”	Square kilometers.
“liquids”	Crude oil, condensate and natural gas liquids.
“LNG”	Liquefied natural gas.
“LPG”	Liquefied petroleum gas.
“mdbl”	Thousand barrels.
“mdbl/d”	Thousand barrels per day.
“mcf”	Thousand cubic feet.
“mcf/d”	Thousand cubic feet per day.
“mcm”	Thousand cubic meters.
“mcm/d”	Thousand cubic meters per day.
“mboe”	Thousand barrels of oil equivalent.
“mboe/d”	Thousand barrels of oil equivalent per day.
“mm”	Million.
“mdbl”	Million barrels.
“mdbl/d”	Million barrels per day.
“mmboe”	Million barrels of oil equivalent.
“mmboe/d”	Million barrels of oil equivalent per day.
“mmBtu”	Million British thermal units.
“mmcf”	Million cubic feet.
“mmcf/d”	Million cubic feet per day.
“mmcm”	Million cubic meters.
“mmcm/d”	Million cubic meters per day.
“mtn”	Thousand tons.
“MW”	Megawatts.
“mts”	Metres.
“NGL”	Natural gas liquids.
“psi”	Pound per square inch.

PART I

ITEM 1. Identity of Directors, Senior Managers and Advisers

Not applicable.

ITEM 2. Offer Statistics and Expected Timetable

Not applicable.

ITEM 3. Key Information

Selected Financial Data

The following tables present our selected financial data. This information should be read in conjunction with our Audited Consolidated Financial Statements, and the information under “Item 5. Operating and Financial Review and Prospects” included elsewhere in this annual report.

Our Audited Consolidated Financial Statements are prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

In this annual report, except as otherwise specified, references to “\$,” “U.S.\$” and “dollars” are to U.S. dollars, and references to “Ps.” and “pesos” are to Argentine pesos.

Selected consolidated financial information contained in this annual report as of and for the years ended December 31, 2019, 2018 and 2017 has been derived from our Audited Consolidated Financial Statements included in this annual report. Selected consolidated financial information contained in this annual report as of December 31, 2016 and 2015 and for the years ended December 31, 2016 and 2015 have been derived from our audited consolidated financial statements as of and for the years ended December 31, 2016 and 2015 not included in this annual report.

	As of and for the year ended December 31, (in millions of pesos, except for per share and per ADS data)				
	2019	2018	2017	2016	2015
Consolidated Statement of Comprehensive Income Data ⁽¹⁾:					
Revenues ⁽²⁾	678,595	435,820	252,813	210,100	156,136
Costs	(575,608)	(359,570)	(211,812)	(177,304)	(119,537)
Gross profit	102,987	76,250	41,001	32,796	36,599
Administrative expenses	(24,701)	(13,922)	(8,736)	(7,126)	(5,586)
Selling expenses	(49,898)	(27,927)	(17,954)	(15,212)	(11,099)
Exploration expenses	(6,841)	(5,466)	(2,456)	(3,155)	(2,473)
(Impairment) / Recovery of property, plant and equipment	(41,429)	2,900	5,032	(34,943)	(2,535)
Other net operating results	(1,130)	11,945	(814)	3,394	1,682
Operating (loss) / profit	(21,012)	43,780	16,073	(24,246)	16,588
Income from equity interests in associates and joint ventures	7,968	4,839	1,428	588	318
Net financial results	6,034	41,525	(8,798)	(6,146)	12,157
Net (loss) / profit before income tax	(7,010)	90,144	8,703	(29,804)	29,063
Income tax	(26,369)	(51,538)	3,969	1,425	(24,637)
Net (loss) / profit for the year	(33,379)	38,606	12,672	(28,379)	4,426
Total other comprehensive income for the year	221,367	172,600	21,917	27,414	43,758
Total comprehensive income / (loss) for the year	187,988	211,206	34,589	(965)	48,184

As of and for the year ended December 31,
(in millions of pesos, except for per share and per ADS data)

	2019	2018	2017	2016	2015
Earnings and dividends per share and per ADS					
Earnings per share and per ADS ⁽³⁾	(86.85)	98.43	31.43	(72.13)	11.68
Dividends per share and per ADS (in pesos)	5.85	3.05	1.82	2.26	1.28
Dividends per share and per ADS ⁽⁴⁾ (in U.S. dollars)	0.14	0.08	0.10	0.15	0.14
Consolidated Statement of Financial Position Data					
Cash and cash equivalents	66,100	46,028	28,738	10,757	15,387
Working capital ⁽⁵⁾	(5,451)	29,446	19,564	4,760	(2,818)
Total assets	1,573,289	994,016	505,718	421,139	363,453
Total loans ⁽⁶⁾	526,760	335,078	191,063	154,345	105,751
Shareholders' equity ⁽⁷⁾	548,099	362,357	152,533	118,661	120,461
Other Consolidated Financial Data					
Depreciation of property, plant and equipment and amortization of intangible assets	148,268	89,318	54,350	45,469	27,008
Cash used in acquisition of property, plant and equipment and intangible assets	161,455	88,293	59,618	64,160	63,774

- (1) The consolidated financial statements reflect the effect of the application of the functional and reporting currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.
- (2) Revenues are net of payments on account of turnover taxes. Customs duties on hydrocarbon exports are disclosed in taxes, charges and contributions, as indicated in Note 25 to the Audited Consolidated Financial Statements. Royalties with respect to our production are accounted for as a cost of production and are not deducted in determining revenues. See Note 2.b.15 to the Audited Consolidated Financial Statements.
- (3) Information has been calculated as detailed in Note 30 to the Audited Consolidated Financial Statements. Each ADS represents one Class D share.
- (4) Amounts expressed in U.S. dollars are based on the exchange rate as of the date of the dividend payment.
- (5) Working capital consists of consolidated total current assets minus consolidated total current liabilities as of December 31, 2019, 2018, 2017, 2016 and 2015.
- (6) Total loans include non-current loans of Ps. 419,651 million, Ps. 270,252 million, Ps. 151,727 million, Ps. 127,568 million, and Ps. 77,934 million as of December 31, 2019, 2018, 2017, 2016 and 2015, respectively, and current loans of Ps. 107,109 million, Ps. 64,826 million, Ps. 39,336 million, Ps. 26,777 million, and Ps. 27,817 million as of December 31, 2019, 2018, 2017, 2016 and 2015, respectively. See Note 20 to the Audited Consolidated Financial Statements.
- (7) Our subscribed share capital as of December 31, 2019 is represented by 393,312,793 shares of common stock and divided into four classes of shares, with a par value of Ps. 10 and one vote per share. These shares are fully subscribed, paid-in and authorized for stock exchange listing. See "Item 6. Directors, Senior Management and Employees—Compensation of members of our Board of Directors" "Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers" and Note 2.b.10.iii to the Audited Consolidated Financial Statements in relation to shares purchased by YPF and allocated to our employees as part of our employee compensation plans.

For information regarding macroeconomic conditions such as exchange rates and inflation rates that affected our results of operations, see "—Exchange Rates" and "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions." In addition, for an explanation of our results of operations, see "Item 5. Operating and Financial Review and Prospects—Principal Income Statement Line Items—Results of Operations."

Exchange Rates

From April 1, 1991 until the end of 2001, the Convertibility Law (Law No. 23,928) established a fixed exchange rate which required the Central Bank to sell U.S. dollars at one peso per U.S. dollar. On January 6, 2002, the Argentine Congress enacted the Public Emergency and Foreign Exchange System Reform Law (Law No. 25,561, the “Public Emergency Law”, see “Item 4. Information on the Company —Legal and Regulatory Framework and Relationship with the Argentine Government— Public Emergency”), formally putting an end to the Convertibility Law regime and abandoning the U.S. dollar-peso parity. The Public Emergency Law, which had been periodically extended and expired on December 31, 2017, by Law No. 27,200, had granted the Argentine Executive Branch the power to set the exchange rate between the peso and foreign currencies and to issue regulations related to the foreign exchange market. Following a brief period during which the Argentine government established a temporary dual exchange rate system pursuant to the Public Emergency Law, the peso has been allowed to float freely against other currencies since February 2002, although the government has the power to intervene by buying and selling foreign currency on its own account, a practice in which it engages on a regular basis. However, on December 23, 2019, Law No. 27,541 was published, which again declared the public emergency until December 31, 2020 (see “Item 4 – Information on the Company – Legal and Regulatory Framework and Relationship with the Argentine Government – Public Emergency”). The annual rate of devaluation of the peso was approximately 59.0% from December 31, 2018 to December 31, 2019 based on the period-end exchange rates for U.S. dollars as of December 31, 2019 and 2018. See “—Risk Factors—Risks Relating to Argentina—Our business is largely dependent upon economic conditions in Argentina”.

By means of Decree No. 27/2018 dated January 11, 2018, the Free Exchange Market (Mercado Libre de Cambios - “MELI”) was created, as a replacement of the Free Single Exchange Market (Mercado Unico Libre de Cambios - “MULC”), for purposes of providing additional flexibility to the market, to enable competition and allow for the entry of new operators into the foreign exchange market, thus reducing systemic costs. Exchange operations will be conducted through the MELI by financial entities and other participants authorized by the Central Bank to conduct regular transactions or purchase and sale of foreign currency, gold coins or deliverable gold bars and travelers’ checks, and transfers and similar analogous foreign exchange operations. By means of Decree No. 609/2019 dated September 1, 2019 (the “Decree 609”), the Argentine Executive Branch established that, until December 31, 2019, the export value of goods and services was required to be repatriated to Argentina and converted to pesos by means of settlement in the foreign exchange market (the “FX Market”) in accordance with the conditions and terms set forth by the Central Bank. According to the provisions of Decree 609, the Central Bank by means of Communication “A” 6770, as amended and restated by Communication “A” 6844 and supplemental regulations related to the obligation to repatriate and convert the exchange value of export of goods and services (the “FX Regime”), defined in which cases access to the FX market to purchase foreign currency and precious metals as well as transfers abroad will be subject to prior approval by the Central Bank, taking into consideration the different situations of individuals and legal entities. See “—Exchange Regulations.”

On December 28, 2019, by means of Decree No. 91/2019 (“Decree 91”) the Argentine Executive Branch amended Article 1 of Decree 609 (which established that, until December 31, 2019, the value of export of goods and services must be repatriated to Argentina and converted to in accordance with the terms and conditions set forth by the FX Regime), extending the obligation to repatriate and settle through the FX Market for an indefinite period of time.

Currently, and pursuant to the FX Regime, only importers and exporters who meet the requirements set forth by the FX Regime can access to the FX market, while individuals can buy up to U.S.\$200 per month from entities licensed to conduct foreign exchange transactions and the Central Bank may intervene by selling or buying U.S. dollars in the FX market. See “—Exchange Regulations.”

The following table sets forth the annual low, high, average and period-end exchange rates for U.S. dollars for the periods indicated, expressed in nominal pesos per U.S. dollar, based on rates quoted by the Central Bank. The Federal Reserve Bank of New York does not report a noon buying rate for the Argentine peso.

	<u>Low</u>	<u>High</u>	<u>Average</u> ⁽¹⁾	<u>Period End</u>
	<i>(pesos per U.S. dollar)</i>			
Year ended December 31,				
2015	8.73	13.76	9.39	13.01
2016	13.07	16.04	14.78	15.85
2017	15.17	18.83	16.76	18.77
2018	18.42	40.90	29.32	37.81
2019	37.04	60.00	49.23	59.90
Month				
October 2019	57.70	60.00	58.53	59.73
November 2019	59.54	59.88	59.74	59.86
December 2019	59.82	59.96	59.88	59.90

	Low	High	Average ⁽¹⁾	Period End
			<i>(pesos per U.S. dollar)</i>	
January 2020	59.82	60.33	60.01	60.33
February 2020	60.43	62.21	61.35	62.21
March 2020	62.25	64.47	63.12	64.47
April 2020 ⁽²⁾	64.53	65.98	65.29	65.98

Source: Central Bank

(1) Calculated using the average of the exchange rates on the last day of each month during the period (for annual periods), and the average of the exchange rates on each day during the period (for monthly periods).

(2) Through April 20, 2020.

No representation is made that peso amounts have been, could have been or could be converted into U.S. dollars at the foregoing rates on any of the dates indicated.

Exchange Regulations

Prior to December 1989, the Argentine foreign exchange market was subject to exchange controls. From December 1989 until April 1991, Argentina had a freely floating exchange rate for all foreign currency transactions, and the transfers of dividend payments in foreign currency abroad and the repatriation of capital were permitted without prior approval of the Central Bank. From April 1, 1991, when the Convertibility Law became effective, until December 21, 2001, when the Central Bank closed the foreign exchange market, the Argentine peso was freely convertible into U.S. dollars.

On December 3, 2001, the Argentine government imposed a number of monetary and currency exchange control measures through Decree No. 1,570/01, which included restrictions on the free disposition of funds deposited with banks and tight restrictions on transferring funds abroad (including the transfer of funds to pay dividends) without the Central Bank's prior authorization subject to specific exceptions for transfers related to foreign trade.

In June 2003, the Argentine government set restrictions on capital flows that came into Argentina, which mainly consisted of a prohibition against the transfer abroad of any funds until 180 days after their entry into the country.

On June 9, 2005, by means of Decree No. 616/2005, the Argentine Executive Branch established that (a) all inflows of funds into the domestic foreign exchange market arising from foreign debts incurred by individuals or entities of the private sector, excluding foreign trade financing and primary issuances of debt securities admitted to public offering and authorized to be listed and/or traded on self-regulatory markets; and (b) all inflows of funds of non-residents channeled through the local foreign exchange market to be applied to: holdings of local currency, acquisition of all types of financial assets or liabilities in the financial or non-financial private sector, to the exclusion of direct foreign investment and primary issuances of debt securities and shares admitted to public offering and authorized to be listed and/or traded in self-regulatory markets, and investments in Government securities acquired in secondary markets must meet the following requirements: (i) the funds entering the country may only be transferred out of the local foreign exchange market at the expiration of a term of 365 calendar days counted as beginning on the date the funds were received in Argentina; (ii) the proceeds of the foreign exchange settlement of the funds received in Argentina must be credited to an account in the local banking system; (iii) a registered, non-transferable and non-interest bearing deposit equivalent to 30% of the amount involved in the relevant transaction is to be maintained for a term of 365 calendar days in the conditions prescribed by the regulations (the "Mandatory Deposit"); and (iv) the Mandatory Deposit is to be made in U.S. dollars and held in a financial institution in Argentina. The Mandatory Deposit shall not accrue interest, nor any other type of benefits and it shall not be used to secure credit facilities of any type. There are various exceptions to the requirements of Decree No. 616/2005, including but not limited to, those detailed below.

However, Resolution No. 3/2015 issued by the Ministry of Budget and Public Finances reduced the Mandatory Deposit percentage created by Decree No. 616/2005 from 30% to 0% and reduced the period in which the incoming funds must remain in Argentina from 365 calendar days to 120 calendar days. Moreover, in January 2017, the Ministry of Treasury reduced the holding period of the Mandatory Deposit from 120 calendar days to 0 calendar days. As a result of these two changes to the regulations, the Mandatory Deposit is currently not required.

On August 8, 2016, the Central Bank of the Argentine Republic (“BCRA” or “Central Bank”) established an exchange rate regime through Communication “A” substantially modifying existing exchange regulations and facilitating access to the MULC. On May 19, 2017, the Central Bank issued Communication “A” which, effective as of July 1, 2017, significantly modified and relaxed all the regulations that regulated the operation of the MULC. By virtue of this last Communication, all the rules that regulated the exchange operations were replaced by this new regulation, including - among others- the exchange rate transaction, the general position of changes, the provisions adopted by Decree No. 616/2005, and maintaining the validity of the regulations related to information regimes, surveys or follow-ups related to such topics.

In addition, through Communication “A” 6,401 of December 26, 2017, the Central Bank replaced the information regimes and surveys established by Communications “A” 3,602 and “A” 4,237 with a unified regime, applicable from the corresponding information as of December 31, 2017.

The information required will be used exclusively for statistical purposes, framed in the provisions of the Law on Statistics and Census No. 17,622. According to the new regime, individuals and legal entities, assets and other universal residents are subject (for example: trusts, joint ventures, business collaboration groups, cooperation consortiums or other multilateral associative contracts), which are not included in the category of General Government according to the definition of the Sixth Edition of the Balance of Payments Manual of the International Monetary Fund.

Three sample levels were contemplated, whose participants will be determined each calendar year based on: 1) the sum of the flows of external assets and liabilities during the previous calendar year; and 2) the balance of holdings of external assets and liabilities at the end of the previous calendar year: a) Main sample: any individual or legal entity for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year reaches or exceeds the equivalent of U.S.\$ 50 million; b) Secondary sample: any individual or legal entity for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year, is between the equivalent of U.S.\$ 10 million and U.S.\$ 50 million; and c) Complementary sample: any individual or legal entity for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year is between the equivalent of U.S.\$ 1 million and U.S.\$ 10 million. For the rest of the individuals or legal entities, the declaration will be optional. In the three samples, an annual declaration must be presented and, in the first case, an advance for each of the quarters. External assets and liabilities must be reported according to the following classification: (i) shares and equity interests; (ii) non-negotiable debt instruments; (iii) negotiable debt instruments; (iv) financial derivatives; and (v) land, structures and real estate.

Additionally, in order to improve the competitiveness of Argentine exports, make financing conditions more flexible and improve financial predictability, Decree No. 893, dated November 1, 2017, repealed the mandatory repatriation and conversion into pesos of foreign exchange currencies derived from exports in order to enable the exporter to collect export refunds. In accordance with the aforementioned decree, Communication “A” 6,363 of the Central Bank dated November 10, 2017 repealed the sections and other provisions related to the mandatory repatriation and conversion into pesos of foreign currency derived from exports.

Pursuant to Communication “A” 6,436, which became effective on January 20, 2018, the Central Bank repealed all foreign exchange regulations (other than those explicitly mentioned in the resolution), and substituted them, establishing that:

- Any individual or entity may freely conduct operations through MELI.
- All transactions involving foreign exchange must be carried out through an authorized financial entity.
- Timing restrictions to operate in MELI were eliminated.
- Individuals or entities subject to these regulations must comply with the information requirements of the “Foreign Assets and Liabilities Survey”, even in those cases where they have not settled any amounts through MELI or if they do not anticipate accessing such market for any transactions subject to reporting.
- The obligation to settle foreign exchange transactions in the Argentine market was eliminated; however, the intervening financial entity must continue to keep records thereof.
- The intervening financial entities must satisfy the applicable regulations relating to the prevention of money laundering, financing of terrorist activities and other illegal activities.
- Foreign exchange transactions shall be conducted at the exchange rate determined by the applicable parties.

However, on September 1, 2019, the Argentine Executive Branch enacted Decree No. 609 establishing that, until December 31, 2019, the proceeds of the export value of goods and services must had to be repatriated to Argentina and converted to pesos by means of settlement in the FX Market in accordance with the terms and conditions set forth by the Central Bank.

According to the provisions of Decree No. 609, the Central Bank by means of the FX Regime, defined in which cases the access to the FX Market for purchase of foreign currency and precious metals as well as or for purposes of transfers of foreign currency abroad will be subject to prior approval by the Central Bank, taking into consideration the different situation of individuals and legal entities.

On December 28, 2019, through Decree No. 91 the Argentine Executive Branch, amended Article 1 of Decree No.609 (which established that, until December 31, 2019, the value of export of goods and services must be repatriated to Argentina and converted to pesos by means of settlement in the FX Market to pesos in accordance with the terms and conditions set forth by the FX Regime), extending the obligation to repatriate and settle through the FX Market regime of Decree No. 609 for an indefinite period of time. Likewise, on December 30, 2019, the Central Bank by means of Communication "A" 6856, extended this obligation for an indefinite period. As of the date of this annual report, the main regulations relating to restrictions to access FX Market are the following.

Obligation to repatriate foreign currency obtained from exports of goods

Exports of goods validated on or after September 2, 2019

Payments in foreign currency for exports of goods in an amount equal to the invoiced amounts according to the sale conditions of such exports transaction must be repatriated and converted to pesos by means of conversion and settlement in the FX Market within a specific timeframe for the applicable goods or services in question.

Regardless of these maximum terms, the FX Regime further established that payments for exports must be repatriated and converted to pesos by means of settlement in the FX Market within 5 business days of the effective collection date.

Through Communication "A" 6882 of the BCRA, it was resolved that exporters who carried out operations with related counterparties (in which the importer is a company controlled by the Argentine exporter), may request their respective monitoring entities to extend the entry period up to 120 calendar days. This extension will apply in cases where exports of more than U.S.\$ 50,000,000 have been registered and the goods correspond to the positions detailed in said standard (mainly related to the meat industry).

To determine if a transaction is considered a transaction between related parties, the rules established in section 1.2.2 of the "Large exposures to credit risk" regulation of the Central Bank will apply.

Any foreign currency amounts derived from insurance claims, to the extent that they cover the value of the exported goods, are subject to the obligation to repatriate and convert said amounts into pesos by means of settlement in the FX Market within the applicable term for the underlying export.

The exporter must appoint a financial entity to track each export transaction. The obligation of repatriation and settlement of foreign currency through the FX Market corresponding to a shipping permit will be considered satisfied when the entity designated for tracking purposes certifies that repatriation and settlement has taken place.

Exports consummated prior to September 2, 2019

Those export transactions pending collection prior to September 2, 2019, must be repatriated and converted to pesos by means of settlement in the FX Market to pesos within 5 business days of the date of collection or disbursement abroad or in Argentina.

Exporters who have received shipping permits during such period were subject to specific tracking procedures.

The repatriation and settlement through the FX Market to pesos of foreign currency received by Argentine residents was not required if all of the following conditions were verified:

- the funds received were deposited in accounts opened in Argentine financial institutions;
- the funds are repatriated within the specified periods set forth by the FX Regime;
- the funds were applied to operations to which applicable law grants access to the FX Market, within the limits established for each concept involved; and

- the use of this mechanism was neutral for tax purposes.

Payments of imports and other purchases of goods abroad

Financial institutions may give access to the FX Market to make payments abroad for the payment of imports and other purchases of goods, to the extent that certain specific conditions are met. In addition, financial institutions may access the FX Market to pay for the liabilities incurred abroad in relation to guarantees and sureties granted for the import of goods, as well as the cancellation of cross-border credit lines applied to the financing of import of goods.

Obligation to repatriate foreign currency from exports of services

Payments received for the rendering of services must be repatriated and converted to pesos by means of settlement in the FX Market to pesos within a period of no more than 5 business days from the date of their receipt abroad or in Argentina.

The FX Regime sets forth the obligation to repatriate to Argentina collections for the export of services (such as services provided by an Argentine resident to a non-Argentine resident, encompassing, among others, freight, passenger services, other transportation services, tourism and travel related services, construction services, insurance, financial services, telecommunications services, information and computing services, intellectual property licenses, research and development, professional consulting services, management services, technical services related to commerce and other business services, audiovisual services, personal, cultural and recreational services (including, rights and awards of competitors in sports and/or sporting entities) and governmental services) and to convert such amounts to pesos by settlement in the FX Market.

Exceptions to the obligation to settle foreign currency derived from export of goods and services, the incurrence of foreign indebtedness and the sale of non-financial assets in the FX Market

The repatriation and settlement of foreign currency received by residents through the FX Market to pesos shall not be required in respect of export of goods and services, foreign indebtedness and the sale of non-financial assets, if all of the following conditions are satisfied:

- the funds received are deposited in accounts opened in Argentine financial entities;
- the funds are repatriated within the specified periods set forth by the FX Regime;
- the funds were applied to operations to which applicable law grants access to the FX Market, within the limits established for each concept involved; and
- the use of this mechanism was neutral for tax purposes.

Payments abroad made by financial institutions and other local issuers of credit cards

Financial institutions and other Argentine card issuers will require prior approval of the Central Bank to access the FX market to make payments abroad on or after November 1, 2019 in connection with the use of credit, debit or prepaid cards issued in Argentina, if such payments were originated, directly or indirectly, through the use of international payment systems, in the following transactions:

- participation in games of chance and gambling-related activities;
- the transfer of funds to accounts of payment service providers;
- the transfer of funds to investment accounts opened with foreign investment managers;
- the performance of foreign exchange operations; and
- the purchase of cryptocurrencies.

Cancellation of commercial credit lines from abroad by financial institutions.

Financial institutions will have access to the FX market for the cancellation at maturity of commercial lines of credit granted by foreign financial institutions and applied to the financing of resident export or import operations. They may also access the FX market to pre-cancel said lines of credit to the extent that the financing granted by the local entity has been pre-canceled by the debtor.

Obligation to send daily information on exchange sales for up to a daily amount equal to or greater than the equivalent of U.S.\$ 2 million

The FX Regime requires entities authorized to conduct foreign exchange operations to submit to the BCRA, at the end of each business

day and with 2 business days' prior notice, information on sales of foreign currency to be performed at the request of customers or operations of the entity for its own portfolio that implies access to the FX Market in a daily amount equal to or greater than the equivalent of U.S.\$ 2 million, for each of the 3 business days covered in the applicable reporting period.

For this purpose, until the BCRA implements a specific information regime, the financial entities must provide the following information to the BCRA: (i) reporting entity; (ii) tax ID (CUIT) and name of the client; and (iii) date when the transaction will take place, concept code and equivalent amount in dollars.

In this sense, the clients of the authorized entities must provide them with such information with sufficient time to allow those entities to comply with their reporting obligations and, to the extent that the remaining requirements in force by FX Regime are simultaneously satisfied, enable them to carry out the applicable exchange transactions.

The FX Regime also provides that on the day the foreign exchange transactions will be carried out; the client may choose to perform the foreign exchange transaction which was timely reported through any authorized entity. To this end, the intervening entity must have a record from the reporting entity that such exchange operation has been duly informed.

Creation of external assets or relating to derivatives transactions

Legal entities, local governments, mutual funds, trusts and other universalities incorporated in Argentina will require prior approval of the Central Bank to create external assets or relating to derivatives transactions (such as the payment of premiums, the creation of guarantees and the payment of futures, forwards, options and other derivatives, except for interest rate hedging contracts related to liabilities incurred abroad, which have been informed and validated in the Foreign Assets and Liabilities Regime, to the extent that said contracts do not hedge risks greater than the liabilities duly registered by the debtor). These restrictions do not apply to entities authorized to operate in the FX Market, given that such entities are subject to specific Central Bank regulations relating to their holding of foreign currency.

The settlement of futures traded on markets organized in Argentina, forwards, options, and any other type of derivatives entered into in Argentina must be made in pesos as from September 14, 2019.

Additionally, individuals must obtain previous approval from the Central Bank for derivative transactions (such as the payment of premiums, creation of guarantees and settlement that correspond to future transactions, forwards, options and other derivatives), if they involve a payment in foreign currency.

Access to the FX Market for payment of premiums, creation of guarantees and settlements in connection with interest rate hedging contracts for declared and validated obligations of non-residents shall be granted if the risks hedged do not exceed the external liabilities actually recorded by the debtor, provided, however, that such debtor must appoint a financial entity who will be in charge of tracking the relevant transaction and the filing of a sworn statement committing to the settlement of any unspent or excess funds in the FX Market within the following 5 business.

Creation of external assets by Argentine residents

Argentine residents must obtain prior approval from the Central Bank for the creation of external assets, the remittance of family aid and the entering into derivative transactions, in case the aggregate amount of any such transactions exceeds the equivalent of U.S.\$ 200 per month in the aggregate across all entities licensed to operate in foreign exchange transactions.

Access to the FX Market for non-residents

Prior approval from the Central Bank is required for non-residents to access the FX Market in order to purchase amounts greater than the equivalent of U.S.\$ 100 per month in the aggregate across all entities licensed to operate in foreign exchange transactions, except for:

- transactions made by international organizations and institutions that operate as official export credit agencies;
- transactions made by diplomatic and consular representations as well as diplomatic personnel accredited in Argentina for transfers made in the exercise of their functions;
- transactions made by Argentine representations agencies of courts, authorities, offices, special missions, commissions or multilateral bodies established by treaties or international agreements, to which Argentina is a party, to the extent that the

transfers are made in the exercise of their functions; and

- transfers abroad on behalf of individuals who are beneficiaries of retirement and /or pension benefits paid by the National Social Security Administration (*Administración Nacional de la Seguridad Social*, the “ANSES”), up to the amount paid by the ANSES for the respective calendar month and to the extent that such transfer be made to the bank account located and owned by the beneficiary of such retirement and/or pension in his country of registered residence.

New local public debt issuances denominated in foreign currency

New local public debt issuances denominated in foreign currency, whose principal and interest payments are payable in Argentina in foreign currency, will have access to the FX Market upon maturity of principal and on each interest payment date, as long as they were subscribed in foreign currency and the proceeds of the issuance were fully settled for pesos in the FX Market. In respect of financial institutions, this requirement shall be deemed to have been satisfied if such funds are registered into their respective General Exchange Position (*Posición General de Cambios*).

Obligation to repatriate new foreign financial debts and settle through the FX Market to pesos

New foreign financial debts disbursed on or after September 1, 2019, must be repatriated and converted to pesos by means of settlement in the FX Market. Proof of repatriation and conversion will be required to access the FX Market for repayment of principal and interests on such debts.

The proof of repatriation and conversion will not be required if the following conditions are verified concurrently:

- the funds received are deposited in accounts opened in Argentine financial entities;
- the funds are repatriated within the specified periods set forth by the FX Regime;
- the funds were applied to operations to which applicable law grants access to the FX Market, within the limits established for each concept involved; and
- the use of this mechanism was neutral for tax purposes.

Repayment of foreign currency debt between residents

Access to the FX Market for the repayment of debts and other foreign currency obligations between residents, incurred on or after September 1, 2019, is banned.

Access to the FX Market is granted, on the maturity date of the applicable transaction, in respect of transactions between residents which are denominated in foreign currency, as long as they have been recorded in an official registry or have been entered into by way of public deed on or prior to August 30, 2019.

The restriction to access to the FX Market does not apply to clients of local financial institutions in respect of financial debts granted in foreign currency (including payments in foreign currency incurred by means of credit cards).

However, residents who must service foreign financial debts and/or securities issued under local legislation may carry out purchases of foreign currency in the FX Market prior to the deadline admitted by the FX Regime, under the following conditions:

- the acquired foreign exchange amounts must be deposited in foreign-currency denominated accounts owned by the residents and opened in local financial institutions;
- the access to the FX Market must be carried out no earlier than 5 business days prior to the terms allowed by the FX Regime;
- the access to the FX Market must be for a daily amount not exceeding 20% of the total amount that the residents must cancel at maturity of such foreign financial debt; and
- the intervening financial institution must verify that the foreign financial debt, which will be serviced with these funds, complies with the regulations set forth by the FX Regime.

Foreign currency that is not used for the payment of principal and interest must be converted to pesos by means of settlement in the FX Market to pesos within 5 business days of the applicable payment.

In addition, financial entities will be able to give access to the FX Market to residents who have foreign financial indebtedness or to

Argentine trusts in order to secure the payment of principal and interests and/or to purchase foreign currency to provide guarantees for up to the amounts payable of such indebtedness, under the following conditions:

- in case of payments of commercial debts for imports of goods and/or services with foreign financial institutions or official export credit agencies or foreign financial indebtedness with unrelated creditors, which foresee the crediting of funds in guarantee accounts of future services and whose access to the local FX Market has been granted by law;
- the acquired funds be deposited in accounts opened in Argentine financial institutions pursuant the conditions provided in the contracts. The creation of guarantees on accounts opened abroad will only be admitted if it is the only and exclusive option provided in financial indebtedness entered into and effective prior to August 31, 2019;
- the guarantees in foreign currency, which can be used for the payment of services, do not exceed the amounts to be paid in the next payment of principal or interest date;
- the access to the local FX Market is made for a daily amount not exceeding 20% of the amounts to be paid in the next payment of principal or interest date; and
- the intervening financial institution must verify that the foreign financial debt complies with the regulations set forth by the FX Regime.

Foreign currency that is not used for the payment of principal and interest must be converted to pesos by means of settlement in the FX Market to pesos within 5 business days of the applicable payment.

Distribution of profits and dividends

The FX Regime establishes that residents access the FX Market to exchange foreign currency and to transfer it abroad to make payments of profits and dividends to non-resident shareholders, without the prior approval of the Central Bank to the extent that the following conditions are met:

- Profits and dividends correspond to closed and audited financial statements.
- The total amount of profits and dividends paid to non-resident shareholders must not exceed the amount in local currency which corresponds to the distribution determined by the shareholders' meeting. The financial entity must receive an affidavit signed by the legal representative or a duly authorized attorney-in-fact of the resident with a certification in this sense.
- The total amount of transfers of profits and dividends for which the resident accesses the FX Market on or after January 17, 2020, must not exceed 30% of the value of the new direct foreign investment contributions in resident companies entered and liquidated through the FX Market prior to such date. For this purpose, the financial institution must have a certification issued by the entity that carried out the liquidation that it has not issued certifications for the purposes set forth in this point for an amount greater than 30% of the amount settled.
- Access occurs within a period of not less than 30 calendar days from the settlement of the last contribution that is computed for the purposes of the requirement set forth in the immediately preceding condition.
- The resident must present documentation evidencing capitalization of such contribution or, absent such documentation, proof of the commencement of the registration process before the Public Registry of Commerce of the final capitalization decision of the capital contributions computed according to the corresponding legal requirements, and present the documentation of the final capitalization of the contribution within 365 calendar days from the beginning of the procedure.
- The entity must verify that the client has complied, if applicable, with the statement of the last overdue presentation of the "Survey of external assets and liabilities" for the operations involved.

Any cases which do not satisfy the preceding conditions will require prior approval of the BCRA to access the FX Market for the foreign exchange of foreign currency for the distribution of profits and dividends.

Pre-payment of financial debt

The FX Regime sets forth that prior approval from the Central Bank will be required for access to the FX Market for pre-payment of foreign financial debt with an anticipation greater than 3 business days prior to the maturity (in respect of principal payments) or the applicable interest payment date.

Prior approval of the Central Bank is not required for access to the FX Market if each of the following conditions are satisfied:

- the pre-payment is carried out with funds coming from new financial debt disbursed on the applicable pre-payment date;
- the average life of the new financial debt is greater than the remaining average life of the financial debt being prepaid;
- the first amortization date of the new financial debt is not earlier than the next amortization date of the financial debt being prepaid;
- the principal amount of the new financial debt to be paid on the first amortization date is not greater than the principal amount to be paid on the next amortization date of the financial debt being prepaid.

Additionally, the underlying transaction must have been reported in the most-recently filed survey of external assets and liabilities.

It will be possible to access to the FX Market for pre-payments of financial debt if a new issuance of securities is made, for refinancing debts which had been granted access to the FX Market by virtue of the FX Regime if such issuance of securities lead to an increase of the average life of the financial debt pre-paid.

Payment of financing from financial institutions granted in foreign currency for clients from non-financial private sector

Foreign currency denominated financings granted by financial institutions to clients from the non-financial private sector must be converted to pesos at the time of its disbursement.

Pre-payment of debt for goods imports

Prior approval from the Central Bank will be required to access the FX Market for pre-payment of debt relating to the import of goods and services.

This requirement is applicable for access to the FX Market to make payments of matured or amounts which are not yet due for imports of goods with related companies domiciled abroad when it exceeds the equivalent of U.S.\$2 million per month per resident customer. All indebtedness outstanding on or prior to August 31, 2019, which matured prior to such date and those that did not have a stipulated expiration date, will be considered “matured debts” and “debts for imports of goods.”

In the case of pre-payments of imports, the respective supporting documentation must be submitted and evidence of entry of goods must be demonstrated within 180 calendar days of the access to the FX Market and the recipient of the funds must be the foreign supplier.

Payment of services with related companies abroad

Prior approval from the Central Bank will be required to access the FX Market for the payment of services with foreign related companies, except for card issuers regarding transfers related to tourism and/or travel.

However, a previous approval from the Central Bank will not be necessary to perform the payment of premiums from reinsurance from abroad. In these cases, the transfer abroad will be made on behalf of the foreign beneficiary admitted by the National Insurance Superintendence.

Access to the FX Market for trusts created by residents who issue debt securities in order to attend services of capital and interests

The entities will grant access to the local FX Market to trusts created by Argentine residents that issue debt instruments in order to pay the amounts of principal and interest owed under their liabilities, if they verify that the issuer has had access to perform the payment.

Obligation to repatriate and settle foreign currency through the FX Market to pesos received from disposal of non-financial assets

The collection by residents of amounts in foreign currency from the sale of non-financial assets must be repatriated and converted to pesos by means of settlement in the FX Market within 5 calendar days from the date of perception of such funds, either in the country or abroad, or from its income in bank accounts from abroad.

The FX Regime established that non-financial assets encompassed those transactions in which a transfer of economic property rights involved, for example, fishing rights, mining rights, rights over the space, transfer of athletes, patents, author rights, concessions, leasing, trademarks, logos and internet domains.

The obligation to enter and settle in the local exchange market the amounts received in Argentina or abroad for the disposal of non-produced non-financial assets only covers those cases in which the counterparty is a non-resident.

Exchange, arbitrage and securities transactions

Exchange and arbitration transactions may be carried out with customers without prior approval from the Central Bank to the extent that, if implemented as individual transactions going through pesos, they may be conducted without such approval in accordance with the rules of the FX Regime.

Entities licensed to operate in foreign exchange transactions will not be able to purchase securities in the secondary market and settle them through the FX Market into foreign currency, nor will they be able to use holdings of their General Exchange Position (*Posición General de Cambios*) for payments to local suppliers.

Transfer of foreign currency from local bank accounts in foreign currency to bank accounts abroad will be performed without restrictions and the exchange and arbitrages that involves the income of foreign currency from unreached operations by the obligation to repatriate in the FX Market will be done without restrictions.

The provisions of the Central Bank regarding the applicable dispositions to exchange and arbitration also apply to local securities custodian for funds received in foreign currency for payment of principal and income of foreign currency securities paid in the country, except in the case of funds received in foreign currency for the principal and income services of National Treasury Securities (*Bonos del Tesoro Nacional*), which are retransferred abroad as part of the payment process at the request of the foreign clearinghouses.

Application of the Foreign Exchange Market Criminal Regime

The FX Regime states that transactions that do not comply with the exchange regulations set forth by the FX Regime will be subject to the Argentine Criminal Foreign Exchange Regime (*Regimen Penal Cambiario*).

For more information regarding current foreign exchange restrictions and control regulations, you should seek advice from your legal advisors and read the applicable rules mentioned herein, as well as their amendments and complementary regulations, which are available at the website: <http://www.infoleg.gob.ar/>, or the Central Bank's website: www.bcra.gob.ar, as applicable. Information contained on these websites is not part of, and shall not be deemed to be incorporated into, this annual report. See also "Item 3. Key Information --Risk Factors --Risks Relating to Argentina --We may be exposed to fluctuations in foreign exchange rates" and see "Item 4. Information on the Company - Legal and Regulatory Framework and Relationship with the Argentine Government - Public Emergency" which includes information regarding the Social Solidarity Law (as defined below) within the framework of the Public Emergency.

BCRA reporting regimes

In accordance with the provisions of the new exchange regulations, in certain cases it is established as a requirement for access to the FX market, the demonstration by the resident of compliance with the regime of "Survey of External Assets and Liabilities" that was established by the BCRA through Communication "A" 6401, which was later modified by Communication "A" 6795. This Regime is implemented in five integrated sections ("Shares and equity interests", "Non-negotiable debt instruments", "Negotiable debt instruments", "Financial derivatives" and "Land, structures and real estate"). According to the External Assets Survey Regime, reporting obligations are established according to four sample levels as provided below, whose participants will be determined each calendar year based on (i) the sum of the flows of external assets and liabilities during the previous calendar year; and (ii) the balance of holdings of external assets and liabilities at the end of the previous calendar year.

- 1) Any entity or individual for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year reaches or exceeds the equivalent of U.S.\$ 50 million.

The declarants of this group will present a quarterly advance for each of the quarters of the year and an annual declaration (which may complement, ratify and/or rectify the quarterly advances made);

- 2) Any entity or individual for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year falls between the equivalent of U.S.\$ 10 million and U.S.\$ 50 million. This group of persons will only present an annual declaration;
- 3) Any entity or individual for which the sum of the flows of external assets and liabilities during the previous calendar year, or the balance of external assets and liabilities at the end of that calendar year is between the equivalent of U.S.\$ 1 million and U.S.\$ 10 million. The members of this group must also make a single declaration per year, but a simplified version of the form will be made available to them;
- 4) Any entity or individual that is not included in any of items (1), (2) or (3) above, but had debt with non-residents at the end of the years 2018 or 2019, must make declarations for those years in the simplified format.

Likewise, the regulations provide that from the data corresponding to the first quarter of 2020, the declaration of the Survey of External Assets and Liabilities is given by the following guidelines:

- a. All entities and individuals with external liabilities at the end of any calendar quarter, or who have canceled such liabilities during such quarter, must declare the Survey of External Assets and Liabilities;
- b. Those filers for whom the balance of external assets and liabilities at the end of each year reaches or exceeds the equivalent of U.S.\$ 50 million, must make an annual presentation (which will complement, ratify and/or rectify the quarterly presentations made), which may also be optionally presented by any entity or individual. With respect to the deadlines to file the declarations, the maximum terms to present and validate the declarations will be (i) 45 calendar days from the closing of the reference calendar quarter, for the quarterly returns; and (ii) 180 calendar days from the end of the reference calendar year, for annual filings.

The expiration of the annual declarations corresponding to the year 2018 for the subjects included in section 2.d of the Communication, operated on November 14, 2019.

Likewise, the expiration of the annual declarations corresponding to the year 2019 for the subjects included in sections 2.b, 2.c and 2.d, of the Communication will operate in June 2020.

The loading and validation of the data corresponding to this Regime must be done through an electronic form to be downloaded from the AFIP website.

Risk Factors

The risks and uncertainties described below are those known by us as of the date of this report. However, such risks and uncertainties may not be the only ones that we could face. Additional risks and uncertainties that are unknown to us or that we currently think are immaterial also may impair our business operations.

Risks Relating to Argentina

The Argentine Republic owns 51% of the shares of the Company.

The Argentine Republic owns 51% of the shares of the Company (see “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law”), and consequently, the federal government is able to determine all matters requiring approval by a majority of shareholders, including the election of a majority of directors. We cannot assure you that the decisions taken by our controlling shareholder or its interests would not differ from your interests as a shareholder, including the pricing policy of all our main products, and thus affect our operational decisions (see “—Risks Relating to Our Business—Our domestic operations are subject to extensive regulation,” and “—Risks Relating to Our Business—Limitations on local pricing in Argentina may adversely affect our results of operations”). In addition, according to the Argentine Constitution, presidential elections take place every four years. Accordingly, changes in government or its policies may occur from time to time. We cannot assure you if and when any such changes may occur, nor can we estimate the impact they may have on our business.

Our business is largely dependent upon economic conditions in Argentina.

Most of our operations, properties and customers are located in Argentina, and, as a result, our business is to a large extent dependent upon economic conditions prevailing in Argentina. The changes in economic, political and regulatory conditions in Argentina and measures taken by the Argentine government have had and are expected to continue to have a significant impact on us. You should make your own assessment about Argentina and prevailing conditions in the country before taking an investment decision in us.

The Argentine economy has experienced significant volatility in past decades, including numerous periods of low or negative growth and high and variable levels of inflation and currency devaluation. No assurances can be given that the Argentine economy will grow or as to when the country will emerge from recession, especially in light of recent events such as the COVID-19 pandemic, which will likely have adverse consequences which cannot be estimated at this time (see “—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations”). If economic conditions in Argentina were to slow down, or contract, if inflation were to accelerate further, or if the Argentine government’s measures to attract or retain foreign investment and international financing in the future to incentivize domestic economy activity are unsuccessful, such developments could adversely affect Argentina’s economic growth and in turn affect our financial health and results of operations.

Argentina has confronted and continues to confront inflationary pressures. According to inflation data published by the National Statistics Institute (Instituto Nacional de Estadística y Censos) (“INDEC”), in 2019 the consumer price index (“CPI”) and the wholesale price index (“WPI”) increased by 53.8% and 58.5%, respectively. The three-year cumulative inflation rate has exceeded 100% causing Argentina to be considered a hyperinflationary economy. In January, February and March of 2020, the CPI increased by 2.3%, 2.0% and 3.3%, respectively, while the WPI increased by 1.5%, 1.1% and 1.0% in January, February and March, respectively.

Additionally, during 2019 certain macroeconomic variables also suffered and continue to face considerable pressure during 2020, which in turn affected the development of the domestic economy. Among other variables, Argentina had increasing interest rates (where the BADLAR averaged 48.9% during 2019), the Argentine peso suffered a 58% devaluation during the December 2018-December 2019 period, preliminary GDP (gross domestic product) growth rate during 2019 decreased by 2.2%, and Argentina’s country risk climbed to 1,743.78 points on December 31, 2019 from 817.27 on December 29, 2018. As of April 20, 2020 Argentina’s country risk amounts to 3,428.60 points.

Argentine economic conditions are dependent on a variety of factors, including, but not limited to, the following:

- domestic production, international demand and prices for Argentina’s principal commodity exports;
- stability and competitiveness of the Argentine peso against foreign currencies;
- competitiveness and efficiency of domestic industries and services;
- levels of consumer consumption;

- foreign and domestic investment and financing;
- adverse external economic shocks;
- epidemic or pandemic diseases;
- changes in economic or fiscal policies that may be adopted by the Argentine Government;
- labor disputes and work stoppages, which may affect various sectors of the Argentine economy;
- the level of expenditure by the Argentine Government and the difficulty of reducing the fiscal deficit;
- the level of unemployment, which affects consumption;
- political instability; and
- interest and inflation rates.

The Argentine economy is also sensitive to local political developments. On December 10, 2019, a new administration took office and has since been facing singular challenges in macroeconomic matters, such as those relating to the attempt to reduce the inflation rate, reach commercial and fiscal surplus, increase the country’s foreign currency reserves, preserve the value of the Peso, improve the competitiveness of the Argentine industry sector, ensure financial stability, and the outbreak of COVID-19, among others. It is difficult to predict the impact that the measures which the new government adopted or will adopt (including any measures related to the energy sector). This uncertainty could additionally lead to further volatility of Argentine stock market prices including, in particular, companies in the energy sector, like ours, given the degree of state regulation and intervention in this industry. Additionally, we cannot guarantee that the current policies and programs that apply to the oil and gas sector will continue in the future. See “—Risks Relating to Our Business—Limitations on local pricing in Argentina may adversely affect our results of operations”, “—Risks Relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products” and “—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.”

Law No. 27,541, denominated “Law of Social Solidarity and Productive Reactivation in the Framework of Public Emergency” was published in the Official Gazette on December 23, 2019. Pursuant to such law the Argentine government declared a public emergency in terms of economic, financial, fiscal, administrative, pensions, tariffs, energy, health and social matters. Additionally, it also provided for the creation of a five year tax denominated “Tax for an Inclusive and Solidary Argentina (PAIS)”, which corresponds to a 30% surplus charge on the purchase of foreign currency (which also applies to the monthly amounts which can be purchased pursuant to Communication “A” 6815 of the BCRA) regardless of the use of such currency, such as savings, the payment of offshore services, or international travel and transportation. Those measures were taken in order to create the conditions to ensure fiscal and public debt sustainability, promote productive recovery and strengthen the social redistributive nature (see “Item 3. Key Information—Exchange Regulations” and “Item 4 – Information on the Company – Legal and Regulatory Framework and Relationship with the Argentine Government – Public Emergency”). It is difficult to predict the impact that this law or any future measures which the Argentine government may adopt will have on the Argentine economy as a whole and, particularly in our result of operations and financial condition.

If the measures adopted by the current administration fail to correct Argentina’s structural inflationary imbalances, the current inflation rate may continue or increase and have an adverse effect on Argentina’s economy and, indirectly, on our business, financial condition and results of operations. Inflation can also lead to an increase in Argentina’s debt and have an adverse effect on Argentina’s ability to service its debt, mainly in the medium and long term when most inflation-indexed debt matures. In addition, weaker fiscal results could have a material adverse effect on the Government’s ability to access long term financing, which, in turn, could adversely affect Argentina’s economy and financial condition and, indirectly, our business, financial condition and results of operations..

The current government administration faces the big challenge of achieving a successful renegotiation of Argentina’s external debt with both the IMF and private holders of public debt in order to avoid a potential sovereign default. Argentina’s (and consequently Argentine companies’) access to the international capital markets in the future could be materially affected by the results of these negotiations. For more information, see “— The evolution of the Argentine economy is largely dependent on a successful restructuring of the public debt, including that held by the IMF” and “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.”

Argentina’s economy is also vulnerable to adverse developments affecting its principal trading partners. A deterioration of economic conditions in Brazil, Argentina’s main trading partner, and a deterioration of the economies of Argentina’s other major trading partners, such as China or the United States, could have a material adverse impact on Argentina’s balance of trade and adversely affect Argentina’s

economic growth and, consequently, may also adversely affect our financial health and results of operations. Furthermore, a significant devaluation of the currencies of our trading partners or trade competitors may adversely affect the competitiveness of Argentina and consequently adversely affect Argentina's economic and our financial health and results of operations.

On the other hand, a substantial increase in the value of the Peso against the U.S. dollar would adversely affect Argentina's economic competitiveness. A significant real appreciation of the Peso would adversely affect exports and increase the trade deficit, which could have a negative effect on GDP growth and employment, as well as reduce the Argentine public sector's revenues by reducing tax collection in real terms, given its current heavy reliance on taxes on exports.

Additionally, as a consequence of the emergency measures which the Argentine government adopted during or after the 2001-2002 Argentine economic crisis, foreign shareholders of companies with operations in Argentina began arbitration proceedings against the Argentine government before the International Centre for Settlement of Investment Disputes ("ICSID") pursuant to the arbitration regulations of the United Nations Commission on International Trade Law ("UNCITRAL"). Outstanding claims against the Argentine government before ICSID under UNCITRAL regulations may entail new awards against the Argentine government, which in turn could have a substantially adverse effect on the Argentine government's ability to implement reforms and to foster economic growth. We cannot assure you that in the future the Argentine government will not breach its obligations. If the Argentine government were to default on its debt payment obligations, this would probably result in an impairment of economic activity, an increase in interest rates, additional pressure on the foreign exchange market and an increase in inflation rates, which in turn could adversely affect our operations and financial position. Likewise, if Argentina's access to international private financing or financing from multilateral organizations was restricted, or the inflows of foreign direct investments was limited, it is possible that Argentina will be unable to comply with its obligations and financing from multilateral financial entities may be limited or become unavailable. Additionally, a limitation on Argentina's ability to obtain financing in international markets may have, in the future, an adverse effect on our ability to access international credit markets at standard market rates in order to finance our operations.

The evolution of the Argentine economy is largely dependent on a successful restructuring of the public debt, including that held by the IMF.

During 2018, the IMF approved a three-year stand-by agreement for Argentina for an amount exceeding of U.S.\$ 50 billion. Between 2018 and 2019, the IMF disbursed approximately U.S.\$ 44.1 billion. As of the date of this annual report, the Argentine Government has initiated negotiations with the IMF in order to renegotiate the maturities of the agreement, originally planned for the years 2021, 2022 and 2023. We cannot assure what the result of such negotiations will be, nor the impact that they may have on the Argentine economy, on us or on our financial condition and results of operations.

During the second half of 2019, the international market began to show signs of doubts as to whether Argentina's debt would continue to be sustainable. For this reason, country risk indicators reached high levels, which in turn caused a significant decrease in the price of Argentine sovereign bonds. As a consequence, on August 29, 2019, by means of Decree No. 596/2019, the Argentine government announced its intention to conduct a reprofiling in respect of certain of its debt, consisting of (i) the extension of the maturity of short-term bonds subject to Argentine law, only applicable to entities, who would be fully repaid in three installments (15% on the original maturity date, 25% on the three-month anniversary of the original maturity date and the remaining 60% on the six-month anniversary of the original maturity date). Individuals who purchased such securities prior to July 31, 2019 were not affected by such extension, and received full payment on the original maturity date; (ii) delivery of a bill to the Argentine Congress to extend the maturities of other Argentine law governed bonds without the application of any haircuts in principal or interest; (iii) the proposal to extend the maturity term in foreign bonds; and (iv) the beginning of discussions with the IMF in order to extend the original maturity of its loans, to avoid the risk of default for 2020 to 2023.

However, on December 20, 2019, the emergency decree ("DNU") No. 49/2019 was published in the Official Gazette, which extended the maturity dates of short-term bonds denominated in U.S. dollars and subject to Argentine law until August 31, 2020, only valid for entities which acquired such securities prior to July 31, 2019.

Regarding the national public debt, and in accordance with the BCRA Monetary Policy Report for the month of February 2020, the Argentine Government is committed to restoring the sustainability of the public debt and for that reason the so-called "Law of Restoration of the Sustainability of External Public Debt", dated February 5, 2020, was approved by the Argentine Congress, authorizing the Argentine Executive Branch to carry out the liability management transactions, debt exchanges and general restructurings of Argentine sovereign debt securities subject to foreign law, in order to modify their interest and principal amortization schedules. This law also authorized the Ministry of Economy to issue new public securities for purposes of such reprofiling.

On February 11, 2020, Decree No. 141/2020 that postponed payment of the amortization of the “Argentine Dual Currency Bonds” through September 30, 2020 was published in the Official Gazette. However, this decree does not affect individuals who, as of December 20, 2019, held such securities in a principal amount of less than U.S.\$ 20,000. By means of Resolution No. 11/2020 issued by the Secretary of Finance and the Secretary of Treasury, the principal amortization of the Argentine Dual Currency Bonds shall be calculated at the applicable exchange rate at such date, as defined by the Resolution No. 7 dated July 11, 2018 issued by the Secretariat of Finance and the Secretariat of Treasury.

On March 10, 2020, Decree No. 250/2020 was published in the Official Gazette, which set forth that any liability management transactions to be conducted pursuant to debt exchanges or other means of restructuring of the public securities of the Argentine Republic would be limited to a principal amount of U.S.\$ 68,842 million, as this was the principal amount issued under foreign law and outstanding as of February 12, 2020. Further, on March 16, 2020, the Ministry of Economy issued Resolution No. 130/2020, enabling the Argentine republic to file with the Securities and Exchange Commission a registration statement for securities in an amount not to exceed the principal amount cap.

On April 6, 2020, Decree No. 346/2020 was published in the Official Gazette, which deferred payments of interest services and principal repayments of the national public debt instrumented by U.S. dollar-denominated securities issued under the law of the Argentine Republic until December 31, 2020. However, such Decree exempts from deferral, among others, the “Natural Gas Program Bonds” issued by Resolution No. 21/2019 of the Ministry of Finance (see “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government— MINEM Resolution No. 97/2018”). Additionally, the validity of Decree No. 668/2019 was extended until December 31, 2020, including the Sustainability Guarantee Fund (“Fondo de Garantía de Sustentabilidad”).

On April 14, 2020, by virtue of Decree No. 250/2020 and Resolution No. 130/2020, the Argentine Republic submitted the registration for the offer of public securities for a maximum amount of nominal value of U.S.\$ 51,653 million (or its equivalent in other currencies).

On April 16, 2020, the Argentine Government announced its offer to holders of public debt, based on the following points: (i) postponement of interest and capital payments for three years; (ii) payment reduction of U.S.\$ 3.6 billion of capital and U.S.\$ 37.9 billion of interests, which represents a decrease of 5.4% and 62%, respectively, and (iii) an interest rate of 0.5% beginning in 2023, which shall grow year by year to sustainable levels, being 2.33% the average interest rate of the proposal.

On April 21, 2020, through the issuance of Decree No. 391/2020, the Argentine Government formalized the invitation for the restructuring of certain bonds denominated in U.S. dollars and Euros, which are governed by foreign law, consisting of an exchange offer for new bonds for maximum aggregate amounts up to U.S.\$ 44.5 billion and 17.6 billion euros (the “Invitation”). In addition, on April 22, 2020 the Argentine Government, through the Ministry of Economy published the prospectus supplement dated April 21, 2020 (the “Prospectus Supplement”) containing the terms and conditions of the Invitation to submit orders to exchange the eligible bonds described in the Prospectus Supplement (the “Eligible Bonds”). Such Invitation will expire at 5:00 p.m. (New York City time) on May 8, 2020, unless extended or earlier terminated by Argentina.

On April 22, 2020, Argentina failed to make interest payments under its 2021 Global Bond, 2026 Global Bond and 2046 Global Bond governed by foreign law in an aggregate amount of U.S.\$ 503 million; consequently, Argentina now has a 30-day grace period to make such coupon payments in order to prevent an event of default under the applicable indentures.

As of the date of issuance of this annual report, we cannot assure the degree of adherence of the holders of public debt to the offer presented by the Argentine Government, nor the impact of such restructuring on the Argentine economy case that Argentina does not reach or if reached such an agreement, the debt relief obtained as a result of the sovereign debt restructuring does not suffice for Argentina to regain the sustainability of its debt, which may affect our financial condition and results of operations. In addition, we cannot assure whether the Argentine government will succeed in its negotiations with both the IMF and private holders of public debt, all of which could affect its ability to implement reforms and public policies in order to boost economic growth, nor the impact that the result of this renegotiation will have on Argentina’s ability to access to the international capital markets (and indirectly on our ability to access such markets), on the Argentine economy, or on our economic and financial condition, or our ability to extend our debt or other conditions that could affect our results of operations or businesses.

Certain risks are inherent in any investment in a company operating in an emerging market such as Argentina.

According to a Morgan Stanley Capital International (“MSCI”) release, Argentina is considered an “emerging market”. Investing in emerging markets generally carries risks. These risks include political, social and economic instability that may affect Argentina’s economic results which can stem from many factors, including the following:

- high interest rates;
- abrupt changes in currency values;
- high levels of inflation;
- exchange and capital controls;
- wage and price controls;
- regulations to import equipment and other necessities relevant for operations;
- changes in governmental economic or tax policies; and
- political and social tensions.

In particular, we continue to actively manage our schedule of work, contracting, procurement and supply-chain activities to effectively manage costs. However, price levels for capital and exploratory costs and operating expenses associated with the production of crude oil and natural gas can be subject to external factors beyond our control including, among other things, the general level of inflation, commodity prices and prices charged by the

industry's material and service providers, which can be affected by the volatility of the industry's own supply and demand for such materials and services. In the past, we and the oil and gas industry generally experienced an increase in certain costs that exceeded the general trend of inflation.

Any of these factors, as well as volatility in the capital and foreign exchange markets, may adversely affect our financial condition and results of operations or the liquidity, trading markets and value of our securities.

Failure to adequately address actual and perceived risks of institutional deterioration and corruption may adversely affect Argentina's economy and financial condition.

A lack of a solid and transparent institutional framework for contracts with the Argentine government and its agencies and corruption allegations have affected and continue to affect Argentina. Argentina ranked 66 of 180 in the Transparency International's 2019 Corruption Perceptions Index and 119 of 190 in the World Bank's Doing Business 2019 report.

As of the date of this annual report, there are various ongoing investigations into allegations of money laundering and corruption being conducted by the Office of the Argentine Federal Prosecutor, including the largest such investigation, known as Los Cuadernos de las Coimas (the "Notebooks Investigation") which have negatively impacted the Argentine economy and political environment. Depending on the results of these investigations and how long it takes to finalize them, companies involved in the Notebooks Investigation may be subject to, among other consequences, a decrease in their credit ratings, having claims filed against them by investors in their equity and debt securities, and may further experience restrictions in their access to financing through the capital markets, all of which will likely decrease their income. Additionally, as the criminal cases against the companies involved in the Notebooks Investigation move forward,

they may be restricted from rendering services or may face new restrictions due to their customers' internal policies and procedures. These adverse effects could restrict these companies' ability to conduct their operating activities and to fulfill their financial obligations. Consequently, the number of suppliers available for our operations may be reduced which could in turn have an adverse effect on our commercial activities and results of operations.

Recognizing that the failure to address these issues could increase the risk of political instability, distort decision-making processes and adversely affect Argentina's international reputation and ability to attract foreign investment, the Argentine Government has announced several measures aimed at strengthening Argentina's institutions and reducing corruption. These measures include the reduction of criminal sentences in exchange for cooperation with the government in corruption investigations, increased access to public information, the seizing of assets from corrupt officials, increasing the powers of the Anticorruption Office (*Oficina Anticorrupción*), submitting a bill for the issuance of a new public ethic law, among others. The government's ability to implement these initiatives is uncertain as it would be subject to independent review by the judicial branch, as well as legislative support from opposition parties.

We cannot give any assurance that the implementation of these measures by the Argentine government will be successful in stopping institutional deterioration and corruption, or on the effects that the Notebooks Investigations may have in the Argentine economy.

The Argentine economy has been adversely affected by economic developments in other markets.

Financial and securities markets in Argentina, and also the Argentine economy, are influenced by the effects of a global or regional financial crisis and the market conditions in other markets worldwide. Global economy instability such as uncertainty about global trade policies, geopolitical tensions between the United States and Iran, idiosyncratic and social tensions like the ones that happened in Chile, Ecuador and France during 2019, or the recent impact in the global markets related to the oil price war among main producers, Russia and Saudi Arabia, and a pandemic disease such as the coronavirus, could impact the Argentine economy and jeopardize Argentina's ability to emerge from its current recession. See “—Risks Relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products” and “—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.” Although economic conditions vary from country to country, investors' reactions to events occurring in one country sometimes demonstrate a “contagion” effect in which an entire region or class of investment is disfavored by international investors.

Consequently, there can be no assurance that the Argentine financial system and securities markets will not continue to be adversely affected by events in developed countries' economies or events in other emerging markets, which could in turn, adversely affect the Argentine economy and, indirectly, our business, financial condition and results of operations, and the market value of our ADSs.

The implementation of new export duties, other taxes and import regulations could adversely affect our results.

In the past, the Argentine government established export taxes on certain hydrocarbon products by Law No. 25,561 of Public Emergency, for a period of five years. That period was extended for five more years by Law No. 26,732. The second extension expired on January 7, 2017 and was not extended. As a result, export duties on hydrocarbon products ceased to apply.

However, on September 4, 2018, Decree No. 793/2018 was published, establishing an export duty of 12% on the export for consumption of all merchandise included in tariff positions of the Common Mercosur Nomenclature through December 31, 2020. This export duty may not exceed 4 pesos per U.S. dollar of the taxable value or the official FOB price, as applicable. For merchandise which does not constitute primary sector products, the duty may not exceed 3 pesos per U.S. dollar of the taxable value or the official FOB price, as applicable. Thereafter, pursuant to Decree No. 37/2019 (published in the Official Gazette on December 14, 2019) the aforementioned cap was eliminated and Law No. 27,541 (published in the Official Gazette on December 23, 2019) established a rate of 8%. As of the date of this annual report, the government authorities have not issued regulations on this matter, and the General Directorate of Customs continues to determine export duties in accordance with the rates that were in force prior to the effectiveness of Law No. 27,541. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation.”

We cannot assure you that taxes and import/export regulations of this nature will not be modified in the future or that other new taxes or import/export regulations will not be imposed.

We may be exposed to fluctuations in foreign exchange rates.

Our results of operations are exposed to currency fluctuations, and any devaluation of the peso against the U.S. dollar and other hard currencies may adversely affect our business and results of operations, see “—Risks relating to Our Business —Limitations on local pricing in Argentina may adversely affect our results of operations.” The value of the peso has fluctuated significantly in the past, when the Argentine peso declined year over year approximately 31%, 52%, 22%, 18% and 101% against the U.S. dollar in 2014, 2015, 2016,

2017 and 2018, respectively. As of December 31, 2019, the value of the Argentine Peso amounted to Ps. 59.90 per U.S.\$1.00 which represented a year-over-year depreciation of approximately 58%. As of April 20, 2020, the peso was valued at Ps. 65.98 per U.S.\$1.00, an increase of approximately 10% compared to December 31, 2019. See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions” for additional information. The main effects of the devaluation of the Argentine peso on our net profit are related to (i) deferred income tax related mainly to fixed assets, which we expect would have a negative effect; (ii) current income tax; (iii) increased depreciation and amortization resulting from the remeasurement in pesos of our fixed and intangible assets; (iv) exchange rate differences as a result of our exposure to the peso, which we expect would have a positive effect due to the fact that our functional currency is the U.S. dollar and (v) higher revenues because domestic prices in Argentina for our main products are principally based on international prices quoted in U.S. dollars (see “—Risks relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products” and “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions”). In addition, regarding our financial position the majority of our debt is denominated in currencies other than the peso; consequently, a devaluation of the peso against such currencies will increase the amount of pesos we need to cope with in the terms of loans.

We are unable to predict whether, and to what extent, the value of the peso may further depreciate or appreciate against the U.S. dollar and how any such fluctuations could affect our business.

Variations in interest rates and exchange rate on our current and/or future financing arrangements may result in significant increases in our borrowing costs.

Under our financing arrangements, we are permitted to borrow funds to finance the purchase of assets, incur capital expenditures, repay other obligations and finance working capital. As of December 31, 2019, approximately 17% of our total debt is sensitive to changes in interest rates, mainly those prevailing in the domestic market. See “Item 11. Quantitative and Qualitative Disclosures about Market Risk—Interest rate exposure.” Consequently, variations in interest rates could result in significant changes in the amount required to cover our debt service obligations and in our interest expense, thus affecting our results and financial condition. Furthermore, the Company usually refinances its debt at maturity, as such, an increase in market interest rates as of such dates could result in an increase in our interest expense for the future. In addition, interest and principal amounts payable pursuant to debt obligations denominated in or indexed to U.S. dollars are subject to variations in the Argentine peso/U.S. dollar exchange rate that could result in a significant increase in peso terms in the amount of the interest and principal payments in respect of such debt obligations.

In addition, on July 27, 2017, the Financial Conduct Authority (the “FCA”) announced its intention to phase out LIBOR rates by the end of 2021. As of December 31, 2019, approximately 11% of our total debt accrue interest based on LIBOR rates plus a spread. It is unclear if at that time LIBOR will cease to exist or if new methods of calculating LIBOR will be established such that it continues to exist after 2021. If the method for calculation of LIBOR changes, if LIBOR is no longer available or if lenders have increased costs due to changes in LIBOR, we may be adversely affected by potential increases in interest rates on any borrowings. Further, we may need to renegotiate our credit agreements that utilize LIBOR as a factor in determining the interest rate to replace LIBOR with the new standard that is established. It is not possible to predict the effect that the FCS rules, any changes in the methods to determine LIBOR or any replacement therefor, or any other reforms to LIBOR that may be enacted in the United Kingdom, the European Union or elsewhere. Any such developments may cause LIBOR to perform differently than in the past or cease to exist, which could adversely affect our cost of financing.

We could be subject to exchange and capital controls.

In the past, Argentina has imposed, and has recently re-imposed, exchange controls and transfer restrictions substantially limiting the ability of companies to retain foreign currency or make payments abroad. Beginning in 2011, additional foreign exchange controls have been imposed that restrict or limit purchases of foreign currency and transfers of foreign currency abroad. Since 2011, oil and gas companies (including YPF), among other entities, were required to repatriate 100% of their foreign currency export receivables.

In December 2015, the new administration eliminated certain exchange controls imposed by the previous administration, such as (i) the requirement that foreign currency be deposited and exchanged in Argentina in respect of finance transactions outside Argentina, and (ii) the requirement that 30% of funds in U.S. dollars held in Argentina be frozen pursuant to Decree No. 616/05. Additionally, in May 2017, through BCRA Communication “A” 6244, the BCRA derogated the regulations relating to restrictions on exchange rate transactions, settlement of foreign exchange transactions, and the provisions of Decree No. 616/05, except for those regulations relating to information regimes, surveys or similar informational matters relating to foreign exchange transactions.

Pursuant to Decree 609/2019 dated September 1, 2019, the BCRA issued Communication “A” 6770 and amendments by means of which adjustments to the regulations were established.

The impact that the current and any new exchange regulations may have on the Argentine economy or on our operations is uncertain. In addition, we cannot assure you that the exchange regulations will be released or replaced. For more information on exchange restrictions see “Item 3. Key Information—Exchange Regulations.”

We cannot assure you that future regulatory changes related to exchange and capital controls will not adversely affect our financial condition or results of operations, our ability to meet obligations denominated in foreign currency or our ability to execute financing and capital expenditure plans.

Our access to international capital markets and the market price of our shares are influenced by the perception of risk in Argentina and other emerging economies.

According to an MSCI release, Argentina is considered an “emerging market” since May 2019. Economic and market conditions in Argentina and in other emerging market countries, especially those in Latin America, influence the market for securities issued by Argentine companies. Volatility in securities markets in Latin America and in other emerging market, as well as the increase in interest rates in the United States and other developed countries, may have a negative impact on the trading value of our securities and on our ability and the terms on which we are able to access international capital markets. Moreover, regulatory and policy developments in Argentina that occurred in recent years, including the enactment of the Expropriation Law, as well as the litigation of the Argentine government with Holdout Bondholders have led to considerable volatility in the market price of our shares and ADSs. Likewise, the increase in country risk resulting from doubts regarding the sustainability of Argentina’s debt, and the fall in the price of Argentine bonds and shares, and the first measures of the elected government, including renegotiation of the public debt with IMF and private bond holders, could affect our ability to access international capital markets. See “—Our business is largely dependent upon economic conditions in Argentina,” “—The evolution of the Argentine economy is largely dependent on a successful restructuring of the public debt, including that held by the IMF” and “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.” We cannot assure that the perception of risk in Argentina and other emerging markets may not have a material adverse effect on our ability to raise capital, including our ability to refinance our debt at maturity, which would negatively affect our investment plans and consequently our financial condition and results of operations, and also have a negative impact on the trading values of our debt or equity securities. We can give no assurance as to potential adverse impact of the factors discussed above on our financial condition and/or results of operations. See “Item 4. Information on the Company—History and Development of YPF.”

Risks Relating to our Business

An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.

Our operations are subject to risks related to outbreaks of infectious diseases. For example, the recent outbreak of COVID-19 (coronavirus), a virus causing potentially deadly respiratory tract infections, has already and will continue to negatively cause further volatility in commodity markets as well as in the financial markets (see “—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products”) and decreased demand for our products regionally as well as globally and otherwise impact our operations and the operations for our customers, suppliers and other stakeholders. The measures which the Argentine Government adopted and may adopt in the future to protect the general population and fight the disease will likely also adversely affect demand for our products and services. So far, these measures include general restriction in economic activity (with some exceptions), price controls, the prohibition of dismissals without fair cause as well as dismissals and suspensions for reasons of lack or reduction of activity and force majeure for a period of 60 days, general restriction on displacement during certain periods in Argentina, general travel restrictions, suspension of visas, nation-wide lockdowns, closing of public and private institutions, suspension of sporting events, restrictions to the operation of museums and tourist attractions and extension of holidays, among many others, all of which will likely adversely affect demand for diesel and gasoline. Furthermore, the general suspension of activities in the economy could also affect the financial conditions of certain of our clients, thus negatively affecting their capacity to pay their account balances with us and consequently affecting our financial condition. Additionally, due to the Argentine Government’s orders to close Argentine borders and the steep decline in demand for flights, demand for jet fuel has also been (and will likely continue to be) subject to a significant decrease. This reduction in demand for our products could lead us to reduce the processing levels of crude oil in our refineries, thus affecting our operating margins. Any prolonged restrictive measures put in place in order to control an outbreak of a contagious disease or other adverse public health development in any of our targeted markets may have a material and adverse effect on our business operations. The ultimate severity of the Coronavirus outbreak is uncertain at this time and therefore we cannot predict the impact it may have on the world, the Argentine economy, the financial markets, and consequently in our financial condition, our results of operations, production, sales, margins and cash flow from operations, our access to debt markets, covenants compliance, asset impairments, among others. See “Item

5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—COVID-19 outbreak.”

We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.

Most of our revenue in Argentina is derived from sales of refined products (mainly gasoline and diesel) and, to a lesser extent, natural gas. International prices for oil and oil products are volatile and, since the intention of liberalization of the domestic market at the end of 2017, the prices of our oil products, are strongly influenced by conditions and expectations of world supply and demand and geopolitical tensions, among other factors. Despite our expectation of substantially maintaining a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, due to other factors that are also considered in our pricing policy (including, but not limited to, abrupt changes in the exchange rate, or in international prices or potential legal or regulatory limitations that affect the ability of the market to face abrupt changes in the prices of our products) the intended liberalization could not be fully realized during 2018 and 2019. Accordingly, we cannot guarantee that the intended liberalization of oil and fuel prices in the domestic market may finally operate in the future due to various factors such as, domestic demand, macroeconomic and political conditions prevailing in Argentina or potential new regulatory or legal limitations. Volatility and uncertainty in international prices for crude oil and oil products will most likely continue.

The international price of crude oil has fluctuated significantly in the past and may continue to do so in the future. After a long decrease in crude oil prices that began in 2014, at the end of 2016 a group known as OPEC+ was formed, which brought the member countries of that organization together with other producers, including Russia, in order to coordinate production cuts that would allow prices to be recovered. The strategy worked and was extended until March 5, 2020, when a proposal for new cuts, based on the increase in Arab production, to meet the challenges posed by COVID-19 (coronavirus) was rejected by Moscow, see “-- An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.” As a result of these actions, the international price of a barrel of Brent fluctuated from 51.3 U.S.\$/bbl on March 5, 2020, to 35.3 U.S.\$/bbl on March 9, 2020. As of April 13, 2020, despite some recent agreements between major producers to temporarily cut production, the price remains at 20.2 U.S.\$/bbl. As a result, the different players in the Argentine oil and gas industry have been proposing to set minimum local crude oil prices, regardless of international prices, with the purpose of protecting the local E&P industry. In that respect, according to certain recent newspaper reports, the Government is potentially working to put in place regulations regarding such minimum prices and certain other matters relating to the oil and gas industry. If these regulations were to enter into effect and the local price of the crude oil is set at values above those that were considered to set the price for our products (mainly gasoline and diesel), or if a new price-freezing period is established for our downstream products, such regulations will have a negative effect on our result of operations, financial conditions and cash flow, see “Item 5. Operating and Financial Review and Prospects --Factors Affecting Our Operations -- Macroeconomic conditions.”

If international crude oil prices remain at current levels or continue to drop for an extended period of time (or if prices for certain products do not match cost increases) and such scenario is reflected in the domestic price of oil, which is beyond our control, this could negatively affect the economic viability of our drilling projects and also our ability to comply with our concessions and exploration permits investment commitments (see “Argentine oil and gas production concessions and exploration permits are subject to certain conditions and may be cancelled or not renewed”). These reductions could lead to changes to our development plans, investment reduction, lack of approval of investment projects by our partners in the JVs, which could lead to the loss of proved developed reserves and proved undeveloped reserves and could also adversely affect our ability to improve our hydrocarbon recovery rates, find new reserves, develop unconventional resources and carry out certain of our other capital expenditure plans. In turn, these changes in conditions could have an adverse effect on our financial condition and results of operations. In addition, if these current international prices are reflected in the domestic prices of our refined products, our ability to generate cash and our results of operations could be adversely affected.

With respect to our pricing policy of fuels see “—Limitations on local pricing in Argentina may adversely affect our results of operations.”

In terms of investments, we budget capital expenditures related to exploration, development, refining and distribution activities by considering, among other things, current and expected local and international market prices for our hydrocarbon products.

Furthermore, we may be required to further write down the carrying value of our properties if estimated oil and gas prices decline or if we have substantial downward adjustments to our estimated reserves, increases in our operating costs, increases in the discount rate, among others. See additionally “Item 5. Operating and Financial Review and Prospects—Critical Accounting Policies” for information regarding our sensitivity analysis related to impairment. In addition, if a reduction in our capital expenditures materializes, including the capital expenditures of our domestic competitors, it would likely have a negative impact on the number of active drilling rigs, workovers and pulling equipment in Argentina, alongside related services, thus affecting the number of active workers in the industry. We are unable to predict whether, and to what extent, the potential consequences of such measures could affect our business, have an impact on our production and consequently affect our financial condition and results of operations.

Our domestic operations are subject to extensive regulation.

The Argentine oil and gas industry is subject to government regulation and control. As a result, our business is to a large extent dependent upon regulatory and political conditions prevailing in Argentina and our results of operations may be adversely affected by regulatory and political changes in Argentina. (see “Limitations on local pricing in Argentina may adversely affect our results of operations” and “We are exposed to the effects of fluctuations in the prices of oil, gas and refined products”). Although we expect to substantially maintain a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, we may face risks and challenges relating to government regulation and control of the energy sector, including those set forth below and elsewhere in these risk factors:

- limitations on our ability to increase local prices or to reflect the effects of higher domestic taxes, increases in production costs or increases in international prices of crude oil and other hydrocarbon fuels and exchange rate fluctuations on our domestic prices. See “—Limitations on local pricing in Argentina may adversely affect our results of operations;”
- government actions may also affect the prices of crude oil, natural gas, oil products and chemicals, such as, for example, if a government were to ban diesel automobiles from entering a city or provide tax deductions for the purchase of renewable automobiles;
- new export duties, similar taxes or regulations on imports;
- limitations on hydrocarbon import or export volumes, driven mainly by the requirement to satisfy domestic demand;
- in connection with the Argentine government’s policy to provide absolute priority to domestic demand, regulatory orders to supply natural gas and other hydrocarbon products to the domestic retail market in excess of previously contracted amounts, or at prices lower than those related to import parity or those we may obtain if regulated margins were not being imposed or suggested. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas;”
- in connection with the former and current incentive programs established by the Argentine government for the oil and gas industry, such as the “Natural Gas Additional Injection Stimulus Program” and the “Investment in Natural Gas Production from Non-Conventional Reservoirs Stimulus Program” (“Gas Plan”) (see “A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities”) and cash collection of balances with the Argentine government, which are additionally subject to the risk of potential changes in current regulations that could affect our projections or profitability. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas;”
- legislation and regulatory initiatives relating to hydraulic stimulation and other drilling activities for unconventional oil and gas hydrocarbons, which could increase our cost of doing business or cause delays and adversely affect our operations;
- restrictions on imports of products, including those related to the authorization of transfer of funds for foreign payments, which could affect our ability to meet our delivery commitments or growth plans, as the case may be;
- the implementation or imposition of stricter quality requirements for petroleum products in Argentina; and
- restrictions for dismissal for a period of time or compensation greater than that established by the employment contract law, which could increase our cost of doing business.

In past years, the Argentine government has made certain changes in regulations and policies governing the energy sector to give absolute priority to domestic supply at stable prices in order to sustain economic recovery. As a result of the above-mentioned changes, for example, on days during which a gas shortage occurs (mainly in winter), exports of natural gas (which are also affected by other government curtailment orders) and the provision of gas supplies to industries, electricity generation plants and service stations selling compressed natural gas are and could be interrupted for priority to be given to residential consumers. The Expropriation Law has declared achieving self-sufficiency in the supply of hydrocarbons as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions. See “Item 4. Information on the Company—Legal and Regulatory Framework and

Relationship with the Argentine Government—The Expropriation Law,” and “—Risks Relating to Argentina—The Argentine Republic owns 51% of the shares of the Company.”

We cannot assure you that changes in applicable laws and regulations, or adverse judicial or administrative interpretations of such laws and regulations, will not adversely affect our results of operations. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government.”

Limitations on local pricing in Argentina may adversely affect our results of operations.

Due to regulatory, economic and government policy factors, our domestic gasoline, diesel, natural gas and other fuel prices may differ substantially from prevailing international and regional market prices for such products, and our ability to increase prices in connection with international price increases or domestic cost increases, including those resulting from the peso devaluation, may be limited from time to time. During 2017 we entered into a convergence process towards international prices that finally occurred in October 2017, when prices were liberalized, see “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.”

Our pricing policy for fuels contemplates several factors such as international crude oil prices and, refining spreads, processing and distribution costs, biofuel prices, exchange rates, local demand and supply, competition, inventories, withholding tax on exports, local taxation, and domestic margins for our products, among others. Despite our expectation of substantially maintaining a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, we cannot assure you that other factors that are also considered in our pricing policy (including, but not limited to, abrupt changes in the exchange rate, or in international prices or potential legal or regulatory limitations that affect the ability of the market to face abrupt changes in the prices of our products), will not have an adverse impact on our ability to do so in the short term. See “—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products” and “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.”

On the other hand, Argentina has faced and continues to face high inflationary pressures, which the Argentine Government continues to approach through different measures. The Government has the objective of reducing inflation. Consequently, and taking into account the impact of the increase in the price of fuels in the aforementioned inflation, we cannot guarantee that we will be able to increase our fuel prices to compensate for the general increases in costs or import prices. See “—Risks Relating to Argentina—Our business is largely dependent upon economic conditions in Argentina.”

Regarding natural gas markets, revenues we obtain as a result of selling natural gas in Argentina are subject to government regulations and could be negatively affected, particularly considering the evolution of gas prices for residential consumers, which in turn are still subject to subsidies, and the evolution of sale price to electric generation plants, see “Item 4. Information on the Company --Gas and Power --Delivery Commitments.” In addition, since 2018 our revenues have been affected by the oversupply in the natural gas market during the periods between September and April (the “Off-Peak Period”). This situation, in addition to CAMMESA’s bidding processes, which promoted a strong competition in the power generation plants demand, had a sensitive effect on the demand for the remaining segments, generating a lower quantity of firm commitments and/or contracts for shorter terms. Most sales agreements on a firm basis during 2019 were renewed at lower prices due to the aggressive competition.

The prices and volumes that we are able to obtain for our hydrocarbon products affect the viability of investments in new exploration, development and refining and, as a result, the timing and amount of our projected capital expenditures for such purposes. We budget capital expenditures by taking into account, among other things, market prices for our hydrocarbon products. For additional information on domestic pricing for our products, see “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation.”

A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities.

In the normal course of business and considering that we are the primary oil and gas company in Argentina, our portfolio of clients and suppliers includes both private sector and governmental entities. All material transactions and balances with related parties as of December 31, 2019 are set forth in Note 35 to the Audited Consolidated Financial Statements, including, among others, accounts receivables with SGE (related to the Natural Gas Stimulus Programs), Ministry of Transport (related to compensation for providing gas oil to public transport at a differential price) and Aerolíneas Argentinas (related to the provision of jet fuel).

As of December 31, 2019, the accounts receivable balance corresponding to the Natural Gas Additional Injection Stimulus Program reflects 18 installments of accrued and not yet due payments, in accordance with Resolution No. 97/2018, representing Ps. 26.2 billion. As of the date of this annual report, we have received 3 more installments of Ps. 4.7 billion under such Resolution. See “Item 4.

Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government— MINEM Resolution No. 97/2018.”

As of December 31, 2019, the accounts receivable corresponding to the Stimulus Program for Investments in Developments of Natural Gas Production from Unconventional Reservoirs for accrued and unpaid periods amounted to Ps. 3.4 billion.

Additionally, because of the variation in the exchange rate in 2018, natural gas producers and distributors began a process of renegotiation of the specific agreements signed pursuant to the Terms and Conditions for the Provision of Natural Gas to Gas Distributors through Networks (the “Terms and Conditions”) (see “Item 4. Information on the Company—Gas and Power—Delivery commitments—Natural gas supply contracts”), where prices were denominated in dollars. The renegotiation process included two main aspects: i) payments of the debts arising from the differences between the exchange rate paid by the distributors and the exchange rate which had been originally agreed (for the period between April and September 2018), and ii) the applicable price for gas during the period between October and December 2018. On November 16, 2018, through Decree No. 1053/18 the Argentine Government assumed on an exceptional basis, the payment of the daily differences which accrued monthly between the price of gas purchased by the distributors and the valid tariffs during the period between April 1, 2018, and March 31, 2019, exclusively arising from exchange rate variations and corresponding to the natural gas volumes delivered in that same period. The conditions are as follows:

- 30 monthly consecutive installments starting on October 1, 2019, which will be determined by using the BNA effective interest rate for 30-day deposits in Argentine currency (“electronic board”).
- The installments will be collected by distributors, who will immediately pass it through to producers.
- Distributors and producers must adhere to the system and expressly waive any action or complaint.

As of December 31, 2019, the accounts receivable balance corresponding to the payments of the daily differences reflects 29 installments, in accordance with Resolution No. 1053/2018, representing Ps. 7.6 billion. As of December 31, 2019, two installments were not paid according to the original schedule. As of the date of this annual report, we have not received additional payments related to Resolution No. 1053/2018. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Tariff renegotiation.”

If certain governmental counterparties were (i) not able to pay or redeem such accrued amounts in cash or cash equivalents, or (ii) only able to make such payments or redemptions through delivery of financial instruments which: (a) may delay collection of working capital payments in excess of our estimates, (b) are subject to change in their listing value, or (c) are denominated in a currency other than the origin of the credit, our financial condition and results of operations could be adversely affected.

We are subject to direct and indirect import and export restrictions, which have affected our results of operations and caused us to declare force majeure under certain of our export contracts.

The Argentine Hydrocarbons Law No. 17,319, allows for hydrocarbon exports as long as they are not required for the domestic market and are sold at reasonable prices. In the case of natural gas, Law No. 24,076 and related regulations require that the needs of the domestic market be taken into account when authorizing long-term natural gas exports.

In the past the Argentine authorities have adopted a number of measures that have resulted in restrictions on exports of natural gas from Argentina. Due to the foregoing, we have been obliged to sell a part of our natural gas production previously destined for the export market in the local Argentine market and have not been able to meet our contractual gas export commitments in whole or, in some cases, in part, leading to disputes with our export clients and forcing us to declare force majeure under our export sales agreements. We believe that the measures mentioned above constitute force majeure events, although no assurance can be given that this position will prevail.

See “Item 4. Information on the Company—Gas and Power—Delivery commitments—Natural gas supply contracts,” “Item 4. Information on the Company—Gas and Power—The Argentine natural gas market,” and “Item 8. Financial Information—Legal Proceedings.”

Crude oil exports, as well as the export of most of our hydrocarbon products, currently requires prior registration from the SGE pursuant to the regime established under S.E. Resolution No. 241-E/17, as amended. Oil companies seeking to export crude oil, LNG LPG or diesel must first complete the registration process stated in the above mentioned resolution .

In addition, on March 21, 2017, Decree No. 192/2017 was published in the Official Gazette of the Republic of Argentina (the “Official Gazette”), which created the “Oil and its Byproducts Import Operations Registry” (the “Registry”) and set forth that the MINEM (through

the Secretariat of Hydrocarbon Resources) would be responsible controlling the Registry. The Registry involved import operations of: (i) crude oil and (ii) certain other specific byproducts listed in section 2 of the decree. By means of this regulation, any company that wished to perform such import operations was obligated to register such operation in the Registry and to obtain authorization from MINEM before the import took place. According to this decree, MINEM had to set the methodology applicable to issue import authorizations, which will be based in the following criteria: (a) lack of crude oil with the same characteristics offered in the domestic market; (b) lack of additional treatment capacity in domestic refineries with domestic crude oil; and (c) lack of byproducts listed in section 2 of the decree offered in the domestic market. This regime exempted any import by CAMMESA in order to supply power plants with the main purpose of technical supply to the “Inter-connection Argentinean System” (Sistema Argentino de Interconexión or “SADI”). On November 24, 2017, Decree No. 962/2017 was published in the Official Gazette amending Decree No. 192/2017 by providing that the Registry would be in effect until December 31, 2017. Decree No. 962/2017 provided that the need for the Registry was temporary and therefore, since December 31, 2017, the import operations related to crude oil, gasoline, and diesel oil included in Decree No. 192/2017 are no longer subject to registration.

On August 22, 2018, the former Ministry of Energy and Mining issued Resolution No.104/2018, later modified by Resolutions No. 9/2018 and No. 417/2019 of the SGE, which established a procedure to obtain authorizations to export natural gas.

As of the date of this annual report, imports of natural gas and LNG are not restricted. Likewise, Disposition N° 3/2020 of the Under Secretariat of Policy and Commercial Management of the Ministry of Productive Development added certain goods under the Non- Automatic Importation Licenses regime, including but not limited to crude oil, gasoline, diesel and certain petrochemical products .

For more information, see “Item 4. Information on the Company— Legal and Regulatory Framework and Relationship with the Argentine Government—Natural gas export administration and domestic supply priorities,” “Item 4. Information on the Company— Legal and Regulatory Framework and Relationship with the Argentine Government— Market Regulation” and “Item 4. Information on the Company— Legal and Regulatory Framework and Relationship with the Argentine Government—Automatic and Non-Automatic Import Licenses.”

We are unable to estimate how long these restrictions will be in place, or whether any further measures will be adopted that adversely affect our ability to export or import gas, crude oil and diesel or other products and, accordingly, our results of operations.

Our reserves and production are likely to decline.

Most of our existing oil and gas producing fields in Argentina are mature and, as a result, our reserves and production are likely to decline as reserves are depleted. Our production decreased in 2019 by 3.0% compared to 2018 and our reserves replacement ratio (increases in reserves in the year, net divided by the production of the year) was 96% in 2019 (136% corresponds to liquids and 53% corresponds to gas), compared to 178% in 2018 (262% corresponds to liquids and 93% corresponds to gas).

We face certain challenges in order to replace our proved reserves with other categories of hydrocarbons. However, the continuous comprehensive technical review of our oil and gas fields allows us to identify opportunities to rejuvenate mature fields and optimize new field developments in Argentine basins with the aim of achieving results similar to those achieved by mature fields in other regions of the world (which have achieved substantially higher recovery factors with the application of new technology). Additionally, we have been completing the renewal or extension of most of our concessions, allowing us to develop certain strategic projects related to water-flooding, enhanced oil recovery and unconventional resources, which represent an important opportunity not only for us but also for Argentina. We expect that unconventional development will require higher investment in future years, principally in connection with the Vaca Muerta formation. These investments are expected to yield economies of scale, de-risk undeveloped acreage and to significantly increase recovery rates from this resource play. Other resource plays, unconventional prospects, exist in Argentina and have positioned the country amongst the most attractive in terms of worldwide unconventional resource potential. Nevertheless, the financial viability of these investments and reserve recovery efforts will generally depend on the prevailing economic and regulatory conditions in Argentina, as well as the market prices of hydrocarbon products, and are also subject to material risks inherent to the oil and gas industry. See “—Our business plan includes future drilling activities for unconventional oil and gas reserves, such as shale oil and gas extraction, and if we are unable to successfully acquire and use the necessary new technologies and other support as well as obtain financing and venture partners, our business may be adversely affected.”

Our oil and natural gas reserves are estimates.

Our oil and gas proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is recoverable under existing economic and operating conditions. The accuracy of proved reserve estimates depends on a number of factors, assumptions and variables, some of which are beyond our control. Factors susceptible to our control include drilling, testing and production after the date of the estimates, which may require substantial revisions to reserves estimates; the quality of available geological, technical and economic data used by us and our interpretation thereof; the production performance of our reservoirs and our recovery rates, both of which depend in significant part on available technologies as well as our ability to implement such technologies and the relevant know-how; the selection of third parties with which we enter into business; and the accuracy of our estimates of initial hydrocarbons in place, which may prove to be incorrect or require substantial revisions. Factors mainly beyond our control include changes in prevailing oil and natural gas prices, which could have an effect on the quantities of our proved reserves (since the estimates of reserves are calculated under existing economic conditions when such estimates are made); changes in the prevailing tax rules, other government regulations and contractual conditions after the date estimates are made (which could make reserves no longer economically viable to exploit); and certain actions of third parties, including the operators of fields in which we have an interest.

Information on net proved reserves as of December 31, 2019, 2018 and 2017 was calculated in accordance with SEC rules and FASB's ASC 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month, for crude oils of different quality produced by us.

As previously discussed, we had come from domestic prices for crude oil higher than international benchmark prices, however during 2017 we entered into a convergence process towards international prices that finally occurred in October 2017, when prices were liberalized. See "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions." Despite our expectation of substantially maintaining a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, we cannot assure you that other factors that are also considered in our pricing policy (including, but not limited to, abrupt changes in the exchange rate, or in international prices or potential legal or regulatory limitations that affect the ability of the market to face abrupt changes in the prices of our products), will not have an adverse impact on our ability to do so in the short term. As a result, for calculations of our net proved reserves as of December 31, 2019, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2021, in accordance with Decree No. 847/2019). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2019, which refers to the Brent prices adjusted by each different quality produced by the Company. In connection with natural gas prices used for estimation of reserves, since there are no benchmark markets for natural gas prices available in Argentina, the Company considered the realized prices in the domestic market according to the SEC and FASB's ASC 932 rules.

The international price of crude oil has fluctuated significantly in the past. If these prices decrease significantly in the future or if domestic prices are set lower than in international markets, our future calculations of estimated proved reserves would be based on lower prices. This could result in a removal of non-economic reserves from our proved reserves in future periods. Assuming all other factors remain constant, if commodity reference prices for crude oil and natural gas used in our year-end reserve estimates were decreased by 10% each one, our total proved reserves as of December 31, 2019 would decrease by approximately 4% and less than 1%, respectively. Furthermore, assuming all other factors remain constant, if costs used in our year-end reserve estimates were increased by 10% for crude oil and natural gas, our total proved reserves as of December 31, 2019 would decrease by approximately 4%. However, if we combine the 3 mentioned effects, our total proved reserves as of December 31, 2019 would decrease by approximately 9%. Furthermore, if commodity reference prices used in our year-end reserve estimates were decreased for crude oil to match a price of approximately 30 U.S.\$/bbl for Brent equivalent quality, according to the current price environment, our proved developed reserves as of December 31, 2019 would decrease by approximately 35%. Regarding our proved undeveloped reserves, in case of this substantial variation in oil price, they should be subject of re-evaluation of projects, as a new long-term curve may be consolidated, also because of the impact of the current COVID-19 outbreak. See "—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products" and "—An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations". In addition, as a result of the prices used to calculate the present value of future net revenues from our proved reserves, in accordance with SEC rules, which are similar to the calculation of proved reserves described above, the present value of future net revenues from our proved reserves will not necessarily be the same as the current market value of our estimated crude oil and natural gas reserves.

As a result of the foregoing, measures of reserves are not precise and are subject to revision. Any downward revision in our estimated quantities of proved reserves could adversely impact our financial results by leading to increased depreciation, depletion and amortization charges or impairment, which could reduce earnings and shareholders' equity.

Oil and gas activities are subject to significant economic, social, environmental and operational risks and to seasonal fluctuation of demand.

Oil and gas exploration and production activities are subject to particular economic and industry-specific operational risks, some of which are beyond our control, such as production, equipment and transportation risks, as well as natural hazards and other uncertainties, including those relating to the physical characteristics of onshore and offshore oil or natural gas fields. Our operations may be curtailed, delayed or cancelled due to bad weather conditions, mechanical difficulties, shortages or delays in the delivery of equipment, compliance with governmental requirements (including those related to the COVID-19 or other similar diseases), fire, explosions, blow-outs, pipe failure, abnormally pressured formations, and environmental hazards, such as oil spills, gas leaks, ruptures or discharges of toxic gases. In addition, we operate in politically sensitive areas where the native population has interests that from time to time may conflict with our production or development objectives. If these risks materialize, we may suffer substantial operational losses and disruptions to our operations and harm to our reputation. Additionally, if any operational incident occurs that affects local communities and ethnic communities in nearby areas, we will need to incur in additional costs and expenses in order to return affected areas to normality and to compensate for any damages we may cause. These additional costs may have a negative impact on the profitability of the projects we may decide to undertake. Drilling may be unprofitable, not only with respect to dry wells, but also with respect to wells that are productive but do not produce sufficient revenues to return a profit after drilling, operating and other costs are taken into account.

Furthermore, historically our results have been subject to seasonal fluctuations of demand during the year, in the case of natural gas, particularly as a result of increased demand during the colder winter months. In addition, since 2018 our revenues have been affected, by the oversupply in the natural gas market during the Off-Peak Period. This situation, in addition to CAMMESA's bidding processes, which promoted a strong competition in the power generation plants demand, had a sensitive effect on the demand for the remaining segments, generating a lower quantity of firm commitments and/or contracts for shorter terms. Most sales agreements on a firm basis during 2019 were renewed at lower prices due to the aggressive competition.

See "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Seasonality" and "Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural Gas—Tariffs."

As such, we could be subject to fluctuations in non-winter season in our sales volumes and consequently our level of natural gas production could be negatively affected, potentially resulting in market prices lower than expected, thus affecting our result of operations and financial conditions.

Our acquisition of exploratory or productive acreage and crude oil and natural gas reserves is subject to heavy competition.

We face intense competition in bidding for crude oil and natural gas production areas, especially those areas with the most attractive crude oil and natural gas reserves or prospects. As a result, the conditions under which we would be able to access new exploratory or productive areas could be adversely affected.

Our business plan includes future drilling activities for unconventional oil and gas reserves, such as shale oil and gas extraction, and if we are unable to successfully acquire and use the necessary new technologies and other support as well as obtain financing and venture partners, our business may be adversely affected.

Our ability to execute and carry out our business plan depends upon our ability to obtain financing at a reasonable cost and on reasonable terms. We have identified drilling locations and prospects for future drilling opportunities of unconventional oil and gas reserves, such as the shale oil and gas in the Vaca Muerta formation. These drilling locations and prospects represent a part of our future drilling plans. Our ability to drill and develop these locations depends on a number of factors, including seasonal conditions, regulatory approvals, issuance of permits and licenses by governmental agencies, negotiation of agreements with third parties, commodity prices, project approvals and funding by joint-venture partners, costs, access to and availability of equipment, services and personnel and drilling results. In addition, the drilling and exploitation of unconventional oil and gas reserves depends on our ability to acquire the necessary technology and hire personnel and other support needed for extraction or obtain financing and venture partners to develop such activities. Furthermore, in order to implement our business plan, including the development of our oil and natural gas exploration activities and the development of refining capacity sufficient to process increasing production volumes, we will need to raise significant amounts of debt capital in the financial and capital markets. We cannot guarantee that we will be able to obtain the necessary financing or obtain financing in the international or local financial markets at reasonable cost and on reasonable terms to implement our new business plan or that we would be able to successfully develop our oil and natural gas reserves and resources (mainly those related to our unconventional oil and gas business plan), see "—Uncertainty and illiquidity in credit and capital markets can impair our ability to obtain credit and financing on acceptable terms." Because of these uncertainties, we cannot give any assurance as to the timing of these activities or that they will

ultimately result in the realization of proved reserves or meet our expectations for success, which could adversely affect our production levels, financial condition and results of operations.

We may not have sufficient insurance to cover all the operating hazards to which we are subject.

As discussed under “—Oil and gas activities are subject to significant economic, social, environmental and operational risks and to seasonal fluctuation of demand” and “—We may incur significant costs and liabilities related to environmental, health and safety matters,” our exploration and production operations are subject to extensive economic, operational, regulatory and legal risks. We maintain insurance covering us against certain risks inherent in the oil and gas industry in line with industry practice, including loss of or damage to property and equipment, control-of well incidents, loss of production or income incidents, removal of debris, sudden and accidental seepage pollution, contamination and clean up and third-party liability claims, including personal injury and loss of life, among other business risks. However, our insurance coverage is subject to deductibles and limits that in certain cases may be materially exceeded by our liabilities. In addition, certain of our insurance policies contain exclusions that could leave us with limited coverage in certain events. See “Item 4. Information on the Company—Insurance” and “—An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.” In addition, we may not be able to maintain adequate insurance at rates or on terms that we consider reasonable or acceptable or be able to obtain insurance against certain risks that materialize in the future. If we experience an incident against which we are not insured, or the costs of which materially exceed our coverage, it could have a material adverse effect on our business, financial condition and results of operations.

Argentine oil and gas production concessions and exploration permits are subject to certain conditions and may be cancelled or not renewed.

As modified by Law No. 27,007, the Hydrocarbons Law provides for oil and gas concessions to remain in effect for 25 years as from the date of their award, 35 years for unconventional concessions and 30 years for offshore concessions. It further provides that concession terms may be extended for periods of up to 10 years each. The authority to extend the terms of current and new permits, concessions and contracts has been vested in the governments of the provinces in which the relevant area is located (and the federal government in respect of offshore areas beyond 12 nautical miles). In order to be eligible for an extension of a concession, under the modifications of Law No. 27,007, concessionaires must (i) have complied with their obligations, (ii) be producing hydrocarbons in the concession under consideration and (iii) submit an investment plan for the development of such areas as requested by the competent authorities up to a year prior to the termination of each term of the concession.

Our extension of concessions includes, among others, certain level of investment and activity commitment in certain periods. Non-compliance with the obligations and standards set out under the Hydrocarbons Law or agreements with the competent authorities, as applicable, may also result in the imposition of fines and in the case of material breaches, following the expiration of applicable cure periods, the revocation of the concession or permit. We cannot assure you that in the future, as a result of relevant different conditions prevailing in the domestic and/or international oil and gas market at different times, may derive in a non-compliance with certain commitments with provinces, thus resulting in the imposition of fines or expiration of certain concessions or permits.

In addition, we cannot provide assurances that any of our concessions will be extended as a result of the consideration by the relevant authorities of the investment plans we would submit in the future for the development of the areas as of the date of requesting the extension periods for our relevant areas, or other requirements will not be imposed on us in order to obtain extensions as of the date of expiration. Additional royalty payments of 3%, up to a maximum of 18%, are provided for in extensions under Law No. 27,007. The termination of, or failure to obtain the extension of, a concession or permit, or its revocation, could have a material adverse effect on our business and results of operations.

We may incur significant costs and liabilities related to environmental, health and safety matters.

Operations in the oil and gas industry in which we participate, including those related to our mining and use of sand for purposes of our oil and gas operations, are subject to a wide range of environmental, health and safety laws and regulations in the countries in which we operate. These laws and regulations have a substantial impact on our operations and those of our subsidiaries and could result in material adverse effects on our financial position and results of operation. See “Item 4. Information on the Company—Insurance.” A number of events related to environmental, health and safety matters, including changes in applicable laws and regulations, adverse judicial or administrative interpretations of such laws and regulations, changes in enforcement policy, the occurrence of new litigation or development of pending litigation, and the development of information concerning these matters, could result in new or increased liabilities, capital expenditures, reserves, losses and other impacts that could have a material adverse effect on our financial condition and results of operations. For instance, during 2019, we had a well control incident in one exploratory gas well under production in the Loma La Lata field. After deploying our contingency plan, we managed to control the well and secure the location (see “Item 4. Upstream overview—Exploration & Production Activity in Argentina—Centro Region—Loma La Lata—Sierra Barrosa Block.”) In addition, the Company’s sand mining

operations and hydraulic stimulation may result in silica-related health issues and litigation that could have a material adverse effect on the Company in the future. See “Item 8. Financial Information—Legal Proceedings” and “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Argentine Environmental Regulations.”

Environmental, health and safety regulation and jurisprudence in Argentina is developing at a rapid pace and no assurance can be provided that such developments will not increase our cost of doing business and liabilities, including with respect to drilling and exploitation of our unconventional oil and gas reserves. In addition, due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, new regulatory requirements to reduce greenhouse gas emissions, such as carbon taxes, increased efficiency standards or the adoption of cap and trade regimes. Argentina recently issued new rules which began to phase-in more stringent regulations to lower the amount of sulfur contained in diesel and gasoline fuels that will result in an increase in our investments and relative costs for such production in 2020 and following years, thus potentially affecting our results of operations depending on the future prices of fuels. During 2019, the Argentine Congress passed Law No. 27,520 - Minimal Standards on Global Climate Change Adaptation and Mitigation - focused on “implementing policies, strategies, actions, programs and projects that can prevent, mitigate or minimize the damages or impacts associated with climate change, but explore and take advantage of new opportunities for climate events as well.” Furthermore, if additional requirements were adopted in Argentina, these requirements could make our products more expensive as well as increase our compliance costs, such as for monitoring or reducing emissions, and may also shift hydrocarbon demand toward relatively lower-carbon sources such as renewable energies.

The risks associated with climate change could also make it difficult for us to access capital due to public image issues with investors; changes in the consumer profile, with reduced consumption of fossil fuels; and energy transitions in the world economy towards a lower carbon matrix with the insertion of substitute products for fossil fuels and the increasing use of electricity for urban mobility. These factors may have a negative impact on the demand for our products and services and may jeopardize or even impair the implementation and operation of our businesses, adversely impacting our operating and financial results and limiting our growth opportunities.

Furthermore, water is an essential component of both the drilling and hydraulic fracturing processes. Consequently, the Company regularly disposes of the fluids produced from oil and gas production operations directly or through the use of third-party vendors. Increased regulation or limitations to the use of water for our operations, or increased scrutiny or limitations on the injection of produced water through injection wells (which could also result in increased litigation), could adversely affect our operation and our financial condition.

We may be responsible for significant costs and liabilities depending on the outcome of the reorganization proceedings involving our YPF Holdings subsidiaries and the alter ego claims filed by the Liquidating Trust.

As discussed in Note 31 to the Audited Consolidated Financial Statements, on June 17, 2016, Maxus Energy Corporation, Tierra Solutions Inc., Maxus International Energy Company, Maxus (US) Exploration Company and Gateway Coal Company (collectively, the “Maxus Entities”), subsidiaries of YPF Holdings, Inc., filed for reorganization proceedings in Wilmington, Delaware under Chapter 11 of the U.S. Bankruptcy Code. In conjunction with those proceedings, the Maxus Entities entered into an agreement with YPF along with its subsidiaries YPF Holdings Inc., CLH Holdings Inc., YPF International S.A. and YPF Services USA Corp (collectively, the “YPF Entities”) to settle any and all claims held by Maxus against the YPF Entities, including any alter ego claims, all of which claims the YPF Entities believe are without merit, and to release the YPF entities of any and all claims held by the Maxus Entities (the “Agreement”).

The Agreement provided for a payment of U.S.\$ 130 million to the Maxus Entities (“Settlement Payment”) and for the provision of a U.S.\$63.1 million debtor-in-possession loan (“DIP Loan”) by YPF Holdings Inc.

However, on March 28, 2017 the Maxus Entities and the Creditors’ Committee submitted an alternative restructuring plan (the “Alternative Plan”) which does not include the Agreement with the YPF Entities. Under the Alternative Plan, a Liquidating Trust could submit alter ego claims and any other claim belonging to the insolvent’s estate against the Company and the YPF Entities. The liquidating trust would be financed by Occidental Chemical Corporation in its capacity as creditor of the Maxus Entities. As YPF did not approve such Alternative Plan and the Alternative Plan did not contemplate the implementation of the originally submitted Agreements, on April 10, 2017 YPF Holdings, Inc. sent a note informing that this situation constituted an event of default under the loan granted under the Agreement with YPF and the YPF Entities.

Together with the approval of the financing offered by Occidental under the Alternative Plan, the Judge ordered the repayment of the outstanding amounts (approximately U.S.\$ 12.2 million) under the terms of the DIP Loan, which were subsequently received.

On May 22, 2017, the Bankruptcy Court of the District of Delaware issued an order confirming the Alternative Plan submitted by the Creditors’ Committee and the Maxus Entities. The effective date of the Alternative Plan was July 14, 2017, as the conditions set forth in

Article XII.B of the Alternative Plan were met. On July 14, 2017, the Maxus Energy Corporation Liquidating Trust (the “Liquidating Trust”) was created.

On June 14, 2018, the Liquidating Trust filed a lawsuit against the Company, YPF Holdings, CLH Holdings, Inc., YPF International and other companies not-related to YPF, claiming alleged damages in an amount up to U.S.\$ 14 billion, principally in connection with alleged claims purportedly related to corporate restructuring transactions the Company engaged in several years ago (the “Claim”). The lawsuit was filed before the United States Bankruptcy Court for the District of Delaware.

On October 19, 2018, the Company, together with the other companies of the group that are part of the Claim, filed a motion requesting dismissal of the Claim (“Motion to Dismiss”). On January 22, 2019, the hearing regarding the Motion to Dismiss was held in the Bankruptcy Court.

On February 15, 2019, the Bankruptcy Court ordered the dismissal of the Motions to Dismiss, which the Company, together with the other companies of the group that are part of the Claim, appealed on March 1, 2019.

On September 12, 2019, the District Court denied the appeal to the rejection of the Motion to Dismiss filed on October 19, 2018 by YPF together with the other companies of the group that are part of the Claim.

On March 23, 2020, the Bankruptcy Court of the District of Delaware denied the motion to withdraw the reference previously filed by Repsol and its affiliates that are part of the Claim, as well as the one filed by YPF together with the other companies of the group that are part of the Claim.

On March 30, 2020, each party filed a letter to the Bankruptcy Court explaining outstanding issues related to the discovery process, and on April 10, 2020, the parties filed their answers to the letters filed on March 30, 2020.

For further information regarding the procedural details of this case see Note 31.a.3) of the Audited Consolidated Financial Statements.

Depending on the final outcome of these proceedings, and in particular the alter ego claims, our financial condition and results of operation could be materially and adversely affected. See “Item 8. Financial Information—Legal Proceedings” and “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources—Covenants in our indebtedness”.

We face risks relating to certain legal proceedings.

As described under “Item 8. Financial Information—Legal Proceedings,” we are party to a number of labor, commercial, civil, tax, criminal, environmental and administrative proceedings that, either alone or in combination with other proceedings, could, if resolved in whole or in part adversely to us, result in the imposition of material costs, fines, judgments or other losses. While we believe that we have provisioned such risks appropriately based on the opinions and advice of our external legal advisors and in accordance with applicable accounting rules, certain loss contingencies, particularly those relating to environmental matters, are subject to change as new information develops and it is possible that losses resulting from such risks, if proceedings are decided in whole or in part adversely to us, could significantly exceed any accruals we have provided.

In addition, we may be subject to liabilities related to labor, commercial, civil, tax, criminal or environmental contingencies undisclosed to us when we acquire new businesses, in which case our business, financial condition and results of operation may be materially and adversely affected. See additionally “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources—Covenants in our indebtedness”.

Our business depends to a significant extent on our production and refining facilities and logistics network.

Our oil and natural gas field facilities, refineries and logistics network are our principal production facilities and distribution network on which a significant portion of our revenues depends. Although we insure our properties on terms we consider prudent and have adopted and maintain safety measures, any significant damage, accident or other production stoppage at our facilities or network could materially and adversely affect our production capabilities, financial condition and results of operations.

For instance, on April 2, 2013, our facilities in the La Plata refinery were hit by a severe and unprecedented storm, recording over 400 mm of rainfall. The rainfall set a new record for the area and disrupted refinery systems, causing a fire that affected the Coke A and Topping C units in the refinery. This incident temporarily affected the crude processing capacity of the refinery, which had to be stopped entirely during certain days.

In addition, on March 21, 2014, a fire occurred at the Cerro Divisadero crude oil treatment plant, located 20 kilometers from the town of Bardas Blancas in the province of Mendoza. The Cerro Divisadero plant, which has six tanks, four of which are for processing and two are for dispatch of treated crude oil, concentrates the production of ten fields in the Malargüe area. This constitutes a daily production of approximately 9,200 barrels of oil as of the date of the incident. The new oil treatment plant was put into production in December 2016.

We could be subject to organized labor action.

Our operations have been affected by organized work disruptions and stoppages in the past and we cannot assure you that we will not experience them in the future, which could adversely affect our business and revenues, especially in the context of activity reduction. Labor demands are commonplace in Argentina's energy sector and unionized workers have blocked access to and damaged our plants in the recent past. Our operations were affected occasionally by labor strikes in recent years. See “—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products,” “—An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations” and “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.”

Our performance is largely dependent on recruiting and retaining key personnel

Our current and future performance, the successful implementation of our strategy and the operation of our business are dependent upon the contributions of our senior management and our highly skilled team of engineers and other employees. Our ability to continue to rely on these key individuals is dependent on our success attracting, training, motivating and retaining key management and commercial and technical personnel with the necessary skills and experience. There is no assurance that we will be successful in retaining and attracting key personnel and the replacement of any key personnel who were to leave could be difficult and time consuming.

The Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. Consequently, the Argentine government has the majority of votes which allows it to appoint the majority of members of our board of directors at the General Shareholder's meeting. See “—Risks Relating to Argentina—The Argentine Republic owns 51% of the shares of the Company” and “—Risks Relating to Argentina—Our business is largely dependent upon economic conditions in Argentina.” The loss of the experience and services of key personnel or the inability to recruit suitable replacements or additional staff could have a material adverse effect on our business, financial condition and our results of operations.

We could be subject to information technology system failures, network disruptions, and breaches in data security which could negatively affect our business, financial position, results of operations, and cash flows.

As dependence on digital technologies is expanding, cyber incidents, including deliberate attacks or unintentional events have been increasing worldwide. Computers and telecommunication systems are used to conduct our exploration, development and production activities and have become an integral part of our business. We use these systems to analyze and store financial and operating data, as well as to support our internal communications and interactions with business partners. Cyber-attacks could compromise our computer and telecommunications systems and result in additional costs as well as disruptions to our business operations or the loss of our data. In addition, computers control oil and gas production, processing equipment, and distribution systems and are necessary to deliver our production to market.

Although we are continuously expanding our security policy to the industrial systems and the cloud environment, reinforcing the defenses in case of denial of service and increasing the monitoring of suspicious activities, our technologies, systems, networks, and those of our business partners have been and may continue to be the target of cyber-attacks or information security breaches, which could lead to disruptions in critical systems (for example, SCADAs, DCS Systems), unauthorized release of confidential or protected information, corruption of data or other disruptions of our business operations. In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period.

As cybersecurity threats continue to evolve in the oil and gas industry, we may be required to expend additional resources to continue to modify or enhance our protective measures, as well as to investigate or remediate any cybersecurity or information technology infrastructure vulnerabilities as needed.

The Company's reputation is an important corporate asset. An operating incident, significant cybersecurity disruption or other similar adverse event, may have a negative impact on our reputation, which in turn could make it more difficult for us to successfully compete for new opportunities or could reduce consumer demand for the Company's branded products.

During 2019, we have been the target of many attempted attacks and were exposed to malware infections like other companies in the industry, which did not result in a significant loss or a negative impact in our operations. There can be no assurance that the Company will not incur such losses in the future. The Company's risk and exposure to these matters cannot be fully calculated nor mitigated because of, among other things, the evolving nature of these threats.

A cyber-attack involving our information systems and related infrastructure, or those of our business partners, could disrupt our business and negatively impact our operations in a variety of ways, including but not limited to:

- unauthorized access to seismic data, reserves information, strategic information, or other sensitive or proprietary information could have a negative impact on our ability to compete for oil and gas resources;
- data corruption or operational disruption of production-related infrastructure could result in a loss of production, or accidental discharge;
- disruption of our operations, communications, or processing of transactions or the loss of, or damage to, sensitive information, facilities, infrastructure and systems which are essential to our business and operations which could have a material adverse effect on our business, financial position, results of operations, and cash flows;
- a cyber-attack on a service provider could result in supply chain disruptions, which could delay or halt our major development projects;
- a cyber-attack on our accounting or accounts payable systems could expose us to liability to employees and third parties if their sensitive personal information is obtained.

In addition, as the COVID-19 outbreak progresses and alters the functioning of our socioeconomic systems and digital vulnerabilities, the efforts of our company to protect sensitive information, employees and serve customers during the COVID-19 pandemic have also increased our exposure to cyberthreats, mainly due to large-scale adoption of work-from-home technologies, heightened activity on customer-facing networks and greater use of online services. Furthermore, working from home has opened multiple vectors for cyberattack. Weak enforcement of risk-mitigating behaviors (the “human firewall”) and different stressors may compel employees to bypass controls for the sake of getting things done. See “— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.”

Our derivative risk management activities could result in financial losses.

We may enter into derivative financial instruments such as foreign exchange hedge, commodity hedge (oil and grains) among others, to mitigate market risk. Although we only would execute non speculative trades, we might be exposed to adverse fluctuations in the price of the assets underlying the derivative contracts or our counterparties might fail in their obligations, which could result in financial losses and affect the results of our operations. For detailed information regarding our outstanding derivatives as of December 31, 2019, see Note 2.b.17 to the Audited Consolidated Financial Statements.

Our actual production could differ materially from our forecasts.

From time to time, we provide forecasts of expected quantities of future oil and gas production and other financial and operating results. These forecasts are based on a number of estimates and assumptions, including that none of the risks associated with our oil and gas operations summarized in this section “Item 3. Key Information—Risk Factors” occur. Production forecasts, specifically, are based on assumptions such as expectations of production from existing wells, the level and outcome of future drilling activity, the level of gas demand, and the absence of facility or equipment malfunctions, adverse weather effects, or downturns in commodity prices or significant increases in costs, which could make certain drilling activities or production uneconomical. Should any of these estimates prove inaccurate, or should our development plans change, actual production could be materially and adversely affected.

We have limited control over the day to day activities carried out on properties which we do not operate.

Some of the properties in which we have an interest are operated by other companies and involve third-party working interest owners. As a result, we have limited ability to influence or control the day to day operations of these companies and third-parties, including their compliance with environmental, safety and other regulations, which, in turn, could have a material adverse effect on our business, financial position, results of operations, cash flows and/or our reputation.

We could be affected by violations to anticorruption, anti-bribery, anti-money laundering and other national and international regulations.

We are subject to anticorruption, anti-bribery, anti-money laundering and other national and international regulations. We are required to comply with the regulations of Argentina and various jurisdictions where we conduct operations. Among other regulations, a law on

corporate criminal liability is applicable in Argentina (see Item 9. The Offer and Listing - Law No. 27,401 on Corporate Criminal Liability). Although we have developed a comprehensive Compliance Program and we have internal policies and procedures designed to ensure compliance with applicable anti-fraud, anti-bribery and anti-corruption laws and sanctions regulations, potential violations of anti-corruption laws could be identified on occasion as part of our compliance and internal control processes. In case such issues arise, we plan to attempt to act promptly to learn relevant facts, conduct appropriate due diligence, and take any appropriate remedial action to address the risk. Given the size of our operations and the complexity of the production chain, there can be no assurance that our internal policies and procedures will be sufficient to prevent or detect all inappropriate practices, fraud or violations of law by our employees, directors, officers, partners, agents and service providers or that such persons will not take actions in violation of our policies and procedures (or otherwise in violation of the relevant anti-corruption laws and sanctions regulations) for which we or they may be ultimately held responsible. Violations of anti-bribery and anti-corruption laws and sanctions regulations could have a material adverse effect on our business, reputation, results of operations and financial condition. In addition, we may be subject to one or more enforcement actions, investigations and proceedings by authorities for alleged infringements of these laws. These proceedings may result in penalties, fines, sanctions or other forms of liability and could have a material adverse effect on our reputation, business, financial condition and results of operations.

If we fail to comply with the covenants set forth in our credit agreements and indentures or upon the occurrence of a change of control, we may be required to repay our debt.

Under the terms of our credit agreements and indentures, if we fail to comply with the covenants set forth thereunder or if we fail to cure any breach thereof during a specified period of time, we will be in default of our obligations, which in turn would limit our capacity of borrowing. To the extent we default on any of our obligations or upon the occurrence of other events of default, we would expect to actively pursue formal waivers from the corresponding counterparties to these agreements, in order to avoid the acceleration of any amounts owed thereunder. However, if the corresponding waivers are not timely obtained, in accordance with the terms of our credit and indentures certain creditors may declare the principal and accrued interest on amounts owed to them as due and immediately payable, resulting in acceleration of other outstanding debt due to cross default provisions, which in turn could have a material adverse effect on our business, financial condition and results of operations. See additionally Note 4 - Liquidity risk management - of our Consolidated Financial Statements and “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources—Covenants in our indebtedness.”

In addition, upon the occurrence of a change of control, we may be required to make an offer to purchase certain outstanding notes at a price of 101% of their principal amount plus accrued and unpaid interest, and our other debt may be subject to mandatory prepayment. Our source of funds for any such mandatory prepayment will be available cash or other sources, including borrowings, sales of assets or sales of equity. The sources of cash may not be adequate to permit us to immediately prepay our indebtedness upon a change of control, which in turn may result in an event of default under certain agreements governing our indebtedness.

Uncertainty and illiquidity in credit and capital markets can impair our ability to obtain credit and financing or obtain them on acceptable terms.

Our ability to obtain credit and funds depends in large measure on capital markets and liquidity factors that we do not control, including those related to the cost of financing. Our ability to access credit and capital markets at acceptable terms may be restricted at a time when we would like, or need, to access those markets, which could have an impact on our operations and/or financial condition.

As a result of many factors including international and local market conditions, Argentina’s ability to renegotiate or repay its debts and its consequences on the rest of the economy and us, exchange and capital controls, credit ratings agencies’ actions, among others, there can be no assurance we will be able to refinance our existing indebtedness in accordance with our plans or repay it at maturity. See “—Risks Relating to Argentina— The evolution of the Argentine economy is largely dependent on a successful restructuring of the public debt, including that held by the IMF.—If we fail to comply with the covenants set forth in our credit agreements and indentures or upon the occurrence of a change of control, we may be required to repay our debt,” “—Risks Relating to Argentina—We could be subject to exchange and capital controls” and “—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.”

Risks Relating to Our Class D Shares and ADSs

The market price for our shares and ADSs may be subject to significant volatility

The market price of our ordinary shares and ADSs may fluctuate significantly due to a number of factors, including, among others, our actual or anticipated results of operations and financial condition; speculation over the impact of the Argentine government as our

controlling shareholder on our business and operations, the behavior of international markets, variations in international crude oil prices, pandemic diseases, such as COVID-19, investor perceptions of investments relating to Argentina and political and regulatory developments affecting our industry or the Company. In addition, see “—Risks Relating to Argentina—Our business is largely dependent upon economic conditions in Argentina.” Factors such as the mentioned above, have led to considerable volatility in the market price of our shares and ADSs. For example, the price of our ADSs has varied from U.S.\$54.58 on January 5, 2011 to U.S.\$ 9.57 on November 16, 2012. The price hit a high closing price of U.S.\$ 36.99 on July 1, 2014, but subsequently fell to U.S.\$ 12.83 on January 20, 2016. During 2017 the price of our ADSs reached a maximum of U.S.\$ 26.16 but, mainly due to the Argentine economic conditions, decreased to a minimum value of U.S.\$ 12.31 on December 24, 2018. During 2019 the price of our ADSs reached a maximum of U.S.\$ 18.50 but, as of April 20, 2020, our ADSs had a price of U.S.\$ 3.77, much influenced by the current situation of the international markets and the pandemic disease, COVID-19 (see “—Risks Relating to our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products”, “—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.”) and “Item 9. The Offer and Listing. We cannot assure you that concerns about factors that could affect the market price of our ordinary shares as previously mentioned may have a material adverse effect on the trading values of our securities.

Additionally, if the bid price of our ordinary shares and ADSs were to close below the required minimum 30-day average of U.S.\$1.00 per share, we may receive a deficiency notice from the NYSE regarding our failure to comply with this requirement. To the extent that we are unable to timely resolve such listing deficiency, there is a risk that our ordinary shares and ADSs may be delisted from the NYSE, which would adversely impact liquidity of our ordinary shares and ADSs and potentially result in even lower bid prices for them. In addition, if the NYSE approves the delisting of our ordinary shares and ADSs, BYMA may approve the delisting of our shares listed in such stock market.

Certain strategic transactions require the approval of the holder of our Class A shares or may entail a cash tender offer for all of our outstanding capital stock.

Under our by-laws, the approval of the Argentine government, the sole holder of our Class A shares, is required to undertake certain strategic transactions, including (i) a merger; (ii) acquisition of shares by a third party representing more than 50% of the company’s capital; (iii) the transfer to third parties of all the exploitation rights granted to YPF pursuant to the Hydrocarbons Law, applicable regulations thereunder or the Privatization Law, if such transfer would result in the total suspension of the Company’s exploration and production activities; (iv) the voluntary dissolution of the Company, and (v) the transfer of the legal or fiscal domicile of the Company to a country other than Argentina. This approval would also be necessary in connection with an acquisition that would result in the purchaser holding 15% or more of our capital stock, or 20% or more of the outstanding Class D shares.

According to our by-laws, the transactions described in (iii) and (iv) above also require the prior approval of the Argentine Congress through the enactment of a law.

In addition, our by-laws also provide that in order to carry out an acquisition that results in the purchaser holding 15% or more of our capital stock or 20% or more of the outstanding Class D shares, such purchaser would be required to make a public tender offer for all of our outstanding shares and convertible securities, which could discourage certain investors from acquiring significant stakes in our capital stock. Such public tender offer shall not be needed for the subsequent acquisitions of an Offeror (as such term is defined in Item 10. Additional Information—Certain Provisions Relating to Acquisition of Shares), who already owns, or controls shares that represent 15% or more of the outstanding capital stock or 20% or more of the outstanding Class D shares, as long as such Offeror does not own or control, previously or as a consequence of these acquisitions, shares that represent more than 50% of the capital stock. For any subsequent acquisition made by an Offeror already owning or controlling more than 50% of the capital stock of the Company prior to such acquisition it is neither required to obtain the approval of the Class A shares, nor to make a public tender offer. See “Item 10. Additional Information— Certain Provisions Relating to Acquisitions of Shares.”

Restrictions on the movement of capital out of Argentina may impair your ability to receive dividends and distributions on, and the proceeds of any sale of, the Class D shares underlying the ADSs.

The government is empowered, for reasons of public emergency, as defined in Article 1 of Law No. 25,561, to establish the system that will determine the exchange rate between the peso and foreign currency and to impose exchange regulations. The transfer of funds abroad in order to pay dividends to non-resident shareholders currently does not require Argentine Central Bank approval, provided that certain conditions are met in accordance with regulation issued by the Argentine Central Bank. Otherwise, such approval shall be required. Further restrictions on the movement of capital to and from Argentina may be imposed and impair or prevent the conversion of dividends, distributions, or the proceeds from any sale of Class D shares, as the case may be, from pesos into U.S. dollars and the remittance of the U.S. dollars abroad.

Under the terms of our deposit agreement with the depository for the ADSs, the depository will convert any cash dividend or other cash distribution we pay in pesos on the shares underlying the ADSs into U.S. dollars, if it can do so on a reasonable basis and can transfer the U.S. dollars to the United States, pursuant to the aforementioned regulations. If this conversion is not possible for any reason, including regulations of the type described in the preceding paragraph, the deposit agreement allows the depository to distribute the foreign currency only to those ADR holders to whom it is possible to do so. If the exchange rate fluctuates significantly during a time when the depository cannot convert the foreign currency, you may lose some or all of the value of the dividend distribution.

We may not be able to pay, maintain or increase dividends.

On April 28, 2017, our shareholders approved a dividend of Ps. 716 million (Ps.1.82 per share or ADS), which was paid during December 2017. On April 27, 2018, our shareholders approved a dividend of Ps. 1,200 million (Ps.3.05 per share or ADS), which was authorized and paid during December 2018. On April 26, 2019, an allocation of Ps. 4,800 million to a reserve for future dividends was authorized empowering the Board of Directors, up to the date of the next General Ordinary Shareholders Meeting that will consider the Financial Statements closed as of December 31, 2019. Dividends of Ps. 5.8478 per share or ADS was authorized and paid in July 11th, 2019. On March 5, 2020, our Board of Directors proposed the creation of a reserve for dividend of Ps. 3,700 million. Our next shareholder's meeting, to be held on April 30, 2020, will consider this proposal. Notwithstanding the foregoing, our ability to pay, maintain or increase dividends is based on many factors, including our net income, capital expenditures required under our investment plans, future debt service payments, working capital needs, legal or contractual restrictions, and general economic and financial conditions. A change in any of these factors could affect our ability to pay, maintain or increase dividends, and the exact amount of any dividend paid may vary from year to year. In addition, the current COVID-19 outbreak and oil price environment are likely to result in a loss that would prevent the payment of dividends in 2020. See “—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations” and “—Risks Relating to our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.”

We are traded on more than one market and this may result in price variations; in addition, investors may not be able to easily move shares for trading between such markets.

Trading in the ADSs or Class D Shares underlying ADSs in the United States and Argentina, respectively, will use different currencies (U.S. dollars on the New York Stock Exchange (“NYSE”) and pesos on the Mercado de Valores de Buenos Aires (“S&P Merval”), and take place at different times (resulting from different trading platforms, different time zones, different trading days and different public holidays in the United States and Argentina). The trading prices of the Class D Shares underlying ADSs on these two markets may differ due to these and other factors. Any decrease in the price of the Class D Shares underlying ADSs on the S&P Merval could cause a decrease in the trading price of the ADSs on the NYSE. Investors could seek to sell or buy the Class D Shares underlying ADSs to take advantage of any price differences between the markets through a practice referred to as “arbitrage.” Any arbitrage activity could create unexpected volatility in both our share prices on one exchange, and the ADSs available for trading on the other exchange. In addition, holders of ADSs will not be immediately able to surrender their ADSs and withdraw the underlying Class D Shares for trading on the other market without effecting necessary procedures with the depository. This could result in time delays and additional cost for holders of ADSs.

Under Argentine law, shareholder rights may be different from other jurisdictions.

Our corporate affairs are governed by our by-laws and by Argentine corporate law, which differ from the legal principles that would apply if we were incorporated in a jurisdiction in the United States or in other jurisdictions outside Argentina. In addition, rules governing the Argentine securities markets are different and may be subject to different enforcement in Argentina than in other jurisdictions.

Actual or anticipated sales of a substantial number of Class D shares could decrease the market prices of our Class D shares and the ADSs.

Sales of a substantial number of Class D shares or ADSs by any present or future relevant shareholder could decrease the trading price of our Class D shares and the ADSs.

You may be unable to exercise preemptive, accretion or other rights with respect to the Class D shares underlying your ADSs.

Holders of ADSs may not be able to exercise the preemptive or accretion rights relating to the shares underlying the ADSs (see “Item 10. Additional Information—Preemptive and Accretion Rights”) unless a registration statement under the U.S. Securities Act of 1933 (the “Securities Act”) is effective with respect to those rights or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement with respect to the shares relating to these preemptive rights, and we cannot assure you that we will file any such registration statement. Unless we file a registration statement or an exemption from registration is

available, holders may receive only the net proceeds from the sale of their preemptive rights by the depositary or, if the preemptive rights cannot be sold, they will be allowed to lapse. As a result, U.S. holders of Class D shares or ADSs may suffer dilution of their interest in our company upon future capital increases.

In addition, under the Argentine General Corporations Law, foreign companies that own shares in an Argentine corporation are required to register with the National Corporations Registry (under the purview of the Ministry of Justice and Human Rights) in order to exercise certain shareholder rights, including voting rights. If you own our Class D shares directly (rather than in the form of ADSs) and you are a non-Argentine company and you fail to register with the respective National Corporations Registry, your ability to exercise your rights as a holder of our Class D shares may be limited. Currently, pursuant to Capital Markets Law No. 26,831 and to General Resolution No. 789 of the CNV, issued on March 29, 2019, both applicable to the Company, foreign companies that are shareholders of YPF may participate and vote in the shareholders' meetings through duly authorized attorneys in fact.

You may be unable to exercise voting rights with respect to the Class D shares underlying your ADSs at our shareholders' meetings.

The depositary will be treated by us for all purposes as a shareholder with respect to the shares underlying ADSs. A holder of ADRs representing the ADSs being held by the depositary will not have direct shareholder rights and may exercise voting rights with respect to the Class D shares represented by the ADSs only in accordance with the deposit agreement relating to the ADSs. There are no provisions under Argentine law or under our by-laws that limit the exercise by ADS holders of their voting rights through the depositary with respect to the underlying Class D shares. However, there are practical limitations on the ability of ADS holders to exercise their voting rights due to the additional procedural steps involved in communicating with these holders. For example, holders of our shares will receive notice of shareholders' meetings through publication of a notice in an official gazette in Argentina, in an Argentine newspaper of general circulation, and in the bulletin of the Buenos Aires Stock Exchange, and will be able to exercise their voting rights by either attending the meeting in person or voting by proxy. ADS holders, by comparison, will not receive notice directly from us. Instead, in accordance with the deposit agreement, we will provide the notice to the depositary. If we ask it to do so, the depositary will mail to holders of ADSs the notice of the meeting and a statement as to the manner in which instructions may be given by holders. To exercise their voting rights, ADS holders must then instruct the depositary on how to vote with regards to the Class D shares represented by their ADSs. Due to these procedural steps involving the depositary, the process for exercising voting rights may take longer for ADS holders than for holders of Class D shares. If no such instructions are received, the depositary shall vote the Class D shares represented by ADSs in accordance with the recommendations of the Board of Directors made to all holders of shares.

Shareholders outside of Argentina may face additional investment risk from currency exchange rate fluctuations in connection with their holding of our Class D shares or the ADSs.

We are an Argentine company and any future payments of dividends on our Class D shares will be denominated in pesos. The peso has historically and recently fluctuated significantly against many major world currencies, including the U.S. dollar. A devaluation of the peso would likely adversely affect the U.S. dollar or other currency equivalent of any dividends paid on our Class D shares and could result in a decline in the value of our Class D shares and the ADSs as measured in U.S. dollars. See “—Risks Relating to Argentina—We may be exposed to fluctuations in foreign exchange rates.”

ITEM 4. Information on the Company

History and Development of YPF

Overview

YPF is a corporation (*sociedad anónima*), incorporated under the laws of Argentina for a limited term. Our address is Macacha Güemes 515, C1106BKK Ciudad Autónoma de Buenos Aires, Argentina and our telephone number is (011-54-11) 5441-2000. Our legal name is YPF Sociedad Anónima and we conduct our business under the commercial name “YPF.”

The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. All of the SEC filings made electronically by YPF are available to the public on the SEC website at www.sec.gov (commission file number 1-12102). The YPF's website address is www.ypf.com. The information contained on, or that can be accessed through, the Company's website is not part of, and is not incorporated into, this annual report.

We are Argentina's leading energy company, operating a fully integrated oil and gas chain with leading market positions across the domestic upstream, downstream and gas and power segments. Our upstream operations consist of the exploration, development and production of crude oil, natural gas and LPG. Our downstream operations include the refining, marketing, transportation and distribution of oil and a wide range of petroleum products, petroleum derivatives, petrochemicals, LPG and bio-fuels. Additionally, we are active in

the gas separation and natural gas distribution sectors both directly and through our investments in several affiliated companies and in power generation through YPF Energía Eléctrica S.A. (“YPF EE”), a company that we jointly control with GE EFS Power Investments B.V. (“GE”), a subsidiary of EFS Global Energy B.V. (both corporations indirectly controlled by GE Energy Financial Services, Inc.) (see “—Gas and Power—YPF in Power Generation.”). In 2019, we had consolidated revenues of Ps. 678,595 million and a consolidated net loss of Ps. 33,379 million.

Beginning in the 1920s and until 1990, both the upstream and downstream segments of the Argentine oil and gas industry were effectively monopolies of the Argentine government. During this period, we and our predecessors were owned by the state, which controlled the exploration and production of oil and natural gas, as well as the refining of crude oil and marketing of refined petroleum products. In August 1989, Argentina enacted laws aimed at the deregulation of the economy and the privatization of Argentina’s state-owned companies, including us. Following the enactment of these laws, a series of presidential decrees were promulgated, which required, among other things, us to sell majority interests in our production rights to certain major producing areas and to undertake an internal management and operational restructuring program.

In November 1992, the Argentine government enacted the Privatization Law (Law No. 24,145), which established the procedures for our privatization. In accordance with the Privatization Law, in July 1993, we completed a worldwide offering of 160 million Class D shares that had previously been owned by the Argentine government. As a result of that offering and other transactions, the Argentine government’s ownership interest in our capital stock was reduced from 100% to approximately 20% by the end of 1993.

In January 1999, Repsol YPF acquired 52,914,700 Class A shares (14.99% of our shares) which were converted to Class D shares. Additionally, on April 30, 1999, Repsol YPF announced a tender offer to purchase all outstanding Class A, B, C and D shares (the “Offer”). Pursuant to the Offer, in June 1999, Repsol YPF acquired an additional 82.47% of our outstanding capital stock. Repsol YPF acquired additional stakes in us from minority shareholders and other transactions in 1999 and 2000.

Repsol YPF owned approximately 99% of our capital stock from 2000 until 2008, when Petersen Energía (“PEISA”) acquired 15% of our capital stock, from Repsol YPF. On May 3, 2011, PEISA exercised an option to acquire, from Repsol YPF, shares or ADSs representing 10.0% of our capital stock and on May 4, 2011, Repsol YPF acknowledged and accepted such exercise. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law” and “Item 7. Major Shareholders and Related Party Transactions,” for a detail of our current major shareholders.

On May 3, 2012, the Argentine Congress passed the Expropriation Law. Among other matters, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol YPF and its controlled or controlling entities. The shares subject to expropriation, which have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—The Argentine Republic owns 51% of the shares of the Company.” As of the date of this annual report, the transfer of the shares subject expropriation between the Argentine Executive Branch and the provinces that compose the National Organization of Hydrocarbon Producing States was still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, considering their respective levels of hydrocarbon production and proved reserves. To ensure compliance with its objectives, the Expropriation Law provides that the Argentine Executive Branch, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder’s agreement with the federal government that will provide for the unified exercise of its rights as a shareholder. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law,” “Item 7. Major Shareholders and Related Party Transactions.” See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—We face risks relating to certain legal proceedings.”

In addition, on February 25, 2014, the Republic of Argentina and Repsol reached an agreement (the “Repsol Agreement”) in relation to compensation for the expropriation of 200,589,525 of YPF’s Class D shares pursuant to the Expropriation Law under the Repsol Agreement. Repsol accepted U.S.\$5.0 billion in sovereign bonds from the Republic of Argentina and withdrew judicial and arbitral claims it had filed, including claims against YPF, and waived additional claims. YPF and Repsol also executed a separate agreement (the “Repsol Arrangement”) on February 27, 2014, pursuant to which YPF and Repsol each withdrew, subject to certain exclusions, all present and future actions and/or claims based on causes occurring prior to the date of execution of Repsol Arrangement arising from the expropriation of the YPF shares owned by Repsol pursuant to the Expropriation Law, including the intervention and temporary possession for public purposes of YPF’s shares. YPF and Repsol agreed to withdraw reciprocal actions and claims with respect to third parties and/or pursued by them and to grant a series of mutual indemnities, which at the time were subject to certain conditions precedent. The Repsol Arrangement entered into force the day after Repsol notified YPF that the Repsol Agreement had entered into force. The Repsol Agreement was ratified on March 28, 2014 at a Repsol general shareholders’ meeting and approved by the Argentine Congress by Law No. 26,932 enacted by Decree No. 600/2014. On May 8, 2014, YPF was notified of the entry into force of the Repsol Agreement. As of

that date, the expropriation pursuant to the Expropriation Law was concluded, and as a result the Republic of Argentina is definitively the owner of 51% of the capital stock of each of YPF and YPF GAS S.A.

We are strongly committed to the country's energy development and seek to lead the transformation of the industry within the context of industry change at an international level.

In order to achieve our vision of being a company that generates sustainable, profitable and accessible energy for our customers, YPF's strategy is based on the following pillars:

- Extract the maximum value from conventional fields
- Develop and achieve efficient costs in shale operations
- Partner with leading companies worldwide
- Expand our power generation capacity in order to become a major player in the sector
- Maintain a financial management discipline of the corporate portfolio
- Create a new supply chain organization in order to modernize the procurement processes, contracts and associated logistics
- Incorporate technology and innovation in all business segments to improve productivity and service to our customers
- Implement a transformation program that modernizes the company, enhances efficiency and seeks growth initiatives that support our vision
- Reduce the company's specific CO₂ emissions in the upcoming years as part of our commitment to sustainability

The investment plan related to our growth needs to be accompanied by an appropriate financial plan, whereby we intend to reinvest earnings, search for strategic partners and raise debt financing at levels we consider prudent for companies in our industry. Consequently, the financial viability of these investments and hydrocarbon recovery efforts will generally depend, among other factors, on the prevailing economic and regulatory conditions in Argentina, the ability to obtain financing in satisfactory amounts at competitive costs, as well as the market prices of hydrocarbon products. See "Item 3. Key Information—Risk Factors—Risks Relating to Argentina" and "Item 5. Factors Affecting Our Operations" for additional information regarding 2019 activity.

Notwithstanding the foregoing, the current outbreak of COVID-19 and the situation of the price of oil, among others, will be key issues to determine the duration and depth of the economic crisis in the Argentina and in the worldwide and the impact on our strategy, financial situation and results of our operations. See "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—Hydrocarbon Market", "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—COVID-19 outbreak" and "Item 3. Risk Factors—Risks Relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products."

Upstream Operations

- As of December 31, 2019, we held interests in 127 oil and gas fields in Argentina. According to the Ministry of Energy and Mining, in 2019 these assets accounted for approximately 44.5% of the country's total production of crude oil, excluding LNG, and approximately 33.9% of its total natural gas production, including LNG.
- We had proved reserves, as estimated as of December 31, 2019, of approximately 673 mmbbl of oil, including condensates and LNG, and approximately 2,241 bcf of gas, representing aggregate reserves of approximately 1,073 mmmboe as of such date, compared to approximately 638 mmbbl of oil, including condensates and LNG, and approximately 2,481 bcf of gas, representing aggregate reserves of approximately 1,080 mmmboe as of December 31, 2018.
- During 2019, we produced approximately 83 mmbbl of oil (approximately 226 mbbbl/d), condensates of approximately 14 mmbbl of LNG (approximately 38 mbbbl/d), and approximately 512 bcf of gas (approximately 1,403 mmcf/d), representing a total production of approximately 188 mmmboe (approximately 514 mboe/d), compared to approximately 83 mmbbl of oil (approximately 227 mbbbl/d), condensates of approximately 14 mmbbl of LNG (approximately 39 mbbbl/d), and approximately 542 bcf of gas (approximately 1,484 mmcf/d), representing a total production of approximately 193 mmmboe (approximately 530 mboe/d) in 2018.

Downstream Operations

- We are Argentina's leading refiner with operations conducted at three wholly-owned refineries with combined annual refining capacity of approximately 116 mmbbl (319.5 mbbbl/d). See "—Downstream—Refining division." We also own a 50% equity interest in Refinería del Norte, S.A. ("Refinor"), an entity jointly controlled with and operated by Pampa Energía S.A., which has a refining capacity of 26.1 mbbbl/d.

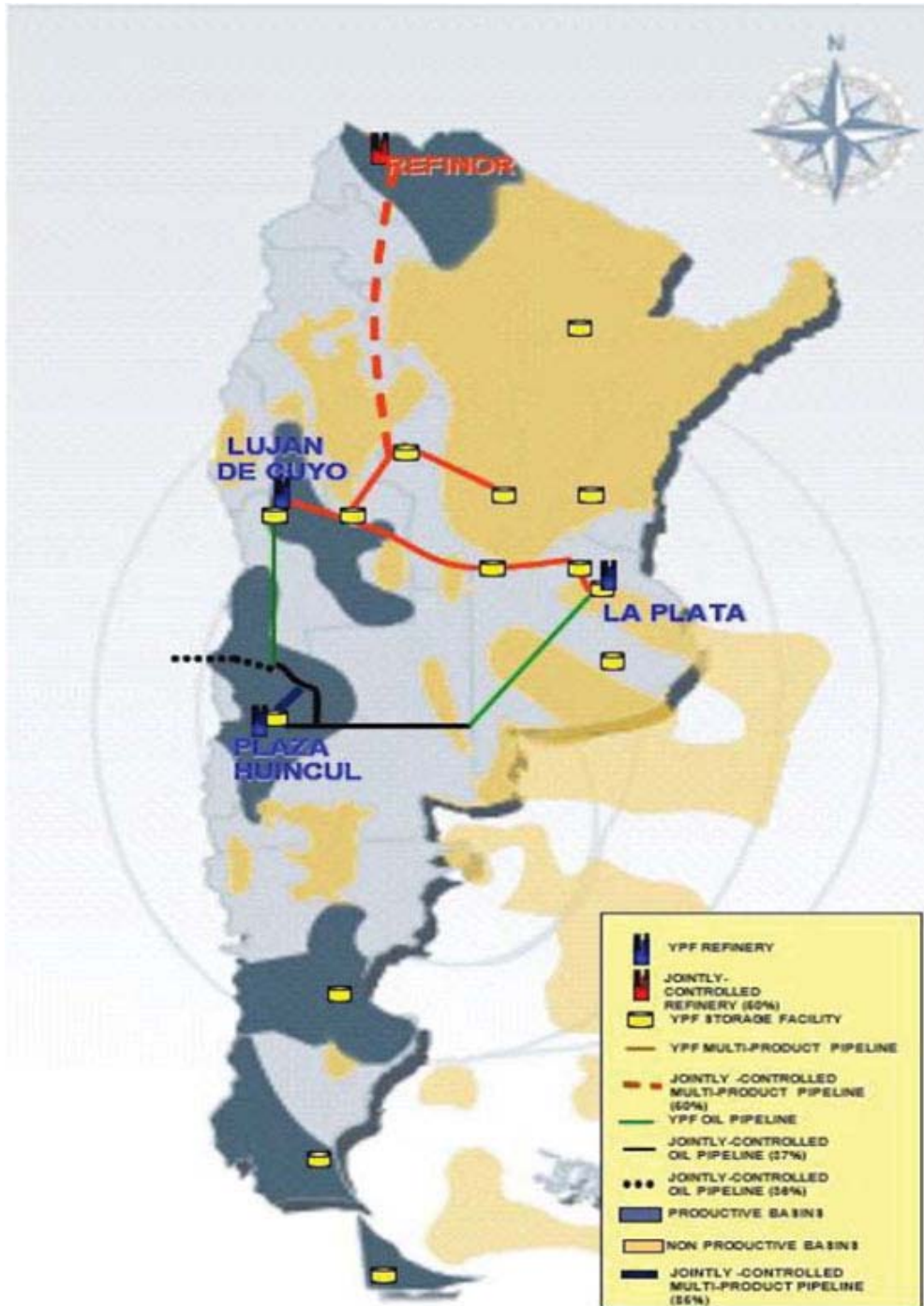
- Our retail distribution network for automotive petroleum products as of December 31, 2019 consisted of 1,620 YPF-branded service stations, of which we own 112 directly and through our 100%-owned subsidiary Operadora de Estaciones de Servicios S.A. (“OPESSA”), and we estimate that as of December 31, 2019, we held approximately 34.9% of all gasoline service stations in Argentina.
- We are one of the leading petrochemical producers in Argentina and in the Southern Cone of Latin America, with operations conducted through our Ensenada industrial complex (“CIE”) and Plaza Huincul site. In addition, Profertil S.A. (“Profertil”), a company that we jointly control with Agrium Holdco Spain S.L. (“Agrium”), is one of the leading producers of urea in the Southern Cone.

Gas and Power Operations

- We are the largest producer of natural gas in Argentina with total natural gas sales of 13,328 mmcm in 2019, accounting for 27.76% of the market (market share calculated through December 2019, as provided by ENARGAS).
- We participate directly and through YPF EE (a company that we jointly control with GE) in sixteen power generation plants, with an aggregate installed capacity of 2,614 MW. During 2019, YPF acquired a power generation plant denominated Ensenada Barragán, with an installed capacity of 560 MW and which is co-controlled with Pampa Energía S.A. YPF EE and Pampa Energía S.A. will each act as operators for four-year terms, with Pampa Energía S. A. acting as operator during the initial term.
- We are the operator of UTE Escobar (a joint venture formed by YPF and IEASA), which operates a LNG Regasification Terminal (“LNG Escobar”). Additionally, we operate Tango FLNG, a natural gas liquefaction floating facility, that began its operations on September 2019, in Bahía Blanca. See “—Gas and Power—Argentine natural gas supplies.”
- We also distribute natural gas through our subsidiary Metrogas, a natural gas distribution company in the capital region and southern suburbs of Buenos Aires, and one of the main distributors in Argentina. During 2019, Metrogas distributed approximately 7,599.6 mmcm (or 267.96 bcf) of natural gas to 2.19 million customers. See “—Gas and Power—Natural Gas Distribution.”

For a chart illustrating our organizational structure, including our principal subsidiaries, please see Note 1 to the Audited Consolidated Financial Statements.

The map below illustrates the location of our productive basins, refineries, storage facilities and crude oil and multi-product pipeline networks as of December 31, 2019.



For a description of our principal capital expenditures and divestitures, see “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources—Capital investments, expenditures and divestitures.”

The Argentine Market

Argentina is the first largest producer of natural gas and the fifth largest producer of crude oil and condensate in Central and South America, based on 2018 production, according to the 2019 edition of the BP Statistical Review of World Energy, published in June 2019.

In response to the economic crisis of 2001 and 2002, the Argentine government, pursuant to the Public Emergency Law, established export taxes on certain hydrocarbon products. In subsequent years, in order to satisfy growing domestic demand and abate inflationary pressures, this policy was supplemented by constraints on domestic prices, temporary export restrictions and subsidies on imports of

natural gas and diesel. As a result, until 2008, local prices for oil and natural gas products had remained significantly below those prevalent in neighboring countries and international commodity exchanges.

In 2012, Argentina's GDP experienced a slowdown, with GDP increasing 1.9% on an annual basis compared to the preceding year according to the methodology of calculation prevailing until March 2014. On March 27, 2014, the Argentine government announced a new method of calculating GDP using 2004 as the base reference year (as opposed to 1993, which was the base reference year under the prior method of calculating GDP). However, on January 7, 2016 through Decree No. 55/2016, the new leadership of INDEC issued a report declaring a "national statistical emergency." INDEC stated that since 2006 its administration has been irregular and due to that they revised the published data from 2005 to 2015. As a result of this revision, the GDP growth rate for 2013 and 2014 was revised from 2.9% to 2.4% and from 0.5% to a decline rate of 2.5%, respectively. As of the date of this annual report, Argentina's provisional GDP growth rate for 2017, the preliminary GDP growth rate for 2018 and the preliminary GDP growth rate for 2019 published by INDEC were positive 2.7%, negative 2.5% and negative 2.2%, respectively.

Driven by economic expansion and stable domestic prices, energy demand has increased significantly during last years, outpacing energy supply (which, in the case of oil, declined). As a result of a high number of power outages caused by the consumption increase, the Ministry of Energy requested that the Argentine Executive Branch declare a National Electric System Emergency through December 31, 2017. This decree instructed the Minister of Energy to develop and propose measures and to ensure adequate power supplies. Additionally, the Ministry of Energy and Mining established new seasonal reference prices for power and energy in the Wholesale Electricity Market ("MEM"). Likewise, the first article of Law No. 27,541 published on December 21, 2019, declared, among others, an energy emergency until December 31, 2020. In addition, the National Executive Power is authorized to maintain the electricity and natural gas rates and to initiate a renegotiation process of the current integral tariff revision or to initiate an extraordinary revision, for a maximum term of up to one hundred and eighty days after Law No. 27,541 entered into effect, in order to reduce the impact of real tariffs on households, businesses and industries for the year 2020. See "— Legal and Regulatory Framework and Relationship with the Argentine Government – Public Emergency," "—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Electricity" and "— Gas and Power – Metrogas tariff issues."

Demand for diesel in Argentina exceeds domestic production. In 2003, Argentina's net exports of diesel amounted to approximately 1,349 mcm, while in 2019 its net imports of diesel amounted to approximately 2,101 mcm, according to preliminary information provided by the SE. Significant investments in the energy sector are being carried out, and additional investments are expected to be required in order to support continued economic growth, as the industry is currently operating near full capacity.

In addition, prior to the decline in international oil prices, the import prices of refined products have been in general substantially higher than the average domestic sales prices of such products, rendering the import and resale of such products less profitable. As a result, from time to time in the past, service stations experienced temporary shortages and are required to suspend or curtail diesel sales.

For more information with regard to our pricing policy for fuels, the current COVID-19 outbreak and oil price environment, see "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—Hydrocarbon Market" and "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—COVID-19 outbreak."

Business Organization

As of December 31, 2019, we conducted our business according to the following organization:

- Upstream segment, which consists of our "Exploration and Production" division;
- Downstream segment, which consists of our "Refining and Marketing", "Chemicals" and "Logistics" divisions;
- Gas and Power segment, which consists of our "Natural Gas Distribution and Electricity Generation" division; and
- Central Administration and other segment, which consists of our remaining activities.

For a description related to the activities developed by each business segment see Note 5 to our Audited Consolidated Financial Statements.

Substantially all of our operations, properties and customers are located in Argentina. See “—Upstream Overview—Main properties.” Additionally, we market lubricants and specialties in Brazil and Chile, and carry out production activities in Chile and exploration activities in Bolivia.

The following table sets forth revenues and operating profit in millions of pesos for each of our business segments for the years ended December 31, 2019, 2018 and 2017:

	For the year ended December 31,		
	2019	2018	2017
Revenues ⁽¹⁾			
Upstream			
Revenues from sales	2,046	3,108	739
Revenue from intersegment sales ⁽²⁾	286,585	207,480	115,955
Total Upstream	288,631	210,588	116,694
<u>Gas and Power</u>			
Revenues from sales	131,055	91,176	56,805
Revenue from intersegment sales	8,697	7,862	4,075
Total Gas and Power	139,752	99,038	60,880
<u>Downstream</u>			
Revenues from sales	531,724	338,042	195,321
Revenue from intersegment sales	3,447	1,688	988
Total Downstream	535,171	339,730	196,309
<u>Central Administration and Others</u>			
Revenue from sales	19,743	8,363	2,534
Revenue from intersegment sales	27,502	13,186	7,133
Total Central Administration and Others	47,245	21,549	9,667
Less inter-segment sales and fees	(332,204)	(235,085)	(130,737)
Total Revenues	678,595	435,820	252,813
Operating (loss) / profit Upstream	(49,194)	22,483	3,877
Gas and Power	2,944	16,786	3,259
Downstream	40,653	7,818	15,813
Central Administration and Others	(15,866)	(6,055)	(4,400)
Consolidation adjustments	451	2,748	(2,476)
Total Operating (loss) / profit	(21,012)	43,780	16,073

(1) Revenues are net of payment of turnover tax. Customs duties on hydrocarbon exports are disclosed in “Taxes, charges and contributions,” as indicated in Note 25 to the Audited Consolidated Financial Statements. Royalties with respect to our production are accounted for as a cost of production and are not deducted in determining revenues. See Note 2.b.15 to the Audited Consolidated Financial Statements.

(2) Intersegment revenues of crude oil to Downstream are recorded at transfer prices that reflect our estimate of Argentine market prices.

Upstream overview

YPF Upstream is focused on actively managing the decline of the conventional fields and delivering profitable growth driven by unconventional projects.

Smoothing the decline rate in conventional fields is based on reservoir management improvement, accelerated implementation of

improved oil recovery (IOR) and enhanced oil recovery (EOR) and the deployment of technology to optimize operations in real time while reducing downtime. We plan to continue to de-risk projects based on recent preliminary successful results in tertiary recovery.

During recent years, we have been working in mature areas that present profitable opportunities to increase the recovery factor by employing techniques including infill wells, extension of secondary recovery, optimization of existing waterflood projects, and tertiary recovery testing.

We are focused on identifying new opportunities in both infill potential and improved sweep efficiency in our mature fields. These efforts are guided by subsurface modeling conducted by in-house multidisciplinary teams. Furthermore, we place a strong emphasis on surveillance and conformance activities to improve current mature water injection projects. Tertiary recovery is being pursued with polymer and surfactant water-flooding in mature reservoirs in the Golfo de San Jorge, Cuyana and Neuquina basins.

Continuous technical reviews of our oil and gas fields allow us to identify opportunities to rejuvenate mature fields and optimize new field developments in Argentine basins in order to achieve similar recovery factors that mature fields have already reached in other regions of the world, with the application of new technologies.

Furthermore, we continue actively managing our portfolio, including divestment of non-core matured assets.

Staying the Path of Unconventional Resources

In line with the production growth objective driven by unconventional projects during 2019, we reaffirmed our commitment to the objective of growing our production and reserves through the development of unconventional resources, which we began in 2013. More than 800 wells were drilled with Vaca Muerta shale as the target, mostly in Loma Campana field in association with Chevron, continuing the massive development that began in 2013. The remaining wells were targeted to continue the development phase in the El Orejano block in association with Dow Chemical, the Narambuena project in association with Chevron, La Amarga Chica field in association with Petronas, Bandurria Sur in association with SPM Argentina S.A., and from January 2020 with Shell Compañía Argentina de Petróleo S.A. and Equinor Argentina AS (see Note 33 to our Audited Consolidated Financial Statements - Agreement for the development of the Bandurria Sur Area), Bajada de Añelo pilot in association with Shell, Bajo del Toro pilot in association with Equinor and Rincon del Mangrullo, Aguada de la Arena and La Ribera pilots where YPF holds 100% of the working interest in those blocks. The purpose of these projects is to determine the potential of Vaca Muerta as a shale oil/gas reservoir.

The international and local scenarios challenge us to adjust our efficiency and costs to be competitive. To drive down the breakeven price of our projects we are focused on increasing well productivity and improving operation efficiency in order to reduce development cost and operative expenses.

In this context, our controlled technological-based company of YPF (Y-TEC) has contributed providing innovative laboratory and operational techniques and protocols; better understanding of the rocks behavior; improvements in reservoir simulation and modelling tools; drilling and completion products; among others. See “Research and Development.”

Nevertheless, the financial viability of these investments and resource recovery efforts will depend on the prevailing economic and regulatory conditions, as well as the market prices of hydrocarbons in Argentina. See “Item 3. Key Information—Risk Factors.” and “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations” for additional information regarding 2020 activity.

During 2019, well productivity exceeded our expectations as a consequence of the drawdown policy adjustment that, having migrated to designs with a greater horizontal width, allowed to improve production peaks reached by these larger wells. The standard horizontal width reached 2,500 mts and only a few wells were below this width. The technical limit was continued to be challenged and the largest well in the basin was drilled reaching a horizontal width of 3,890 m (7,190 m deep). This kind of design is being evaluated to evolve to wells of a standard horizontal width that exceeds 3,000 m. During 2020 several wells are planned to be drilled with a larger diameter design than the ones currently in place, which will allow to reach these widths.

In order to guarantee the self-supply of sand for YPF and facing a scenario of growing demand (800 mtn in 2019 vs 370 mtn in 2018), we have carried out investments to improve and expand existing production capacities (New Classification Plant and Drying Furnace), and acquire new transport capacities (expansion of railway terminals) to supply the production and comply with the new Product Mix (Geology I&D plan). In 2020, we plan to begin operations of a quarry in Entre Ríos, with associated facilities.

Since 2017, we commenced testing of dissolvable plugs, chemical and mechanical diverters, frac sleeves, and different types of

stimulation fluids, in connection with the completion of our shale gas/oil wells, seeking improved operational efficiency and well performance. We are continuing to study the data from these tests, analyzing the results of productivity in the medium term. Many of these activities were carried out, and continue to be supported by Y-TEC.

In the hydraulic stimulation field work continues to challenge the productivity of wells. Since 2018, designs with greater intensity of support agent and water have been tested. Due to good results obtained and the implementation of a new standard design of high-density, concentrations of sand raised above 2,500 lb/ft. At the same time, we are reviewing the designs of the pilots in order to make them more efficient.

Pilots with sleeves have also been executed during the last two years as a development alternative for areas of certain geological characteristics. The results are promising, and the sleeves are already a viable alternative.

On April 2019, the Loma Campana - Lago Pellegrini Pipeline was put into production with an extension of 88 km, a diameter of 18" and a total gross investment of U.S.\$57 million. This oil pipeline will allow the increment of the evacuation of fluid by 157 kbbbl/d.

The acquisition of 3D seismic was executed in the exploration block of Cerro Las Minas. 3D simulation acquisitions were also executed in La Ribera.

Finally, YPF added two new blocks to its Vaca Muerta portfolio, which represents an additional area of 233.15 km² (57,612 acres) in a shale oil window. First, Integración Energética Argentina S.A. ("IEASA"), awarded Aguada del Chañar block (57.4 km²) to YPF S.A. This area is near La Amarga Chica and its non conventional hydrocarbon concession lasts until 2054. Second, we obtained the Non- Conventional concession for 35 years by the province of Neuquén of the Loma Amarilla Sur block (175.75 km²) that is located at the North East of the San Roque area where there are already wells in Vaca Muerta production.

Main properties

Our production is concentrated in the following basins in Argentina: Neuquina, Golfo San Jorge, Cuyana, Noroeste and Austral.

Our domestic operations are subject to certain risks. See "Item 3. Key Information—Risk Factors."

In 2019, 2018 and 2017, we finalized agreements related to the acquisition and development of properties that are part of our core business. In connection with those agreements, see Notes 3 and 33.b to the Audited Consolidated Financial Statements.

In addition, in connection with the extension of concessions, see Note 33.a to the Audited Consolidated Financial Statements.

The following table sets forth information regarding our developed and undeveloped acreage by geographic area as of December 31, 2019:

	Developed ⁽¹⁾		Undeveloped ⁽²⁾	
	Gross ⁽³⁾	Net ⁽⁴⁾	Gross ⁽³⁾	Net ⁽⁴⁾
	(thousands of acres)			
Argentina	1,240	933	22,609	17,316
Rest of South America ⁽⁵⁾	2	2	575	353
Total	1,242	935	23,184	17,669

(1) Developed acreage is spaced or assignable to productive wells.

(2) Undeveloped acreage encompasses those leased acres on which wells have not been drilled or completed to a point that would permit the production of economic quantities of oil or gas regardless of whether such acreage contains proved reserves.

(3) A "gross acre" is an acre in which we own a working interest.

(4) "Net" acreage equals gross acreage after deducting third-party interests.

(5) Relates to Colombia, Chile and Bolivia. In the case of Colombia, YPF and its partners notified the Colombian National Hydrocarbons Agency ("ANH") of the decision to relinquish the COR 12 and COR 33 blocks. In Bolivia, YPF's net undeveloped surface acreage totaled 147,000 acres. In Chile, YPF's net undeveloped and developed surface acreage totaled 33,021 acres and 1,769 acres, respectively.

According to Law No. 27,007 that amended the Hydrocarbons Law, all national offshore permits and offshore hydrocarbon production concessions that did not have association agreements with ENARSA as of the date of the new law (October 2014) were reverted and transferred to the SGE. Permits and concessions granted prior to Law No. 25,943 were exempt from this provision. In September 2015,

the Argentine Executive Branch and YPF began negotiating the conversion of association agreements signed with ENARSA. On December 29, 2017 YPF submitted a note to the Ministry of Energy confirming its willingness to negotiate the conversion of association agreement related to the Area identified as “ENARSA 1”. In the same note, YPF communicated its decision not to convert the association agreements related to the Areas “ENARSA 2” and “ENARSA 3. On October 19, 2018 YPF officially filed another note to the SGE to negotiate the conversion of the association agreement related to the area identified as “ENARSA 1”. On April 11, 2019 the area “ENARSA 1” was officially converted into “CAN-100”. In August 2019, a partnership agreement was signed by YPF and Equinor Argentina AS, whereby Equinor Argentina AS would operate the area holding a 50% working interest. On April 3, 2020, the MINEM formalized the Agreement and the closing of the operation happened on April 16, 2020. In addition, the areas “ENARSA 2” and “ENARSA 3” were formally relinquished on April 11, 2019. With the exception of the above, none of our exploration permits are regulated by Law No. 27,007. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 27,007 (amendment of the Hydrocarbons Law)—Exploration and Production.”

As of December 31, 2019, we only have 3 exploration permits associated with the original terms of the Hydrocarbons Law, which expire in 2020 and represent 1,107 km², or 2% of our 44,833 km² of net exploratory undeveloped acreage as of December 31, 2019. However, as a result of the expiration in 2020 of the first or second exploration terms of certain of our exploration permits (according to the terms of the Hydrocarbons Law, as amended by Law No. 27,007), we will have the right to continue exploring the entire area for the second basic term as long as we comply with all of our obligations under the applicable permit. At the expiration of the second basic term, we will be required to surrender all of the remaining acreage, unless we request an extension term, in which case such extension will be limited to 50% of the remaining acreage. On the other hand, if we discover commercially exploitable quantities of oil or gas, we have the right to obtain an exclusive concession for the production and development of such oil and gas. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 27,007 (amendment of the Hydrocarbons Law)—Exploration and Production.”

The exploratory undeveloped acreage which matures, under the first or second exploration terms, in 2020 and in the period 2021-2022 is 8,420 km², or 19%, and 10,865 km², or 24%, respectively, of our 44,833 km² of net exploratory undeveloped acreage as of December 31, 2019.

The extension of the acreage that we would be required to relinquish will depend our determination regarding to our satisfaction of our obligations in respect of those areas which where we consider it is in our best interest, while we may determine not to comply with such obligations in respect of certain other areas. Therefore, the areas to be relinquished consist usually of acreage where drilling has not been successful and are considered non-core lease acreage.

Except as described above, we do not have any material undeveloped acreage related to our production concessions expiring in the near term.

See “—Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 27,007 (amendment of the Hydrocarbons Law)” for a description of new terms that apply to new production concessions or exploration permits, other than those already governed by previous laws.

Argentine Exploration Permits and Exploitation Concessions

Based on 2018 production, Argentina is the first largest producer of natural gas and the fifth largest producer of crude and condensate oil in Central and South America, according to the 2019 edition of the BP Statistical Review of World Energy published in June 2019. Oil has historically accounted for the majority of the country’s hydrocarbon production and consumption, although the relative share of natural gas has increased rapidly in recent years.

The following table shows our gross and net interests in productive oil and gas wells in Argentina by basin, as of December 31, 2019:

<i>Basin</i>	<i>Wells⁽¹⁾</i>			
	<i>Oil</i>		<i>Gas</i>	
	<i>Gross</i>	<i>Net</i>	<i>Gross</i>	<i>Net</i>
Neuquina	4,679	3,689	1,849	1,310
Golfo San Jorge	7,793	7,299	73	73
Cuyana	779	718	0	0
Noroeste	46	24	89	45
Austral	111	111	57	57
Onshore	13,408	11,841	2,068	1,485
Offshore	91	46	-	-

<i>Basin</i>	<i>Wells ⁽¹⁾</i>			
	<i>Oil</i>		<i>Gas</i>	
	<i>Gross</i>	<i>Net</i>	<i>Gross</i>	<i>Net</i>
Total	13,499	11,887	2,068	1,485

(1) A “gross well” is a well in which we own a working interest. A “net well” is deemed to exist when the sum of fractional ownership working interests in gross wells equals one. The number of net wells is the sum of the fractional working interests owned in gross wells expressed as whole numbers and fractions of whole numbers

As of December 31, 2019, we held 127 exploration permits and production concessions in Argentina. We directly operate 93 of them, including 19 exploration permits and 74 production concessions.

Exploration permits: As of December 31, 2019, we held 24 exploration permits in Argentina, 20 of which were onshore exploration permits and 4 of which were offshore exploration permits. We had 100% ownership of 10 onshore permits, and our participating interests in the remainder varied between 50% and 70%. Our participating interests in the 4 offshore permits varied between 37.5% and 100%.

Production concessions: As of December 31, 2019, we had 103 production concessions in Argentina. We had a 100% ownership interest in 58 production concessions, and our participating interests in the remaining 45 production concessions varied between 12.2% and 98%.

In addition, we have 35 crude oil treatment plants and 12 pumping plants where oil is processed and stored. The purpose of these plants is to receive and treat oil from different fields prior to shipment to our refineries and/or commercialization to third parties, as applicable. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our business depends to a significant extent on our production and refining facilities and logistics network.”

In connection with our main properties, see “—Exploration & Production Activity in Argentina.” Production for each of the last three fiscal years by geographic area and by field containing 15% or more of our total proved reserves are set forth under “—Oil and gas production, production prices and production costs”.

Approximately 95% of our proved crude oil reserves in Argentina are concentrated in the Neuquina (60%) and Golfo San Jorge (35%) basins, and approximately 85% of our proved gas reserves in Argentina are concentrated in the Neuquina (75%), and Austral (10%) basins.

Joint ventures and contractual arrangements in Argentina

As of December 31, 2019, we participated in 10 exploration and 35 production joint ventures and contractual arrangements (27 of which were not operated by us) in Argentina. Our interests in these joint ventures and contractual arrangements ranged from 12.2% to 98%, and our obligations to share exploration and development costs varied under these agreements. In addition, under the terms of some of these joint ventures, we have agreed to indemnify our joint venture partners in the event that our rights with respect to such areas are restricted or affected in such a way that the purpose of the joint venture cannot be achieved. For a list of the main exploration and production joint ventures in which we participated as of December 31, 2019, see Note 28 to the Audited Consolidated Financial Statements. We are also a party to a number of other contractual arrangements that arose through the renegotiation of service contracts and risk contracts and their conversion in exploitation concessions and exploration permits, respectively.

Oil and Gas Reserves

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within reasonable time. In some cases, substantial investments in new wells and related facilities may be required to recover proved reserves.

Information on net proved reserves as of December 31, 2019, 2018 and 2017 was calculated in accordance with the SEC rules and Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 932, as amended. Accordingly, crude oil

prices used to determine reserves were calculated each month for crude oils of different quality produced by the Company. Consequently, to calculate our net proved reserves as of December 31, 2019, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2021, in accordance with Law 27,541). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2019, which refers to the Brent prices adjusted by each different quality produced by the Company.

Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company considered the realized prices in the domestic market according to the SEC and FASB's ASC 932 rules.

Notwithstanding the foregoing, commodity prices have changed significantly since 2016. See "Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our oil and natural gas reserves are estimates" and "Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our reserves and production are likely to decline."

Net reserves are defined as that portion of the gross reserves attributable to the interest of YPF after deducting interests owned by third parties. In determining net reserves, the Company excludes from its reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from the reported reserves despite the fact that such payments are referred to as "royalties" under local rules. The same methodology is followed in reporting our production amounts.

Gas reserves exclude the gaseous equivalent of liquids expected to be removed from the gas on concessions and leases, at field facilities and at gas processing plants. These liquids are included in net proved reserves of NGLs.

Technology used in establishing proved reserves additions

YPF's estimated proved reserves as of December 31, 2019 are based on estimates generated through the integration of available and appropriate data, utilizing well-established technologies that have been demonstrated in the field to yield repeatable and consistent results. Data used in these integrated assessments include information obtained directly from the subsurface via wellbore, such as well logs, reservoir core samples, fluid samples, static and dynamic pressure information, production test data, and surveillance and performance information. The data utilized also include subsurface information obtained through indirect measurements, including high quality 2-D and 3-D seismic data, calibrated with available well control. Where applicable, geological outcrop information was also utilized. The tools used to interpret and integrate all this data included both proprietary and commercial software for reservoir modeling, simulation and data analysis. In some circumstances, where appropriate analog reservoir models are available, reservoir parameters from these analog models were used to increase the reliability of our reserves estimates.

For further information on the estimation process of our proved reserves, see "—Internal controls on reserves and reserves audits."

Net Proved Developed and Undeveloped Reserves as of December 31, 2019

The following table sets forth our estimated net proved developed and undeveloped reserves of crude oil, NGLs and natural gas at December 31, 2019.

Proved Developed Reserves	Oil ⁽¹⁾ (mmbbl)	NGL (mmbbl)	Natural Gas (bcf)	Total ⁽²⁾ (mmboe)
Consolidated Entities				
South America				
Argentina	301	38	1,743	650
Chile	-	-	-	-
Total Consolidated Entities	<u>301</u>	<u>38</u>	<u>1,743</u>	<u>650</u>
Equity-Accounted Entities				
South America				
Argentina	-	-	-	-
Chile	-	-	-	-
Total Equity-Accounted Entities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Proved Developed Reserves	<u>301</u>	<u>38</u>	<u>1,743</u>	<u>650</u>
Proved Undeveloped Reserves				
Consolidated Entities				
South America				
Argentina	312	22	498	423
Chile	-	-	-	-
Total Consolidated Entities	<u>312</u>	<u>22</u>	<u>498</u>	<u>423</u>
Equity-Accounted Entities				
South America				
Argentina	-	-	-	-
Chile	-	-	-	-
Total Equity-Accounted Entities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Proved Undeveloped Reserves	<u>312</u>	<u>22</u>	<u>498</u>	<u>423</u>
Total Proved Reserves ^{(2) (3)}				
Consolidated Entities				
Developed Reserves	301	38	1,743	650
Undeveloped Reserves	<u>312</u>	<u>22</u>	<u>498</u>	<u>423</u>
Total Consolidated Entities	<u>613</u>	<u>60</u>	<u>2,241</u>	<u>1,073</u>
Equity-accounted entities				
Developed Reserves	-	-	-	-
Undeveloped Reserves	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Equity-Accounted Entities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Proved Reserves	<u>613</u>	<u>60</u>	<u>2,241</u>	<u>1,073</u>

(1) Includes crude oil (oil and condensate).

(2) Volumes of natural gas in the table above and elsewhere in this annual report have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.

(3) Proved crude oil and NGL reserves of consolidated entities include an estimated approximately 88 mmbbl of crude oil and 6 mmbbl of NGLs in respect of royalty payments which, as described above, are a financial obligation or are substantially equivalent to a production or similar tax. Proved natural gas reserves of consolidated entities include an estimated approximately 259 bcf in respect of such payments.

For information regarding changes in our estimated proved reserves during 2019, 2018 and 2017, see Note 39 to the Audited Consolidated Financial Statements.

The paragraphs below explain in further detail the most significant changes in our proved undeveloped reserves during 2019, 2018 and

2017.

Changes in our proved undeveloped reserves during 2019

YPF had an estimated volume of net proved undeveloped reserves of 423 mmboe at December 31, 2019, which represented approximately 39% of the 1,073 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 358 mmboe as of December 31, 2018 (approximately 33% of the 1,080 mmboe total reported proved reserves as of such date).

The 18% total net increase in net proved undeveloped reserves in 2019 is mainly attributable to:

- Extensions and discoveries, which added 137 mmboe (276 bcf of Gas and 88 mmbbl of Oil) of proved undeveloped reserves mainly from shale oil and gas projects from Vaca Muerta formation at Neuquina basin.
- Revised projects at Vaca Muerta formation which resulted in additional 19 mmboe (17 mmbbl of Oil and 11 bcf of Gas).
- New improved recovery projects, adding approximately 5 mmboe of proved undeveloped secondary recovery reserves. The most important additions belong to Golfo San Jorge and Neuquina basins.

This was partially offset by:

- Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 67 mmboe (31 mmboe corresponding to Vaca Muerta projects) to proved developed reserves. The main contributions are related to Development Wells (53 mmboe) mainly in Neuquina basin and improved recovery projects (14 mmboe) mainly in Golfo San Jorge and Neuquina basins.
- Change of development strategy and other project revisions in certain areas which resulted in a downwards revision of 23 mmboe from previous projects, mainly from Neuquina, Austral and Cuyana basins.
- Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in a 6 mmboe proved undeveloped reserves reduction, mainly in Golfo San Jorge and Neuquina basins.

YPF's total capital expenditure to continue the development of reserves was approximately U.S.\$ 1,221 million during 2019, of which U.S.\$ 945 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2019, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

Changes in our proved undeveloped reserves during 2018

YPF had estimated a volume of net proved undeveloped reserves of 358 mmboe at December 31, 2018, which represented approximately 33% of the 1,080 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 266 mmboe as of December 31, 2017 (approximately 29% of the 929 mmboe total reported proved reserves as of such date).

The 35% total net increase in net proved undeveloped reserves in 2018 is mainly attributable to:

- Extensions and discoveries, which added 149 mmboe (238 bcf of Gas and 107 mmbbl of Oil) of proved undeveloped reserves mainly from shale oil and gas projects from Vaca Muerta formation at Neuquina basin.
- New economic conditions with higher gas and oil average prices and lower operating costs which resulted in a 48 mmboe Proved Undeveloped Reserves incorporation mainly from oil and gas fields of Neuquina basin (15 mmboe) and oil fields from Golfo San Jorge basin (33 mmboe).
- New improved recovery projects, adding approximately 9 mmboe of proved undeveloped secondary recovery reserves. Most important additions belong to Golfo San Jorge and Neuquina basins.

This was partially offset by:

- Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 67 mmboe to proved developed reserves. The main contributions are related to development wells (58 mmboe) mainly in Neuquina basin and improved recovery projects (9 mmboe) mainly in Golfo San Jorge and Neuquina basins.
- Change of development strategy in certain areas which resulted in a downwards revision of 43 mmboe from previous projects, mainly from Neuquina, Austral and Golfo San Jorge basins.

- Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in a 5 mmbbl proved undeveloped reserves reduction, mainly in Austral, Golfo San Jorge and Cuyana basins.
- Changes in gas compression projects which resulted in a 5 mmbbl reduction of proved undeveloped reserves, mainly from Neuquina basin.

YPF's total capital expenditures to continue the development of reserves was approximately U.S.\$ 936 million during 2018, of which U.S.\$ 655 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2018, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

Changes in our proved undeveloped reserves during 2017

YPF had estimated a volume of net proved undeveloped reserves of 266 mmbbl at December 31, 2017, which represented approximately 29% of the 929 mmbbl total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 298 mmbbl as of December 31, 2016 (approximately 27% of the 1,113 mmbbl total reported proved reserves as of such date).

The 11% total net decrease in net proved undeveloped reserves in 2017 is mainly attributable to:

- Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 82 mmbbl to proved developed reserves. Main contributions are related to development wells (62 mmbbl) mainly in Neuquina basin, improved recovery projects (9.5 mmbbl) mainly in Golfo San Jorge and Neuquina basins, and Gas Compression Projects (9.5 mmbbl) in Austral and Neuquina basins.
- New economic conditions with lower gas and oil average prices and higher operating costs affected scheduled projects economics, resulting in a 20 mmbbl proved undeveloped reserves reduction mainly from oil fields of Neuquina basin (-16 mmbbl) and Golfo San Jorge basin (-3 mmbbl).
- Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in a 2.5 mmbbl proved undeveloped reserves reduction, mainly in Neuquina and Golfo San Jorge basins.

This was partially offset by:

- Extensions and discoveries, which added 54 mmbbl (219 bcf of gas and 12 mmbbl of oil) of proved undeveloped reserves mainly from Neuquina and Austral basins.
- New improved recovery projects, adding approximately 21 mmbbl of proved undeveloped secondary recovery reserves. Most important additions belong to Golfo San Jorge and Neuquina basins.
- New project studies in Golfo San Jorge and Neuquina basins added approximately 5 mmbbl of proved undeveloped reserves.
- The extension of Rincón del Mangrullo and Magallanes fields' concessions resulted in approximately 4 mmbbl reserves addition in proved undeveloped reserves.

YPF's total capital expenditure to continue the development of reserves was approximately U.S.\$ 1,113 million during 2017, of which U.S.\$ 693 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2017, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

Internal controls on reserves and reserves audits

All of our oil and gas reserves held in consolidated companies have been estimated by our petroleum engineers. In order to meet the high standard of "reasonable certainty," reserves estimates are stated taking into consideration additional guidance as to reservoir economic producibility requirements, acceptable proved area extensions, drive mechanisms and improved recovery methods, marketability under existing economic and operating conditions and project maturity.

Where applicable, the volumetric method is used to determine the original quantities of petroleum in place. Estimates are made by using various types of logs, core analysis and other available data. Formation tops, gross thickness and representative values for net pay thickness, porosity and interstitial fluid saturations are used to prepare structural maps to delineate each reservoir and isopachous maps to determine reservoir volume. Where adequate data is available and where circumstances are justified, material-balance and other engineering methods are used to estimate the original hydrocarbon in place.

Estimates of ultimate recovery are obtained by applying recovery factors to the original quantities of petroleum in place. These factors

are based on the drive mechanisms inherent in the reservoir, analysis of the fluid and rock properties, the structural position of the reservoir and its production history. In some instances, comparisons are made with similar production reservoirs in the areas where more complete data is available.

Where adequate data is available and where circumstances are justified, material-balance and other engineering methods are used to estimate ultimate recovery. In these instances, reservoir performance parameters such as cumulative production, production rate, reservoir pressure, gas to oil ratio behavior and water production are considered in estimating ultimate recovery.

In certain cases where the above methods could not be used, proved reserves are estimated by analogy to similar reservoirs where more complete data are available.

To control the quality of reserves booking, a process has been established that is integrated into the internal control system of YPF.

This process to manage reserves booking is centrally controlled and has the following components:

- (a) The Reserves Audit (“RA”) is separate and independent from the Upstream segment. RA’s activity is overseen by YPF’s Audit Committee, which is also responsible for supervising the procedures and systems used in the recording of and internal control over the Company’s hydrocarbon reserves. The primary objectives of the RA are to ensure that YPF’s proved reserves estimates and disclosure are in compliance with the rules of the SEC, the FASB, and the Sarbanes-Oxley Act, and to review annual changes in reserves estimates and the reporting of YPF’s proved reserves. The RA is responsible for preparing the information to be publicly disclosed concerning YPF’s reported proved reserves of crude oil, NGLs, and natural gas. In addition, the RA is also responsible for providing training to personnel involved in the estimation of reserves and reporting process within YPF. The RA is managed by and staffed with individuals that have an average of more than 20 years of technical experience in the petroleum industry, including in the classification and categorization of reserves under the SEC guidelines. The RA staff includes several individuals who hold advanced degrees in either engineering or geology, as well as individuals who hold bachelor’s degrees in various technical studies. Several members of the RA are registered with or affiliated to the relevant professional bodies in their fields of expertise.
- (b) The Reserves Auditor, who has headed the RA since June 2017, is responsible for overseeing the preparation of the reserves estimates and reserves audits conducted by third party engineers. The current Reserves Auditor has over 35 years of experience in geology and geophysics, reserves estimates, project development, finance and general accounting regulations. Prior to becoming the Reserves Auditor, he was the general manager in E&D, and before that he worked as the Director for Exploration at YPF. He holds a degree in geology from the National University of Patagonia, and postgraduate courses at IAE Austral University. Consistent with our internal control system requirements, the Reserves Auditor’s compensation is not affected by changes in reported reserves.
- (c) A quarterly internal review by the RA of changes in proved reserves submitted by the Upstream business segment and associated with properties where technical, operational or commercial issues have arisen.
- (d) A Quality Reserve Coordinator (“QRC”) is assigned to each Upstream business segment of YPF to ensure that there are effective controls in the estimation of proved reserves and approval process of the estimates of YPF and the timely reporting of the related financial impact of proved reserves changes. Our QRCs are responsible for reviewing proved reserves estimates. The qualification of each QRC is made on a case-by-case basis with reference to the recognition and respect of such QRC’s peers. YPF would normally consider a QRC to be qualified if such person (i) has a minimum of 5 years of practical experience in petroleum engineering or petroleum production geology, with at least three years of such experience in charge of the estimation and evaluation of reserves, and (ii) has either (A) obtained, from a college or university of recognized stature, a bachelor’s or advanced degree in petroleum engineering, geology or other related discipline of engineering or physical science, or (B) received, and is maintaining in good standing, a registered or certified professional engineer’s license or a registered or certified professional geologist’s license, or the equivalent thereof, from an appropriate governmental authority or professional organization.
- (e) A formal review through technical review committees to ensure that both technical and commercial criteria are met prior to the commitment of capital to projects.
- (f) Our internal audit team examines the effectiveness of YPF’s financial controls, which are designed to ensure the reliability of reporting and safeguarding of all the assets and examines YPF’s compliance with the law, regulations and internal standards.
- (g) All volumes booked are submitted to a third party reserves audit on a periodic basis. The properties selected for a third party reserves audit in any given year are selected on the following basis:
 - i. all properties on a three-year cycle; and
 - ii. recently acquired properties not submitted to a third party reserves audit in the previous cycle and properties with respect to which there is new information which could materially affect prior reserves estimates.

For those areas submitted to a third party reserves audit, YPF's proved reserves figures have to be within 7% or 10 mmbob of the third party reserves audit figures for YPF to declare that the volumes have been ratified by a third party reserves audit. In the event that the difference is greater than the tolerance, YPF will re-estimate its proved reserves to achieve this tolerance level or should disclose the third party figures. YPF has adopted the above-mentioned procedure by approving the corresponding internal policy.

In 2019, DeGolyer and MacNaughton audited certain YPF operated and non-operated areas in the Neuquina, Golfo San Jorge, Cuyana and Noroeste basins of Argentina and the Austral basin of Chile. These audits were performed as of December 31, 2019, and the audited fields contain in aggregate approximately 383 mmbob of proved reserves (100 mmbob of which were proved undeveloped reserves) as of such date, which represented approximately 36% of our proved reserves and 24% of our proved undeveloped reserves as of December 31, 2019. Copies of the related reserves audit reports are filed as an exhibit to this annual report.

We are required, in accordance with Resolutions No. 324/06 and 69/16 of the Argentine Secretariat of Hydrocarbon Resources, to annually file by March 31 details of our estimates of our oil and gas reserves and resources with the Argentine Secretariat of Hydrocarbon Resources, as defined in that resolution and certified by an external auditor. The aforementioned certification and external audit only have the meaning established by Resolutions No. 324/06 and 69/16 and are not to be interpreted as a certification or external audit of oil and gas reserves under SEC rules. We last filed such a report for the year ended December 31, 2018. Estimates of our oil and gas reserves filed with the Argentine Secretariat of Hydrocarbon Resources are materially higher than the estimates of our proved oil and gas reserves contained in this annual report mainly because: (i) information filed with the Argentine Secretariat of Hydrocarbon Resources includes all properties of which we are operators, irrespective of the level of our ownership interests in such properties; (ii) information filed with the Argentine Secretariat of Hydrocarbon Resources includes other categories of reserves and resources that are not included in this annual report, which are different from estimates of proved reserves consistent with the SEC's guidance contained in this annual report; and (iii) the definition of proved reserves under Resolutions No. 324/06 and 69/16 is different from the definition of "proved oil and gas reserves" established in Rule 4-10(a) of Regulation S-X. Accordingly, all proved oil and gas reserve estimates included in this annual report reflect only proved oil and gas reserves consistent with the rules and disclosure requirements of the SEC.

Oil and gas production, production prices and production costs

The following table shows our crude oil (including oil and condensate), NGL, and gas production on an as sold and annual basis for the years indicated. In determining net production, we exclude royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in such production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation or are substantially equivalent to a production or severance tax, they are not excluded from our net production amounts despite the fact that such payments are referred to as "royalties" under local rules. This is the case for our production in Argentina, where royalty expense is accounted for as a production cost.

<i>Oil and Condensate Production</i> ⁽¹⁾	2019	2018	2017
		(mmbbl)	
Consolidated Entities			
South America			
Argentina	83	83	83
Chile	*	-	-
Total Consolidated Entities	<u>83</u>	<u>83</u>	<u>83</u>
Equity-Accounted Entities			
South America			
Argentina	-	-	-
Chile	-	-	-
Total Equity-Accounted Entities	<u>-</u>	<u>-</u>	<u>-</u>
Total Oil Production ⁽²⁾	<u>83</u>	<u>83</u>	<u>83</u>
<i>NGL Production</i> ⁽¹⁾	2019	2018	2017
		(mmbbl)	
Consolidated Entities			
South America			
Argentina	14	14	19
Chile	-	-	-
Total Consolidated Entities	<u>14</u>	<u>14</u>	<u>19</u>
Equity-Accounted Entities			
South America			
Argentina	-	-	-
Chile	-	-	-
Total Equity-Accounted Entities	<u>-</u>	<u>-</u>	<u>-</u>
Total NGL Production ⁽³⁾	<u>14</u>	<u>14</u>	<u>19</u>
<i>Natural Gas Production</i> ⁽¹⁾	2019	2018	2017
		(bcf)	
Consolidated Entities			
South America			
Argentina	440	461	475
Chile	-	-	-
Total Consolidated Entities	<u>440</u>	<u>461</u>	<u>475</u>
Equity-Accounted Entities			
South America			
Argentina	-	-	-
Chile	-	-	-
Total Equity-Accounted Entities	<u>-</u>	<u>-</u>	<u>-</u>
Total Natural Gas Production ^{(4) (5)}	<u>440</u>	<u>461</u>	<u>475</u>
<i>Oil Equivalent Production</i> ^{(1) (6)}	2019	2018	2017
		(mmboe)	
Consolidated Entities			
Oil and Condensate	83	83	83
NGL	14	14	19
Natural Gas	78	82	85
Equity-Accounted Entities			
Oil and Condensate	-	-	-
NGL	-	-	-
Natural Gas	-	-	-
Total Oil Equivalent Production	<u>175</u>	<u>179</u>	<u>187</u>

* Not material (less than 1).

- (1) Loma La Lata Central and Loma La Lata Norte (southern and northern parts of the Loma La Lata field) in Argentina contain approximately 19% of our total proved reserves expressed on an oil equivalent barrel basis. Oil and condensate production in these fields was approximately 9, 8 and 6 mmbbl for the years ended December 31, 2019, 2018 and 2017, respectively. NGL production in these fields was approximately 5, 5 and 8 mmbbl for the years ended December 31, 2019, 2018 and 2017, respectively. Natural gas production in the Loma La Lata field was 97, 109 and 127 bcf for the years ended December 31, 2019, 2018 and 2017, respectively.
- (2) Crude oil production for the years ended in December 31, 2019, 2018 and 2017 includes an estimated 12, 12 and 12 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax.
- (3) NGL production for the years ended in December 31, 2019, 2018 and 2017 includes an estimated 1, 2 and 2 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of NGL in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.
- (4) Natural gas production for the years December 31, 2019, 2018 and 2017 includes an estimated 60, 61 and 64 bcf, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of natural gas in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.
- (5) Does not include volumes consumed or flared in operations (whereas sale volumes shown in the reserves table included in “Supplemental Information on Oil and Gas Producing Activities (Unaudited)—Oil and Gas Reserves” include volumes consumed in operations).
- (6) Volumes of natural gas have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.

The composition of the crude oil produced by us in Argentina varies by geographic area. Almost all crude oil produced by us in Argentina has very low or no sulfur content. We sell substantially all the crude oil we produce in Argentina to our Refining and Marketing business segment. Most of the natural gas produced by us is of pipeline quality. All of our gas fields produce commercial quantities of condensate, and substantially all of our oil fields produce associated gas.

The following table sets forth the average production costs and average sales price expressed in Ps/boe by geographic area for 2019, 2018 and 2017:

<i>Production costs and sales price</i>	<i>Total</i>	<i>Argentina</i>	<i>Chile</i>
Year ended December 31, 2019			
Lifting costs	620.44	619.55	4,001.12
Local taxes and similar payments ⁽¹⁾	31.09	30.97	501.45
Transportation and other costs	64.51	64.33 ⁽³⁾	752.17
Average production costs	<u>716.05</u>	<u>714.85</u>	<u>5,254.74</u>
Average oil sales price	2,351.81	2,351.81	—
Average NGL sales price	1,167.69	1,167.69	—
Average natural gas sales price ⁽²⁾	1,038.96	1,038.96	—
Year ended December 31, 2018			
Lifting costs	348.68	348.68	—
Local taxes and similar payments ⁽¹⁾	22.92	22.92	—
Transportation and other costs	97.77	97.77	—
Average production costs	<u>469.37</u>	<u>469.37</u>	<u>—</u>
Average oil sales price	1,774.87	1,774.87	—
Average NGL sales price	1,052.96	1,052.96	—
Average natural gas sales price ⁽²⁾	739.49	739.49	—
Year ended December 31, 2017			
Lifting costs	228.68	228.68	—
Local taxes and similar payments ⁽¹⁾	7.49	7.49	—
Transportation and other costs	48.19	48.19	—
Average production costs	<u>284.36</u>	<u>284.36</u>	<u>—</u>
Average oil sales price	888.48	888.48	—
Average NGL sales price	368.07	368.07	—
Average natural gas sales price ⁽²⁾	477.00	477.00	—

⁽¹⁾ Does not include *ad valorem* and severance taxes, including the effect of royalty payments which are a financial obligation or are substantially equivalent to such taxes, in an amount of approximately Ps. 226.21 per boe, Ps. 162.08 per boe, and Ps. 89.67 per boe for the years ended December 31, 2019, 2018 and 2017, respectively.

⁽²⁾ Includes revenues from the Gas Plan. See “Item 4. Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas—Natural Gas Stimulus Programs.”

⁽³⁾ Includes (38.2) Ps/boe million corresponding to the implementation of IFRS 16. For more information See Note 2.b.12) to the Audited Consolidated Financial Statements.

Drilling activity in Argentina

The following table shows the number of wells drilled by us or consortiums in which we had a working interest in Argentina during the periods indicated.

	For the Year Ended December 31,		
	2019	2018	2017
Gross wells drilled ⁽¹⁾			
Oil	8	10	10
Gas	3	5	7
Exploratory productive	11	15	17
Dry	12	6	2
Total - Exploratory	23	21	19
Oil	305	313	325
Gas	105	131	158
Development productive	410	444	483
Dry	-	1	4
Total - Development	410	445	487
Net wells drilled ⁽²⁾			
Oil	7	7	7
Gas	2	4	6
Exploratory productive	9	11	14
Dry	9	5	1
Total - Exploratory	18	16	15
Oil	224	237	247
Gas	75	84	116
Development productive	299	321	363
Dry	-	1	4
Total - Development	299	322	367

(1) "Gross" wells include all wells in which we have an interest.

(2) "Net" wells equal gross wells after deducting third-party interests.

Exploration & Production Activity in Argentina

During 2019, our main exploratory and development activities in Argentina have had the following principal focus:

Exploratory Activities

Operated Areas - Exploratory Activities

During 2019, our exploratory activities were mainly focused on:

Onshore

Unconventional activities

During 2019, we focused on the regional exploration of shale oil to determine its productivity in different areas of the Neuquina Basin. In 2019, ten wells targeting Vaca Muerta Formation and one workover to Los Molles formation have been drilled. As of the date of the

annual report, eight Vaca Muerta wells and the workover were positive, and two wells are being evaluated.

Exploration of tight gas continued during 2019 in Rincón del Mangrullo and Cerro Manrique Blocks. Two wells have been drilled and, as of the date of this annual report, are pending completion.

Conventional activities

- Neuquina Basin
 - A total of 14 wells targeting conventional oil reservoirs were drilled in the basin. Positive results were obtained in both wells drilled in El Manzano Oeste Block. In Chachahuén Block: four wells were below expectations and eight shallow exploration wells were drilled to gather more detailed geological data on rock and fluid properties. Approximately 2,318.3 meters of cores have been taken in all of them and will be studied.
 - Having fulfilled all commitments in Malargüe Block, and considering the results obtained, the Company decided not to continue with the second exploratory period. Consequently, a note was sent to the Mendoza Province informing of our decision to relinquish the block. As of the date of this annual report, we are still awaiting response from the province.
 - During 2019, we requested to the Río Negro Province a second exploration period for the Chelforó Block, which was granted. The drilling of one well was committed.
- Golfo San Jorge basin
 - During 2019, one exploration well and one workover were drilled in the Golfo San Jorge basin. The exploration activity targeted conventional oil reservoirs with a positive result in the workover drilled in Cañadón de la Escondida Block and negative results in one conventional well in Restinga Ali Block.
- Cuyana basin
 - A workover targeting conventional oil was drilled in Mesa Verde Block showing positive results.
 - Having fulfilled all commitments in CCyB 17/B and considering the obtained results, we decided not to continue with the exploratory periods and, as a result, the block was relinquished to the Mendoza Province. As of the date of this annual report, we are still awaiting response from the province.
- Austral basin
 - In April 2019, a new exploration block was awarded in Santa Cruz Province: Paso Fuhr. A joint-venture agreement was signed by YPF and Compañía General de Combustibles S.A. (“CGC”), whereby CGC will be the operator of this area and hold a 50% working interest.
- Salta Basin:
 - Having fulfilled all commitments in Desecho Chico Block, and considering all results obtained, the Company decided not to continue with the exploratory periods. Consequently, a note was sent to the Salta Province informing our decision to relinquish the block. The province accepted the relinquishment in September 2019.
- Seismic
 - During 2019, seismic 3D data covering 286 km² was recorded in Charagua Block (Bolivia) with the purpose of fulfilling commitments and identifying new exploration opportunities. Seismic data processing will be carried out for subsequent interpretation.

Offshore:

According to the amendments to the Hydrocarbons Law adopted by Law No. 27,007, all exploration permits owned by ENARSA would be transferred to the Secretariat of Energy. YPF participated in three offshore blocks in association with ENARSA (ENARSA 1 block: YPF 35%, ENARSA 2 block: YPF 33% and ENARSA 3 block: YPF 30%) with total acreage of 23,700 km².

In September 2015, the Argentine Executive Branch and YPF began negotiating the conversion of association agreements signed with ENARSA.

On December 29, 2017 YPF filed a note before the Ministry of Energy confirming its willingness to negotiate the conversion of association agreement related to the Area identified as "ENARSA 1". In the same note, YPF communicated its decision not to convert the association agreements related to the Areas "ENARSA 2" and "ENARSA 3".

On October 19, 2018 YPF officially filed another note to the SGE to negotiate the conversion of the association agreement related to the area identified as "ENARSA 1".

On April 11, 2019 the area "ENARSA 1" was officially converted into "CAN-100". In August 2019, a partnership agreement was signed by YPF and Equinor Argentina AS, whereby Equinor Argentina AS would operate the area holding a 50% working interest. On April 3, 2020, the MINEM formalized the Agreement and the closing of the operation happened on April 16, 2020. In addition, the areas "ENARSA 2" and "ENARSA 3" were formally relinquished on April 11, 2019. With the exception of the above, none of our exploration permits are regulated by Law No. 27,007. See "— Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 27,007 (amendment of the Hydrocarbons Law)— Exploration and Production."

In addition, we obtained three blocks in the bidding round in April 2019 that were added to CAN-100 block: CAN 102 & CAN 114, in the Argentina Norte basin, in partnership with Equinor and MLO-123, in the Malvinas Oeste basin, in partnership with Total & Equinor.

Non-Operated Areas - Exploratory Activities

During 2019, one workover and two exploration wells have been drilled in non-operated blocks:

Agua Salada: one oil well was drilled by Tecpetrol with positive results.

CNQ-7A: one oil well was drilled by Pluspetrol with negative results.

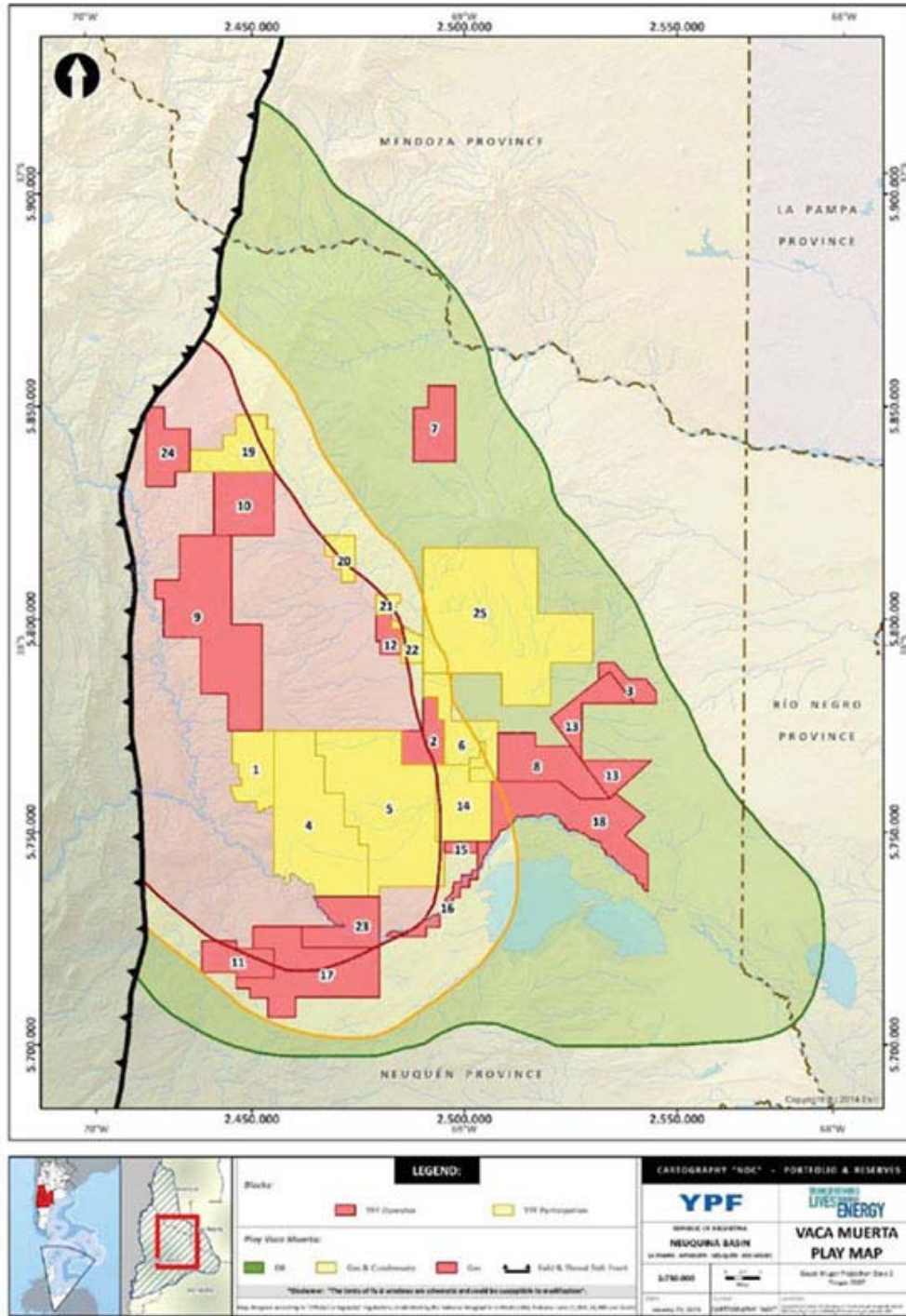
Aguaragüe: a workover targeting Los Monos Formation was drilled by Tecpetrol with negative results.

Development Activities

During 2019, our development activities in Argentina were mainly focused, according to the organizational structure in force in 2019, on the following regions and blocks:

Unconventional Region

During 2019, Unconventional Regional production was 124.5 kboe/d, representing 24.2% of YPF's total production.



1 Aguada De Castro; 2 Aguada De La Arena; 3 Aguada Del Chañar; 4 Aguada Pichana Occidental; 5 Aguada Pichana Oriental; 6 Bajada De Añelo; 7 Bajo Del Toro; 8 Bandurria Sur; 9 Cerro Arena; 10 Cerro Las Minas; 11 Chasquivil; 12 El Orejano; 13 La Amarga Chica; 14 La Calera; 15 La Ribera I; 16 La Ribera II; 17 Las Tacanas; 18 Loma Campana; 19 Loma Del Molle; 20 Pampa De Las Yeguas I; 21 Pampa De Las Yeguas II Norte; 22 Pampa De Las Yeguas II Sur; 23 Rincón Del Mangrullo; 24 Salinas Del Huitrin y 25 San Roque.

Loma Campana Area:

On July 16, 2013, YPF and Chevron signed an investment project agreement for the joint exploitation of unconventional hydrocarbons in Neuquén Province.

During 2019, we focused on increasing lateral lengths and frac stages to improve our productivity, in 2017 we had an average of approximately 1,700 mts horizontal length and 20 Frac Stages, in 2018 an average of approximately 2,200 mts horizontal length and 28 Frac Stages, and finally in 2019 we had an average of approximately 2,400 mts horizontal length and 35 Frac Stages. The total well cost for each Frac Stage was reduced from 488 U.S.\$/Stages in 2017 to 389 U.S.\$/Stages in 2018 and 315 U.S.\$/Stages in 2019.

During 2019, 48 horizontal wells were drilled, and 25 horizontal wells were put into production, achieving a performance that, on average was as expected by the Type Well for the Cocina target. On the other hand, Organico target needs more analysis to evaluate performance. The well design ranges, from 2,100 mts of lateral length and 33 frac stages to 2,570 m of lateral length and 41 frac stages (while the space between frac stages was mainly at 63 m due to High Density Completion (“HDC”) strategy.

During 2019 activity in this area involved a total gross investment of U.S.\$ 481 million in drilling and completion (“D&C”) and U.S.\$ 101 million in production facilities and other minor capital expenditures.

The Loma Campana Oil Treatment plant, the main facility that processes the oil production from Vaca Muerta is being upgraded.

Major investments in other production facilities have also been executed during this year (Primary Separation Unit No. 8 Revamping, Water supply and disposal facilities). Production peak was reached on August with 46.2 (kbb/d).

As stated before, HDC stimulation design was implemented showing promising results when compared with previous campaigns, preliminary analyses show an increase of Estimated Ultimate Recovery (“EUR”) against 2018 and previous completions. In 2020 we plan to combine numerical simulation studies and field tests to keep improving stimulation designs. Several other pilots are in progress such as the use of 100% natural sand (percentage of ceramic support agent was removed), low viscosity fluids and the pumping sequence adjustments. Well spacing pilots are under execution to evaluate optimized development strategies in certain areas of the field.

A delineation well was executed at one of the upper levels of Vaca Muerta. With this information and some other delineation wells that are currently under execution we seek to define the potential in the levels of progradations in Vaca Muerta. A successful scenario will allow us to exploit additional targets following the levels that are currently under development. Recent results of the first well are under analysis.

Horizontal wells were drilled in areas that had already been exploited with vertical wells, obtaining good results. This encourages the possibility of returning to certain areas of the block and improving the recovery factor in them.

The core zone in development was expanded from sector East to the South East and to the Center of the field.

La Amarga Chica Area:

On December 10, 2014, YPF and PETRONAS E&P ARGENTINA S.A., an affiliate of PETRONAS E&P Overseas Ventures Sdn. Bhd (“PEPOV”) of Malaysia, executed a Project Investment Agreement (the “Investment Agreement”) aiming to perform joint exploitation of unconventional hydrocarbons in the La Amarga Chica area in the Neuquén province. YPF will be the operator of the area.

The Pilot Plan, comprising 30 wells in three years, started in May 2015. At the end of the first phase, a total of six horizontal and three vertical wells were drilled, with results over performing previous expectations. Based on those positive results, PETRONAS E&P ARGENTINA S.A. agreed to continue co-investing in a second phase of the pilot project. By the end of 2016, four additional horizontal wells from this phase were drilled, reaching a total of nine drilled wells during 2016, with a drilling rig fully dedicated to the project. During 2017, 12 horizontal wells were drilled, completing phase two of the project and paving the way for the final phase of the project. Six of those wells were put into production with the expected performance. All of the drilled horizontal drains were standardized at 1,500m long except for two wells that reached 2,000m. An improvement in performance of drilling (time and cost) is still observed, with drilling time and well cost being reduced by 22% and 11%, respectively, between 2017 and 2018.

At the beginning of 2018, YPF and PETRONAS E&P ARGENTINA S.A., an affiliate of PETRONAS E&P Overseas Ventures Sdn. Bhd (“PEPOV”) of Malaysia, ratified their intention to continue with the pilot in the area. During 2018, the pilot phase of the area project was completed (seven wells were drilled, initial results behave according to expectations) and the third phase was initiated, where both companies considered the drilling of ten horizontal wells and the construction of new facilities and installations in order to transport the shale oil production derived from the area.

During 2019, 41 wells were drilled, and 20 wells were put into production, achieving a performance above expectations set by the Type Well in La Amarga Chica. Well design ranges reached an average 1,900 m of lateral length and 28 frac stages. Also, ten vertical wells were drilled for control or water purposes.

Activity in this area during 2019 involved a total gross investment of U.S.\$ 379 million in D&C and U.S.\$ 74 million in production facilities and other capital expenditures.

Production peak was reached on December with 17.1 kbb/d

In addition, many optimization strategies were tested and implemented in 2019, leading to a growth in fluid and proppant intensities (of up to 5,000 lb/ft).

Up to five landing zones have been targeted and are under evaluation in some areas of the field.

A new high-density completion design was implemented as a standard resulting in an EUR growth (estimated near 6-7 %).

Oil recovery technologies under laboratory tests phase have also been improved

Parent-child effect has permanently been monitored in order to optimize the field development strategy.

Cemented sleeve technology was implemented in one well in order to mitigate possible casing restriction.

Bandurria Sur Area:

On July 5, 2017, YPF and SPM Argentina S.A. executed an agreement defining the main terms and conditions for the joint development of a shale oil pilot in two phases. YPF will be the operator of the area.

On July 18, 2018, by means of Decree No. 1,020/18, the Argentine Executive Branch of the Province of Neuquén authorized the assignment of participation foreseen in the definitive agreements.

On October 10, 2018, we had a major spill in the area of Bandurria Sur caused by a blowout (decontrol of well). For this reason, the provincial government decided to revoke the environmental licenses for pads eight and nine (this last one containing the uncontrolled well). As of the date of this annual report the pad eight has already normalized and continues the scheduled perforation activities and with respect to the pad nine we continue the remediations activities.

YPF and SPM continued to assess the performance of wells in different zones of the block and evaluation of different field development approaches.

During 2019, fourteen horizontal wells were drilled, eight wells put into production in last quarter of the year. As the date of this annual report, the performance of those wells is under evaluation. Well design ranges reached an average of approximately 2,400 m of lateral length and approximately thirty-six frac stages. Also, two vertical wells were drilled for control purpose.

Activity in this area during 2019 involved a total gross investment of U.S.\$ 178 million in D&C and U.S.\$ 43 million in production facilities and other capital expenditures.

Production peak was reached on December 2019 with 7 kbb/d.

The largest horizontal well in the basin targeting of Vaca Muerta formation is YPF.Nq.LCav-45(h) with 7.190 m of depth. It was drilled on December 2019 and is expected to be put into production during 2020.

On January 2020, YPF was notified of the acquisition by Shell Compañía Argentina de Petróleo S.A. and Equinor Argentina AS (jointly, the “Consortium”) of the entire share package of SPM. This assignment required payment by SPM of the pending value that amounted approximately to U.S.\$105 million, which has already been received by YPF.

On January 30, 2020 YPF entered into an agreement (the “Agreement”) with the Consortium, through SPM, by which the main terms and conditions were agreed for the sale of an 11% additional in the Bandurria Sur area, located in the Province of Neuquén. YPF will continue to be the Area operator.

The Agreement provides a period of exclusivity for the negotiation and execution of definitive contracts. Once they have been executed and certain conditions precedent have been met, among which are the approvals of the corresponding bodies of the companies and the approval by the Province of Neuquén, SPM shall acquire the additional 11% participating interest in the concession for the non-conventional exploitation of the Area, so the Consortium will amount to an indirect participation in the concession of 60%, with YPF retaining the remaining 40%.

Bajo del Toro Area:

Between 2012 and 2015, YPF and its partners (EOG Resources Inc, successor to Enron Oil & Gas Company, and Gas y Petróleo de Neuquén) drilled one slanted and two vertical exploratory wells. One of the vertical wells and the slanted well were completed (with six and eight frac stages respectively) and proved oil production from the whole organic-rich section of the Vaca Muerta Formation. The other vertical well was used for reservoir characterization and for microseismic monitoring of the slanted well. Between 2016 and 2017 the joint venture was dissolved, and part of the block reverted to the province.

On January 2018, YPF, Bajo del Toro I S.R.L. and Statoil Argentina B.V- Sucursal Argentina entered into an agreement defining the main terms and conditions for the joint development of a shale oil pilot in Bajo del Toro block, with YPF as the operator of the area.

During 2018, the joint venture continued with the characterization and evaluation of Vaca Muerta initiated in 2012, placing a pad in the southwestern area of the block. The pad included one vertical pilot section plus a side-track horizontal drain and one horizontal well. The objective of the horizontal drain/well was to test productivity in different landing zones. The objective of the vertical pilot section was data acquisition (core and full suite of logs) for reservoir characterization.

Additionally, on October 12, 2018, by Decree No. 1,755/18, the province of Neuquén approved the assignment of a portion of the concession in favor of Statoil, thereby satisfying the conditions precedent set forth in the agreement.

During 2019, two wells were drilled, and two wells drilled in 2018 were put into production, achieving a performance like was expected by the type well.

During 2019 activity in this area involved a total gross investment of U.S.\$ 16 million in D&C and U.S.\$ 8 million in production facilities and other capital expenditures.

Chihuido de la Sierra Negra Sudeste – Nambuena Area:

During April 2014, YPF and subsidiaries of Chevron Corporation executed a new agreement with the objective of the joint exploration of unconventional hydrocarbons in Neuquén, within the area Chihuido de la Sierra Negra Sudeste – Nambuena. During 2015, this activity began with the D&C of two vertical wells that allowed the defining of the location and landing zone for the horizontal well. Subsequently, a third vertical well was drilled to delineate the extension of the area to the eastern sector of the block. By the drilling, completion and testing of these wells, the commitment for the initial phase of the project signed in April 2014 was fulfilled. During the second half of 2016, the joint venture between YPF and subsidiaries of Chevron Corporation continued the exploratory stage by evaluating the long-term tests of the horizontal well and third vertical well in this area located in the black oil window of the area.

During 2018, there was no activity in the area. A pilot phase was initiated in 2019, including the drilling of four horizontal wells which landed in three different landing zones. Two of them were completed and the other two are planned to be completed during 2020.

During 2019 activity in this area involved a total gross investment of U.S.\$ 36 million in D&C and U.S.\$ 1 million in production facilities and other capital expenditures.

El Orejano Area:

On September 23, 2013, YPF and Dow Europe Holding B.V. and PBB Polisor S.A. (our current 50% partner in the area) signed an agreement relating to the joint development of an unconventional gas pilot project in the Neuquén Province.

The project has been in development phase since July 2016, and three targets are being drilled and produced.

During 2019, two horizontal wells were drilled and four wells drilled in 2018 were put into production achieving a performance below expectations.

During 2019, activity in this area involved a total gross investment of U.S.\$ 24 million in D&C and U.S.\$ 21 million in production facilities and other capital expenditures.

Due to the gas market conditions, the production of the area was limited and D&C of new wells is suspended. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market”

Rincón del Mangrullo Area:

In Mulichinco formation at Rincón del Mangrullo concession, Pampa Energía S.A. (“Pampa Energía”) acquired 50% of the working interest during 2015. During 2019, one directional well, drilled in 2018, was put into production.

Instead, Vaca Muerta Formation in this block is 100% owned by YPF.

During 2019, two horizontal wells were drilled, eleven wells were put into production with results below expectations in the first pad due to the presence of faulting and the absence of one of the landing zones. On the other hand, the second pad exceeded the expectations reaching the best performance in the area, regardless of the landing zone. Finally, a four well pad was drilled, completed and turned to sales in 2019 with the results in line with the expectations. Well design ranges reached an average of approximately 1,900 m of lateral length and approximately 26 frac stages.

Activity in this area during 2019 involved a total gross investment of U.S.\$ 51 million in D&C and U.S.\$ 16 million in production facilities and other capital expenditures.

Production peak was reached in September with 4.9 (mmcm/d).

Due to the gas market conditions, the production of the area was limited, and the D&C activity of new wells is suspended. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market”

Aguada de la Arena Area:

On May 13, 2016, YPF and Pampa Energía executed an agreement that subjects them to certain conditions precedent under which, upon closing of the acquisition by Pampa Energía of a controlling stake in Petrobras Argentina S.A (“PESA”). PESA will assign to YPF certain participating interests in two exploitation concessions in areas with gas production and significant gas development potential (tight and shale) located in Neuquina basin, which shall be operated by YPF. The conditions previously mentioned, and the assignment to YPF of the participating interest were concluded during 2016. As a result, the participating interests acquired were: (i) a 33.33% participating interest in Río Neuquén block located in the province of Neuquén and the province of Río Negro and (ii) an 80% participating interest in Aguada de la Arena block located in the province of Neuquén. In addition, on February 23, 2017, YPF and PetroUruguay S.A. signed a definitive agreement for the transfer of a 20% participating interest in Aguada de la Arena area. As a result, YPF has increased its participating interest in Aguada de la Arena area to 100%.

During 2019, three horizontal wells from the pilot phase were drilled, and six horizontal wells were put into production, three of them located in the gas zone and three in the gas and condensate zone.

An extended test was planned in the northeast area in order to evaluate the initial productivity. The extended test was carried out in the 3 wells located northeast of the block in the gas and condensate zone, the GOR (the gas oil ratio) was corroborated, and a PVT (Pressure Volume Temperature) sample to characterize the reservoir fluid (Dewpoint and Liquid Drop Out). Sampling was taken from the AdIA-

1009h well (and results are still pending analysis).

The first wells that were put into production in the gas zone show high productivity similar to the high type well in the El Orejano area.

Well design ranges reached an average 1,700 m of lateral length and 22 frac stages.

Activity in this area during 2019 involved a total gross investment of U.S.\$ 30 million in D&C and U.S.\$ 30 million in production facilities and other capital expenditures.

The field had restrictions on gas treatment and evacuation capacity. During 2019 the Early Production Facilities North and Center were built. The development of the field was postponed due to macroeconomic conditions related to the price of gas. Production peak was reached on October 1.4 mmcm/d. D&C of new wells is suspended subject to market conditions. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market”

La Ribera Area:

This block, located in the center of Neuquina basin, is 100% owned by YPF. The concession area comprises two separated regions: La Ribera I, covering 21.88 km², and La Ribera II, covering 61.1 km².

During 2019, the four wells drilled during 2018 were put into production and confirmed the productivity expected from larger laterals wells. Additionally, four more wells were drilled, completed and put into production in the western part of the block, confirming productivity and GOR as expected.

One of the wells targeted a new landing zone with productivity according to expectations. Finally, a four well pad was drilled and completed, which will be put into production in 2020. The field is restricted in treatment capacity. The drilling of a five well pad was cancelled after spudding due to macroeconomic conditions related to the price of gas.

3D Seismic was acquired in the block.

Well design ranges reached an average 2,300 mts of lateral length and 26 frac stages.

Activity in this area involved in 2019 a total gross investment of U.S.\$ 86 million in D&C and U.S.\$ 12.5 million in production facilities and other capital expenditures.

Production peak was reached on September 1.07 (mmcm/d).

D&C of new wells is suspended subject to market conditions. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market”

Aguada del Chañar Area:

In June 2019 YPF acquired the concession of Aguada del Chañar, through Decree No 1,096/19 of the Neuquén Province. Aguada del Chañar block (57.4 km²) is located adjacent to La Amarga Chica area. The concession of the block, which includes unconventional resources in the Vaca Muerta formation expires in 2054.

Non-Operated Areas - Development Activities:

Aguada Pichana Este Area:

This block is operated by Total S.A., YPF holds a 27.2% working interest in the Mulichinco Formation, and a 22.5% working interest in the Vaca Muerta Formation.

During 2019, twelve horizontal wells were drilled. These wells are part of the shale gas development project that consist of drilling around forty wells with 2,500 m of drain in three landing zones (La Cocina and two Organic intervals) in Vaca Muerta Formation.

Six wells were put in production in 2019, two which had been were drilled in 2018 and the rest in 2019. All of them obtained results in accordance with expectations.

Due to the gas market conditions, the activity in the area has been suspended. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market”

Aguada San Roque Area:

This block is operated by Total S.A. and YPF holds a 34.11% working interest.

In the second quarter of 2018, during the Pilot stage, two wells landed in Organico Level, were completed and connected (2,500m of drain) and other two wells landed in La Cocina Level, were completed and connected during the second quarter of 2019 (2,500m and 2,000m of drain). Production did not reach expectations in any of them.

Aguada Pichana Oeste Area:

This block is operated by PAE, and YPF holds a 30% working interest.

In 2017 we commenced a shale gas pilot phase in the Vaca Muerta Formation. Three vertical pilot wells and ten horizontal wells were drilled in four different spots across the block. Lateral length drilled range from 2,000 to 2,500 m in several landing zones, including La Cocina and the lower and upper Orgánico. Eight wells were connected, of which four are producing more than expected while the remaining four are producing in accordance with expectations or less.

In 2019, four additional wells were drilled and completed.

Pampa de las Yeguas Area

This block is operated by EXXON Mobil Exploration Argentina S.R.L., and YPF holds a 50% working interest.

One well was drilled in 2017 and two more were drilled in 2018 as part of a pilot project. Two of them landed in “La Cocina” interval and the other one at the landing “Orgánico” zone.

All the wells were connected during the first months of 2019 and are producing as expected.

No drilling activity was performed in 2019 nor any is planned in 2020.

La Calera Area:

This block is operated by Pluspetrol, and YPF holds a 50% working interest.

One exploration well with 1,500 m of drain landed in the “Orgánico” level was connected during the first quarter of 2018 and produced better than expected. The pilot stage started during the fourth quarter of 2018 and continued during 2019, which included the drilling of

nine wells to La Cocina, Orgánico Inferior A and Orgánico Inferior B (2,000 m of lateral length). All wells were connected during 2019 and are producing better than expected.

On November 2, 2018, the province of Neuquén, through Decree No. 1,834/18, granted a non-conventional hydrocarbons exploitation concession to both companies.

Later in 2019, during the pre-development stage, twelve wells with 2,000 m of drain, were drilled in the low GOR area (North-east of the block) to the same landing intervals as the pilot.

Production peak was reached on December 2.1 mmcm/d and 3.4 Kbb/d.

Bajada de Añelo Area:

This block was operated by O&G Developments Ltd. S.A., and YPF holds a 50% working interest. On February 23, 2017, YPF and O&G Developments Ltd. S.A. (hereinafter “O&G”), an affiliate of Shell Compañía Argentina de Petróleo S.A., executed an agreement, through which YPF and O&G agreed on the main terms and conditions for the joint development of a shale oil and shale gas pilot in two phases.

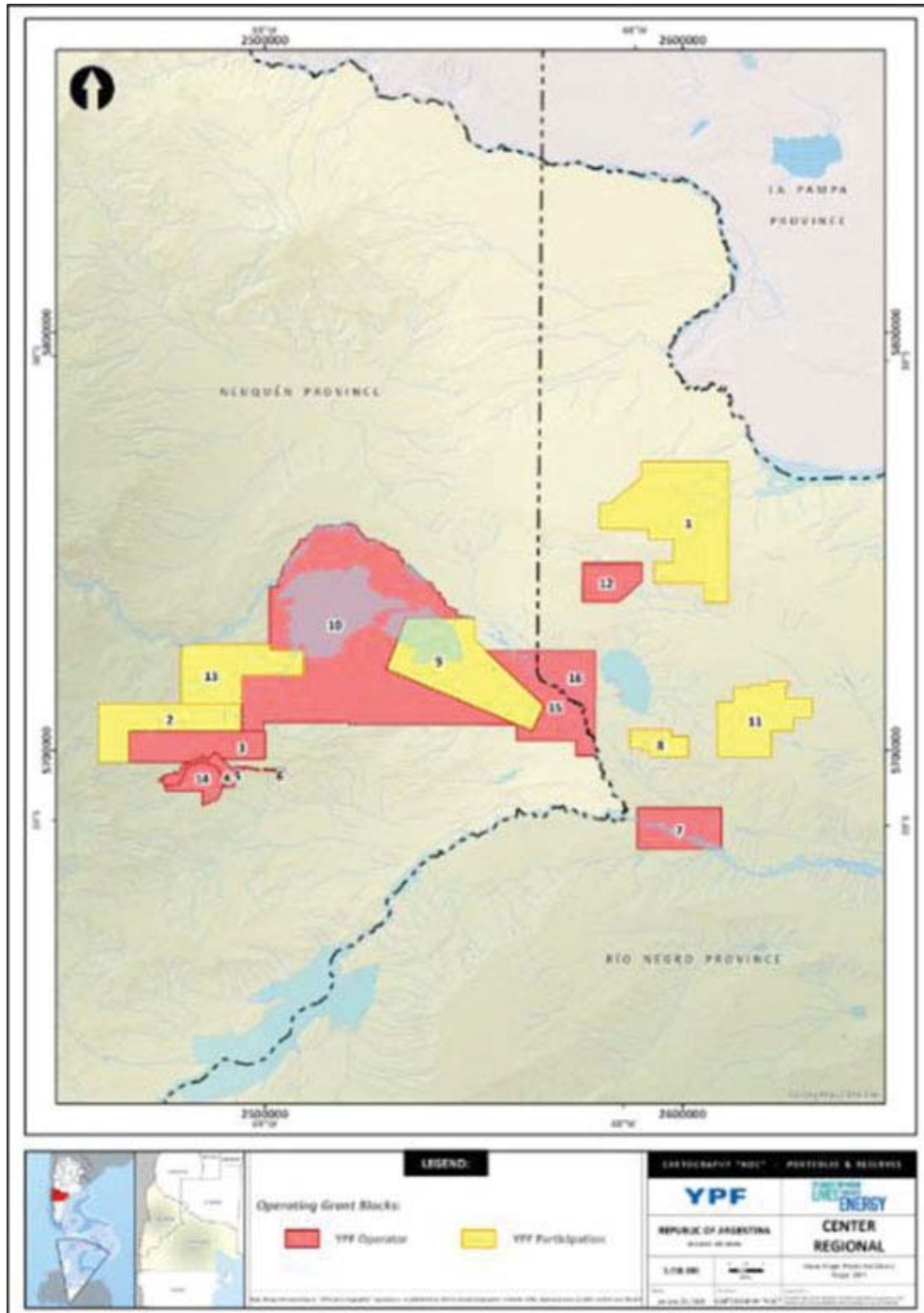
Drilling activity started in 2017 in the southeast corner of the block with the first pad of four wells. Three of them were abandoned during drilling stage due to operational issues. Only one of these wells was connected and is producing better than expected.

Eight wells were drilled in 2018 in two different pads and reached three landing zones (“La Cocina”, “Organico Inferior” and “Organico Superior”) and were connected in 2019. Production was frequently interrupted due to operational issues and lack of internal facilities.

No drilling activity was performed in 2019.

Centro Region

During 2019, Centro Region production was 142.5 kboe/d, representing 27.7% of YPF's total production.



1 Agua Salada; 2 Aguada Villanueva; 3 Al Norte De La Dorsal; 4 Dadín - Lote I; 5 Dadín - Lote II; 6 Dadín - Lote III; 7 Estacion Fernández Oro; 8 La Yesera; 9 Lindero Atravesado; 10 Loma La Lata - Sierra Barrosa; 11 Loma Negra; 12 Los Caldenes; 13 Meseta Buena Esperanza; 14 Octógono y 15 -16 Río Neuquén.

Octógono Block:

Continuing with the activity of 2017, during 2018 five wells were drilled in the northern area of the field targeting gas-bearing intervals in Lajas formation. In May 2018 we started the waterflooding in Campamento Dos field. We are injecting in two pilots in Challacó formation.

Due to the gas market conditions the drilling activity in Lajas Formation was suspended for 2019. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market.”

Al Norte de la Dorsal Block:

During 2018, two wells were carried out (1 drilled in 2017 and completed in 2018 and one drilled and completed in 2018).

During 2019 we did not have any activity in gas wells and, due to the gas market conditions.

Cerro Bandera Block:

On November 22, 2017, YPF entered into an assignment agreement with Oilstone Energía S.A., in respect of 100% of the exploitation concession in the Cerro Bandera area. YPF owns the La Via field and the exploration concession in Vaca Muerta and Los Molles formations.

No rig activity was performed in 2019 in Los Molles Formation.

The Anticlinal Campamento Block, the Al Sur de la Dorsal Block, the Dos Hermanas Block, the Ojo de Agua Block.

On July 24, 2019, YPF S.A gave the assignment production rights to Oilstone Energía Sociedad Anónima by the Decree No. 1346/19.

Loma La Lata – Sierra Barrosa Block:

During 2018 we drilled 10 gas wells in Sierras Blancas formation (six vertical and four horizontal wells), of which six wells were completed, and four of which are already in production, with an achieved production rate according to expectations.

During 2019 we drilled nine gas wells in Sierras Blancas formation (five vertical and four horizontal wells), of which nine wells were completed. Eight of them are already in production, with an achieved production rate according to expectations.

The goal of this project is to design a field development plan for Vaca Muerta formation in the western area of Loma La Lata – Sierra Barrosa block. The project was divided in stages. During 2018, the first two wells were drilled, and their completion was scheduled for the first quarter of 2019. One well was started and finished in 2019. Due to the wide variety of results, activity was suspended.

During 2019, we had a well control incident in one exploratory gas well under production in the Loma La Lata field. After deploying our contingency plan, we managed to control the well and secure the location.

Aguada Toledo–Sierra Barrosa Area: Tight gas segment 5 (Lajas formation)

During 2018, seven wells were drilled in Lajas formation (1 was horizontal). Additionally, one well was drilled in Pre-Cuyano and Lajas formations. It produces from Pre-Cuyano and results were below than expectations.

Los Caldenes Block:

During 2017, two developing wells were drilled in the Los Caldenes field (gas target), one of which was completed during the first quarter of 2018.

During 2019, there was no activity in Los Caldenes field due to the gas market conditions. See “Item 4. Information on the Company—Gas and power—The Argentine natural gas market.”

Manzano Grande field:

In order to continue with the activity in the oil block, in 2018 we drilled two wells in the Manzano Grande block (oil target), both of which are currently in production.

During 2019 four wells were drilled and completed, all of which were equipped with beam pumping system. A 160-cubic meter tank was installed at the separation facilities, and the facilities to lead tracks to transport the oil were improved. In addition, a fuel gas separator was installed and a new natural gas power plant to generate power energy is being constructed.

Estación Fernández Oro (“EFO”)

During 2019, several projects were completed that allowed an increase in production, treatment and compression capacities. With respect to drilling activity, we completed 28 gas wells targeting the Lajas formation, in general with positive results for the development wells.

The main objective of the activities conducted during 2019 was the expansion of the gas treatment capacities, the compression and transport plants. The most relevant projects were the following:

- Construction and assembly of an LTS (Low Temperature Separator) EFO plant
- Construction of a new gas pipeline for the sale of EFO plant to NEUBA I trunk gas pipeline
- Expansion of the low and ultra-low pressure compression plant
- Separator Revamp in Battery 2 ultra-low pressure Compressor
- New Scrubber ultra low pressure at Gas Treatment Plant
- Degasser facilities at Battery 2 to decrease the vapor generation from the condensate. Currently working on the condensate stabilization facilities.
- Expansion of the Gathering Network to EFO North Location.
- Improvements at the Well Pads installing new manifolds that allow produce wells in high, low or ultra low pressure with capability to measure gas production per well
- Working on improvements at the water treatment and injection plant and location gas treatment plan.

Río Neuquén block:

During 2017, the four wells drilled in 2016 were completed, all of them above the average estimated production. An Integral Field Development Plan (FDP) was defined, considering appraisal, infill and development sub-projects. The goal of these projects is to define the optimum production rate. In any case, from the proposed plan investments will be made in facilities to increase the production capacity from 3.5 up to 5.5 million cubic meters per day. As a result of the FDP six wells were drilled during 2017 (2 of them were already completed, one of them with initial production rate above the expected average and the other was an appraisal with results under expectations).

Following a proposed Integral FDP, during 2018, four wells were drilled and completed in 2017 (one well was for delimitation and the other three for development, all with positive results). During 2018 a total of 12 wells were drilled: (four of which were drilled in 2017 and completed in 2018, and the remaining eight were drilled and completed in 2018). Of those wells, there were three delineation wells, with satisfactory results and nine development wells, three with results according to the type well, three with few data production up to date, one currently in process of completion and two of them were finished in 2019 with positive results

During 2019 the three wells that were drilled in 2018 were completed with results as expected. Regarding the investments in facilities we realized the following:

- According to expectations, the capacity of the compression and treatment plant was increased to 5.5 million cubic meters per day, compression capacity in 2.4 million cubic meters per day in ultra low pressure and 3.1 million cubic meters per day in low pressure.
- The low pressure gathering network was expanded following the development and location of new wells installing 2 km of new pipes.
- The gathering ultra low-pressure network was expanded reaching new locations in order to transport the production of the most depleted wells and the installation of additional 2 km of new pipelines.
- Three wells locations were constructed to drill new wells next year, attentive to the need of the gas market.
- We also invested in water well and facilities to supply water to well fracking operations
- Enhancements on oil treatment plant in order to improve the security and quality conditions

Non-Operated Areas - Development Activities:

Lindero Atravesado block:

This block is operated by Pan American Energy LLC. YPF holds a 37.5% working interest.

During 2018, one well with the Vaca Muerta formation objective, and three wells, in the Lajas Formation target, were connected and produced in accordance with expectations. In addition, two more wells were drilled in Quintuco Formation, where one of the wells is producing better than expected and the other is producing below expectations.

During 2019, 6 wells were drilled and completed in Vaca Muerta formation objective, 4 of them in El Chañar area (Northern part of the block) and 2 in Perilago area. Wells were connected and produced in accordance with expectations. 5 wells were landed in Cocina landing zone, while the sixth was landed in a new landing zone called Organico Inferior. In 2020, we expect to drill 8 new wells in El Chañar area, as part of a full development project, that is going to drain Cocina and Organico Inferior horizons.

Loma Negra block:

This block is operated by CAPEX S.A. YPF holds a 35% working interest.

During 2018, three wells were drilled and completed in the Loma de Maria Gas formation.

During 2019, four wells drilled in 2018 were connected in Loma de Maria Field, Lajas Formation. One more well was drilled and completed in the same area during 2019, with results below expectations.

Two additional wells were drilled in El Latigo Occidental as part of a Secondary Recovery Pilot Project. They are still pending connection.

La Yesera block

The Joint Venture of the block is composed by CAPEX SA – YPF SA - Metroholding SA - Corporación Financiera Internacional - San Jorge Energía SA, and is operated by CAPEX. YPF holds a 35% working interest.

During 2019, one Side Track well was drilled with Precuyo target but could not reach total depth and was abandoned due to a mechanical incident.

Agua Salada block

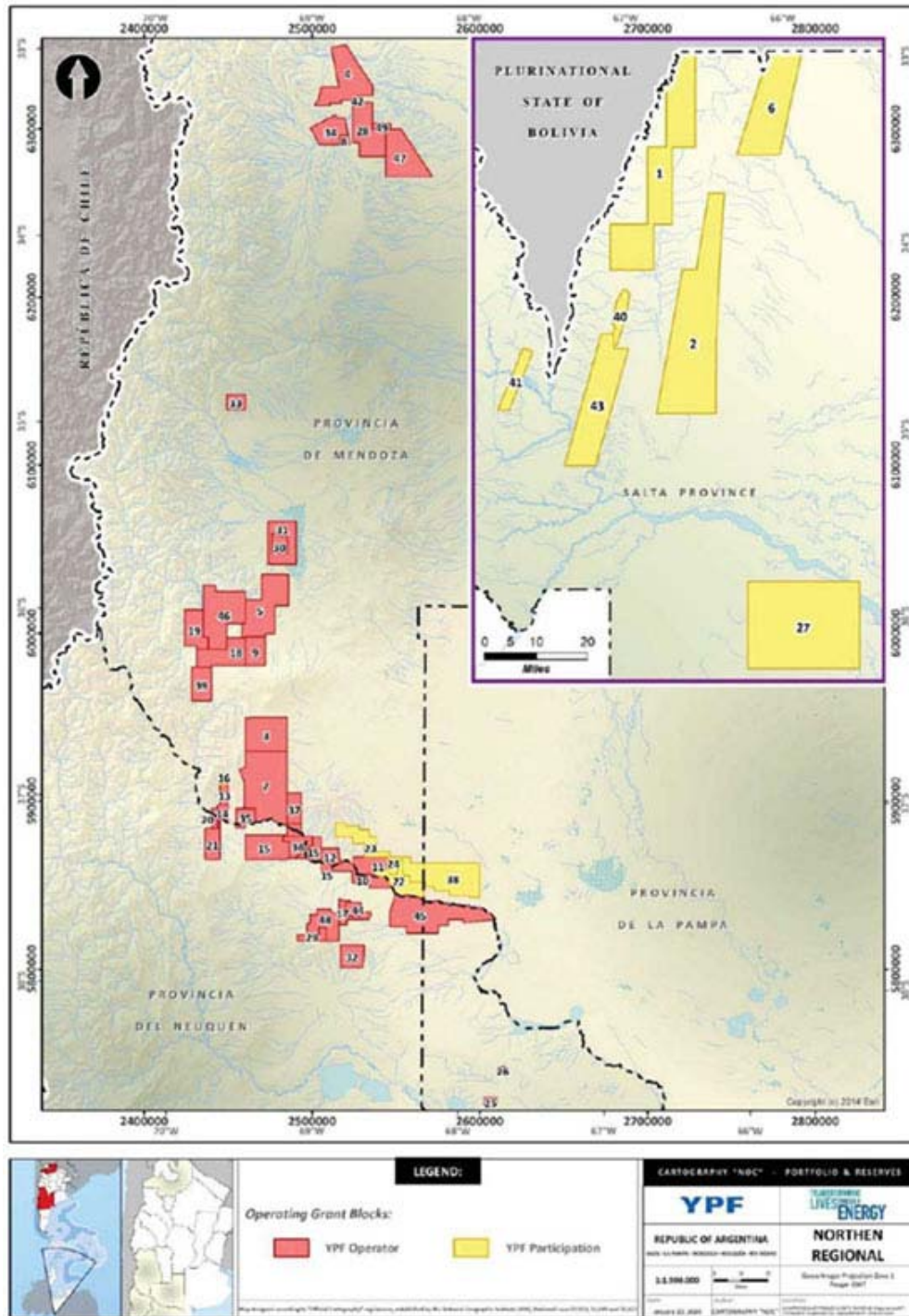
This block is operated by Tecpetrol. YPF holds a 30% working interest.

During 2018 two wells were drilled in Cuyo Inferior, Punta Rosada and Loma Montosa formations: LA.a-6 and JdMo.a-2. The first one is producing better than expected while the second one is performing below expectations.

During 2019, two appraisal wells were drilled. One of them in Loma Azul Field and the other one in Loma Cortada Field. Both produced less gas than expected.

Norte Region

During 2019, Norte Region production was 117.5 kboe/d, representing 22.8% of YPF's total production.



1 Acambuco I; 2 Aguaragüe; 3 Altiplanicie Del Payun; 4 Barrancas; 5 Cajón De Los Caballos - Sector Oriental; 6 Campo Duran – Madrejones; 7 Cañadon Amarillo; 8 Ceferino; 9 Cerro Fortunoso; 10 Cerro Hamaca; 11 Cerro Morado Este; 12 Chachahuen Sur; 13 Chihuido De La Salina; 14 Chihuido De La Salina Sur; 15 Chihuido De La Sierra Negra; 16 Confluencia Sur; 17 Don Ruiz; 18 El Manzano; 19 El Manzano Oeste (Resto); 20 El Porton; 21 Filo Morado; 22 Gobernador Ayala; 23 Jagüel Casa De Piedra; 24 Jagüel Casa De Piedra; 25 Jagüel De Bara; 26 Jagüel De Los Milicos; 27 La Bolsa; 28 La Ventana; 29 Las Manadas; 30 Llancanelo; 31 Llancanelo R; 32 Loma Amarilla Sur; 33 Loma De La Mina; 34 Mesa Verde; 35 Paso De Las Bardas Norte; 36 Puesto Hernandez; 37 Puesto Molina Norte; 38 Puesto Pinto; 39 Puntilla Del Huincan; 40 Ramos; 41 Rio Pescado; 42 Rio Tunuyan; 43 San Antonio Sur; 44 Señal Cerro Bayo; 45 Señal Picada - Punta Barda; 46 Valle Del Rio Grande; 47 Vizcacheras; 48 Volcan Auca Mahuida and 49 Zampal Oeste.

Operated Areas

Barrancas block:

Drilling activity during the last years focused on the following fields:

Barrancas: During 2019, a secondary recovery project was executed, to reestablish injection points throughout the field. So far, the results have been favorable, with some mechanical problems in the intervened wells. Eight repairs of water injectors were made

Ugarteche: The area restarted its activity in 2015 after ten years without drilling. Until 2017, the project included four wells drilled in the Ugarteche Occidental area. During 2018, ten wells targeting oil were drilled and three workovers were made. The results were better than expected.

During 2019, five wells were drilled. Three of them resulted productive, and the other two, unproductive. Four workovers were also part of the activity with better than expected results. The total remaining project activity is expected to be executed between 2020 and 2021

Estructura Cruz de Piedra: During 2018, two oil wells were drilled, with results below expectations. Likewise, we continued the execution of the project of secondary recovery expansion towards the southwest of the field by repairing two producing wells and one water injector conversion. As results were below expectations, the project has been temporarily suspended, while a re-evaluation is being carried out.

Lunlunta Carrizal: The area restarted the repair of production and injection wells in 2019 after four years of inactivity.

During 2019, the well investment activity in the northern area of this field was reactivated through the secondary optimization project. The activity included seven oil well workovers and five water injector conversions. The results were as expected. The project also includes the drilling of oil producing wells and water injectors. Its complete execution is expected to happen in 2022.

Mesa Verde block:

In 2014, exploration well MV.x-1 revealed the Río Blanco formation to be a productive horizon. The exploitation concession of this block was obtained during the second half of 2016. This allowed us to drill an appraisal well, which confirmed the expansion of the field.

In 2017, the delineation and development continued with the drilling of nine wells (between advanced and development wells) with results according to expectations.

During 2018 the development of Zone 1 (Middle Zone) was completed through the drilling of seven wells and two workovers, with results as expected.

During 2019, ten new oil wells were drilled, including advanced and development locations with results according to expectations. This included three workovers and two hydraulic fracture stimulations.

The project includes the study, delineation and development of extension zones of the field.

La Ventana block:

Between 2015 and 2017, a new integrated static-dynamic model of La Ventana Central was developed in Vacas Muertas Through this study, a secondary recovery optimization project was created. The objective of the project was to improve both areal and vertical efficiency of the secondary recovery project through the drilling of 21 wells and 45 workovers during the upcoming years. The project began its first phase in 2018, with the drilling of three wells. In these wells special profiles and core samples were taken to capture new information and reduce uncertainties of the project.

Additionally, La Ventana was selected as part of a regional study to the Barrancas formation to develop EOR (tertiary recovery) with the objective of determining if it is convenient to start with a pilot project. During 2016, the identification of the SP formulation (Surfactant Polymer) compatible with the temperature and salinity of the formation was made.

In 2018 the activity of SWTT (Single Well Tracer Test) was carried out, in order to test the SP formulation identified. Positive results were obtained confirming that a reduction in the range of 40% to 50% of the residual oil saturation can be achieved. No activity was performed during 2019 and the project is momentarily suspended.

Vizcacheras block:

Vizcacheras was selected as part of a regional study to the Barrancas formation to develop EOR (tertiary recovery) with the objective of determining whether it is convenient to start a pilot project. During 2016 the identification of the SP (Surfactant Polymer) formulation compatible with the temperature and salinity of the formation was made. During 2017 and 2018, two single well tracer tests were carried out to test the potential of the formulation. Positive results were obtained confirming that a reduction in a range of 40 to 50% of the residual oil saturation can be achieved. According La Ventana SP pilot results, other SP pilots are expected to start in Vizcacheras Block in the next years.

During 2019 a gel injection project was executed in Vizcacheras Mainfield with the objective to decrease the water/oil ratio in the Papagayos Formation. Two oil wells workovers were done for this purpose with results as expected. The total remaining project activity is expected to be executed in 2020. There was no drilling activity in this block during 2019.

Llancanelo Block:

During 2018, there was no drilling activity in this heavy oil field since the new corporate agreement within the joint venture was not achieved.

During 2019, after agreeing to a royalty reduction with the province in respect of the Llancanelo heavy oil field in the Mendoza province, we have been able to start the first field development in the country using low-cost multilateral wells reducing our environmental footprint in a sensitive area.

Two development wells and two appraisal wells were drilled in this field. The development wells were multibranch (with five horizontal branch each, to increase the contacted net pay) and the other two were single horizontals, all of them geo-navigated in green and olive levels.

The positive results lead to continue with the development plan using the multibranch technology.

In addition, the behavior of the bottom heater in the well LI-2012(h) installed in 2017 was successful, so the expansion of bottom heater project was initiated in 2019 with three wells. The objective of the heater is to improve the productivity of the well by increasing the mobility of the oil.

Cerro Fortunoso Block:

The main project in this field is the waterflooding optimization and expansion.

During 2019, the activity was focused on the Northern and Central blocks. It resulted as expected, which included three new water supply wells, one infill well, seven conversions to injectors, two workovers in Valle del Río Grande Block to increase the water produced to be used in Cerro Fortunoso.

Valle del Río Grande Block:

Malal del Medio:

During 2018, after visualizing the development opportunity for the productive formation “Neuquén Group” in the Malal del Medio Oeste field, three advanced oil wells were drilled during the conceptualization stage to obtain information and delineate the size of the field. The two wells that were drilled in the Northern Plunge of the structure were unproductive, while the well located in the South Sector was productive for oil.

Loma Alta Sur:

This field has a mature waterflooding operation.

During 2019 we started a secondary recovery optimization project, through five oil workovers, four water injector workovers, and the installation of a new water treatment plant.

Chihuido Sierra Negra Block:

Desfiladero Bayo:

The secondary optimization project started in 2016. It included injection well workovers, wellhead acids and the adequacy of the injection facilities (with the installation of a Water Injection Plant) to guarantee the water quality required. During 2019, five workovers were made, and injection facilities were finished. The results obtained were as expected.

Additionally, the Polymer Injection Pilot Project continues. It started in 2016 and included drilling of producing wells, injector conversions, and the construction and assembly of a polymer injection plant. Polymer injection began in August 2016. In 2018 a change in the vertical injection profile was observed, and during 2019 a response of incremental oil has been reported that allowed for the first time to certify proved reserves associated to EOR projects in the area. In addition, thirteen injectors and three producer wells were drilled to expand the Polymer Injection Project and two additional polymer injection plants were installed. As the date of this annual report there are still no results.

During 2019, in the Desfiladero Bayo East area, four wells were drilled, and two workovers were done to optimize the secondary development and expand it to the northern part of the field. The results were as expected.

In addition, a pilot project of polymer injection began in 2019 in this area with the installation of another plant. The polymer injection began in January 2020.

Puesto Molina Area:

During 2017, the first appraisal well was drilled, achieving completion in 2018 in the Eastern Flank of the field where there is no production. The well produces with a high water cut, therefore, the project has been canceled.

Chihuido Sierra Negra Area:

During 2019 static and dynamic models were updated in this mature field. In addition, the main activities during 2019 consisted of surveillance and maintenance of secondary recovery production

Chachahuén SurArea:

During 2018, to complete the development of productive formations Rayoso Clástico Cycle 1, Cycle 2a and Cycle 3a, the drilling activity in the block continued with 52 new wells: 32 development oil producers, eight horizontal oil producers, three appraisals well, two extension wells and seven water injectors. The results were as expected, except in Cycle 1 which was below expectations. The secondary recovery project for Cycle 2a and Cycle 3a is also under execution and results continue to be as expected.

During 2019, seven new wells were drilled to complete the development of productive formations Rayoso Clástico Cycle 1, Cycle 2a and Cycle 3a.

Cerro Morado Este Block:

In 2016, YPF discovered the Cerro Morado Este field with the drilling of the CMoE.x-1 well, which was productive in the Centenario formation.

During 2017 the delineation of the Cerro Morado Este field continued by drilling five extension wells.

In 2018 YPF obtained the exploitation concession of this field. Four evaluation wells were drilled with positive results to delimit and estimate the productivity of block.

During 2019, nineteen appraisal wells were drilled to continue with the delimitation of the block with positive results. In 2020 we expect to continue with the delineation of the area and begin to develop it.

Cañadón Amarillo Block:

During 2018, three wells targeting oil were drilled corresponding to the Cañadón Amarillo Somero project (La Tosca and Chorreado both in the North and the South areas). The wells were drilled at the end of 2018, one of which produced as expected, while the other two resulted below expectations. In addition, one gas appraisal well was drilled with positive results.

During 2019, three workovers were done associated with Cañadón Amarillo Somero Project (La Tosca and Chorreado both in the North and the South areas). The results were as expected.

Volcán Auca Mahuida and Las Manadas blocks:

During 2018, five wells targeting oil were drilled with results below expectations. With the results obtained the project of development of the Centenario and Mulichinco formations is being reinterpreted and reformulated. No activity was done in 2019.

Señal Picada – Punta Barda block:

Señal Picada Field: During 2018, four wells were drilled with results as expected (three oil development producers and one water injector). During 2019, four workovers were done with results as expected.

Punta Barda Field: During 2018, fourteen wells were drilled with results as expected (ten oil development producers and four water injectors). The project is momentarily suspended.

Non Operated Areas:

Puesto Pinto (CNQ7/A) and Jagüel Casa de Piedra Blocks:

During 2018, 29 oil producing wells and 10 water injection wells were drilled to the Centenario Formation with results as expected, to continue with the water flooding project started in 2006.

During 2019, 39 oil producing wells and seventeen water injection wells were drilled to the Centenario Formation in order to continue with the field development project. Results were as expected. Most of the new wells were located in border zones to expand the productive area of the project.

Additionally, the construction of the facilities for the polymer expansion project also continued.

Gobernador Ayala (CNQ7) Block:

During 2018, seventeen oil producing wells and nine water injection wells were drilled to the Centenario Formation with results as expected, to continue with the development of secondary recovery project in the area, and the development of the new field Jagüel Casa de Piedra Sur.

During 2019, nineteen oil producing wells and seven water injection wells were drilled in the Centenario Formation in order to continue with the field development plan. Results were as expected.

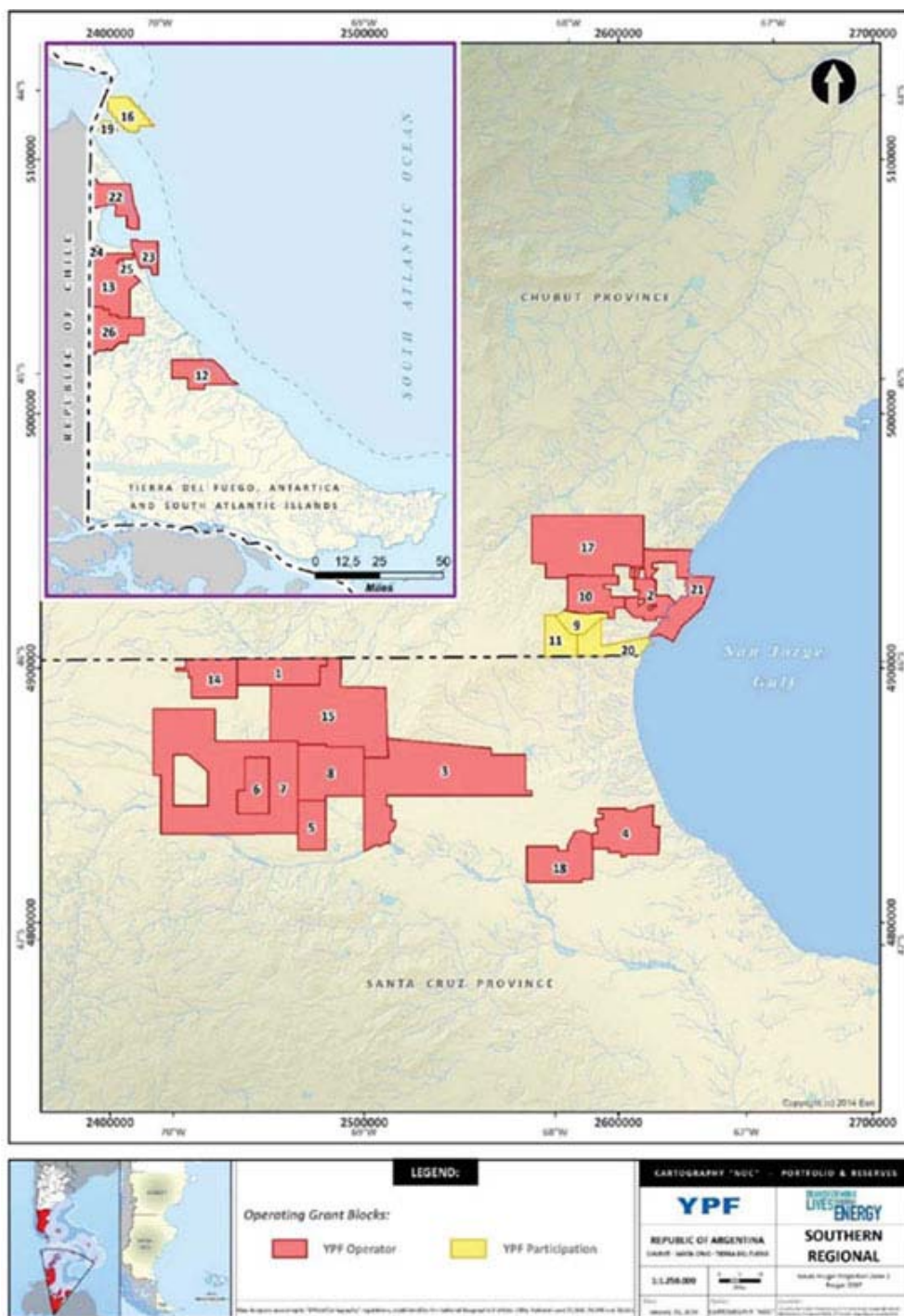
The development of Jagüel Casa de Piedra Sur field continued during 2019, beginning the waterflooding project in the second half, in 2 5-spot inverted patterns. A new battery for this field was also built during 2019.

Campo Durán – Madrejones Block:

Tecpetrol, the partner of the Aguaragüe joint venture in which YPF holds a 53% working interest, drilled one gas well aimed at the San Telmo formation during 2019, which resulted gas and condensate productive (CD-1019). As of the date of this annual report, another gas well (CD-1018) is being drilled aimed to the Tupambi formation (Bloques Bajos II and III).

Sur Region

During 2019, Sur Region production was 129.8 kboe/d, representing 25.2% of YPF's total production.



1 Barranca Yankowsky; 2 Campamento Central - Cañadon Perdido; 3 Cañadon De La Escondida - Las Heras; 4 Cañadon Leon - Meseta Espinosa; 5 Cañadon Vasco; 6 Cañadon Yatel; 7 Cerro Piedra - Cerro Guadal Norte; 8 El Guadal - Lomas Del Cuy; 9 El Tordillo; 10 Escalante - El Trébol; 11 La Tapera; 12 Lago Fuego; 13 Los Chorrillos; 14 Los Monos; 15 Los Perales - Las Mesetas; 16 Magallanes; 17 Manantiales Behr; 18 Pico Truncado - El Cordon; 19 Poseidon; 20 Puesto Quiroga; 21 Restinga Ali; 22 Tierra Del Fuego - Frac. A (Cdon. Piedra); 23 Tierra Del Fuego - Frac. B (San Sebastián); 24 Tierra Del Fuego - Frac. C (Cabeza De Leon); 25 Tierra Del Fuego - Frac. D (La Sara) and 26 Tierra Del Fuego - Frac. E (Uribe).

Operated Areas

El Trébol – Escalante

In 2019, activity related to primary and secondary projects continued.

In primary projects, thirteen wells with deep objective (complex IV) were completed with results as expected.

Additionally, twenty two interventions were carried out with a workover team, with the objective of optimizing primary and secondary production. There were six interventions of producers and sixteen interventions of injectors. The overall results of these interventions were above expectations.

Zona Central – Cañadón Perdido Area:

The block is situated in the urban area of Comodoro Rivadavia, in which YPF operates in partnership with ENAP Sipetrol, in equal parts.

In 2019, it began the drilling of one well directed at the Bella Vista Sur deposit.

Restinga Alí Area:

During 2019, three horizontal wells drilled in 2018 were connected, with productions well below expectations. In addition, two directed wells were drilled which results were below expectations.

Manantiales Behr Area

During the year 2019, four Modular Polymer Injection Plants were installed and put into operation in the Grimbeek II and Grimbeek North Blocks, subtracting the completion of the installation of a fifth plant, as well as the installation of a modular water injection treatment plant. Additionally, 41 workovers were carried out in wells for polymer injection, with response estimated in 2020. As such YPF started the first large-scale tertiary recovery project and we are working to expand it.

Regarding conventional projects, forty-two wells were drilled (one injector well; seven advanced producing wells and thirty-four development wells). The associated total production projection (EUR) is as expected.

The Myburg field obtained the best results in the area, with thirteen wells drilled.

The result of the advanced wells in the western zone of La Carolina deposit, will allow a new development of the sector.

The secondary recovery activity was concentrated in El Alba and La Carolina blocks with a total of thirty-two conversions and nine injector extensions, with excellent response in the optimizations performed.

In addition, twenty-six primary workovers were carried out, some of which were optimizations and other well reactivations, out of the total, in which stimulations were performed and the results guarantee the continuity of this type of projects. The results were above expectations.

Cañadón Seco

During 2019, two primary projects (fifteen new wells), four secondary (thirty-two repairs) and one of tertiary (two new wells) were executed.

Regarding the primary projects, there is a development project in the reservoirs of Castillo and Caleta Olivia formations, in which there were productions that far exceeded expectations and another in which progress was made in the knowledge of the training D-129, having the latter, variable results and productions below expectations.

With respect to the secondary recovery, the repair of producing injector wells continued, to improve the sweeping of the layers of the Bajo Barreal formation and Castillo formation. At the same time, adjustments were made to batteries and satellites, as well as work on injection and control lines.

As for tertiary projects, two wells were drilled in the Cañadón León deposit with objective in Caleta Olivia and Cañadón Seco and extended polymer injection tests were also performed for six months, for which a water treatment plant was installed. The results so far are as expected.

In addition, thirty-two interventions were carried out. Nineteen were injectors, with the aim of recovering lost injection, by changing selective installation. The results of which were above expectations. The remaining thirteen were producers, with results above expectations.

Barranca Baya Area:

During 2019, eighty repairs were made, consisting of fifty injector wells and thirty producing wells, all with positive results. We deepened the control of secondary recovery, in addition to the integrity of the facilities, which allows us to obtain a better quality of the water that is injected into the formations. Most of them in the Bajo Barreal area.

Las Heras Area:

During 2019, sixteen repairs were carried out, all with positive results. The activity was focused on secondary recovery projects. The projects continued to expand, both horizontally and vertically, incorporating new layers to be flooded and optimizing the existing secondary recovery, with activity in the cleaning of injectors and the maintenance of the installation in the wells.

Lomas del Cuy Area:

During 2019 the workover activity was carried out, with twenty-two interventions.

Part of the internal - column pressure injectors repair project was executed, of which five wells were repaired in 2019 under the premise, in all cases, of complying with the Environmental Regulations of the Province.

Further interventions were made in injectors and producers of both secondary and primary (seventeen wells), with results above expectations.

Los Perales - Las Mesetas Area:

In 2019 we began the execution of two tertiary recovery pilots (through polymer injection), which included among other things: the drilling of twelve new wells, the repair of twenty-one existing wells, a modular water treatment plant and the installation of two modular polymer injection plants is expected to occur during 2020. The first injection tests of the wells have already been carried out, leaving minor tasks for the uninterrupted commissioning.

Progress was made in the implementation of the multi-annual projects Los Perales Central Block II and La Itala block II where twenty-eight wells were repaired with workover, with results below expectations. The interest in secondary recovery continues to be Bajo Barreal.

Thirty-eight repairs were also made in several blocks with very good results with oil and gas objective, and five injector wells, with intercolumn pressure, were repaired.

Cañadón Yatel Area:

During 2019, the drilling of seven new wells were carried out, with average results as expected but disparate (three of them with better results than expected). The drilling activity was mainly concentrated in the Cañadón Yatel block, with focus on Formation D-129 with reservoirs of tight characteristics.

Additionally, a primary repair project was executed, with six producers repairs and four recompletions in all repairs, new layers were opened, and hydraulic fractures were performed.

Tierra del Fuego Area:

During 2019, five repairs were carried out to injector wells to guarantee their injectability in a safe and sustainable way, within the framework of the Environmental Project for Adaption of Injector Wells.

Additionally, one repair was carried out, with change of extraction system, to a well in Lago Fuego, with Pampa Rincón as an objective, in order to evaluate the feasibility of producing this formation. As of the date of this annual report, the well takes three months of production with gas lift with results as expected.

Non-Operated Areas - Development Activities:

Magallanes block:

On November 17, 2014, we agreed to extend the joint venture contract with ENAP Sipetrol Argentina S.A. in the Magallanes block. The objective of this agreement was to extend the rights and obligations of ENAP in the original joint venture agreement and confirm its role as operator, maintaining its 50% share until the end of the concession. On January 8, 2016, the Argentine government approved a concession extension through November 17, 2027. See “—Main Properties.” No activity was carried out during 2019.

El Tordillo and La Tapera-Puesto Quiroga blocks:

Beginning in January 2014, under an agreement with the province of Chubut related to the negotiation of an extension of YPF concessions there, we transferred 41% of our working interest in the joint venture, El Tordillo and La Tapera-Puesto Quiroga, to Petrominera Chubut S.E. As a result, our interest in the joint venture will decrease from 12.196% to 7.196% in 2020.

In 2019, twelve wells were drilled and completed, all oil producers. In turn, twelve wells were repaired, of which ten are producers and two injectors. In all cases with results as expected.

Properties and Exploration and Production Activities in Rest of South America

Bolivia: One exploration block was awarded in 2017 (Charagua Block). YPF holds a 100% working interest. However, a partnership agreement has been signed by YPF and YPFB Chaco, whereby YPF will be the operator of this area and hold 60% working interest and YPFB Chaco will hold 40%. As of the date of this annual report, both parties are still waiting for the Legislative Assembly of Bolivia to formalize the agreement. During 2019, seismic 3D data covering 286 km² was recorded in Charagua with the purpose of fulfilling commitments and identifying new exploration opportunities.

Colombia: Blocks COR 12 and COR 33 are located in the Cordillera Oriental basin, which we operate pursuant to authorization by the Colombian National Hydrocarbons Agency (Agencia Nacional de Hidrocarburos or “ANH”). Our working interest is 60% in COR 12 and 55% in COR 33. The combined net acreage in these blocks is 700 km². We and our partners informed the ANH of our decision to relinquish both blocks. As of the date of this annual report, the parties are in the process of formalizing and executing the final agreements for the relinquishment.

Chile:

From the results obtained in San Sebastián Block we did not foresee any new exploratory opportunities, as such, we requested a commercial exploitation concession of only a portion of the area where wells with positive results had been drilled to the National Authority.

We also informed the National Authority of our decision not to enter into the Third Exploration Period, and to relinquish the rest of the area except for 3,000 acres needed to finish the testing of one exploration well. For this exception, we have requested a period of two

years, that started on December 2017. However, on July 10, 2019, we requested the corresponding exploitation permits to the National Authority.

We started well testing during 2018 oil production at Carpintero x1, with results in line with expectations. However, it had to be closed from October 17, 2018 until January 17, 2019 as consequence of the Cullen spill

The operation resumed on January 25, 2019 and was again shut down on November 13, 2019 due to the lack of pressure-based and fluid surface installations in the well.

Under construction facilities to produce Cisne Sur x1 y Gaviota Sur x1, the Tobifera layer section and possible development plan associated with drilled exploratory wells are being studied.

Additional information on our current activities

The following table shows the number of wells in the process of being drilled as of December 31, 2019.

<i>Number of wells in the process of being drilled</i>	<i>As of December 31, 2019</i>	
	<i>Gross</i>	<i>Net</i>
Argentina	33	19
Rest of South America	—	—
Total	33	19

Downstream

During 2019, our downstream activities included crude oil refining and transportation, and the marketing and transportation of refined fuels, lubricants, LPG, and other refined petroleum products in the domestic wholesale and retail markets and certain export markets.

During 2019, the downstream segment was organized into the following divisions:

- Refining Division (oil refining and petrochemical production);
- Domestic Marketing Division (commercialization and marketing of refined products);
- Chemicals Division (commercialization and marketing of petrochemical products);
- Logistic Division (transportation of oil to refineries and distribution of refined and petrochemical products to be marketed in the different sales Channels); and
- Trading Division (trading refined products and crude oil to international markets).

We market a wide range of refined petroleum products throughout Argentina through an extensive network of sales personnel, YPF-owned and independent distributors, and a broad retail distribution system. In addition, we export refined products, mainly from the port at La Plata. The refined petroleum products marketed by us include gasoline, diesel, jet fuel, kerosene, heavy fuel oil and other crude oil products, such as motor oils, industrial lubricants, LPG and asphalts.

Refining division

We wholly own and operate three refineries in Argentina:

- La Plata refinery, located in the province of Buenos Aires;
- Luján de Cuyo refinery, located in the province of Mendoza; and
- Plaza Huincul refinery, located in the province of Neuquén.

Our three wholly-owned refineries have an aggregate refining capacity of approximately 319.5 mboe/d. The refineries are strategically located along our crude oil pipeline and product pipeline distribution systems. In 2019, our crude oil production, substantially all of which was destined to our refineries, represented approximately 80.1 % of the total crude oil processed by our refineries, while in 2018 it was 82.3%. Through our stake in Refinor, we also own a 50% interest in a 26,100 boe/d refinery located in the province of Salta, known as

Campo Durán.

The following table sets forth the throughputs and production yields for our three wholly owned refineries for each of the three years ended December 31, 2019, 2018 and 2017:

	For the Year Ended December 31,		
	2019	2018	2017
		(mmboe)	
Throughput crude	101.3	103.6	107.0
Throughput feedstock	4.7	4.7	4.3
Throughput crude and feedstock	106.0	108.3	111.2
Production			
Diesel	41.0	41.5	41.0
Motor gasoline	24.8	26.1	25.2
Petrochemical naphtha	8.1	7.4	7.9
Jet fuel	6.9	6.8	6.8
Base oils	0.9	0.8	1.0

	For the Year Ended December 31,		
	2019	2018	2017
	(thousands of tons)		
Fuel oil	308	234	935
Coke	895	934	925
LPG	597	670	644
Asphalt	121	215	313

During 2019, our global refinery utilization amounted to 86.86%, compared to 88.81% in 2018, based on our nominal capacity of 319.5 mboe/d. During such year, there were two remarkable events that affected substantially the refining utilization rate of the YPF refinery system:

- On January 19, a cut in the external power supply of the La Plata refinery caused its total stoppage during a few hours and provoked a fire at the Topping D furnace, which was out of service for 40 days. This event reduced the processing of the refinery in 4.72 mbb/d.
- On June 16, there was a general power blackout in Argentina that affected the crude oil processing and production in the three refineries. La Plata, Luján de Cuyo and Plaza Huincul refineries reduced the crude oil processing in 1.83 mbb/d, 0.16 mbb/d and 0.05 mbb/d, respectively. After the stoppage, normal operations were fully reestablished on June 24th.

The La Plata refinery is the largest refinery in Argentina, with a nominal capacity of 189 mbb/d. The refinery includes three distillation units, two vacuum distillation units, two fluid catalytic cracking units, two coking units, a coker naphtha hydrotreater unit, a platforming unit, two diesel hydro finishing units, a gasoline hydrotreater, an isomerization unit, an FCC (fluid cracking catalysts) naphtha splitter and desulfuration unit and a lubricants complex, in addition to a petrochemical complex that generates MTBE, TAME and aromatics compounds used for blending gasoline, and other chemical products for sale. The refinery is located at the port in the city of La Plata, in the province of Buenos Aires, approximately 60 km from the City of Buenos Aires. During 2019, the capacity utilization rate of La Plata refinery was affected by the Topping D and the power blackout events described above, which were partially offset by lower scheduled maintenance stoppages. As a result, the refinery processed approximately 160.4 mbb/d, with a capacity utilization rate of 84.85 %, compared with 160.6 mbb/d processed with a capacity utilization rate of 84.96% in 2018.

The crude oil processed at the La Plata refinery, 81.17 % of which was YPF-produced in 2019, comes mainly from the Neuquina and San Jorge basins. Its crude oil supplies come from the Neuquina basin by pipeline and from the San Jorge basin by vessel, in each case to Puerto Rosales, and then by pipeline from Puerto Rosales to the refinery.

The Luján de Cuyo refinery has a nominal capacity of 105.5 mbb/d, the third largest capacity among Argentine refineries. The refinery includes two distillation units, a vacuum distillation unit, two coking units, one fluid catalytic cracking unit (FCCU), a platforming unit, a MTBE unit, an isomerization unit, an alkylation unit, an FCC naphtha splitter, a hydrocracking unit, an FCC naphtha hydrotreater unit and two gasoil hydrotreating units. During 2019, the refinery processed approximately 93.5 mbb/d, with a capacity utilization rate of 88.64% compared with 99.7 mbb/d processed in 2018, with a capacity utilization rate of 94.5%. In 2019, the processing of the Lujan de Cuyo refinery was affected by the lower availability of crude oil from the basins of the Mendoza area.

Due to its location in the western province of Mendoza and its proximity to significant distribution terminals we own, the Luján de Cuyo refinery has become the primary facility responsible for providing to the central and northwest provinces of Argentina with petroleum products for domestic consumption. The Luján de Cuyo refinery receives crude supplies from the Neuquina and Cuyana basins by pipeline directly into the facility. Approximately 78.4 % of the crude oil processed at the Luján de Cuyo refinery in 2019 and 2018 was produced by us. Most of the crude oil purchased from third parties comes from oil fields located in the provinces of Neuquén and Mendoza.

The Plaza Huincul refinery, located in the province of Neuquén, has an installed capacity of 25 mbb/d. During 2019, the refinery processed approximately 23.6 mbb/d, with a capacity utilization rate of 94.49%, compared with 23.5 mbb/d processed in 2018 with a capacity utilization rate of 94.06%.

The only products currently produced at the refinery are gasoline, diesel and jet fuel, which are sold primarily in nearby areas and in the southern regions of Argentina. Heavier products, to the extent production exceeds local demand, are blended with crude oil and transported by pipeline from the refinery to our facilities in La Plata for further processing. The Plaza Huincul refinery receives its crude supplies from the Neuquina basin by pipeline. In 2019, 20% of the refinery's crude supplies were purchased from other companies, while in 2018, that percentage represented 19%.

According to Ministry of Energy regulations, sales of gasoline and diesel must be blended by biofuels. The gasoline requires a 12% blend of ethanol (Resolution N° 37/2016) and diesel requires a 10% blend of FAME (Resolution N° 1125/2013), the same blend request of 2018 and 2017.

Since 1997 and 1998, each of our refineries (La Plata, Luján de Cuyo, and Plaza Huincul) have been certified under International Organization for Standardization (“ISO”) 9001 (quality performance) and ISO 14001 (environmental performance). All of them are also certified under the OHSAS 18001 (occupational health and safety performance) standard. Inventories of industrial greenhouse gases and savings of CO2 emissions equivalent (MDL projects) have been verified in accordance with ISO 14064 in the three refineries (2009 La Plata and Lujan de Cuyo; 2017 Plaza Huincul). The refineries maintain their systems under continuous improvement and revision by authorized organizations.

During 2019, the renewable energy produced by the Manantiales Behr wind farm (located in Chubut Province) represented 15% of the electricity consumption of the Lujan de Cuyo and La Plata Refineries, compared with 12% in 2018. This park was incorporated into the matrix of electricity consumption in July 2018 and is owned by YPF EE. See “Item 4. Information on the Company—Gas and Power—YPF in Power Generation.”

Marketing Division

Our Marketing Division supplies gasoline, diesel, JET-A1 Fuel, lubricants, asphalts, LPG and other petroleum products throughout Argentina and other countries in the region. We supply several industries such as, retail, transport and agriculture.

During 2019, as a result of the macroeconomic situation in Argentina, there was a change in the performance of fuel sales. See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.” Additionally, registration of new vehicles (0 Km) decreased by 43% compared to 2018. This resulted in a direct adverse effect on the performance of fuel sales.

YPF maintained its leading position in Argentina, reaching a market share of 56.3% for liquid fuels.

YPF sells two types of gasoline: Infinia, a premium 98 octane gasoline, and Super, a regular 95 octane gasoline. As a result of a change in consumer behavior due to the macroeconomic situation, the premium mix obtained in 2018 (31.4%) was difficult to maintain reaching an annual average of premium mix during 2019 of 27.3%. However, the value reached in the fourth quarter of 2019 (27.9%) was higher than the fourth quarter of 2018 (26.8%).

Our market share of Infinia and Super gasolines, according to information provided by the Argentine Secretary of Energy, was 61.0% and 54.1%, respectively, as of December 31, 2019, compared with 61.5% and 53.8%, respectively, as of December 31, 2018. Our sales volume for Infinia was 1,400 mcm in 2019 (14.8% less than in 2018) and 3,720 mcm for Super in 2019 (3.6% higher than in 2018).

With respect to diesel, according to our own estimates, our market share of diesel (500 and 1,500 ppm) and Infinia diesel (10 ppm) was 55.6% and 59.7%, respectively, as of December 31, 2019, compared with 58.9% and 60.1%, respectively, as of December 31, 2018. It is worth mentioning that the market share of diesel during some months of the second half of 2018 was extraordinarily high due to a less aggressive behavior of our competitors, mainly in the wholesale market. Along with Infinia diesel (10 ppm), for which sales volume was 2,002 mcm in 2019 compared to 2,041 mcm in 2018, our diesel (500 and 1,500 ppm) decreased sales volume of 5,488 mcm in 2019 compared to 5,853 mcm in 2018. This sales volume does not include bunker sales to the foreign market and sales to other companies. Accounting for such sales, sales volume of diesel (500 and 1,500 ppm) decreased 0.8% compared to 2018. Finally, sales volume of Infinia diesel reached 26.7% of total diesel sales volumes, up from 25.9% in 2018.

Our main competitors were still active in communication, promotions, loyalty cards and bank discounts.

Consequently, 2019 was a year during which YPF focused its efforts on four strategic pillars: construction of perceived quality, brand identification, closeness to the customer and innovation.

In connection with the creation of perceived quality, this was implemented through “Pilot’s life Campaign”, which focuses on showing the quality of our fuels. Furthermore, on April 2019, Infinia and Super gasolines, reached the “Top Tier” standard for gasoline, an international premier fuel performance specification developed and enforced by leading automotive and heavy-duty equipment manufacturers.

Concerning brand identification and closeness to the customer pillars, YPF carried out several campaigns to improve the communication and impact upon target consumers, such as, self-liquidating promotions (Soccer Balls, Back to School, Soccer Jerseys), promotional activities (Lollapalooza Festival), sponsoring main car competition categories (Super TC 2000), among others.

Regarding innovation, a new plan was carried out to adapt the retail service stations concerning their location and roles, equipped with new technology and special modules to satisfy different customer needs, such as e-commerce pick-up lockers and bicycle repair stands.

The Domestic Marketing Division includes seven main divisions: Retail, Convenience Stores, Agriculture, Industry, Aviation, Lubricants and Specialties and LPG.

Retail Division

As of December 31, 2019, the Retail Division's sales network in Argentina consisted of 1,620 retail service stations, compared to 1,591 as of December 31, 2018. Of these, 112 are owned by YPF. The remaining 1,508 service stations are associated service stations. OPESSA, our wholly-owned subsidiary, actively operates 167 retail service stations, of which 89 are owned by YPF, 24 are leased to the Automóvil Club Argentino ("ACA") and 54 are leased to third parties. Additionally, YPF owns 50% of Refinor, a company operating 68 service stations.

According to our estimates, as of December 31, 2019, we were the main fuel retailer in Argentina, with 34.9% of the country's gasoline service stations, followed by Shell, Axion and Puma with 15.1%, 13.5% and 4.0%, respectively. During 2019, our market share in diesel and gasoline, marketed in all segments, decreased from 57.9% to 56.3%, from December 31, 2018 to December 31, 2019.

During 2019, YPF successfully renewed its expiring contracts with third party retail station owners. At the same time, we signed in advance 49 target contracts with expiration in 2020. During 2019, an aggressive infrastructure plan was implemented in order to install tanks, pumps, and civil constructions in one of our wholly-owned subsidiaries, among the different service stations of our net.

We highlight the opening of 37 new service stations to our net, consisting of 18 new stations built by third parties and 19 new added through lease contracts.

On April and May of 2019 five 'Potenciar' events took place among the different regions of our net, including third party owners, heads of OPESSA and our Retail Sales Team. In those events, we communicated the objectives for the year 2020, new challenges and we recognized the best stations of the country within the "+YPF Program" in order to align efforts across the whole network. Regarding this program, we awarded the best operators in our network with a training trip to Silicon Valley (California, USA) which took place in October 2019. This training was focused in three key foundations: leadership excellence, employee commitment and quality service.

Convenience Store Division ("Full" Stores)

YPF's convenience store division is a franchise consisting of 618, which are open 24 hours, convenience stores. Out of these 618 shops, 167 are operated by OPESSA S.A., one of our subsidiaries, while 451 are operated by third parties. Thus, the number of shops increased 10% compared to December 2018 (56 additional stores).

YPF stores are undergoing an aggressive modernization plan to update their image, design, services and products in accordance with new consumer trends. Such new model emphasizes on connectivity, healthy products and sustainability. During 2019, 96 stores were upgraded to the new model.

Each month, 7.1 million of tickets are billed at the stores. During 2019, YPF stores sold approximately 198 million units distributed in 1,000 SKU's (Stock keeping Units). The main categories of products sold are coffee, hot & cold meals, non-alcohol drinks, convenience shelves and kiosk products. In an Argentine recession context, store sales have only decreased by 5.9% (measured in terms of units sold), while market average has decreased by 11.6%, as well as the net income has decreased by 17%.

In addition, several initiatives were implemented to increase territorial coverage and boost sales. Among others, these initiatives include auto-full which has been already released in two stores and gives clients the possibility of buying products without getting-off of their cars; two food trucks equipped with full products and services were built to attend events and stimulate brand awareness; and a pick-up service was implemented which optimizes customer experience by selling coffee during fueling process.

YPF's stores franchising model generates incomes in the form of royalties paid by stores and suppliers. Such royalties are materialized as a percentage of the stores sales. In 2019 total income derived from this franchising model amounted to U.S.\$12 million.

YPF's convenience store division is planning to increase its business consistently in the following years.

Agriculture Division

The Agriculture Division provides an extensive portfolio of products and services to agricultural producers, including agricultural advice, delivery and application of products at the consumption site. During 2019, YPF AGRO presented a new brand and renewed image, emphasizing 5 pillars: focus on the producer to facilitate their tasks and improve results, provide total solution by being present before sowing and after harvesting, originate energy through the exchange of grain, innovate in new products for the development of agribusiness making it possible with the work in conjunction with Y-TEC (the vanguard technological center of YPF) and, finally, maintain the operational excellence of people and the environment throughout its network.

The realization of this strategy is achieved through a network of 103 points of sale (nine owned by YPF) with exclusive commercial areas in 19 provinces, which offer fuels, fertilizers, lubricants, phytosanitary products and ensiling bags. During 2019, YPF launched 19

products under its brand, which includes the first biological fungicide designed in conjunction with Y-TEC to satisfy the needs of soybean crop, called Y-TERRA.

In order to be close with the agricultural producer, YPF AGRO became the main ally of ExpoAgro (the most relevant agribusiness exhibition in the country) from 2020 to 2022, representing the strategic union of 2 references of the sector for the development of the agricultural industry. Taking advantage of this space, YPF AGRO carried out its brand relaunching, seeking with this milestone to change the paradigm where the distributor is no longer a client but a strategic partner to reach the producer. As an initiative for this approach, the first direct billing pilot project was carried out through the + Agro card. As a result of this work, in volumetric terms there was an increase in fertilizer and phytosanitary products of 21.6% compared to 2018. In addition, our fertilizer market share, according to our estimate, was 10.4% compared to 9.4 % in 2018.

YPF developed crop financing with instruments such as credit cards with local banks, for more than U.S.\$ 24.1 million. We accept different types of grains as payment (exchange), mainly soybean, but also corn, rice, wheat, sorghum, sunflower, barley and blueberries. Some soybeans are processed by third-party companies to obtain soybean oil, meal and hulls that we generally export. Furthermore, part of the soybean oil is processed into fatty acid methyl esters ("FAME") (a natural product added to commercial grade diesel), which covers approximately 11% of YPF's refinery needs. During 2019, we received approximately 1.7 million tons of grains (a 36% increase compared to 1.2 million tons in 2018), primarily soybeans, that positions YPF among the top three exchangers in Argentina. As December 31, 2019 the revenue from these exports represented approximately U.S.\$, 354.4 million, a 37.6% increase compared with 2018. It is worth noting that in 2019 YPF was the ninth exporter in the Argentine market of soybean meal and oil.

Industry Division

This division supplies the entire national industry and transport (ground) sectors, which require a broad portfolio of products and services to meet customer needs. The division develops specific solutions for mining, oil & gas, transport and general industries. We supply products such as fuels (diesel, gasoline, fuel oil), lubricants, coal, asphalts, paraffin and derivatives (sulfur, CO₂, decanted oil, aromatic extract), either directly from our refineries to the point of consumption (more than 8,400 direct customers) through our own ground and waterway network, or through a network of 22 industrial distributors with national coverage (Mining, Oil & Gas and Asphalts).

Our purpose is to promote efficiency in the value chain of the industries offering energy solutions, supplies and services. Consequently, our strategy is based on closeness with our clients and the development of innovative solutions focused on creating value for YPF and the region's industries.

During 2019, we proceeded with the implementation of a control and traceability solution for the gasoline and lubricants consumption, which was offered to all industrial segment customers for the improvement in the efficiency of bulk fuel management. Additionally, we developed B2B Filler business model, a delivery truck to supply small fuel consumptions.

In the transport segment, we incorporated the entire supply operation of the main player of the dairy industry (operational and service base in ConSer).

We renewed the commercial agreement with Belgrano Cargas y Logística S.A. for 2 years, for the provision of bulk liquid fuel and packaged lubricants; loyalty consumption of 42,000 cm in fuel and 840 cm of lubricants for the entire term of the agreement.

We signed an agreement for 10 years, for the installation of a logistics transport service center in the Port of Buenos Aires. It involves an approximate investment of U.S.\$3 million for the construction, commissioning and operation of the logistics transport service.

Another highlight in the transport segment in 2019, was the steady growth of sales through the YER (YPF en ruta) fleet card, increasing 19% in its client portfolio compared to 2018, mainly as a result of certain incentive programs that were released. This card is designed to cover the supply and administration needs of vehicles of cargo and passengers.

In the Oil & Gas segment, we began to build a center of excellence, to supply the O&G industry in the heart of Vaca Muerta.

In the mining segment, Barrick chose us again as integral suppliers for its Veladero operation in 2019. We also renewed and entered into new contracts with the following mining companies: Minera del Altiplano S.A., Mansfield Minera S.A., Pirquitas Mine, Cerro Vanguardia S.A., Minera Don Nicolas S.A. and Minera Triton S.A.

We also launched the new relationship model with strategic clients that involved energy consumption through a wide range of products, regardless the YPF business unit, with a turnover equivalent to U.S.\$700 million per year.

Aviation Division

Our aviation division provides JET A-1 in 50 airports and AVGas 100LL in 41 airports across Argentina. During 2019, our team managed to supply over 1,232,000 cubic meters, representing a 60.9% market share, including both domestic and international flights. This market

share represents a growth of 3 points compared to 2018.

Local market has grown by 1.9%, where the low-cost airlines directly impacted on this growth and YPF is supplying 100% of their operations. Additionally, we managed to maintain supply to 100% of American Airlines aircrafts operating from the Ezeiza airport.

Regarding our regional expanding policy, our operations have obtained very good results. First, our market share in Chile has grown from 19% to 20% from 2018 to 2019, mainly due to the award of the Avianca group tender during 2019. We also managed to keep the rest of our clients and expect to obtain more volume during the first quarter of 2020. We also started our operations in Paraguay, executing an agreement with Paraguay Energy to supply JET A-1 in Asuncion, Ciudad del Este and Mariscal Estigarribia airports, granting YPF a favorable regional competitiveness.

Lubricants and Specialties Division

In the Lubricants market, YPF has a leading position. We manufacture a wide range of products including Motor Oil, Heavy Duty and Industrial lubricants in retail, wholesale and industrial markets through a net of dealers and distributors. In the La Plata industrial complex, we operate a modern and efficient manufacturing facility where we produce lubricants not only for the domestic market, but also for export. Our line of automotive lubricants, including mineral and synthetic oils, has received approval from leading global automotive and engine manufacturers, including Ford, GM, Porsche, Scania, Mercedes Benz, Volkswagen, Renault, PSA, Audi, Deutz, Cummins, Volvo, Toyota, MAN Truck, Subaru, Suzuki, Metalfor, Detroit Diesel, ZF, Allison and MTU. Regarding Infinia and Super gasolines, they reached the "Top Tier" standard for gasoline introduced by Mercedes Benz, BMW, Audi, GM, Ford, Toyota, Honda, Volkswagen, Navistar and FCA.

During 2019, our sales of lubricants decreased by 5.2% compared to 2018. Sales to the domestic market fell by 3.9%, due to a collapse of the market, as a result of a severe economic recession in Argentina during 2019.

Also, sales to the foreign market decreased by 13%, divided in two large groups. On the one hand, we sell to our wholly-owned companies in the main markets of Brazil and Chile, where the volume sold increased 2% in Brazil compared to 2018 and decreased 7% in Chile compared to the previous year. On the other hand, we export to our network of distributors located in Bolivia, Uruguay and Paraguay, where sales volume was 25% lower than in 2018.

YPF's strategy is to continue its leadership in the development of lubricants, to meet the latest generation OEMs (original equipment manufacturers) requirements for protection and performance needs in both passenger and heavy-duty vehicles, maintaining the leadership in a high-profitability lubricants market. Our market share as of December 31, 2019 was 38.6% (a decrease of 0.8pp compared to 2018) according to information provided by the Secretary of Energy (formerly Ministry of Energy and Mining). The critical factors of competitiveness are the usage and referral agreements from the main OEMs (Ford, General Motors, Porsche and Scania) and reaching the customer with the best network and service coverage.

The sales of our passenger car motor oil (PCMO) line (Elaion is the most important brand for the automotive segment) reached 11.3 mcm in 2019, a decrease of 9.5% compared to 2018. With respect to our heavy-duty motor oil (HDMO) line (Extravida), 2019 sales increased by 0.3% compared to the previous year.

In order to meet the technological update required by new vehicles that comply with the Euro 5 standard (with SCR technology) of mandatory use in the country for all new vehicles and complemented by the launch of Infinia Diesel and XV500 Extravida, we launched in 2018 our Nitrous Oxides Reducing Agent (ARNOx). Azul 32 is the commercial name of a new product used in vehicles that comply with the emission standard EURO 5 (serves to reduce emissions of gases into the environment). The sales of Azul 32 decreased 2% compared to 2018, mainly due to lower EURO 5 vehicle patents.

Our quality controls ensure that the product reaches the customer in optimal conditions and complies with the strict standards determined by ISO 22241 for this product. Since 1995, Lubricants and Specialties has been awarded with ISO 9001: 2008, ISO 14001: 2004, OSHAS 18.001: 2007 ISO / TS 16949-Third certifications. Additionally, YPF has obtained for our Azul 32 API's certification as part of the American Petroleum Institute (API) Diesel Exhaust Fluid Certification Program.

LPG Division

We are engaged in the LPG wholesale business, which encompasses LPG storage, logistics and commercialization to domestic and foreign markets. We obtain LPG from natural gas processing plants and refineries, as well as from third parties. In addition to butane and propane, we also sell propellants used in the aerosols manufacturing processes.

In the domestic market, we sell LPG mainly to distributors that supply the domestic retail market. The LPG Division does not directly supply the retail market, which is supplied by YPF Gas S.A., our affiliate.

During 2019, we sold approximately 24% of our LPG production to YPF Gas S.A. for the domestic market.

We are the largest LPG producer in Argentina, with sales in 2019 reaching approximately 555 mtn, compared with 616 mtn in 2018. Of this, approximately 374 mtn were sold in the domestic market, compared to 371 mtn in 2018. Our main clients in the domestic market are companies that sell LPG in cylinders or bulk packing to end-consumers, also providing LPG to households in some regions. Additionally, exports in 2019 reached approximately 181 mtn, compared to 245 mtn in 2018. The main destinations were Chile and Paraguay. Transportation of LPG to overseas customers is carried out by truck, pipeline and barges.

We produced 500 mtn of LPG in 2019, not including LPG destined for petrochemical usage, and purchased LPG from third parties, as detailed in the table below:

	Production and Purchases (mtn) 2019
LPG from Natural Gas Processing Plants (1)	
El Portón	95.9
San Sebastián	20.0
Loma Negra	21.9
Estación Fernández Oro	5.7
Total Upstream	143.5
LPG from Refineries and Petrochemical Plants	
La Plata refinery	249.5
Luján de Cuyo refinery	79.5
CIE	27.8
Total refineries and petrochemical plants (2)	356.8
LPG purchased from joint ventures (3)	14.0
LPG purchased from unrelated parties	60.1
Total	574.5

(1) San Sebastian, El Portón, Loma Negra and EFO are 100% owned by us; General Cerri belongs to a third party with which we have a processing agreement.

(2) This production does not include LPG used as petrochemical feedstock (olefins derivatives, polybutenes and maleic).

(3) Purchased from Refinor. We also have a 50% interest in Refinor, which produced 90.6 mtn of LPG in 2019.

Regarding sales prices, the butane local market is regulated by the government. In February (Disposition No. 15/2019), June (Disposition No. 80/2019) and July (Disposition No. 104/2019) of 2019, the government updated Butane's maximum reference prices for the local market recognizing an improvement in sales prices. In the case of propane, although the market is also regulated by the government, local prices published by the Secretary of Energy (formerly Ministry of Energy and Mining) are referred to export parity.

Chemicals Division

Petrochemicals are produced at YPF productive units in Ensenada, Lujan de Cuyo and Plaza Huincol.

Petrochemical production operations in the Complejo Industrial Ensenada ("CIE") are closely integrated to the refining activities at the La Plata Refinery, allowing a flexible supply of feedstock, the efficient use of by-products, such as hydrogen, and the supply of aromatics to increase gasoline octane levels.

The main petrochemical products and production capacities per year are as follows:

	<u>Capacity</u> <u>(tons per year)</u>
CIE	
BTX (Benzene, Toluene, Mixed Xylenes)	526,000
Orthoxylene	25,000
Cyclohexane	95,000
Solvents	66,100
MTBE	60,000
Butane I	25,000
Oxoalcohols	35,000
TAME	105,000
LAB (Linear Alkyl Benzene)	52,000
LAS (Linear Alkylbenzene Sulphonate)	32,000
PIB (Polyisobutylene)	26,000
Maleic Anhydride	17,500
Propylene	120,000
Plaza Huincul	
Methanol	411,000
Luján de Cuyo	
Propylene	100,000

Natural gas, the raw material for methanol, is supplied by our Upstream business segment. The use of natural gas as a raw material allows us to monetize reserves, demonstrating the integration between the Chemical and the Upstream divisions.

Raw materials for petrochemical production in the CIE, including virgin naphtha, propane, butane and kerosene, are supplied mainly by the La Plata refinery.

In 2019, 2018 and 2017, 72%, 67%, and 84%, respectively, of our petrochemicals sales (including propylene), were made in the domestic market, while we exported to Mercosur countries, the rest of Latin America, Europe and the United States. In 2019 we increased our commercial presence in Brazil by contracting supplementary storage of methanol in order to improve sales in the region.

The La Plata petrochemical plant was certified under ISO 9001 (2018), ISO 14001 (2017), OHSAS 18001 (2017), ISO 50001 (2019) and the plant verified the inventory of CO₂, CH₄ and N₂O emissions under ISO 14064 (2017). The CIE laboratory was certified under ISO 17025 (2019).

The methanol plant was certified under ISO 9001 (2019), ISO 14001 (2019) and OHSAS 18001 (2017).

Additionally, the La Plata petrochemical plant was certified under Responsible Care[®] (2019) which is a voluntary program of the chemical industry that promotes continuous improvement in areas of safety, occupational health and the environment.

The certification of our petrochemical business covers the following processes:

- Refining process of crude oil and production of gas and liquid fuels, lube base stocks and paraffin, petroleum coke (green coke) and petrochemical products in the units of refining, conversion, lube, aromatics, olefins, PIB (polyisobutene) / maleic and LAB / LAS (linear alkyl benzene / linear alkyl benzene sulphonate), methanol production and storage.
- Management and development of the petrochemical business of YPF S.A, planning and economic and commercial control, commercialization and post-sale service of petrochemical products.
- Production of complex aromatics, olefins, maleic, polybutenes and the provision of energy services that operate within the Complejo Industrial La Plata – Química.

The chemicals division also has 50% ownership of Profertil, a joint venture with Nutrien, a worldwide leader in fertilizers, which initiated operations in 2001. Profertil has a production facility in Bahía Blanca which produces 1.3 million tons of urea and 790,000 tons of ammonia per year. Additionally, Profertil markets other nutrients and special blends of prepared land to optimize soil performance.

Logistic Division

Crude oil and products transportation and storage:

We have available for our use a network of five major pipelines, two of which are wholly-owned by us. The crude oil transportation network includes nearly 2,800 km of crude oil pipelines with approximately 640,000 barrels of aggregate daily transportation capacity of refined products. We have total crude oil tankage of approximately 7 mmbbl and maintain terminal facilities at five Argentine ports.

Information with respect to YPF's interests in its network of crude oil pipelines is set forth in the table below:

From	To	YPF Interest	Length (km)	Daily Capacity (boe/d)
Puesto Hernández	Luján de Cuyo refinery	100%	528	93,509
Puerto Rosales	La Plata refinery	100%	585	326,541
La Plata refinery	Dock Sud	100%	52	141,006
Loma Campana	Lago Pellegrini	85%	88	125,860
Brandsen	Campana	30%	168	120,700
Puesto Hernández/P. Huincul/Allen	Puerto Rosales	37%	888	232,000

We own two crude oil pipelines in Argentina. One connects Puesto Hernández to the Luján de Cuyo refinery (528 km), and the other connects Puerto Rosales to the La Plata refinery (585 km) and extends to Shell's refinery in Dock Sud at the Buenos Aires port (another 52 km). We also own a plant for the storage and distribution of crude oil in the northern province of Formosa with an operating capacity of 19,000 cm, and three tanks in the city of Berisso, in the province of Buenos Aires, with 90,000 cm of capacity. We own 37% of Oleoductos del Valle S.A., operator of an 888 km pipeline network, its main pipeline being a double 513 km pipeline that connects the Neuquina basin and Puerto Rosales.

An important milestone achieved in 2019 was the start of the operation of the Loma Campana – Lago Pellegrini pipeline, in June 2019. It allows evacuation of conventional and nonconventional crude oil from Vaca Muerta field. The pipeline is owned by OLCLP, a corporation owned by YPF (85%) and Tecpetrol (15%), and which is operated by a third company, Oleoductos del Valle S.A.

We hold, through Oleoducto Transandino Argentina S.A. and Oleoducto Transandino Chile S.A., an interest of 36% and 18% respectively, in the 428 km trans Andean pipeline, which transported crude oil from Argentina to Concepción in Chile. This pipeline ceased operating on December 29, 2005, as a consequence of the interruption of oil exports resulting from decreased production in the north of the province of Neuquén. The book value of the assets related to this pipeline was reduced to their recovery value. We are currently analyzing the asset as a possible way to evacuate the non-conventional crude oil.

We also own 33.15% of Terminales Marítimas Patagónicas S.A., operator of two storage and port facilities: Caleta Córdova (province of Chubut), which has a capacity of 314,000 cm, and Caleta Olivia (province of Santa Cruz), which has a capacity of 246,000 cm. We also have a 30% interest in Oiltanking Ebytem S.A., operator of the maritime terminal of Puerto Rosales, which has a capacity of 480,000 cm, and of the crude oil pipeline that connects Brandsen (60,000 cm of storage capacity) to the Axion Energy Argentina S.R.L. (previously ESSO, a former subsidiary of ExxonMobil which was acquired by Bridas Corporation) refinery in Campana (168 km), in the province of Buenos Aires.

In Argentina, we also operate a network of multiple pipelines for the transportation of refined products with a total length of 1,801 km. We also own seventeen storage terminals for distribution of refined products and seven LPG storage terminals with an approximate aggregate capacity of 1,620,000 cm. Three of our storage and distribution terminals are annexed to the refineries of Luján de Cuyo, La Plata and Plaza Huincul. Ten of our storage and distribution terminals have maritime or river connections. We operate 50 airplane refueling facilities (40 of which are wholly-owned) with a capacity of 22,500 mcm, 141 manual fuel dispensers and 13 automatic fuel dispensers. These facilities provide a flexible countrywide distribution system and allow us to facilitate exports to foreign markets, to the extent allowed pursuant to government regulations. Products are delivered by an exclusive tanker truck fleet of approximately 2,400 units of which 23 are owned. During 2019, we have been working in overhauling the terminal located on the Paraná River (Terminal Fluvial San Lorenzo), acquired in 2018.

Trading Division

Our Trading Division sells refined products and crude oil to international customers and purchases crude oil to domestic oil companies. Exports may include crude oil, unleaded gasoline, diesel, fuel oil, LPG, light naphtha, virgin naphtha, MTBE, green coke, decanted oil and AVGAS.

This division exports to different countries, principally to United States of America, Bahamas and Brazil, as well as to other countries. Sales to international customers for 2019 and 2018 were Ps. 29,512 million and Ps. 13,244 million, respectively. In 2019, refined products accounted for 36% of total sales, down from 53% in 2018.

In 2019, 31% of total sales corresponded to marine fuels, down from 33% in 2018. In 2019 and 2018, sales volumes to customers outside Argentina consisted of 6.08 mmbbl and 5.3 mmbbl of refined products, respectively, and 1.9 mmbbl and 2.0 mmbbl of marine fuels, respectively.

For the domestic market, sales of crude oil totaled Ps. 4,783 million, or 1.9 mmbbl, in 2019 and Ps. 2,073 million, or 1.1 mmbbl, in 2018. Sales of marine fuels totaled Ps. 5,104 million, or 1.1 mmbbl, in 2019 and Ps. 3,025 million, or 1.2 mmbbl in 2018.

In addition, imports of low sulfur diesel, gasoline, alkylate, aviation fuel in 2019 totaled 6.5 mmbbl, a decrease of 5% compared with 6.9 mmbbl in 2018. United States of America and Netherlands were the principal origin of these imports.

Imports of fertilizers and agrochemicals totaled 0.20 million tons in 2019, decreasing 17% compared with 0.24 million tons in 2018. United States of America and Morocco were the principal origin.

In 2019, it was not necessary to import crude oil. However, we exported 1.4 mmbbl of crude oil due to the events occurred in the La Plata complex that affected substantially the refining utilization and due to the regulation of crude oil prices. See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions- Hydrocarbon market”.

Gas and Power

During 2019, our Gas and Power activities included: (i) the commercialization and distribution of natural gas to third parties; (ii) the technical operation of LNG liquefaction facility in Bahía Blanca terminal and regasification in Escobar terminal, through the contracting of two vessels; and (iii) the generation of both conventional thermal electricity and renewable energy projects mainly developed by YPF Energía Eléctrica S. A. (a company co-controlled by YPF and GE).

Delivery commitments

We are committed to providing fixed and determinable quantities of crude oil and natural gas in the near future under a variety of contractual arrangements.

With respect to crude oil, we sell substantially all our Argentine production to our Refining and Marketing business segment to satisfy our refining requirements. As of December 31, 2019, we were not contractually committed to deliver material quantities of crude oil to third parties in the future.

As of December 31, 2019, we were contractually committed to deliver 13,311 mmcm (or 470 bcf) of natural gas in the future, (without considering interruptible export supply contracts) of which approximately 7,268 mmcm (or 257 bcf) will have to be delivered from 2020 through 2022. According to our estimations as of December 31, 2019, our contractual delivery commitments for the next three years could be met with our own production and, if necessary, with purchases from third parties.

However, since 2004 the Argentine government has established regulations for both the export and domestic natural gas markets which have affected Argentine producers’ ability to export natural gas. Consequently, since 2004 we have been forced in many instances to partially or fully suspend natural gas export deliveries that are contemplated by our contracts with export customers. On August 2018, the Ministry of Energy and Mining (now Secretary of Energy “SGE”) (“MINEM”) issued Resolution No. 104/2018 which allows local producers to export to Chile natural gas under new procedures. See “Item 4. Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas.”

On August 21, 2019 Argentine Sub Secretariat of Hydrocarbon and Fuels (SSHyc) issued Resolution 168/2019 which sets a maximum of 10 mmcm/d of natural gas that can be exported on a firm basis between September 15, 2019 and May 15, 2020.

For information regarding regulations that have been affecting our operations see “Item 4. Information on the Company—Regulatory Framework and Relationship with the Argentine Government—Market Regulation.”

For information regarding claims arising from restrictions in the natural gas market see “Item 8. Financial Information—Legal Proceedings.”

During 2018 and 2019, the natural gas market was deeply affected by the adverse situation of the Argentine economy and was also characterized by excess supply compared to domestic demand at certain times of the year, which impacted the production of natural gas resulting in the temporary closure of production in some locations, as well as in the reinjection of hydrocarbon. Based on this new scenario and new regulations (see “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Natural Gas—Tariff regulation.”) and agreements, a reduction in natural gas sales prices in dollar terms, can be seen in relation to the prices established in 2017 and 2018, respectively.

See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions” and “Seasonality.”

The devaluation of the Argentine Peso occurred in mid-2018, among other impacts, triggered a renegotiation process of the agreements reached under the Terms and Conditions entered into on November 29, 2017 at request of the MINEM, to partially moderate the impact of passing through the effects of devaluation on tariffs to end users while keeping the contractual relations between parties.

This situation also caused the Local Distribution Companies (“LDC”) to incur debts with producers due to the difference between contractually agreed natural gas prices nominated in U.S.\$ and the tariffs that LDCs charge to end users which are denominated in pesos.

As natural gas prices were not passed to end users pursuant to the regulatory framework, the Argentine government issued Decree No. 1053/2018 which set forth that differences caused by the variations in the exchange rate between natural gas prices and tariffs, in the period from April 2018 through March 2019, will be assumed by the Argentine Government. Differences and interests will be paid in 30 installments to LDCs beginning in October 2019, and thereafter the LDCs must make overdue payments to producers. Additionally, LDCs and producers agreed to waive all their claims relating to these differences. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Natural Gas.” See “Item 3. Risk Factors—Risks Relating to Our Business—A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities.”

The above-mentioned decree also set forth that from April 2019 onwards, differences generated as result of exchange rate variation shall not be passed through to final consumers. See “Item 3. Risk Factors—Risks Relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.”

On the other hand, on February 11, 2019, the Resolution SGE No. 32/19 was published in the Official Gazette, which approved the price tender mechanism for the provision of natural gas in firm condition to satisfy the demand of full service users of the public service of natural gas distribution provided by the distributors for the days of February 14, 2019 (for the Neuquina, Golfo San Jorge, Santa Cruz Sur and Tierra del Fuego basins) and February 15, 2019 (for the Northwest Basin).

SGE Resolution No. 32/2019 also approved the applicable offer template and instructed Mercado Electrónico de Gas Sociedad Anónima (“MEGSA”) to issue the complementary regulations it considers necessary for the organization and implementation of the approved price tender mechanism.

The price tenders were carried out within the scope of MEGSA on the dates already mentioned and, based on the results obtained, YPF proceeded to implement the contracts for the volumes awarded in relation to the participating natural gas distribution licensees corresponding to the period from April 2019 through March 2020. These contracts establish prices settled in U.S. dollars with a fixed exchange rate of Ps. 41.003 per dollar, that were supposed to be adjusted on October 2019 using the average exchange rate of the first fifteen days of the previous month.

On June 24, 2019, SGE Resolution No. 336/2019 was published in the Official Gazette, establishing a payment deferral for residential users of natural gas and networks-undiluted propane of 22% on invoices issued as of July 1, 2019 and until October 31, 2019, to be recovered from the regular invoices issued as of December 1, 2019 and for five equal and consecutive monthly periods. The financial cost of the deferral will be borne by the National State as a subsidy, through the payment of interest to distributors, sub-distributors, transporters and producers.

On September 23, 2019, Resolution SGE No. 521/2019 was published in the Official Gazette, which established, among its most relevant aspects (i) the deferral of the semi-annual adjustment of the margins on natural gas transportation and distribution, scheduled from October 1, 2019, to January 1, 2020; (ii) to compensate the licensees of the natural gas transportation and distribution service by reviewing and adjusting -in their exact incidence- the mandatory investments under their charge; (iii) to include the tariffs of networks-undiluted propane in the deferral, which shall be compensated, in the case of distribution licensees, through the adjustment of the mandatory investments, and in the case of sub-distributors, the compensation shall be recognized to propane suppliers as a bonus to be borne by the National State; and (iv) to defer the tariff adjustment due to the variation of the gas price in the PIST scheduled with effect from October 1, 2019, for January 1, 2020.

On November 25, 2019, Resolution SGE No. 751/2019 was published in the Official Gazette, which replaces Article 1 of Resolution SGE No. 521/2019, and establishes “to defer the semi-annual adjustment of the transportation and distribution margins scheduled as of October 1, 2019 for February 1, 2020, using, at that time, the corresponding adjustment index to reflect the price variation between the

months of February and August 2019.” On December 28, 2019 Decree No. 99/2019 was issued with the Social Solidarity Law and natural gas and electricity tariff were fixed for 180 days, until June 2020. Therefore, natural gas prices to residential and commercial users will not be adjusted on the first half of 2020. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Natural Gas.”

On April 10, 2020, the Ministry of Energy sent note NO-2020-25148550-APN-SE # MDP to the HEPC (hydrocarbon exploration and production chamber) with ENARGAS as corecipient (the “Note”) indicating that due to the public emergency in health matters together with the energy and tariff emergency provided by Law No. 27,541 that prevented the completion of the development of a new mechanism for the supply of natural gas by the Distributors, the Ministry of Energy, in the use of the powers of point 6 of the Title “Objectives” of Section X of Annex II of Decree No. 50 of December 19, 2019, instructs natural gas producing companies to renew, until the expiration date of the term established in Article 5 of Law No. 27,541, in the same terms and conditions, the validity of all supply agreements (inside and outside the transportation system) and acquisition of natural gas, whose expiration has operated or operates in the period between March 31 and the expiration date of the term established in the aforementioned article 5, having to adopt the pertinent precautions to proceed with its formalization in a peremptory manner.

On April 14, 2020, YPF sent a note to the Ministry of Energy with ENARGAS as corecipient in response, stating: (i) the debt situation of the Distributors, IEASA and CAMMESA with YPF that requires their urgent regularization to continue the natural gas supply; (ii) the repeated breaches that affect the maintenance of YPF’s work plans that aim at sustaining local hydrocarbon production; (iii) the difficult situation the production sector is going through since 2018 when the variation in the price of natural gas purchased by the Distributors was found not to be transferred to tariffs, aggravated since 2019 by the delay of the Argentine Government in the update of the exchange rate along with the lack of payment of the commitments and subsidies assumed by the National State with the sector, among others; (iv) its intention to promote the extension of contracts until the end of the term established in article 5 of Law No. 27,541, subject to the modality established in each case with the Distributors and IEASA depending on the availability of YPF’s gas, without implying consent to the Note and reiterating the need for immediate measures to resolve the serious situation; and (v) reservation of rights without being able to interpret YPF’s conduct as an own act or of voluntary submission.

The natural gas market for power generation also suffered different changes:

In September 2018, CAMMESA, decided to purchase most of the natural gas to be consumed between September and December through an electronic bidding process. The bids were on a spot basis, not having either take or pay or delivery or pay obligations therefore there are not penalties for not delivering. Prices further decreased, but the process cannot be taken as a term firm price parameter as there were no obligations to deliver or to take the natural gas and the bidding conditions imposed a maximum price.

On November 7, 2018, the SGE issued Resolution No. 70/2018 that gave back to power generators the ability to purchase their own natural gas supply. Most of the power generator recovered the ability to do so, therefore, prices of natural gas purchased under the bidding processes decreased further because of the competition for demand in the low consumption season and in an environment with oversupply and economic recession.

At the end of December 2018, the government decreased the natural gas price reference for power generation by between 8% and 16% based on the supply basin of origin, being Neuquina basin the most affected. Some days later, CAMMESA called for another bidding process under the same conditions. The term of this bidding was one year and again established maximum prices not related to free market pricing mechanisms. This bidding process resulted in even lower natural gas prices for generation. However, this cannot be considered a parameter due to the conditions of the bidding.

On December 27, 2019 CAMMESA called for an electronic bidding process of natural gas for power generation starting on January 2020 on an interruptible basis. The conditions of this bidding were like the previous process called on December 2018, except reference prices were reduced approximately by 30%. The results were that prices decreased when compared to the prices valid through December 31, 2019.

On December 30, 2019, the Ministry for Productive Development enacted the abovementioned Resolution No. 70, and according to Article 8 of Resolution No. 95 and Article 4° of Resolution N° 529, both issued by former Argentine Secretariat of Energy, CAMMESA will provide fuels to thermic power generation plants of “*Mercado Eléctrico Mayorista*” and “*Mercado Mayorista Eléctrico del Sistema Tierra del Fuego*”. As power generators lost their ability to buy natural gas directly from producers, YPF should sell most of the hydrocarbon designated to generation to CAMMESA at the result prices of the bidding process.

Natural gas supply contracts

The Argentine government has established regulations for both the international and domestic natural gas markets, which have affected the ability of producers in Argentina to export natural gas. YPF could not meet its export commitments and were forced to declare force majeure under our natural gas export sales agreements, although certain counterparties have rejected our position. See “Item 4. Information on the Company—Gas and Power—The Argentine natural gas market” and “Item 8. Financial Information—Legal Proceedings.” Because of actions taken by the Argentine government, through measures described in greater detail under “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas,” during recent years we have been forced to reduce the export volumes authorized to be provided under the relevant agreements and permits. Our principal supply contracts are briefly described below See “Item 3. Risk Factors—Risks Relating to Our Business - We are subject to direct and indirect import and export restrictions, which have affected our results of operations and caused us to declare force majeure under certain of our export contracts.”

We were committed to supplying a daily quantity of 125 mmcf/d (or 3.5 mmcm/d) to the Methanex plant in Cabo Negro, Punta Arenas, in Chile (under three original agreements entered into on January 5, 1995, March 11, 1997 and November 13, 2001, which expire between 2017 and 2025). Pursuant to instructions from the Argentine government, deliveries have been interrupted since 2007. In connection with these contracts, the Company signed three new agreements with Methanex through which YPF eliminated all contractual obligations and past and future potential claims related to the original agreements through 2018. The first agreement was signed in 2011, through which YPF committed to investments in Upstream. The second one was signed in 2012, through which YPF committed to temporarily exporting

gas to Chile and importing methanol as the final product (“Gas Tolling Agreement”), receiving the approval from the Argentine government.

A new Gas Tolling Agreement was signed in December 2016, through which YPF committed to supplying a total volume of 4 bcf (115 mmcm) of gas to Methanex through April 2018. The new Gas Tolling Agreement was signed by YPF and Methanex and presented for approval of the Argentine government to temporarily export gas and import methanol. An addendum to the Gas Tolling Agreement was signed on December 4, 2017 by YPF and Methanex, pursuant to which YPF has the option to supply 1 mmcm/d until September 2018 or until reaching a total amount of 115 mmcm whatever comes first. Each cubic meter delivered, reduces proportionally the commitment of YPF to deliver natural gas according to the 1997 Agreement, from January 1 to December 31, 2018. The Gas Tolling Agreement as well as the addendum (both approved by MINEM through Resolution No. 502/2017) states that if the volumes of the addendum are completely delivered, the commitment established in 1997 Agreement, is considered fulfilled. However, no sanction could apply to YPF if the company decides not to fulfill the volumes mentioned in the addendum.

During 2018, YPF delivered 113 mmcm of natural gas to Methanex fulfilling the agreement reached during 2017. Because of this operation and various renegotiations agreements with Methanex all contractual obligations and potential claims related to the original agreements entered into on January 5, 1995 and March 11, 1997 and the contractual obligations and potential claims through 2018 were settled, including those related to the agreement entered on November 13, 2001.

Additionally, on November 23, 2018 Methanex and YPF entered into an agreement to suspend, through December 31, 2019, the contractual obligations under the 2001 agreement and established contractual conditions for deliveries until that date under the provisions of Resolution No. 104/2018, which was approved by SGE on March 6, 2019. During 2019, YPF delivered 228 mmcm of natural gas to Methanex generating a deficit of 202 mmcm, as the minimum volume which we committed to deliver for this period under the aforementioned agreement was 430 mmcm.

Because of Resolution No. 168/2019 issued by SGE on August 2019, export contracts on a firm basis can be subscribed until May 15, 2020, and thereafter, exports can be made on an interruptible basis. On October 30, 2019 YPF and Methanex subscribed a sales agreement on a firm basis for the period between January 1 and May 15, 2020, with a committed volume of 149.6 mmcm. During the validity of this contract, the subscribers agreed to suspend the 2001 contract. The new contract also includes recovery provisions for undelivered quantities of natural gas under the November 23, 2018 agreement.

On October 30, 2019 Methanex and YPF entered into two new agreements, one firm and one interruptible, renewing the suspension of the contractual obligations under the 2001 agreement for 2020 and establishing new contractual conditions for deliveries during 2020.

The SGE granted (i) a firm export authorization from January 1, 2020 until May 15, 2020 for a daily maximum quantity of 1,500,000 cm and a total maximum quantity of 204,000,000 cm and (ii) an interruptible authorization from May 16, 2020 until December 31, 2020 for a daily maximum quantity of (A) 1,100,000 cm from May 16, 2020 until September 15, 2020 and (B) 1,500,000 cm from September 16, 2020 until December 31, 2020.

The entering into force of the new firm agreement meant the suspension of the 2001 agreement until May 15, 2020 and the parties agreeing to resign and be released of their obligations, claims, demands, responsibilities under the 2001 agreement and not to commence any claim, action or demand against the other party as per the 2001 agreement until May 15, 2020.

The entering into force of the new interruptible agreement meant the suspension of the 2001 agreement until December 31, 2020 and the parties agreeing to resign and be released of their obligations, claims, demands, responsibilities under the 2001 agreement and not to commence any claim, action or demand against the other Party as per the 2001 agreement until December 31, 2020.

The new agreements also establish a mechanism to compensate during 2020 a volume of approximately 178,800,000 cm in a manner to be agreed by the parties until December 2025.

We have a 21-year contract (entered into in 1999) to deliver 93 mmcf/d (or 2.63 mmcm/d) of natural gas to Innergy Soluciones Energéticas, a Chilean distribution company that distributes natural gas to residential and industrial clients through a natural gas pipeline (with a capacity of 318 mmcf/d or 9 mmcm/d) connecting Loma La Lata in Neuquén, Argentina with Chile. The contract was modified to reduce its deliver or pay obligation, not to exceed an annual quantity of 20 mmcm with a daily basis of 7.1 mmcf/d (or 0.2 mmcm/d). In 2018, YPF renegotiated the 1999 Agreement with Innergy. The parties agreed to suspend the contract until both parties reach a new natural gas sales agreement. As a result of these negotiations, the parties entered into an interruptible agreement under the provisions of Resolution No. 104/2018 in which YPF will deliver to Innergy up to 1.5 mmcm/d of natural gas. For more information, see “—Legal and Regulatory Framework and Relationship with the Argentine Government—Natural gas export administration and domestic supply priorities.”

In August 2018, MINEM issued Resolution No. 104/2018 which established a new procedure to export natural gas under six different modalities and without the obligation to re-import the exported volumes. This resolution derogates Resolution No. 299/98 and its modifications, Resolution No. 265/2004, Resolution No. 883/2005 and Resolution No. 8/2017. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas.”

On June 26, 2019, Resolution SGE No. 417/2019 was published in the Official Gazette, replacing the Procedure for the Authorization of Natural Gas Exports approved by Resolution No. 104/2018, which instructs the SSHyC to regulate energy replacement mechanisms applicable to firm exports and to prepare an operating procedure in case the security of internal natural gas supply is at risk, and empowers the SSHyC to grant export permits, by issuing the relevant certificate.

On August 21, 2019, SSHyC Provision No. 168/2019 was published in the Official Gazette, which approved the terms and conditions of the regime for the export of natural gas under firm conditions applicable from September 15, 2019 to May 15, 2020, and determines a maximum volume of natural gas that can be exported under firm conditions to the Republic of Chile of 10,000,000 cm/d (divided into three export zones, Northwest, Center-West and South).

On October 31, 2019, Disposition SSHyC No. 284/2019 was published in the Official Gazette, which approved the Operating Procedure for Natural Gas Exports, effective until September 30, 2021, the purpose of which is to regulate any need to restrict natural gas exports that are operationally useful in the case of a shortage of supply in the Argentine domestic market.

During 2019 YPF signed sales agreements for the supply of 14.7 mmcm/d on an interruptible basis through April 30, 2020 with Innergy Soluciones Energéticas S.A., Colbún S.A., ENEL Generación Chile S.A., Aproveionadora Global de Combustibles S.A., YPF Chile S.A. and Shell S.A. We also reached an agreement with Methanex to deliver 1.5 mmcm/d on a firm basis from January 1 through May 15, 2020, as well as an interruptible basis agreement to deliver 1.1 mmcm/d from May 16 through September 15, 2020, and 1.5 mmcm/d from September 16 through December 31, 2020.

The Argentine natural gas market

We estimate (based on preliminary reports of amounts delivered by gas transportation companies) that natural gas consumption in Argentina totaled approximately 1.68 bcf (or 47.87 bcm) in 2019. We estimate that the number of users connected to distribution systems throughout Argentina was approximately 8.9 million as of November 30, 2019.

In 2019, we sold approximately 33.2% of our natural gas to local residential distribution companies, approximately 0.8% to compressed natural gas end users, approximately 28.2% to industrial users (including our affiliates, Mega and Profertil), approximately 24.8% to power plants (including our affiliate YPF Energía Eléctrica) and 9.1% to YPF downstream operations. During 2019, approximately 82.9% of our natural gas sales were produced in the Neuquina basin.

During the past few years, the Argentine government has taken many steps aimed to satisfy domestic natural gas demand, including pricing, export regulations, higher export taxes and domestic market injection requirements. These regulations were applied to all Argentine Gas and Power producers, affecting natural gas production and exports from every producing basin. See “Delivery commitments—Natural gas supply contracts.” Argentine producers such as YPF complied with the Argentine government’s directions to curtail exports to supply gas to the domestic market, whether such directions are issued pursuant to resolutions or otherwise. Resolutions adopted by the Argentine government provide penalties for non-compliance. Rule SSC No. 27/2004 issued by the Undersecretary of Fuels (“Rule 27”), for example, punishes the violation of any order issued thereunder by suspending or revoking the production concession. Resolutions No. 659 and No. 752 also provide that producers not complying with injection orders will have their concessions and export permits suspended or revoked and state that pipeline operators are prohibited from shipping any natural gas injected by a non-complying exporting producer.

The Argentine government began suspending natural gas export permits pursuant to Rule 27 in April 2004, and in June 2004 the Argentine government began issuing injection orders to us under Resolution No. 659. Thereafter, the volumes of natural gas required to be provided to the domestic market under the different mechanisms described above have continued to increase substantially. See additionally “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Natural gas export administration and domestic supply priorities.”

On January 8, 2017, Law No. 26,732, which establishes export duties on hydrocarbon exports, ceased to be in force.

See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Natural gas” for additional information on these and other related regulations.

Since 2018, the Argentine natural gas market has been oversupplied in the periods between the Off-Peak Period (September and April). This situation, in addition to CAMMESA’s bidding processes, which promoted a strong competition in the power generation plants demand, had a sensitive effect on the demand for the remaining segments, generating a lower quantity of firm commitments and/or contracts for shorter terms. Most sales agreements on a firm basis during 2019 were renewed at lower prices due to the aggressive competition.

Consequently, natural gas prices purchased by natural gas traders and industries (the latter under private bidding processes) decreased due to a strong competition for demand not only during the Off-Peak Period but also during higher consume months, in accordance with a context of short term oversupply, economic recession and macroeconomic uncertainty.

As result of the electronic bidding process, contracts with LDCs were drawn up with prices nominated in U.S. dollars but with fixed exchange rates. Later, depreciation of the peso generated a lower selling price which caused a drop in the natural gas market prices.

Argentine natural gas supplies

Most of our proved natural gas reserves in Argentina (approximately 74% as of December 31, 2019) are situated in the Neuquina basin, which is strategically located in relation to the principal market of Buenos Aires and is supported by sufficient pipeline capacity during most of the year. Accordingly, we believe that natural gas from this region has a competitive advantage compared to natural gas from

other regions. The capacity of the natural gas pipelines in Argentina has proven in the past to be inadequate at times to meet peak-day winter demand, and there is no meaningful storage capacity in Argentina.

YPF began to provide regasification services to IEASA (formerly ENARSA) under certain agreements since May 2008. Bahia Blanca regasification operation finished on October 31, 2018 and became a liquefaction operation during 2019.

YPF is the operator of UTE Escobar (a joint venture formed by YPF and IEASA, which operates a LNG Regasification Terminal (“LNG Escobar”)) since 2011, located in Escobar at km 74.5 of the Paraná River in the province of Buenos Aires. UTE Escobar has executed agreements with Excelerate Energy to provide and operate a 151 mcm (or 533 mcf) regasification vessel moored at the LNG Escobar terminal with the capacity to supply up to 20 mmcm/d (or 700 mmcf/d) of natural gas.

Since the beginning of its operations, this regasification vessel has converted 20.08 bcm (or 709.1 bcf) of LNG into natural gas, which has been injected into the Argentine network. In 2019, natural gas injected into the network amounted to approximately 1.73 bcm (or 61.2 bcf).

During 2018, YPF entered into two agreements: a charter agreement for a liquefaction barge, which was later named “Tango FLNG”, with Exmar Energy Netherlands B.V. (“Exmar”); and a liquefaction services agreement with Exmar Energy Services B.V. (both companies are affiliated to Exmar N.V.). Each of the agreements have a term of 10 years, with an investment by YPF of up to approximately U.S.\$20 million. The agreement with Exmar Energy Services B.V. was assigned in 2019 to Exmar Argentina S.A.U., also an affiliate of Exmar N.V. incorporated under the Laws of the Republic of Argentina.

Through these agreements, YPF is able to produce an approximate volume of 500,000 tons per year of LNG by taking natural gas from its deposits throughout the country. It allows YPF to export this natural resource to different international markets, including Asia, Europe and regional markets. This is the first and unique floating LNG export project in Latin America, the third in the world, which permitted Argentina to be part of the select group of LNG exporting countries. The barge has a storage capacity of 16,100 cm LNG and liquefaction of 2.5 mmcm/d of natural gas.

The Tango FLNG is the first barge of its kind. It operates in Bahía Blanca where it arrived in early February 2019, with the outfitting and commissioning activities starting immediately thereafter. The FLNG unit received in April 2019 approximately 3,500 cm of LNG for cooldown purposes and exported the first cargo in early June of the same year, through a partial loading operation comprising approximately 25,924 cm of LNG. Following the winter season when the liquefaction unit stopped operations to prioritize availability of natural gas to the national system, the unit started liquefaction operations once again in early September of 2019. Since then, and until December 31, 2019 the unit produced 249,866 cm of LNG and exported two cargoes, the first on board the LNG carrier Excalibur and delivered to Brazil, and the second on board the LNG carrier Methane Kari Elin and delivered in Spain.

Moreover, YPF chartered two LNG carriers in order to lift the produced LNG from Tango FLNG. Those agreements will permit YPF to market the LNG that will be produced until the cold season starts again in May 2020. The first charter agreement has been executed with Excelerate Energy LP for the charter of the Excalibur, while the second charter agreement has been executed with Methane Services (an affiliate of the Shell group) for the charter of the Methane Kari Elin.

Natural gas transportation and storage capacity

Natural gas is delivered by us through our own gathering systems to the five trunk lines operated by Transportadora de Gas del Norte S.A and Transportadora de Gas del Sur S.A. from each of the major basins. The capacity of the natural gas transportation pipelines in Argentina is mainly used by distribution companies. A major portion of the available capacity of the transportation pipelines is booked by firm customers, mainly during the winter, leaving capacity available for interruptible customers to varying extents throughout the rest of the year.

We have utilized natural underground structures located close to consuming markets as underground natural gas storage facilities, with the objective of storing limited volumes of natural gas during periods of low demand and selling such natural gas during periods of high demand. Our principal gas storage facility, “Diadema,” is located in the Patagonia region, near Comodoro Rivadavia city. The injection of natural gas into the reservoir started in January 2001.

In May 2019, we started the construction of the second underground natural gas storage (UNGS) of YPF. It is placed in a depleted reservoir called Cupén Mahuida located in the Aguada Toledo area of the Neuquina basin. It is connected to the gas trunk pipeline system and will allow YPF to absorb the demand swing during the Off-Peak Period and increase production during the winter season.

Cupén UNGS is expected to save up to 250 mmcm of natural gas during the spring-autumn seasons and to withdrawal this volume throughout the coolest four months of the year. The first injection has the objective of accomplishing the cushion gas and a fraction of working gas. This activity started by at the end of 2019 and reached a volume of 10.4 mmcm at the end of March 2020. We’ll be monitoring and adjusting the project model in order to achieve the full field development on 2021.

Other investments and activities

NGLs

YPF participated in the development of its affiliate Compañía Mega S.A. (“MEGA”) to increase its ability to separate liquid petroleum products from natural gas. Through the fractioning of gas liquids, MEGA increased production at the Loma La Lata gas field by approximately 5.0 mmcm/d (or 176.5 mmcf/d) in 2001 with our assistance.

YPF owns 38% of MEGA, while Petrobras and Dow Chemical have stakes of 34% and 28%, respectively.

MEGA operates:

- A separation plant located in the Loma La Lata field, in the province of Neuquén.
- An NGL fractioning plant, which produces ethane, propane, butane and natural gasoline located in the city of Bahía Blanca in the province of Buenos Aires.
- A pipeline that links both plants and transports NGLs.
- Transportation, storage and port facilities near the fractioning plant.

MEGA’s maximum annual production capacity is 1.62 million tons of natural gasoline, LPG and ethane. YPF is MEGA’s main supplier of natural gas. The production of the fractioning plant is used in the petrochemical operations of PBBPolisur, S.A. (“PBB”), owned by Dow Chemical Company, and exported by tanker to Petrobras and other relevant clients.

Electricity market—generation

The Argentine Electricity Market

Argentina’s energy demand in 2019 decreased 3.1% when compared to 2018 according to CAMMESA. During 2019, domestic consumption increased 0.8% and exports decreased 6.8%.

To satisfy this energy demand, Argentina’s overall power generation in 2019 was 4.5% lower than power generation in 2018, according to CAMMESA. In 2019, 59.8% of Argentina’s power generation came from thermal power plants, 26.4% from hydroelectric power plants, 5.9% from nuclear power plants and 5.8% from renewable energy sources; and 2.05% from spot imports from Uruguay, Brazil, Paraguay and Chile (2,746.3 Gwh). Those spot imports were used to satisfy peak demand hours without capacity reserves and non-used wind energy from Uruguay.

Peak capacity demand reached its maximum in January 2019 (26,113 Mw), but maintaining 1,895 Mw of capacity reserve for security of the electrical system

Thermal power plants consumed 403,287 mmcm of diesel oil, a decrease of 53.9% compared to 2018, 185,589 tons of fuel oil, a 67.2% decrease compared to 2018, and 17,206 bcm of natural gas, a 4.6% decrease compared to 2018.

The average electricity price was Ps. 2,158.48/MWh, a 0.8% decrease compared to 2018, while the annual average marginal cost of production was Ps. 3,261.06/MWh, a 63.4% increase compared to 2018 due to depreciation of the peso.

In 2017, Resolution No. 19/2017 of the former Secretariat of Electric Energy replaced Resolution No. 95/13 and defined a new remuneration method for available power and generated energy, allowed the power generation plants to increase the profitability and reliability of the generation of energy. This resolution established remuneration based on the available power by type of technology (gas turbine, steam turbine, combined cycles, hydroelectric) and remuneration for energy generated and operated. Likewise, additional remuneration was established as incentive to efficiency. The payment of these concepts is done in cash and denominated in dollars. This resolution remained in force during 2018.

In Resolution SEE 287 - E / 2017 of May 10, 2017, the Ministry of Energy instructed CAMMESA to call interested parties to offer new thermal generation of technology: a) combined cycle or b) cogeneration, with compromise to be available to meet the demand in the wholesale electric market, contribute to the reduction of costs and to the increase of the reliability in the Argentine Electrical System.

On March 1, 2019, Resolution No. 1/2019 of the Secretary of Renewable Resources and Electric Market which derogated Resolution No. 19/2017 of the former Secretary of Electric Energy, effective as of March 1, 2019, and among other aspects provided for new mechanisms for payment of guaranteed power availability and generation by Generators, Co-generators and Self-generators from MEM (excluding binational hydroelectric generators, nuclear generators and Generators, Co-generators and Self-generators from MEM whose generating units had been committed as part of agreements for purposes of supplying the MEM from such regime). The prices for power and

generation during the six months during which electric demand is lower which were approved by Resolution No. 1/2019 are approximately 20% lower in dollar terms than those set forth in Resolution No. 19/2017.

YPF in Power Generation

On August 1, 2013, because of the spinoff of the assets of PlusPetrol Energy S.A., YPF Energía Eléctrica S.A (“YPF EE”), was created to continue the power generation operations and businesses of Central Térmica Tucumán and Central Térmica San Miguel de Tucumán.

During 2019, YPF EE participated in the following power generation plants with an aggregate net installed capacity of 1,819 MW:

- a 100% interest in Central Térmica Tucumán (447 MW combined cycle), in which YPF EE has a 100% interest;
- a 100% interest in Central Térmica San Miguel de Tucumán (382 MW combined cycle), in which YPF EE has 100% interest;
- a 100% interest in Loma Campana Este (17 MW motogenerators), in which YPF EE has 100% interest;
- a 100% interest in Loma Campana I (105 MW gas turbine), in which YPF EE has 100% interest;
- a 100% interest in La Plata Cogeneración (128 MW gas turbine), in which YPF EE has 100% interest;
- a 100% interest in Loma Campana II (107 MW gas turbine) through YGEN, in which YPF EE has 100% interest;
- a 100% interest in El Bracho (267 MW gas turbine) through YGEN II, in which YPF EE has 100% interest;
- a 100% interest in Manantiales Behr (99 MW wind farm), in which YPF EE has 100% interest; and
- a 30% interest GWh in Central Dock Sud (797.5 MW combined cycle and 72 MW gas turbines), directly and through Inversora Dock Sud S.A., in which YPF EE has a 30% interest.

In addition to YPF EE, YPF also owns and operates the following power plants, which are supplied with natural gas produced by YPF itself, and which produce power to supply upstream and downstream activities:

- Los Perales power plant (77.6 MW), which is in the Los Perales natural gas field;
- Plaza Huincul Power Plant (36.8 MW);
- Puesto Hernandez Power Plant (19.4 MW);
- Lomita Power Plant (20 MW);
- Manantiales Behr (18 MW);
- Ensenada de Barragán (560 MW), which is co-controlled with Pampa Energía S.A. YPF EE and Pampa Energia S.A. will each act as operators for four-year terms, with YPF EE acting as operator during the initial term. The cycle closure of the plant is currently under construction (280 MW) and it is expected to be finished during the second semester of 2020; and
- Filo Morado (63 MW), which has not been in operation since November 2008.

In 2019, YPF EE generated 3,710 GWh with its two combined cycle plants. Central Térmica Tucumán’s production was 2,232 GWh, and Central Térmica San Miguel de Tucumán’s production was 1,477 GWh. Additionally, Central Dock Sud generated 4,241 GWh considering YPF EE’ stake. Energy produced by both combined cycle plants in Tucumán was 29% lower in 2019 compared to 2018. The energy produced by Central Dock Sud in 2019 increased by 7% as a result of the normalization of operations following a failure in the DSUDTG09 compressors in 2018.

At the beginning of 2018 YPF EE bought the cogeneration plant in La Plata from Central Puerto S.A (128 MW), which generated 820 GWh in 2019, a 6% decrease compared to 2018.

Within the framework of Secretary of Electrical Energy (S.E.E.) Resolution No. 21/2016, YPF EE, together with a subsidiary of General Electric, decided to engage in two projects for the development and operation of two power plants.

One project consists of a new 107 MW thermal power plant located at Loma Campana in Neuquén Province, Argentina. The project has succeeded in obtaining a purchase price agreement at the second round of the power capacity auction established through S.E.E. Resolution No. 21/2016 and the reference terms issued by CAMMESA. The commercial operating date of this power plant was on November 30, 2017, generating 503 GWh during 2019, a 27% increase compared to 2018.

The second project consists of a new 267 MW thermal power plant located at El Bracho in Tucumán Province, Argentina. The project has succeeded in obtaining a purchase price agreement at the first round of the power capacity auction established through S.E.E. Resolution No. 21/2016 and the reference terms issued by CAMMESA. The project reached the commercial operating date on January 27, 2018, generating 136 GWh in 2019, a 75% decrease compared to 2018.

Both projects involved an aggregate investment of U.S.\$ 307,9 million, and the total shareholders' contribution was U.S.\$ 88,4 million (approximately U.S.\$ 58,9 million payable by YPF EE), with the remainder of the investment amount, U.S.\$ 219,5 million financed by financial institutions.

Additionally, in order to support YPF's operations, YPF EE owns Loma Campana I and II. During 2019, these plants generated 1,209 MW, a 46% increase compared to 2018.

As a consequence of Law No. 27,191 related to renewable energy, YPF EE started in 2016 the construction of its renewable generation project, Manantiales Behr Wind Farm (99 MW), near Comodoro Rivadavia in the Chubut province, in order to supply the percentage of YPF total demand with clean generation that was required by law in 2018 and 2019. This project reached the commercial operating date of the first 46.2 MW on July 24, 2018, completing on December 24, 2018. During 2019, the wind farm generated 527 GWh.

The energy produced by YPF EE and Central Dock Sud (10,644 GWh in total, considering YPF EE's stake in Central Dock Sud) represented 8.11% of Argentina's electricity generation in 2019.

In addition, and in pursuant to the Law No. 27,191, the Ministry of Energy and Mining launched in August 2017 the Plan RenovAr 2.0, an auction for 1,200 MW for the construction of renewable energy generation plants, in which YPF EE was awarded with the construction of the Cañadón Leon Wind Farm, a project of another 100 MW of clean generation, in the Santa Cruz province. Under the terms of the auction, this project will allow YPF EE to have another power purchase agreement with CAMMESA. This project is expected to be finished during the second half of 2020.

As far as efficient energy generation is concerned, YPF EE won the award of two projects at the second round of the cycle closure and cogeneration plants auction established through S.E.E. Resolution No. 287/2017. One project consists of a new 85 MW cogeneration plant located in the Buenos Aires province. The other implies the closure of the open cycle of the El Bracho thermal power plant in Tucumán (198 MW).

In addition, and pursuant to Resolution No. 281-E/2017, YPF EE was awarded with dispatch priority for two additional renewable generation projects, Los Teros Wind Farm (122.6 MW) and Los Teros II Wind Farm (49.8 MW). These projects will allow YPF EE to commercialize renewable energy in the private market (Mercado a Término de Energías Renovables – "MATER"). Los Teros Wind Farm is expected to be finished by the first half of 2020 and Los Teros II Wind Farm during the first quarter of 2021.

With all these projects in its portfolio, among others, YPF EE pursues to be one of the strongest competitors in the electrical generation market in Argentina. For this purpose, YPF EE established negotiations with GE Energy Financial Services during 2017 in order to redistribute its share capital, trusting that the entrance of the strategic partner will hasten the growth of the company in the country.

On December 14, 2017, the Board of Directors of the Company approved the terms of a memorandum of understanding signed with GE Energy Financial Services, Inc. ("GE EFS") which established the framework conditions under which the parties would agree to the capitalization of YPF EE. This Agreement established that GE EFS intended to contribute capital through a vehicle company and subscribe for shares of YPF EE in order to have a shareholding of 25% of its capital stock.

On February 6, 2018, YPF with EFS Global Energy B.V. ("GE") and GE Capital Global Energy Investments B.V., companies indirectly controlled by GE EFS, entered into an agreement which established the conditions for the capitalization of YPF EE (the "Share Subscription Agreement"). The Share Subscription Agreement established that GE, subject to compliance with certain conditions precedent, would subscribe for shares of YPF EE to have a shareholding of 24.99% of its capital stock and jointly control YPF EE with YPF.

The contribution would be in an amount equal to U.S.\$310 million, composed of:

- Subscription price of U.S.\$275 million:
 - o U.S.\$135 million as of the closing date of the transaction; and
 - o U.S.\$140 million 12 months after the closing date of the transaction.
- Contingent price of up to the maximum sum of U.S.\$35 million subject to the evolution of the prices of Resolution No. 19/17 (33.33% as of 24 months from the closing date of the transaction and 16.67% each subsequent year).

On March 20, 2018, GE EFS Power Investments B.V. (“GE”), a subsidiary of EFS Global Energy B.V. (both corporations indirectly controlled by GE Energy Financial Services, Inc.), subscribed for shares of YPF EE in an amount equal to 24.99% of YPF EE’s capital stock through a cash contribution of U.S.\$275 million, plus a contingent payment for up to U.S.\$35 million. This cash contribution allowed YPF EE a more accelerated development of its business plan. As of the date of the subscription of YPF EE shares by GE, GE and YPF S.A. have joint control of YPF EE.

On July 30, 2019, the Company was notified by its shareholder GE EFS, owner of 24.99% of the shares of YPF EE, that 100% of the shares issued by GE EFS was transferred to BNR Infrastructure Co-Investment Limited (“BNR”), a private company established in the United Kingdom. General Electric Company indirectly owns 50% of the economic rights of BNR and Silk Road Fund Co. Ltd. indirectly holds the remaining 50%. BNR, in turn, owns 100% of the capital stock of GE EFS. General Electric Company will continue to indirectly manage and control BNR and will therefore continue to exercise the voting rights corresponding to 24.99% of the shares of YPF EE owned by GE EFS.

See Note 3 to the Audited Consolidated Financial Statements for additional information.

On August 5, 2019 YPF EE, Y-Luz Inversora S.A.U., Luz del León S.A. (“Luz del León”) and Wind Power AS, a subsidiary of Equinor ASA (a company incorporated in the Kingdom of Norway, (“Equinor”)), entered into an agreement for the subscription of shares in Luz del León, a company 100% controlled by YPF EE (the “Stock Subscription Agreement”). Luz del León holds all rights and obligations relating to Cañadón León Wind Farm Project for approximately 120MW, located in the Province of Santa Cruz. Such project is currently under construction and the total installed capacity and power corresponding to the project has already been sold to CAMMESA under the RENOVAR 2 Program and to YPF S.A. under a private power purchase agreement for the following 20 and 15 years, respectively.

The Stock Subscription Agreement establishes that, subject to the fulfillment of certain conditions precedent such as the approval of the relevant antitrust authorities and the obtaining of specific financing for the project, Equinor shall subscribe shares in Luz del León in order to obtain a 50% equity participation in such company. To that effect Equinor will contribute a total of U.S.\$30 million, U.S.\$20 million as equity and U.S.\$10 million as share premium. The parties had originally agreed that such conditions should be satisfied before December 31, 2019, subsequently postponed to April 30, 2020. After the subscription and paid-in capital, YPF EE and Equinor will jointly control Luz del León.

On May 29, 2019 YPF received a notice from IEASA informing that YPF and Pampa Cogeneración S.A., an entity controlled by Pampa Energía S.A. were the successful bidders of the National and International Public Tender No. CTEB 02/2019 pursuant to their joint offer, which was launched by means of Resolution No. 160/19 of the Secretariat of Government of Energy (the “Tender Process”), related to the sale and transfer by IEASA of the goodwill of the Thermal Power Station Ensenada de Barragán (the “Station”). YPF and Pampa Energía S.A. jointly acquired the Station, through CT Barragán S.A., a company co-controlled by YPF S.A. and Pampa Cogeneración S.A. (the “SPV”). The Station is located in the Ensenada petrochemical complex, Province of Buenos Aires, and currently has an installed power capacity of 560 MW. As part of the Tender Process, the SPV is required to complete the necessary works for the Station to operate on a combined cycle basis, which upon completion will increase the Station’s power capacity to 847 MW. This cycle closing will involve an increase in the Station’s efficiency, as the same fuel (gas) will produce an additional 50% electricity. Once the combined cycle works are complete, it is estimated that the Station will be one of the most thermally efficient units among the country’s electricity generators. The estimated joint investment related to the acquisition of the Station is U.S.\$ 290 million, which includes the final amount (in cash) offered in the Bidding, and the purchase price of a certain amount of securities (“VRD”) issued as a result of the Supplementary Agreement to the Global Financial and Management Trust Program for the Execution of Energy Infrastructure Works - Series 1 – IEASA (former ENARSA) (Barragan) (the “Trust Agreement”). It is estimated that the cycle closing works will reach an approximate amount of U.S.\$ 180 million. Additionally, the acquisition of the Station’s goodwill includes the assignment of the Trust Agreement in favor of the SPV, as trustor under the trust. The VDR debt under the Trust Agreement (excluding the VDRs to be acquired by the SPV) amounts to approximately U.S.\$ 200 million, which is expected to be repaid with cash flows from the Station. On June 26, 2019, the sale and transfer by IEASA of the goodwill of the Station to CT Barragán S.A. was executed. The SPV has entered into a syndicated loan agreement in an amount equal to U.S.\$170 million. This loan is on a non-recourse basis to its shareholders, provided that the SPV receives its commercial operation license within a 30-month period.

On February 27, 2020, Resolution No. 31/2020 of the Ministry of Energy was published in the Official Gazette, through which the Argentine Government established new remuneration values for the sale of energy and power not subject to a sales contract. The previously mentioned remuneration values, previously nominated in U.S. dollars, are set in Argentine pesos and will be updated monthly based on the CPI and the WPI published by INDEC. This resolution is effective and applies to transactions carried out as of February 2020.

On April 8, 2020, through a letter, the Secretary of Energy instructed CAMMESA to postpone until further notice the implementation of Resolution No.31/2020 Annex VI – Remuneration values established in Argentine Pesos Revision.

Natural gas distribution

We currently hold a 70% stake in Metrogas S.A. (“Metrogas”), a natural gas distribution company in the capital region and southern suburbs of Buenos Aires, and one of the main distributors in Argentina. During 2019, Metrogas distributed approximately 7,599.6 mcm (or 267.96 bcf) of natural gas to 2,2 million customers in comparison to approximately 7,574.9 mcm (or 267.31 mmcf) of natural gas per day to 2,2 million customers in 2018. During May 2013, we, through our subsidiary YPF Inversora Energética S.A. (“YPF Inversora Energética”), gained 100% ownership of Gas Argentino S.A. (“GASA”), the controlling company of Metrogas, by acquiring shares representing the remaining 54.7% interest in GASA not already owned by us. In 2016, GASA and YPF Inversora Energética were both merged into us and dissolved without liquidation.

Additionally, on December 28, 2016, YPF has received from Metrogas a copy of the note received by it from ENARGAS, requesting it to adjust Metrogas’ equity structure in line with the term provided for in Emergency Law No. 25,561 and in compliance with Section 34 of Law 24,076. In this regard, it should be noted that YPF indirectly acquired 70% of Metrogas equity, which transaction was approved by ENARGAS Resolution No. I/2,566 dated April 19, 2013; and, following the merger with YPF Inversora Energética S.A. and Gas Argentino S.A., is the holder of 70% of Metrogas shares.

On March 30, 2017, YPF filed an appeal for reconsideration requesting to overrule the ENARGAS Note and render a new decision setting a reasonable timeframe consistent with the current reality of the gas market to comply with the provisions set forth article 34 of Law 24,076.

On June 15, 2017, YPF submitted to ENARGAS a tentative schedule for the process of adapting its equity interests in Metrogas, which was expanded in detail on July 3, 2017. As of the date of this annual report, ENARGAS has not issued any decision regarding the appeal or the submitted tentative schedule.

Such presentation does not imply withdrawal of the above-mentioned appeal.

On April 5, 2018, Metrogas was notified that the ENARGAS rejected the appeal for reconsideration submitted by YPF on March 30, 2017. ENARGAS 313/2018 resolution was notified on to YPF on April 6, 2018.

YPF asked for a review of procedures, that was granted by ENARGAS on September 10, 2018. This action extended the period for filing an appeal. On October 8, 2018, YPF filed an appeal with the SGE. As of the date of this annual report, this appeal has not been resolved.

Metrogas tariff issues

The Emergency Law published in the Official Gazette on January 7, 2002, modified the legal framework in force for license contracts of public services.

The main provisions of Emergency Law that have an impact on the License duly granted to Metrogas by the Argentine Government and that modified express provisions of the Gas Law were the following: “pesification” of tariffs that were fixed in convertible dollars at the exchange rate specified in the Convertibility Law (Law No. 23,928), the prohibition of tariff adjustments based on any foreign index, thus not allowing the application of the international index specified in the Regulatory Framework (US Producer Price Index-PPI) and the renegotiation of the License granted to the Company in 1992.

Moreover, the Emergency Law established the beginning of a renegotiation process of public utility services agreements granted by the National Executive Power (“PEN”) without detriment to the requirements that utility services companies must go on complying with all their obligations.

The Emergency Law, which was originally to be due in December 2003, was extended several times until December 31, 2017. The terms for renegotiating licenses and public services concessions were also extended. See “—Legal and Regulatory Framework and Relationship with the Argentine Government— Public Emergency.” In the framework of the renegotiation process, the Company signed a series of agreements with different entities representing the Argentine Government.

For the agreements signed during the last years, see “—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulations—Natural Gas—Tariffs.”

On December 23, 2019, the Social Solidarity Law was published within the framework of the Public Emergency Law No. 27,541 (“Social Solidarity Law”). This law declares the public emergency as to economic, financial, tax, administrative, social security, tariffs, energy, health and social matters and empowers the PEN until December 31, 2020 pursuant to Section No. 76 of the National Constitution. Under this regulation the Government has adopted several measures that affect natural gas distributors (see “Item 4. Information on the Company-Tariff regulation.” and “—Legal and Regulatory Framework and Relationship with the Argentine Government— Public Emergency.”).

With respect to the Cumulated Daily Differences (CDD), Metrogas adhered in due time to the Regime as established by Decree No. 1053/2018. On December 5, 2019, SGE issued Resolution No. 780/2019 that approves transfer of the first partial payment to Metrogas. The company registered the liabilities with gas producers for CDD on the financial statements as of December 31, 2019, corresponding to the period April 1st, 2018 to March 31, 2019, referred to the abovementioned Decree and the credit with the National State for the same amount and concept.

In relation to the six-month adjustment on the transport and distribution margins in effect as of October 1, 2019, on September 4, 2019 SGE Resolution No. 521/2019 was released, ruling the deferral of this adjustment until January 1, 2020, when the amount corresponding to the immediately preceding update index will be applied. In order to compensate providers within the framework of item 9.8 of the Basic License Distribution Rules (“RBLD”, the acronym in Spanish), a review and adjustment of the mandatory investments under their responsibility was ordered – with accurate incidence.

On October 4, 2019, Metrogas filed its proposal for the readjustment of mandatory investments under its responsibility as required by SGE Resolution No. 521/2019.

In the presentation, the company determined the impact on income for the period from October 2019 to December 2019, pursuant to the Integral Tariff Revision (“ITR”) provisions. Furthermore, the company suggested that Mandatory Investment Plan (“MIP”) be adjusted by that same amount, which represents an original MIP decrease of 3.84% for Regulatory Year 3 ending in March 2020, and 17.87% for Regulatory Year 4 ending in March 2021. As of the date of this annual report, the Metrogas presentation is under evaluation for authorization by ENARGAS. In due time, the company will consider actions to be taken in case ENARGAS agrees only to a partial recognition of the established impact.

Additionally, on October 11, 2019 Metrogas broadened its claim within the ITR process before ENARGAS through the filing of a separate motion whereby it listed several unfulfillments other than the tariff deferral under Resolution No. 521/2019 (namely, amendments to technical reviewing procedures of natural gas domestic systems under NAG-226, new monthly billing scheme under Resolution No. 223/2019, modification of inflation adjustment index under Resolution No. 281/2018, billing deferral to residential consumers under Resolution No. 336/2019 and changes in unaccounted-for natural gas compensation regime under Resolution 225/2019), and requested due compensations thereto so as to allow the maintenance of the Company’s economic balance taken into account as of the date of approval of the MIP, then altered by issues non-attributable to Metrogas, highlighting that any lack of such compensations might end up negatively impacting on the Company’s compliance of its MIP. As of the date of this annual report, such filing is pending resolution by ENARGAS.

On November 25, 2019, SGE Resolution No. 751/2019 was published replacing Section 1 of SGE Resolution No. 521/2019 and established that the six-month adjustment on the transport and distribution margins should be deferred from October 1, 2019 to February 1, 2020, and the corresponding adjustment rate to show the variation on prices between February and August 2019 should be applied.

Through ENARGAS Resolution No. 703/2019, new tariff charts were published applicable to Metrogas from November 1, 2019. Later, on November 29, 2019, after finding out material errors on ENARGAS' Resolution No. 703/2019, new tariff charts were published through ENARGAS Resolution No. 763/2019, which became effective on November 29, 2019.

Under the Social Solidarity Law there was a deferral on the adjustment of natural gas and electricity prices by 180 days, until June 30, 2020. This deferral leaves no effect to the scheduled adjustment on February 2020 and will affect prices of natural gas to residential and commercial consumption and power generation.

Seasonality

For a description of the seasonality of our business, see “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Seasonality.”

Research and Development

At the end of 2012, YPF created YPF Tecnología S.A. (“Y-TEC”), a highly specialized company focusing on research and development (“R&D”) activities. YPF holds an interest stake of 51% and CONICET, a state-owned research and development organization, holds an equity interest of 49%.

All lines of R&D carried out by Y-TEC are strategically aligned to the needs of YPF. The Board of Directors of Y-TEC consists of three directors appointed by YPF and two directors appointed by CONICET; additionally, the Chairman and the General Manager of Y-TEC are appointed by YPF.

For the operations of Y-TEC, five hectares from the National University of La Plata (“UNLP”) were acquired, and a 13,000 m² building consisting of 47 labs and 12 experimental plants were built. The staff and the equipment moved into the new building in June 2016. More than 250 professionals work in the new building creating innovative solutions for the energy sector.

Y-TEC has the mandate to coordinate and manage all YPF’s R&D efforts, consolidating and boosting a Portfolio 51 projects (as of December 2019) aimed to generate high-impact technological solutions. Y-TEC also has several Service Platforms that provide high quality technical and laboratory support services. During 2019 Y-TEC executed more than 100 technical assistance and specialized services.

Y-TEC explores opportunities throughout the actual and future energy sector. This is a broad and diversified strategy approach that covers core areas such as Unconventional Resources, Mature Fields and Petrochemical, as well as New Energies, Future Mobility and Environmental Sustainability.

Y-TEC believes in the value of liaising with technological partners to reinforce regional leadership, adopting the open innovation concept. This concept allows us to reduce technological risk, shorten the time to have the product on the market and minimize costs.

Since 2016, we have opened more than twenty “Innovation Spaces”. These are areas promoted by Y-TEC to complement scientific capacities in public and private institutions and allow the development of high impact technological products for the national energy industry. Knowledge, experience and state-of-the-art equipment are brought together by Y-TEC and CONICET.

In the areas of exploration and production of unconventional resources, R&D efforts are focused on reducing the development field cost, by the design, development and application of very specific technologies. Some of our most important challenges include simulation and modeling tools design and development, measuring and monitoring solutions, tailor-made fluids and smart proppants, additives and chemical products for optimizing drilling, completion, and production operations.

To optimize production from mature fields, we are focused on increasing the recovery factor by the development of enhanced oil recovery technologies and the implementation of new processes and materials to reduce the operational costs of our facilities, to enhance their run life and integrity.

Regarding oil products refining and marketing, we apply our technological knowledge to optimize refinery operations and improve product quality, with a strong focus on the achievement of energy efficiency and environmental improvements. In the petrochemical business, R&D activities are mainly focused on the development of new products with higher added value, such as special solvents, fertilizers and several agricultural products. According to YPF’s sustainability strategy, the development of innovative bio-products is also part of the R&D focus.

Renewable energy is a strategic R&D area. Energy storage based on li-ion technologies, solar energy, hydrogen production, bioenergy

and energy efficiency are among the greatest challenges.

Supporting the process of transformation initiated by YPF and in line with the advancement of digital technologies, we stood up at Y-TEC a Center of Excellence (COE) in Advanced Analytics, fully dedicated to executing AI and data science projects across all YPF businesses.

The COE combines, under one single department, data scientists, process modeling experts and IT professionals to provide integrated solutions to the O&G industry. With this initiative, YPF is set at the forefront of other companies in the country by enhancing the use of the data to improve performance, to multiply value by prioritizing data science projects with the highest return on investment. and to discover new businesses. The COE delivered a first set of initiatives during 2019, and currently manages a high-potential portfolio of more than 20 projects under execution.

Competition

In our Upstream business, we encounter competition from major international oil companies and other domestic oil companies in acquiring exploration permits and production concessions. Our Upstream business may also encounter competition from oil and gas companies created and owned by certain Argentine provinces, including La Pampa, Neuquén, Santa Cruz and Chubut. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—Overview” and “—Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 26,197.” However, changes introduced in the Hydrocarbons Law through Law No. 27,007 (2014) limit the ability of provincial companies to possess future exclusive rights over permits and concessions, which supports competition in the Argentine oil and gas industry. See “—Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 27,007, (amendment of the Hydrocarbons Law).” Moreover, during the last several years we have made a comprehensive move to secure, either by renewing, extending and converting through mechanisms provided in the Law, the majority of such permits and concessions in Argentina considered valuable in the long term.

In our Downstream business, we face competition from domestic and international oil companies. In our export markets, we compete with numerous oil and trading companies. We operate in a dynamic market in the Argentine downstream industry and the crude oil and natural gas production industry. Crude oil and most refined products prices are subject to international supply and demand and, in certain cases, to Argentine regulations.

See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Limitations on local pricing in Argentina may adversely affect our results of operations”, “Item 3. Key Information—Risk Factors—Risks Relating to Our Business— We are exposed to the effects of fluctuations in the prices of oil, gas and refined products”, and “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulations—Natural Gas—Tariffs.”

We continuously assess the external environment and our competitive position to adjust our business strategies and plans to create and sustain competitive advantage.

Environmental Matters

YPF-Argentine operations

YPF is committed to operate in balance with its environment. In this sense, it carries forward its mission to produce and provide energy focus on environmental care, trying to minimize the impact, looking enhance the positive effects associated with its work and prioritizing the protection of workers, the environment and the community in general.

During 2019, we continued the implementation of our Operational Excellence Policy, which was approved on 2018, in order to replace and upgrade our Environmental Protection and Health Preservation Policy. Environmental management is built upon a strong corporate culture of security and protection, and it is deployed through a management system focused on occupational risks, the mitigation of industrial risks and integration of the principles of process safety to control the risks and the impacts. This management system and its application is certified according to standards OHSAS 18001 (Safety) and ISO 14001 (Environment) in the major industrial centers of the company.

All the company’s segments are constantly upgrading their integrated management systems and major environmental parameters are subject to reporting and monitoring as a means to evaluate our performance and implement any necessary improvements.

Our operations are subject to a wide range of laws and regulations relating to the general impact of industrial operations on the environment, including air emissions and waste water, the disposal or remediation of soil or water contaminated with hazardous or toxic

waste, fuel specifications to address air emissions and the effect of the environment on health and safety. We have made and will continue to make expenditures and investments in order to warrant the reliability and integrity of our assets and operations and to comply with these laws and regulations as well. In Argentina, local, provincial and national authorities are moving towards more stringent enforcement of applicable laws. In addition, since 1997, Argentina has been implementing regulations that require our operations to meet stricter environmental standards that are comparable in many aspects to those in effect in the United States and in countries within the European Community. These regulations establish the general framework for environmental protection requirements, including the establishment of fines and criminal penalties for their violation. We have undertaken measures to achieve compliance with these standards and are undertaking various abatement and remediation projects, the most significant ones are mentioned below. We cannot predict what environmental legislation or regulation will be enacted in the future or how existing or future laws will be administered or enforced. Compliance with more stringent laws or regulations, as well as more vigorous enforcement policies of regulatory agencies, could require additional expenditures in the future, including the installation and operation of systems and equipment for remedial measures, and could affect our operations generally. In addition, violations of these laws and regulations may result in the imposition of administrative or criminal fines or penalties and may lead to personal injury claims or other liabilities.

Simultaneously, we have in place comprehensive risk management policies in connection with our assets, processes, businesses and projects, integrating, at all stages of their life cycle, criteria and preventive actions for environmental protection, safety, health, quality, integrity and reliability. We operate not only in strict compliance with policies, rules and procedures, within Argentina's current legal and regulatory framework, but also proactively adopting reference standards in the absence of legislation.

As an example of our work towards best practices in the industry, we have implemented an investment plan aimed at improving the quality of fuels. In September 2019, Resolution No. 558/2019 of the Secretary of Government of Energy substituted Resolution No 5/2016 and established modifications to the new specifications for sulphur content in fuels. This Resolution established that as of 2024 sulphur specifications will be adjusted of Gasoil and Gasoline Degree 2. Hence, investments are being made since 2018 in order to comply with these new specifications: the development of a new unit of coke petrol hydrotreatment, the revamping of the magnaforming, the FCC petrol hydrotreatment unit in La Plata Industrial Complex and the revamping of the hydrotreatment of petrol and a new gasoil desulphurization unit in Luján de Cuyo Refinery. These units are expected to begin operations by the end of 2023. During 2019, YPF made a sulphur content reduction of gasoline Degree 3.

In the La Plata Industrial Complex an ambitious plan of effluents adequacy is being followed since 2014, including drain fluids segregation and raft building which also allows us to strengthen the resilience of our facilities to the new climatic conditions of the region. Furthermore, connection works for the discharge of security torches are being completed according to Resolution No. 231/96 of the Environmental Policies Office of Buenos Aires Province.

In Logistics, the integrity plan for tanks and pipelines is developed annually to ensure their tightness.

Annually, plans are developed across business units to comply with different Security and Environmental Resolutions. Works based on Resolutions No. 785/05 and Resolution No. 404/94 are performed on tanks and inspections of pipes according to Resolution No. 1460/06 are carried out as well. Following regulations of the Buenos Aires Province's Organization for Sustainable Development, we also perform pressure container inspections.

In addition to the projects mentioned above, we began to implement a broad range of environmental projects in the domestic Exploration and Production, Refining & Marketing and Chemicals segments, such as increasing the capacity of biological treatment in the La Plata Refinery, a new flare in the Luján de Cuyo Refinery, wastewater treatment and fire protection facilities, new flare in Plaza Huincul Industrial Complex, improvement of fireproofing in existing facilities and implementation of bottom loading systems in terminals.

We and several other industrial companies operating in the La Plata area have entered into a community emergency response agreement with three municipalities and local hospitals, firefighters and other health and safety service providers to implement an emergency response program. This program is intended to prevent damages and losses resulting from accidents and emergencies, including environmental emergencies. Similar projects and agreements were developed at other refineries and harbor terminals as well. During 2016, we implement a similar program in Luján de Cuyo and in the following years we started such projects in Plaza Huincul, Añelo and Allen (Upstream & Downstream Operations) areas.

In 2019 we continued our agreement with Oil Spill Response Ltd. to implement a plan with the purpose of evaluating and reducing the possible environmental impact caused by an oil spill in Argentine surface waters, thus reducing the environmental impact of potential oil spills offshore. This agreement includes technical and operational support in case of oil spills on rivers or seas caused by accidents involving cisterns or exploration and production offshore. We also keep our agreement with Wild Well Control Inc. updated, in order to be prepared for possible blow outs.

During 1997 and 1998, each of our refineries (La Plata, Luján de Cuyo, and Plaza Huincul) were certified under the ISO (International Organization for Standardization) 9001 (quality performance) and ISO 14001 (environmental performance). All of them are also certified under the OHSAS 18001 (occupational health and safety performance) standard. In addition, since 2008, the La Plata, Luján de Cuyo and

the Plaza Huincul complexes have been verified in accordance with ISO 14064 for the inventories of industrial greenhouse gases. The refineries maintain their systems under continuous improvement and revision by accredited organizations.

Focusing on the development and research, the company created YPF Tecnología S.A. (see “Item 4. Information on the Company—Research and Development”) which is implementing an Environmental Sustainability Program focused on three strategic areas: reduction of emissions, increase of sustainable production and bioproduct development. This translates into high-impact projects for the industry, namely, effluent treatment, development of new production technologies, soil bioremediation, CO₂ capture and valorization, atmospheric contaminant removal, and valorization of agricultural products and waste. With respect to climate change, over the next years we are committed to a lower carbon economy through more efficient oil, gas, fuels and derivatives production, lower intensity in GHG emissions, and cleaner electric power with a higher share of renewable energies.

In this context, during 2019 we updated our Commitment to Climate Action and Energy Efficiency (developed in 2015 and renewed in 2017) which provides the framework for working on mitigation and adaptation activities. The identified lines of action include the following:

- Integrate climate risk analysis methods;
- Become the third electric power generator in the country in the future;
- Encourage and boost energy efficiency by improving performance in our facilities and activities;
- Advance research and development of new related technologies;
- Achieve a reduction of our operations specific GHG emissions in near future.
- Achieve the target of having approximately 70% of our vehicle fuels conform to low-sulphur standards (Euro V) in the near future.
- Develop climate change adaptation strategies for our operations.

Regarding this commitment, we continued working on:

- Improving Energy Efficiency. In 2017 we completed an energy assessment of production processes in the Company’s three main segments (Upstream, Downstream, and Gas and Power). This helped us ascertain YPF’s balance, consolidated and area-specific consumption, establish a baseline, and identify energy efficiency opportunities.

This assessment will be carried out on completed, in-progress and planned projects. In the Downstream business, the most relevant projects are associated with cogeneration in the City of La Plata and revamping of units in La Plata and Luján de Cuyo industrial complexes, while in the upstream business, those related to electrification and generation improvements brought about by changes in equipment in mature oilfields. In Gas and Power, the key to energy efficiency lies in renewable energy projects, which will be the most significant contributors to reducing specific GHG emissions.

As part of this process, at the beginning of 2018, YPF has decided to upgrade the consumption and deficiency logging and monitoring system, and implement a coordinated, company-wide energy management system

Additionally, in 2018 a committee for energy efficiency was created in order to concentrate the different actions that are being performed in the company. In 2019 the same committee continued work on promoting the scope of energy efficiency in different areas. See “—Our commitment to sustainability.”

In 2019, seven new facilities were certified as ISO 50001 for Energy Management: our company Mega and six thermal generation plants of the company YPF EE. These locations are in addition to the certificates awarded in previous years in respect of eight of our facilities. On the other hand, a certification process for La Plata Refinery is scheduled for completion in 2020.

- Monitoring our two projects registered under the Clean Development Mechanism (“CDM”), which allow us to reduce the emissions in the different stages and processes of crude oil refining through the recovery of flare gas in La Plata (CILP) and Luján de Cuyo (CILC) industrial complexes. Residual gases are compressed and injected into the fuel system to feed furnaces and boilers, thus avoiding the need to use natural gas and fuel oil for heating. In 2019, CO₂ was reduced by around 168,687.2

tCO₂ between both projects.

The methodology developed by YPF was approved by the United Nations in 2007 under the name of AM0055 “Baseline and Monitoring Methodology for the recovery and utilization of waste gas in refinery facilities”. To date, there are six projects registered under the CDM that have implemented this methodology around the world (Argentina, China, Kuwait and Egypt).

- Continuing and strengthening Greenhouse Emissions (“GHG”) Inventorying. Since 2008 we have been gradually introducing management systems into our operations to record emissions through GHG inventories, applying the ISO 14064-1 standard. This inventory has been successfully checked in the Ensenada Industrial Complex since 2008. During 2016, we began to implement the verification of greenhouse gas emissions inventory by a third party in Plaza Huincul Refinery. During 2019, we completed an external audit of all of YPF’s industrial complexes for the 2018 inventory in La Plata (Refinery and Petrochemical Plant), Luján de Cuyo, and Plaza Huincul (Refinery and Methanol Plant). We also monitored other air emissions (SO₂, NO_x, CO, NMVOC, and particulate) in accordance with applicable regulations.
- The forestry projects located in the province of Neuquén which constitute approximately 7,000 hectares of trees forested under a long-term work program. Using the afforestation methodologies and tools available at the United Nations Framework Convention on Climate Change (“UNFCCC”) Clean Development Mechanism web site, it was possible to arrive to a conservative estimated amount of approximately 760,000 tons of CO₂ equivalents that were captured by the afforestation project activities from 1984 (when the first afforestation activity occurred) through 2014.
- The commitment to minimize gas sent to flares and gas vented, giving compliance to the requirements established in National Resolutions No. 236/93 and No. 143/98 issued by the former Energy Secretariat of the Nation (SEN) and all those applicable provincial regulations. In this sense, there is a new initiative, implemented in Mendoza: the virtual gas pipeline, that implies the liquefaction and transportation of the natural gas associated from remote wells to an electric power plant in order to reduce flaring. In 2019 this practice has been developed in other associated gas production facilities like Bajo del Toro.
- Developing Electric Power and renewable energy business. See “—Gas and Power.”
- Climate Change Adaptation: We moved forward with climate risk assessment projects at the Company’s facilities by implementing the Business Areas Climate Impact Assessment Tool or BACLIAT. We also used such tool at the logistics terminal located in Concepción del Uruguay in 2017; in an oil pipeline in the province of Mendoza in 2018, and in terminal Barranqueras and in an Upstream oil facility in Comodoro Rivadavia in 2019. We looked into past, current and future climate trends; detected primary risks; and identified mitigating actions to reduce vulnerability and encourage early action. In addition to the implementation of the tool in other facilities, we started working on the development of climate maps to identify the risks related to climate change on our operations and facilities.

Strengthening the relationship established with the Argentine Environmental Authority (Ministerio de Ambiente y Desarrollo Sustentable de la Nación), in particular with its Climate Change Unit (CCU - Dirección de Cambio Climático) in order to collaborate with the development of the Third National Communication on Climate Change to the UNFCCC and during 2017 in workshops organized by the CCU for developing the National Climate Change Plans related to the Nationally Determined Contributions (NDCs) committed by the country under the signed Paris Agreement. With respect to this, YPF signed a framework agreement with the Argentine Environmental Authority for a mutual collaboration on environmental issues, particularly relating to climate change.

Water Management

YPF is committed to an integrated water management approach focused on resource sustainability, as embodied in its corporate regulations. This means not only assessing water resources in terms of use, but also of transportation and storage; consumption optimization, ensuring adequate treatment of process water to enable reuse; and analysis and treatment of liquid effluents.

Along these lines, in 2015 we started a water management benchmarking study on several assets within the Downstream and Gas and Power businesses. The three industrial refining complexes, Tucumán Thermal Power Plant, and La Matanza Terminal had already been surveyed in 2016. In 2017 we finished surveying Dock Sud and La Plata Terminals, Escobar LNG Plant, and Y-TEC. This methodology improved our knowledge of water withdrawal sources and effluent disposal points and provided relevant volumes.

A similar ongoing improvement process is carried out in the Upstream business. Based on a survey performed on all operations in 2015, this area has now an annually updated resource management plan.

In 2016 we started the implementation of the Local Water Tool (LWT) oriented to the identification of water risks and practices for an

adequate management of water and effluents, through the analysis of the Luján de Cuyo and Tucumán Industrial Complexes. In 2017, we continued in the Fernández Oro Station in the Province of Río Negro (Upstream) and Escobar LNG Plant, in the Province of Buenos Aires (Gas and Power). As a result, new potential risks were identified and included in the relevant action plans. In 2018, the LWT has been implemented in the Southern area (Tierra del Fuego), Plaza Huincul Industrial Complex and La Matanza fuel dispatch terminal. Furthermore, a particular focus has been placed on water management, dedicating personnel and resources exclusively to carry out a detailed study of water management for the different facilities of the Company, which allowed us to establish the water balances captured and produced and the identification of improvement and optimization actions for next years. During 2019, we implemented the LWT in the Downstream La Plata Complex Facility.

Additionally, during 2019, we also started using the Aqueduct; a tool that allows us to identify areas with potential water stress risk along with the mapping of our operational areas and areas with water stress. This information will be used for the development of planning activities in this regard. Additionally, we also performed during 2019 a pilot activity in the Upstream operations for the development of a process that will allow us to evaluate the water use efficiency in the different facilities of the company.

Waste Management

In compliance with Argentine regulations and our environmental standards, we develop integrated waste management activities seeking to: (a) phase out waste generation; (b) reduce waste hazardousness and ensuing environmental impacts; (c) ensure proper treatment and final disposal; and (d) establish continuous improvement programs.

Since 2012, we have been working on initiatives in our Upstream business unit in order to systematically reduce the stock of soil with hydrocarbons. This is being performed with the commitment, leadership and responsibility of the entire Company achieving a reduction of 78% of the stock in our repositories from 2012 to November 2019. Some of the activities that allowed us to achieve this target were related to actions to the providers, mainly with the development of technical specifications for the contractual arrangements and effective technical supervision of their activities, optimizing the biotreatment times.

During 2017, the treatment of plastic materials contaminated with hydrocarbons began in Santa Cruz, recovery and value has been possible through washing and recycling, prioritizing their reuse and avoiding their incineration, promoting a circular economy and reducing CO2 emissions.

Furthermore, each business unit developed Waste Management Plans in line with the Upstream Waste Management Procedure and the Corporate Norm. Together with these plans the Oil spill cleaning procedure was also developed which is focused on the minimization of waste during remediation activities.

Spill Preparedness and Response

The Company has a Spill Prevention and Control System in place that has helped to reduce the spill frequency rate for the past years. This system provides an investment plan focused on the integrity, maintenance and improvement of facilities and pipelines. It includes a spill communication and response procedure reporting to a software program that automatically alerts the relevant environmental authority.

In the specific Downstream business, improvement activities were aimed at storage, and truck and pipeline transportation.

Management of biodiversity and ecosystem services

As part of our continuous improvement, in 2019 we made a revision on our corporate Biodiversity Management standard and we updated our geographic information system (GIS) as part of the biodiversity map project we started in 2018. This initiative will allow us visualizing any overlapping of activities with especially sensitive areas in Argentina and will help us to prioritize any required actions on sites with interference. The map not only includes areas under international, national or jurisdictional protection but also private areas and areas inhabited by endangered species.

The management of biodiversity mainly focuses on instances where operations are being performed in ecological sensitive areas. These activities are being documented in the Biodiversity Management Plans. Currently, our Upstream business unit has two of these plans, one for our operations in the Llanquanelo Ramsar site in the Mendoza province and another in the Auca Mahuida site in the Neuquén province.

The activities related to biodiversity management in many cases involve changes in operational procedures, such as multiple location development, the camouflage of drilling equipment and even actions that require the adaptation of the operation sites in order to promote the allocation of particular species.

As operations continue to adapt, biodiversity monitoring activities are also being performed under a complex process due to the frequent

natural variations that affects the wild populations, ecosystems and ecological processes in the medium and long term. This is done in order to gather information related to the local ecosystem and is focused on its protection and, when necessary, its restoration. This information is also important for the proper and sustainable use of natural resources before operations start.

During 2018, we performed a technical study which analyzed and reported the degree of ecological restoration of sites devoid of vegetation in our Santa Cruz operations. The area under study encompassed 10 blocks, or concession areas, amounting to a total area of 6,943 km² and 1,968 abandoned locations. This technical study enabled prioritizing areas that had to be intervened for restoration and separate those that did not require intervention.

Environmental activities led by YPF in areas of unconventional exploitation of crude oil and natural gas

Organically rich shale gas and oil accumulations are drawing increasing attention worldwide as sources of significant natural gas and oil reserves.

Since 2008, YPF has led various exploration and development projects related to unconventional resources in Argentina, the most important being in the Vaca Muerta formation within Neuquén basin.

The Vaca Muerta formation is found between 2,500 and 4,000 meters of depth, more than 2,000 meters below the water table, which is usually located at depths of 300-500 meters. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our domestic operations are subject to extensive regulation” and “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Oil and gas activities are subject to significant economic, social, environmental and operational risks and to seasonal fluctuation of demand.”

Hydraulic stimulation, a long time proven technology, allows these resources to be extracted in an efficient and environmentally-friendly way. Hydraulic stimulation consists of injecting high pressure fluids and sand into the wellbore to crack the rock and enable the trapped hydrocarbons in the formation to flow to the surface like in any conventional well.

Generally, this technique uses water and sand (99.5% of the water can be recycled) and additives (0.5%). These additives are the same as those used in products for household and commercial applications, such as sodium chloride (used in table salt), borate salts (used in cosmetics), potassium carbonate (used in detergents), guar gum (used in ice cream) and isopropyl alcohol (used in deodorants).

The water used for the development of these reservoirs is acquired from bodies of running water which represent only a small percentage of the total flow and involve much lower volumes than those used for agricultural and human consumption in the province of Neuquén. During 2019 we also started to use ground water not suitable for human consumption or for irrigation.

From the beginning of unconventional operations, YPF has considered the environmental protection as one of the values of its health, safety and Operational Excellence policy.

In accordance with law Disposition No. 112/2011 of the Environmental Subsecretary of Neuquén, the project has an Environmental Baseline Study (“EBS”). The EBS includes the current description and environmental characterization of the concession areas and specifically environmental components that may be affected significantly by the projects and activities.

YPF developed a water management framework, which focuses on three key areas of water usage: water resources (sustainability factors, measures that consider the needs of other local water users, and the net environmental effect); water use and efficiency (controls of replacing water use, reducing water consumption, and the reutilization and recycling to consider the net environmental effect); and wastewater management (similar sustainability factors and the net environmental effect are considered likewise water resources management).

In addition, YPF commissioned the following studies: (i) a hydrogeological study of confined and semi-confined aquifers of Neuquén and Rayoso Groups and hydrogeological study of the unconfined aquifer of the alluvial plain of the Neuquén River in the Loma Campana area and (ii) a similar study in the Nambueña area, which was conducted in 2016.

After the hydrogeological studies carried out in 2015 and 2016, during 2017 YPF focused its studies on the gathering of hydrogeological information through electrical profiles and water samples in order to obtain the baseline data for a regional hydrogeological study, aimed at conventional and unconventional areas in Neuquén. This hydrogeological study was completed in November 2018, which covered not only the traditional hydrogeological aspects but also the evaluation of water quality for irrigation and drinking water. The main objective of the study is the identification of the aquifers that must be protected. For the coming years, we expect to update the hydrogeological study with the information gathered during 2019. We have started similar studies in the provinces of Río Negro, Santa Cruz and Mendoza.

Our commitment to sustainability

The oil and gas industry is undergoing a time of profound changes that require the harmonization of the growing energy demand with new challenges in terms of costs and profitability, diversification of the energy matrix and an increasing concern about climate change.

and the decarbonization of the economy. Each region or country will have to develop its own roadmap for transition based on its specific starting point, resource availability and capabilities.

Current and pending climate change related regulations such as costs related to monitoring or reducing emissions may adversely impact our operations and increase our compliance costs. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—We may incur significant costs and liabilities related to environmental, health and safety matters.”

In this context, YPF has started a process to become an integral energy company and the leader for sustainable energy development in Argentina. YPF understands sustainability as a way of doing business that involves:

- Transparent and responsible work at economic, environmental and social levels.
- Profitability and focus on growth through innovation and new technologies.
- Short and long-term value generation for shareholders, investors, partners, customers, employees, suppliers, the communities where we operate, and our country.

This approach is described in the relevant Sustainability Policy and reflected in both our management system and operational excellence model, and we extend this challenge to our leaders, employees, suppliers and partners.

The internal Executive Management Committee, through each one of its members and their respective vice presidencies, reviews and monitors relevant sustainability topics. The Board of Directors performs these duties through the Risk and Sustainability Committee. This Committee is in charge of establishing comprehensive management policies for business risks and monitoring their suitable implementation, as well as promoting best practices in sustainability, among other responsibilities.

As such, we conduct our business in line with the goals of the Paris Climate Change Agreement signed in 2015, the United Nations 2030 Agenda for Sustainable Development Goals, and the UN Global Compact’s Ten Principles.

Guided by the company’s corporate values, policies and code of conduct, our vision and strategy frame our understanding of and our response to sustainability issues. In this sense we have revamped our commitment to sustainability in order to lead the energy transition, through a responsible and transparent business based on innovation, new technologies and the best economic, environmental and social practices while at the same time create shared value for our owners, customers, people, suppliers, partners, society and our country.

While oil and gas will continue to form the basis of our portfolio for the next years, we are committed to strengthening energy efficiency, reducing specific emissions and developing more sustainable energy alternatives, including the promotion of renewable energy and natural gas production as cleaner alternatives to oil, not only for the domestic market, but also for the export market. We plan to do so through a responsible and transparent business based on innovation, new technologies and the best economic, operational excellence and transformation of operations and corporate culture. In particular in renewable energy, by providing strong R&D and project investment in this area, the company expects to increase its power-generation capacity by diversifying energy sources, including increased uses of natural gas, thermal, solar and wind power.

In 2019 we continued working on our corporate sustainability policy and our commitment to climate action through our corporate sustainability department.

With the objective of consolidating our sustainability strategy and related initiatives, we focused 2019 activities in four main pillars:

- Implementation and improvements of initiatives in the main ESG issues: governance, transparency and integrity, human rights, labor practices, diversity, environment, health and safety, supply chain and relations with Communities.
- The Company Sustainability Plan and its respective performance KPIs, aligned with the global sustainability commitments we assumed. To do it, we developed -among others- an assessment of our performance according to worldwide recognized ESG ratings and an overall analysis of human rights.
- Participation in global, national and local recognized organizations and initiatives regarding corporate and energy sustainability. YPF continues to lead the Argentine Network of the United Nations Global Compact Initiative and the Argentine World Business Council for Sustainable Development (WBCSD). The company also promoted the elaboration and online publication of the Oil & Gas Sustainable Development Goals (SDG) Roadmap through the Argentine Institution for Oil & Gas (IAPG) and in collaboration with the Argentine World Business Council for Sustainable Development (WBCSD). Twenty-nine companies were participants and the map was officially presented during the XII Argentine Oil and Gas meeting held on September 2019, with the participation of both the IAPG and YPF Presidents.

- Strengthening of the communication with our stakeholders through: the annual Sustainability Report, delivering better and more focused communication on ESG matters; specific workshops for managers and employees in order to increase their knowledge about sustainability; and publishing in the Argentine WBCSD platform for SDG the main initiatives that are already underway and that contribute towards the 2030 Global Agenda for Sustainable Development.

Moreover, we updated the materiality assessment of ESG issues in order to strengthen our understanding about stakeholders concerns and expectations while keeping an ongoing dialogue with them. Their opinions and suggestions were collected in several dialogue instances, through different corporate communication channels, and by analyzing public opinion surveys, media reports, and reputation and brand positioning research, among others. The materiality assessment undertaken to shape the content of the 2018 sustainability report serves as both a retrospective and forward-looking review of our priorities. This assessment re-emphasized the following stakeholder concerns:

MATERIAL TOPICS		
ECONOMIC	ENVIRONMENTAL	SOCIAL
		Occupational health and safety
Integrated, competitive and innovative energy company	Climate action	Human rights
Transparency, Ethics and integrity		Diversity
Value chain management	Environmental management	Local economic and social development
Customer experience	Renewable energies	Talent attraction and development

In addition, YPF has been reconfirmed in 2019 in the first Sustainability Index of the Argentine stock market. This Index is elaborated by Bolsas y Mercados Argentinos (BYMA), with the collaboration of the Inter-American Development Bank and Thomson Reuters, the index is composed by companies that have outstanding performance in sustainability.

The index, which aims to promote an increasingly responsible capital market in line with the Sustainable Development Goals of the United Nations, evaluates the performance of Companies on four pillars: environmental, social, corporate governance and sustainable development, taking into account the information that companies communicate through their Sustainability Reports and corporate reports such as annual reports on form 20-F.

The other companies that participate in the Sustainability Index are Banco Hipotecario, Banco Macro, BBVA Banco Frances, Bolsas y Mercados Argentinos, Central Puerto, Distribuidora y Comercializadora del Norte, Galicia, Supervielle, Pampa Energía, San Miguel, Telecom Argentina, Ternium, TGN and TGS.

YPF also has started to voluntarily measure its sustainability performance through the annual SAM Corporate Sustainability Assessment (“CSA”). SAM, now a part of S&P Global, calculated a total ESG score for YPF which is above the industry average.

Property, Plant and Equipment

Most of our property, which comprises investments in assets which allow us to explore or exploit crude oil and natural gas reserves, as well as refineries, storage, manufacturing and transportation facilities and service stations, is located in Argentina. See “—Downstream—Refining division” and “—Downstream—Logistic Division.” As of December 31, 2019, 100% of our proved reserves were located in Argentina.

Our petroleum exploration and production rights are in general based on sovereign grants of concession. Upon the expiration of the concession, our exploration and production assets associated with the particular property subject to the relevant concession revert to the government. See “—Upstream Overview—Main properties” and see Note 9 to the Audited Consolidated Financial Statements for additional information about our leased retail service stations.

Insurance

The scope and coverage of the insurance policies and indemnification obligations discussed below are subject to change, and such policies are subject to cancellation in certain circumstances. In addition, the indemnification provisions of certain of our drilling, maintenance and other service contracts may be subject to differing interpretations, and enforcement of those provisions may be limited by public policy and other considerations. We may also be subject to potential liabilities for which we are not insured or in excess of our insurance coverage, including liabilities discussed in “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—We may not have sufficient insurance to cover all the operating hazards to which we are subject,” “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—The oil and gas industry is subject to particular economic and operational risks” and “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—We may incur significant costs and liabilities related to environmental, health and safety

matters.”

Argentine Operations – Responsibility for damages

We insure our operations against inherent risks in the oil and gas industry, including loss of or damage to property and our equipment, control-of-well incidents, loss of production or profits incidents, removal of debris, sudden and accidental pollution, damage and clean up and third-party claims, including personal injury and loss of life, among other business risks. Our insurance policies are typically renewable annually and generally contain policy limits, exclusions and deductibles.

Our insurance policy covering our Argentine operations provides third party liability coverage up to U.S.\$400 million per incident, with a deductible of U.S.\$2 million, in each and every loss. Certain types of incidents, such as intentional pollution and gradual and progressive pollution are excluded from the policy’s coverage. The policy’s coverage extends to control-of-well incidents, defined as an unintended flow of drilling fluid, oil, gas or water from the well that cannot be contained by equipment on site, by increasing the weight of drilling fluid or by diverting the fluids safely into production. Our policy provides coverage for third-party liability claims relating to pollution from a control-of-well event ranging from U.S.\$ 75 million for certain onshore losses and a maximum combined single limit of U.S.\$ 250 million for offshore losses.

Our insurance policy also covers physical loss or damage in respect of, but not limited to, onshore and offshore property of any kind and description (whether upstream or downstream), up to U.S.\$ 2 billion per incident combined for downstream and upstream operations, with varying deductibles of between U.S.\$ 1 million and U.S.\$ 5 million, including loss of production or profits with deductibles of 90 days for downstream operations and 60 days with a minimum deductible of U.S.\$ 20 million for upstream operations.

Argentine regulations require us to purchase from specialized insurance companies (Aseguradoras de Riesgos de Trabajo) insurance covering the risk of personal injury and loss of life of our employees. Our insurance policies cover medical expenses, lost wages and loss of life, in the amounts set forth in the applicable regulations. These regulatory requirements also apply to all of our contractors.

We have adopted a position in agreements entered into with contractors that provide drilling services, well services or other services to our exploration and production operations (“E&P Services Agreements”), whereby contractors are generally responsible for indemnifying us to varying degrees for certain damages caused by their personnel and property above the drilling surface. Similarly, we are generally responsible under our drilling contracts to indemnify our contractors for any damages caused by our personnel and property above the drilling surface.

In connection with losses or liabilities resulting from damages caused below the surface, we have agreed with some contractors that YPF assumes responsibility for indemnifying our contractors provided that such damages below the surface have not been caused by the negligence of the contractor in which case the contractor shall be liable up to a limited amount agreed by the parties in the E&P Services Agreements. However, we have also agreed with a number of contractors that YPF shall be responsible and shall indemnify contractors for damages or liabilities caused below the surface, unless such damages or liabilities result from the gross negligence or willful misconduct of contractors, in which case contractor shall be liable in full or, in certain cases, up to a limited amount.

E&P Services Agreements usually establish that contractors are responsible for pollution or contamination including clean-up costs and third-party damages caused above the surface by the spill of substances under their control, provided that the damage has been caused by the negligence or willful misconduct of the contractor. In the event of pollution or contamination produced below the surface, contractors shall also typically be liable for damages caused due to the contractor’s negligence or willful misconduct. However, in this last case the damages are also usually limited to an amount agreed upon by the parties in the E&P Services Agreement.

We are also partners in several joint ventures and projects that are not operated by us. Contractual provisions, as well as our obligations arising from each agreement, can vary. In certain cases, insurance coverage is provided by the insurance policy entered into by the operator, while in others, our risks are covered by our insurance policy covering our Argentine operations. In addition, in certain cases we may contract insurance covering specific incidents or damages that are not provided for in the operator’s insurance policy. We also retain the risk for liability not indemnified by the field or rig operator in excess of our insurance coverage. With respect to downstream servicing contracts, contractors are usually responsible for damages to their own personnel and caused by them to third parties and they typically indemnify us for damages to equipment. A mutual hold-harmless provision for indirect damages such as those resulting from loss of use or loss of profits is normally included.

Legal and Regulatory Framework and Relationship with the Argentine Government

Overview

The Argentine oil and gas industry is regulated by Law No. 17,319, referred to as the “Hydrocarbons Law,” which was enacted in 1967 and amended by Law No. 26,197 enacted in 2007 and by Law No. 27,007 enacted in 2014, which established the general legal framework for the exploration and production of oil and gas, and by Law No. 24,076, referred to as the “Natural Gas Law,” enacted in 1992, which established the basis for deregulation of natural gas transportation and distribution industries. See “—Law No. 27,007 (amendment of the Hydrocarbons Law).”

The Argentine Executive Branch issues the regulations to complement these laws. The regulatory framework of the Hydrocarbons Law was established on the assumption that the reservoirs of hydrocarbons would be national properties and Yacimientos Petrolíferos Fiscales Sociedad del Estado, our predecessor, would lead the oil and gas industry and operate under a different framework than private companies. In 1992, the “Privatization Law” privatized YPF and provided for transfer of hydrocarbon reservoirs from the Argentine government to the provinces, subject to the existing rights of the holders of exploration permits and production concessions.

The Privatization Law granted us 24 exploration permits covering approximately 132,735 km² and 50 production concessions covering approximately 32,560 km². Limits under the Hydrocarbons Law on the number of concessions for transportation that may be held by any entity, and the total area of exploration permits that may be granted to a single entity, were eliminated by Law No. 27,007. As a consequence of the transfer of ownership of certain hydrocarbons areas to the provinces, we participate in competitive bidding rounds organized since the year 2000 by several provincial governments for the award of contracts for the exploration of hydrocarbons.

In October 2004, the Argentine Congress enacted Law No. 25,943, creating a new state-owned energy company, formerly Energía Argentina Sociedad Anónima (“ENARSA”). The corporate purpose of ENARSA is the exploration and exploitation of solid, liquid and gaseous hydrocarbons, the transport, storage, distribution, commercialization and industrialization of these products, as well as the transportation and distribution of natural gas, and the generation, transportation, distribution and sale of electricity. Moreover, Law No. 25,943 granted to ENARSA all exploration concessions in respect to offshore areas located beyond 12 nautical miles from the coast line up to the outer boundary of the continental shelf that were vacant at the time of the effectiveness of this law (i.e., November 3, 2004). Law No. 25,943 has been modified by Law No. 27,007, as described below, eliminating all permits and offshore hydrocarbon production concessions where association agreements with ENARSA have not been signed and reverting them to the SGE (except for permits and concessions granted prior to Law No. 25,943). For more information, see “Upstream overview—Main properties”.

In addition, in October 2006, Law No. 26,154 created a regime of tax incentives aimed at encouraging hydrocarbon exploration and which apply to new exploration permits awarded in respect of the offshore areas granted to ENARSA and those over which no rights have been granted to third parties under the Hydrocarbons Law, provided the provinces in which the hydrocarbon reservoirs are located adhere to this regime. Association with ENARSA is a precondition to qualifying for the benefits provided by the regime created by Law No. 26,154. The benefits include: early reimbursement of the value added tax for investments made and expenses incurred during the exploration period and for investments made within the production period; accelerated amortization of investments made in the exploration period and the accelerated recognition of expenses in connection with production over a period of three years rather than over the duration of production; and exemptions to the payment of import duties for capital assets not manufactured within Argentina. As of the date of this annual report, we have not used the tax incentives previously mentioned.

Ownership of hydrocarbons reserves was transferred to the provinces through the enactment of the following legal provisions that effectively amended the Hydrocarbons Law:

- In 1992, the Privatization Law approved the transfer of the ownership of hydrocarbons reserves to the provinces where they are located. However, this law provided that the transfer was conditioned on the enactment of a law amending the Hydrocarbons Law to contemplate the privatization of Yacimientos Petrolíferos Fiscales Sociedad del Estado.
- In October 1994, the Argentine National Constitution was amended and pursuant to Article 124 thereof, provinces were granted the primary control of natural resources within their territories.
- In August 2003, Executive Decree No. 546/03 transferred to the provinces the right to grant exploration permits, hydrocarbons exploitation and transportation concessions in certain locations designated as “transfer areas,” as well as in other areas designated by the competent provincial authorities.
- In January 2007, Law No. 26,197 acknowledged the provinces’ ownership of the hydrocarbon reservoirs in accordance with Article 124 of the Argentine National Constitution (including reservoirs to which concessions were granted prior to 1994) and granted provinces the right to administer such reservoirs.

Decree No 882/2017

On November 1, 2017, Decree No. 882/2017 was published in the Official Gazette, which ordered the merger of ENARSA and Emprendimientos Energéticos Binacionales Sociedad Anónima (EBISA) and formed a new company named Integración Energética Argentina S.A. (“IEASA”).

The Expropriation Law

On May 3, 2012, the Expropriation Law (Law No. 26,741) was passed by the Argentine Congress and, on May 7, 2012, it was published in the Official Gazette. The Expropriation Law declared achieving self-sufficiency in the supply of hydrocarbons, as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions.

Article 3 of the Expropriation Law provides that the principles of the hydrocarbon policy of the Republic of Argentina are the following:

- a) Promote the use of hydrocarbons and their derivatives to promote development, and as a mechanism to increase the competitiveness of the various economic sectors and those of the provinces and regions of Argentina;
- b) Convert hydrocarbon resources to proved reserves and their exploitation and the restoration of reserves;
- c) Integrate public and private capital, both national and international, into strategic alliances dedicated to the exploration and exploitation of conventional and unconventional hydrocarbons;
- d) Maximize the investments and the resources employed for the achievement of self-sufficiency in hydrocarbons in the short, medium and long term;
- e) Incorporate new technologies and categories of management that contribute to the improvement of hydrocarbon exploration and exploitation activities and the advancement of technological development in the Republic of Argentina in this regard;
- f) Promote the industrialization and sale of hydrocarbons with a high added-value;
- g) Protect the interests of consumers with respect to the price, quality and availability of hydrocarbon derivatives; and
- h) Export hydrocarbons that exceed local demand, in order to improve trade balance, ensuring a rational exploitation of the resources and the sustainability of its exploitation to be used by future generations.

According to Article 2 of the Expropriation Law, the Argentine Executive Branch will be responsible for setting forth this policy and shall introduce the measures necessary to accomplish the purpose of the Expropriation Law with the participation of the Argentine provinces and public and private capital, both national and international.

Creation of Federal Council of Hydrocarbons

Article 4 of the Expropriation Law provides for the creation of a Federal Council of Hydrocarbons which shall include the participation of (a) the Ministry of Economy, the Ministry of Federal Planning, the Ministry of Labor and the Ministry of Industry, through their respective representatives; and (b) the provinces of Argentina and the City of Buenos Aires, through the representatives that each may appoint. According to Article 5 of the Expropriation Law, the responsibilities of the Federal Council of Hydrocarbons will be the following: (a) promote the coordinated action of the national and provincial governments, with the purpose of ensuring the fulfillment of the objectives of the Expropriation Law; and (b) adopt decisions regarding all questions related to the accomplishment of the objectives of the Expropriation Law and the establishment of the hydrocarbons policy of the Republic of Argentina that the Argentine Executive Branch may submit for consideration.

Federal Council of Energy

On October 26, 2017, Decree No. 854/2017 was published in the Official Gazette, creating the Federal Council of Energy which includes the participation of the Federal Government as well as of the provinces of Argentina and the Autonomous City of Buenos Aires. The Federal Council of Energy shall act as an advisory body on all the matters related to energy development of the Republic of Argentina.

Expropriation of shares held by Repsol YPF

For the purpose of ensuring the fulfillment of its objectives, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol YPF S.A. and its controlled or controlling entities. According to the Expropriation Law, the shares subject to expropriation, which have been declared of public interest and were transferred to the Republic of Argentina, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. In addition, the Expropriation Law provided for the expropriation of 51% of the share capital of the company Repsol YPF GAS S.A. represented by 60% of the Class A shares of such company owned, directly or indirectly, by Repsol Butano S.A. and its controlled or controlling entities.

As of the date of this annual report, the transfer of the shares subject to expropriation between the Argentine Executive Branch and the provinces that compose the National Organization of Hydrocarbon Producing States is still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, considering their respective levels of hydrocarbon production and proved reserves.

To ensure compliance with its objectives, the Expropriation Law provides that the Argentine Executive Branch, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder's agreement with the federal government that will provide for the unified exercise of its rights as a shareholder.

Any future transfer of the shares subject to expropriation is prohibited without the permission of the Argentine Congress by a vote of two-thirds of its members.

In accordance with Article 9 of the Expropriation Law, the appointment of YPF Directors representing the expropriated shares shall be made proportionately considering the holdings of the Argentine Republic and provincial governments, and one Director shall represent the employees of YPF.

In accordance with Article 16 of the Expropriation Law, the federal government and the provinces must exercise their rights pursuant to the following principles: (a) the strategic contribution of YPF to the achievement of the objectives set forth in the Expropriation Law; (b) the administration of YPF pursuant to the industry's best practices and corporate governance, safeguarding shareholders' interests and generating value on their behalf; and (c) the professional management of YPF.

See "—Law No. 26,932" for descriptions of the agreement between Repsol and the Argentine Republic relating to compensation for the expropriation of 51% of the share capital of YPF owned, directly or indirectly, by Repsol, and the arrangement between Repsol and YPF for the withdrawal of certain claims and actions relating to such expropriation.

Legal nature of the Company

YPF is and will continue to operate as a publicly traded corporation pursuant to Chapter II, Section V of Law No. 19,550 and its corresponding regulations, and neither is nor will not be subject to any legislation or regulation applicable to the management or control of companies or entities owned by the federal government or provincial governments.

In accordance with Article 17 of the Expropriation Law, YPF will resort to internal and external sources of funding, strategic alliances, joint ventures, transitory business unions, and cooperation partnerships, whether public, private or mixed companies, domestic and foreign.

You can find a copy of an English translation of the Expropriation Law in the report on Form 6-K furnished by the Company to the SEC on May 9, 2012.

Law No. 26,932

On February 25, 2014, the Republic of Argentina and Repsol reached an agreement (the "Repsol Agreement") in relation to compensation for the expropriation of 200,589,525 of YPF's Class "D" shares pursuant to the Expropriation Law under the Repsol Agreement. As a result, the Republic of Argentina is definitively the owner of 51% of capital stock of each of YPF and YPF GAS S.A.

Law No. 26,197

Law No. 26,197, which amended the Hydrocarbons Law, transferred to the provinces and to the Autonomous City of Buenos Aires the ownership over all hydrocarbon reservoirs located within their territories and in the adjacent seas up to 12 nautical miles from the coast. Law No. 26,197 also provides that the hydrocarbon reservoirs located beyond 12 nautical miles from the coast to the outer limit of the continental shelf shall remain within the ownership of the federal government.

Pursuant to Law No. 26,197, the Argentine Congress shall continue to enact laws and regulations to develop oil and gas resources existing within the Argentine territory (including its sea), but the governments of the provinces where the hydrocarbon reservoirs are located shall be responsible for the enforcement of these laws and regulations, the administration of the hydrocarbon fields and shall act as granting authorities for the exploration permits and production concessions. However, the administrative powers granted to the provinces shall be exercised within the framework of the Hydrocarbons Law and the regulations that complement this law.

Consequently, even though Law No. 26,197 established that the provinces shall be responsible for administering the hydrocarbon fields, the Argentine Congress retained its power to issue rules and regulations regarding the oil and gas legal framework. Additionally, the Argentine Republic retained the power to determine the national energy policy.

It is expressly stated that the transfer will not affect the rights and obligations of exploration permit and production concession holders, or the basis for the calculation of royalties, which shall be calculated in accordance with the concession title and paid to the province where the reservoirs are located.

Law No. 26,197 provides that the Argentine Republic shall retain the authority to grant transportation concessions for: (i) transportation concessions located within two or more provinces within the territory and (ii) transportation concessions directly connected to export pipelines for export purposes. Consequently, transportation concessions which are located within the territory of only one province and which are not connected to export facilities shall be transferred to the provinces. Finally, Law No. 26,197 grants the following powers to the provinces: (i) the exercise, in a complete and independent manner, of all activities related to the supervision and control of the exploration permits and production concessions transferred by Law No. 26,197; (ii) the enforcement of all applicable legal and/or contractual obligations regarding investments, rational production and information and surface fee and royalties payment; (iii) the extension of legal and/or contractual terms; (iv) the application of sanctions provided in the Hydrocarbons Law; and (v) all the other faculties related to the granting power of the Hydrocarbons Law.

Decree No. 1,277/2012

Decree No. 1,277/12 derogated the main provisions relating to free availability of hydrocarbons which were specifically contained in section 5 subsection d) and sections 13, 14 and 15 of Decree No. 1,055/89, sections 1, 6 and 9 of Decree No. 1,212/89 and sections 3 and 5 of Decree No. 1,589/89. Decree No. 1,277/12 enacted the “Hydrocarbons Sovereignty Regime Rules,” regulating the Expropriation Law.

This regulation created a commission, the Commission for Planning and Strategic Coordination of the National Plan of Hydrocarbons Investments (the “Commission”). This Commission was entrusted with annually making the National Plan for Hydrocarbons Investments.

Decree No. 1,277/12 required every company that performs activities of exploration, exploitation, refining, transport and commercialization of hydrocarbons to supply the Commission with all required technical information. The Commission was also responsible for a National Hydrocarbons Investments Registry for all companies performing the activities of exploration, exploitation, refining, transport and commercialization. All these companies were required to file an annual plan of investments before September 30 of each year, including a detail of their quantitative goals regarding exploration, exploitation, refining and / or commercialization and transportation of hydrocarbons and fuels.

With respect to the refining industry, Decree No. 1,277/12 gave the Commission the power to regulate the minimum utilization rates for primary or secondary refining. It also had the ability to enact measures of promotion and coordination, aimed to guarantee the development of the local processing capacity according with the goals established by the National Plan of Hydrocarbons Investments.

With respect to commercialization, the Commission was entitled to publish reference prices of every component of the costs and sales prices of hydrocarbons and fuels, which should enable the recovery of production costs plus a reasonable profit margin. The Commission also had to periodically audit the reasonability of the informed costs and the respective sales prices, being entitled to adopt necessary measures to prevent or correct distortive practices that might affect the interests of consumers.

This Commission was dissolved by Decree No. 272/2015 on January 4, 2016, and its remaining functions were assumed by the Ministry of Energy and Mining. See “—Decree No. 272/2015” below.

Decree No. 13/2015

On December 11, 2015, Decree No. 13/2015 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, it created the Ministry of Energy and Mining (“MINEM”), which absorbed the functions of the Secretaries of Energy and Mining and decentralized entities, from the former Ministry of Federal Planning, Public Investment and Services. The responsibilities of the MINEM include participating “in the management of the state-owned shares in corporations and companies operating within its area of its competence”.

This Decree was modified by Decree No. 575/2018 published in the Official Gazette on June 22, 2018, and the Ministry of Energy and Mining was substituted by the Ministry of Energy. The Secretariat of Mining now reports to the Ministry of Production. See “—Decree No. 575/2018” below.

Decree No. 272/2015

On January 4, 2016, Decree No. 272/2015 was published in the Official Gazette, which modified Decree No. 1,277/12. Among other changes, it dissolved the Commission, derogated certain responsibilities of the Commission and stated that the tasks previously assigned to the Commission were going to be performed by the Ministry of Energy and Mining (“MINEM”).

Furthermore, the decree established that the rights derived from the shares owned by the Republic of Argentina in YPF and YPF GAS S.A., except for the shares that belong to the Sustainability Guarantee of the Public Securities Regime Fund created by Decree No. 897/07, would be exercised by the MINEM, as of its publication date.

In addition, the decree established that the MINEM would conduct a comprehensive review and reorganization regarding the creation of records and information duties in the hydrocarbon industry, which remains in force as long as it is not derogated by the dispositions of the decree or addressed by the re-organization plan to be determined by the MINEM (See “—Decree No. 575/2018” below).

Decree No. 2/2017

On January 3, 2017, Decree No. 2/2017 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, it split the Ministry of Treasury and Public Finance, creating the Ministry of Treasury and the Ministry of Finance and separating their respective powers and responsibilities.

Decree No. 575/2018

On June 22, 2018, Decree No. 575/2018 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, the Ministry of Energy and Mining was substituted by the Ministry of Energy. The Secretariat of Mining reported to the Ministry of Production.

This Decree was modified by Decrees No. 801/2018 and No. 802/2018, and the Ministry of Energy was substituted by the former Secretary of Government of Energy (“SGE”), which reported to the former Ministry of Treasury. See “—Decree No. 801/2018 and Decree No. 802/2018” below.

Decree No. 801/2018 and Decree No. 802/2018

On September 5, 2018, Decree No. 801/2018 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, the Ministry of Energy was dissolved, and the Ministry of Treasury was appointed as successor of the Ministry of Energy.

On that date, Decree No. 802/2018 was also published in the Official Gazette which created the SGE.

Decree No. 872/2018

On October 2, 2018, Decree No. 872/2018 was published in the Official Gazette, instructing the SGE to issue a public invitation to tender for the grating of exploration permits for the offshore area. This tender was issued on November 6, 2018, according to the terms set forth in Decree No. 872/2018 by means of the enactment of Resolution No. 65/2018.

The results of the tender were informed by means of certain decrees granting the corresponding exploration permits.

Decree No. 7/2019

On December 11, 2019, Decree No. 7/2019 was published in the Official Gazette, modifying the Ministries Law No. 22,520. Among other changes, this decree created the Ministry of Productive Development and stated that the Secretariat of Energy (former Secretary of Government of Energy) will report to the Ministry of Productive Development. According to the Decree, the responsibilities of the Ministry of Productive Development include, among others, participating “in the management of the State’s shareholdings in the corporations and companies operating in the area of its competence”.

Law No. 27,275 - Access to Public Information

On November 10, 2015, the Argentine Supreme Court ordered us to furnish information regarding an agreement we entered into with Chevron, based on the requirements of Decree No. 1,172/03, which regulates access to information considered public. The agreement aims to develop hydrocarbon resources in Argentina. The information was delivered to the court on February 23, 2016. We believe that public disclosure of confidential information could place us at a competitive disadvantage in relation to our contracting parties and potential partners. For this reason, and given the business, industrial, technical, economic and financial value as well as the nature of the information requested, we pursued all avenues to preserve its confidentiality. We have stated we intend to comply with the requirements of aforementioned Decree No. 1,172/03 while preserving our right to keep certain industrial, commercial, financial and technical matters confidential as provided by the decree. Notwithstanding the foregoing, on March 14, 2016, the court ordered us to deliver the requested agreement within five business days without an opportunity to keep certain information confidential as requested by us and in accordance with the exemptions contemplated by Decree No. 1,172/03. On March 16, 2016, the Company appealed this decision.

On July 14, 2016, the Federal Administrative Court – Room I (Cámara Contencioso Administrativo Federal – Sala I) upheld the ruling of the Court of First Instance, stipulating that the Company must comply with the order to deliver the required documentation in relation to its agreement with Chevron within five business days.

On August 11, 2016, the Company filed a Federal Extraordinary Appeal contesting the decision of the Federal Administrative Court.

On September 22, 2016, the Company reported that it was served with notice on September 15, 2016 of the decision handed down by Panel I of the Federal Administrative Court of Appeals hearing Disputed Administrative Matters (Cámara Contencioso Administrativo Federal), which rejected the Federal Extraordinary Appeal filed by the Company from such Panel’s docket that ordered the Company to deliver the Project Investment Agreement (“PIA”) executed with Chevron on July 16, 2013.

The Company submitted a full copy of the PIA in compliance with the decision of the Federal Administrative Court – Room I.

In both cases, the Company noted that the PIA was entered into under Law No. 19,550 and the confidentiality of the terms thereof was intended to safeguard geological, commercial and financial information, which was of strategic value to both parties to the PIA.

Delivery of the PIA does not imply the Company’s waiver of rights in the event that any other confidential information and/or documents of the Company are required to be disclosed in the future.

On September 29, 2016, Law No. 27,275 was published in the Official Gazette, guaranteeing the general public’s right to access public information. This right includes the ability to freely seek, access, request, receive, copy, analyze, process, use and distribute information in possession of the parties subject to this law. State owned companies, companies where the state owns a majority of their capital stock, mixed economy companies and all other business organizations where the Argentine Government has a majority interest in the capital stock or has the ability to adopt corporate decisions are deemed the parties subject to this law, with a specific exception for those companies who are authorized to make public offerings of their securities. Law No. 27,275 came into effect one year after its publication in the Official Gazette. Additionally, Section 19 of Law No. 27,275 created the Agency of Access to Public Information as its controlling authority, which is an independent entity that operates with functional autonomy.

On January 31, 2017, Decree No. 79/2017 was published in the Official Gazette, modifying the public information access right established under the “General Regulation of Access to Public Information for the Argentine Executive Branch.” The decree established that exceptions to the scope of parties subject to the law would become effective the day after their publication in the Official Gazette.

On March 28, 2017 Regulatory Decree No. 206/2017 was published in the Official Gazette and came into effect on September 29, 2017, which regulates certain aspects of Law No. 27,275, including further clarifications with respect to scope of the exceptions to the obligation of the parties subject to this law to furnish certain information.

In addition, Decree No. 746/2017 and Decree No. 899/2017 named the Agency of Access to Public Information as the controlling authority in dealing with Data Protection Law No. 25,326, in replacement of the Argentine Directorate of Data Protection (*Dirección Nacional de Protección de Datos Personales*).

In this context, on February 5, 2018, the Agency of Access to Public Information issued Resolution No. 5-E/2018, which established a procedure to harmonize the right of access to public information with the protection of personal data. Resolution No. 5-E/2018 emphasizes the existence of control agencies in other countries which oversee both access to public information and personal data protection. In addition, it refers to the general principle under which all of the public agencies' information is presumed public unless it falls within an exception, such as the protection of personal data. Furthermore, it states to solve any conflicts that may arise based on the proportionality criteria.

Consequently, Resolution No. 5-E/2018, establishes as mandatory internal procedures within the Agency of Access to Public Information (i) that the Argentine Directorate of Data Protection must intervene and issue a report on any claims based on the access to Law No. 27,275 which may affect personal data; and (ii) that the Argentine Directorate of Access to Information must intervene and issue a report in any proceedings regarding the Law No. 25,326, which may constitute requests for access to public information.

Additionally, Resolution No. 5-E/2018 provides that, in the event of a total or partial discrepancy between these reports, the Director of the Agency of Access to Public Information will resolve the matter and explain the motives underlying the decision.

Resolution No. 268/2019 was published in the Official Gazette and establishes that the Agency of Access to Public Information provides certain guidelines and best practices by which the parties subject to this law may duly reject requests for providing information.

Law No. 27,007 (amendment of the Hydrocarbons Law)

On October 31, 2014, Law No. 27,007 amending the Hydrocarbons Law was published in the Official Gazette. The Hydrocarbons Law applies in certain aspects of some of YPF's existing concessions, as well as future concessions. The most relevant modifications in that law are detailed below.

- Regarding exploration permits, it distinguishes between those with conventional and unconventional objectives, and those in which exploration is undertaken in the territorial sea and continental shelf. Law No. 27,007 modifies the basic time periods governing such activities, from three to two periods and limiting the two basic periods to (i) three years each for exploration with conventional objectives and (ii) four years each for exploration with unconventional objectives and (iii) four years each for exploration in the territorial sea or on the continental shelf. In each of these cases, the extension period of up to five years (already established in the Hydrocarbons Law) is maintained, although it is subject to the permit holder having complied with its investment and other obligations. At the end of the first basic period and as long as the permit holder has complied with its obligations under the permit, the permit holder may continue to hold the entire area. After the second basic period ends, the permit holder may revert the entire area or, if the holder decides to trigger the extension period, 50% of the remaining area.
- In relation to concessions, Law No. 27,007 provides for three types of concessions: conventional production, unconventional production and production in the territorial sea or on the continental shelf. Each of these concessions will last 25, 35 and 30 years, respectively. In addition, permit holders or production concessionaires may request unconventional production concessions based on the development of a pilot plan. As long as the concessionaires (i) have complied with their obligations, (ii) are producing hydrocarbons in the areas under consideration and (iii) present an investment plan for the development of such areas as requested by the competent authorities up to a year prior to the termination of each term of the concession, they may request extension periods of ten years each.
- The amounts to be paid with respect to annual surface fee pursuant to Sections 57 and 58 of the Hydrocarbons Law for the periods of exploration and production have been increased with the goal of incentivizing exploration and development of these areas. Additionally, beginning with the second basic exploration period, these may be reduced partially in light of investments actually carried out in the relevant areas. Restrictions on the number of exploration permits and/or production concessions that an individual or legal entity may hold were eliminated.

- The Hydrocarbons Law established a 35-year term for those concessions granted for the transportation of oil, gas and petroleum products that holders of production concessions are entitled to receive. Law No. 27,007 modified the awarded term for hydrocarbon transportation concessions to be synchronized with the production concession periods.
- In connection with exploration and production offerings, tenders may be made by Argentine and foreign companies, with the goal of obtaining the highest number of tenders possible. In addition, the bidding documents must be prepared by the competent authorities on the basis of the model bidding document which will be drafted jointly by the competent authorities of the provinces and the SGE. This model bidding document must be prepared within 180 days of the effective date of Law No. 27,007. Tenders will be awarded to offerors who present the most relevant offer, in particular, the one proposing the highest amount of investments or exploratory activity.
- Royalties have been set at a maximum of 12% on the results of liquid hydrocarbons or natural gas production. Royalties may be reduced, taking into account the productivity of the area and the type of production. In cases of extension periods, an additional royalty of 3% will be added for each extension, up to a maximum of 18%. In addition, in case of such extensions, the competent authority may include the payment of an extension bond, which maximum amount shall equal the result of multiplying the remaining proved reserves at the end of the concession period to be extended by 2% of the average basin price, for the two-year period prior to the moment when the extension is granted, applicable to the hydrocarbons at issue.
- Law No. 27,007 also provides that the Argentine Republic and the provinces may not establish, in the future, new areas reserved in favor of state-owned entities or companies with state participation. Furthermore, with respect to existing reserved areas that do not have association agreements with third parties as of the date of this new law, associative schemes may be carried out as long as, during the development phase, the participation of state-owned entities or companies with state participation is proportional to the effective investments promised and carried out by them.
- Law No. 27,007 additionally incorporates into the Investment Promotion Regime for the Exploration of Hydrocarbons (Decree No. 929/2013) projects, as authorized by the MINEM, that imply direct investments in foreign currency greater than U.S.\$ 250 million to be invested during the first three years of the project. Additionally, it modifies the percentages of hydrocarbons that, beginning with the third year, will be subject to the benefits of the regime. For conventional and unconventional production concessions, as well as offshore concessions at depths less than or equal to 90 meters, the percentage shall be 20%; for offshore concessions at depths greater than 90 meters, the percentage shall be 60%.
- Within the framework of the Investment Promotion Regime for the Exploration of Hydrocarbons, Law No. 27,007 provides for contributions by companies to the provinces where the projects take place, which amount to 2.5% of the initial investment amount of the project, to be directed to “Corporate Social Responsibility” contributions. In addition, an amount to be determined by the Commission in light of the extent of the project must be contributed by the Argentine Republic to finance infrastructure.
- Law No. 27,007 establishes that capital goods and inputs that are essential to the execution of the investment plans of companies registered in the National Registry of Hydrocarbon Investments shall pay import duties as indicated in Decree No. 927/13 (reduced rates). This list may be extended to other strategic products.
- According to Law No. 27,007, the federal government and the provinces shall attempt to establish uniform environmental legislation and the adoption of uniform fiscal treatment in this sector. The competent authorities, including the SGE and the MINEM, will promote unification of procedures and registries.

All national offshore permits and offshore hydrocarbon production concessions that had no association agreements with ENARSA as of the date of the new law reverted and were transferred to the SGE. See “Upstream overview—Main properties”.

Resolution No. 14/2015

On February 4, 2015, Resolution No. 14/2015 was published in the Official Gazette, that created the Crude Oil Production Stimulus Program (*Programa de Estímulo a la Producción de Petróleo Crudo*) (the “Program”), which was in force from January 1, 2015 through December 31, 2015. This Program provided for a payment in pesos to beneficiary companies, in an amount of up to U.S.\$ 3.00 per barrel when such company’s quarterly production of crude oil was equal to or greater than the base production level under the Program, in addition to the compliance with certain other requirements related to the level of activity of the Company as set for Resolution No. 33/2015. The base production level under the Program was the total production of crude oil of the beneficiary company for the fourth quarter of 2014. Those beneficiary companies that had satisfied the demand of all the domestic refineries operating within Argentina may

direct a portion of their production to the international market and receive an additional payment of U.S.\$ 2.00 or U.S.\$ 3.00 per barrel of crude oil exported, depending on the volume exported.

The payments would be made in pesos using the Reference Exchange Rate of BCRA Communication “A” 3,500 of the last business day prior to the presentation of the information of the corresponding quarter to the Commission. See “Item 5. Operating and Financial Review and Prospects—Principal Income Statement Line Items—Revenues.”

MINEM Resolution No. 21/2016

On March 11, 2016, MINEM Resolution No. 21/2016 was published in the Official Gazette, which established an export stimulus program of crude oil surplus, after satisfying domestic demand for crude oil Escalante from the San Jorge Gulf basin. The stimulus was paid for each shipment to the extent that the average price of Brent oil did not exceed U.S.\$ 47.50 per barrel two days after the shipment and was valid until December 31, 2016. The compensation paid by the Argentine government amounted to U.S.\$ 7.50 per barrel as long as the criteria was met.

Decree No. 442/2016 – Province of Chubut

On April 11, 2016, Decree No. 442/2016 was published in the Official Gazette of the province of Chubut, which established an export stimulus program of crude oil surplus, after satisfying domestic demand. The stimulus was paid for each shipment to the extent that the average price of Brent oil did not exceed U.S.\$ 47.20 per barrel two days after the shipment and was valid until December 31, 2016. The compensation paid by the province of Chubut amounted to U.S.\$ 2.50 per barrel as long as the criteria was met.

MINEM Decree No. 192/2017

On March 21, 2017, Decree No. 192/2017 was published in the Official Gazette, which created the “Oil and its Byproducts Import Operations Registry” (the “Registry”), which authority of application is MINEM (through the Secretariat of Hydrocarbon Resources). The Registry involves import operations of: (i) crude oil and (ii) certain other specific byproducts listed in section 2 of the decree. By means of this regulation, any company that wishes to perform such import operations was obligated to register such operation in the Registry and to obtain authorization from the MINEM before the import takes place. The registration of the operation with the MINEM had to be filed in accordance with a specific proceeding that the MINEM had to establish for such purpose.

According to this decree, the MINEM set the methodology applicable to issue import authorizations, which had to be based in the following criteria: (a) lack of crude oil with the same characteristics offered in the domestic market; (b) lack of additional treatment capacity in domestic refineries with domestic crude oil; and (c) lack of byproducts listed in section 2 of the decree offered in the domestic market. This regime excludes any import by the national electric market administration company (*Compañía Administradora del Mercado Mayorista Eléctrico*, “CMMESA”) in order to supply power plants with the main purpose of technical supply to the “Inter-connection Argentine System” (*Sistema Argentino de Interconexión* or “SADI”).

Decree No. 192/2017 was in force until December 31, 2017, according to Decree No. 962/2017 (published in the Official Gazette on November 27, 2017).

Public Emergency

On January 6, 2002, the Argentine Congress enacted the Public Emergency Law, which represented a profound change in the economic model effective as of that date, and rescinded the Convertibility Law No. 23,928, which had been in effect since 1991 and had pegged the peso to the dollar on a one-to-one basis. In addition, the Public Emergency Law granted to the Argentine Executive Branch the authority to enact all necessary regulations in order to overcome the economic crisis that Argentina was then facing. The situation of emergency declared by Law No. 25,561 has been partially extended until December 31, 2019 by Law No. 27,345; specifically, with respect to social emergency as established by Law 27,200 (but not with respect to economic emergency which expired on December 31, 2017). The Argentine Executive Branch is authorized to execute the powers delegated by Law No. 25,561 until such date.

After the enactment of the Public Emergency Law, several other laws and regulations have been enacted to overcome the economic crisis, including (1) the conversion into pesos of deposit, obligations and tariffs of public services, among others, and (2) the imposition of customs duties on the export of hydrocarbons with instructions to the Argentine Executive Branch to set the applicable rate thereof. The application of these duties and the instruction to the Argentine Executive Branch was extended until January 2017 by Law No. 26,732. On January 8, 2017, export duties upon hydrocarbon exports established by Law No. 26,732 had ceased to be enforceable; however,

export duties to hydrocarbons and its derivatives have been reinstated through Decree No. 793/2018, published on September 4, 2018. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—The implementation of new export duties, other taxes and import regulations could adversely affect our results” and “Export taxes”

On December 23, 2019, the Social Solidarity and Productive Reactivation Law No. 27,541 was published in the Official Gazette (the “Social Solidarity Law”), which declared the public emergency in economic, financial, fiscal, administrative, social security, tariffs, energy, health and social matters.

Based on the emergency, and with express reference to article 76 of the Argentine Constitution, the Social Solidarity Law delegated important legislative powers to the Argentine Executive Branch until December 31, 2020.

The Social Solidarity Law mainly provides that such powers should be exercised in accordance with the following “basis” of the delegation:

- create conditions to ensure the sustainability of public debt, in a compatible way with the recovery of the productive economy and the improvement of basic social indicators;
- regulate the tariff restructuring of the energy system with distributive equity criteria, productive sustainability and reordering the operation of regulatory entities;
- promote productive reactivation, with an emphasis on the generation of targeted incentives and on the implementation of plans to regulate tax, customs debts and social security resources for micro, small and medium enterprises;
- create conditions to achieve fiscal sustainability;

When establishing a broad delegation of legislative powers to the Argentine Executive Branch within the framework of the emergency declaration, the Social Solidarity Law uses similar instruments to those used in 2002 with Law No. 25,561 on Public Emergency and Exchange Regime Reform, which was successively extended until December 31, 2017.

With respect to energy matters, which may impact Company’s business the Social Solidarity Law establishes as basis for the legislative delegation (i) the restructuring of the energy tariff scheme following distributive equity and sustainable production criteria and (ii) the reorganization of the energy sector’s regulatory agencies, to guarantee an efficient administration.

In addition, the Social Solidarity Law address the following matters:

Hydrocarbons Exports

Export duties: Social Solidarity Law includes a cap of eight percent (8%) on export duties applicable to hydrocarbons and establishes that export duties will not reduce in no case the wellhead’s value of hydrocarbons for the purposes of calculation and payment of royalties to the Provinces. As of the date of this annual report, the government authorities have not issued regulations on this matter, and the General Directorate of Customs continues to determine export duties in accordance with the rates that were in force prior to the effectiveness of Law No. 27,541.

Tariff regulation

The Social Solidarity Law establishes that the electricity and natural gas tariffs (including transmission and distribution) which are subject to federal jurisdiction must not be adjusted for a one hundred and eighty (180) day term as from the Social Solidarity law’s effective date and Provinces are invited to implement this policy. In addition, the Argentine Executive Branch is entitled to renegotiate tariffs subject to federal jurisdiction, within the framework of the existing general tariff revisions or by means of extraordinary revisions, pursuant to Law No. 24,076, as amended, with respect to natural gas tariffs and Law No. 24,065, as amended, with respect to electricity tariffs, to reduce the burden of these tariffs on homes and companies during 2020.

Administrative intervention

The Argentine Executive Branch is entitled to intervene in the Federal Electricity Regulatory Agency (the “ENRE”) and the Federal Natural Gas Regulatory Agency (the “ENARGAS”), for a one-year term.

In addition, the Title IV, chapter 6 of the Social Solidarity Law establishes the tax for an Inclusive and Solidarity Argentina, which is called “PAIS”, after its Spanish acronym. It is applicable on foreign exchange transactions, purchases of goods and services in foreign currency and international passengers transport and applies, for a five-year term. (see “Item 10. Additional Information—Taxation”). The PAIS tax applies within the Argentine territory on the following transactions:

- purchase of foreign currency, including traveler’s checks, for saving purposes or without specific destination made by Argentine residents;
- foreign exchange transactions made by financial entities on behalf of the purchaser of goods or the borrower of services, for the purpose of payment of those goods or services acquired abroad, as long as the payment is made through charge, credit or debit card. This provision includes: (a) cash withdrawals and cash advancements with credit cards; and (b) purchases made through e-commerce websites or other modalities in foreign currency;
- foreign exchange transactions made by financial entities on behalf of an Argentine resident which is borrower of a service rendered by a non-Argentine resident, for the purpose of payment of such service, as long as the payment is made through charge, credit or debit card;
- acquisition of services abroad through travel and tourism agencies in Argentina;
- acquisition of passenger transportation services (by any means of transport) with an international destination, as long as a foreign exchange transaction to acquire the relevant foreign currency to cancel the purchase is required, in accordance with the guidelines that will be provided by impending regulations.

Argentine residents, whether individuals, undivided estates, legal entities or any other that could be held liable for the payment of taxes as an Argentine resident, who perform the transactions mentioned above, are subject to the PAIS tax.

However, the following transactions are exempt from PAIS tax:

- transactions made by the Public Sector (including the central administration and the decentralized entities, as provided by the definition of Section 8 subsection a) of Law No. 24,156, as amended) at federal, provincial and municipal level;
- payment of health expenses and purchase of medicines;
- purchase of books in any format;
- use of educational web platforms and software for educational purposes;
- payment of expenses associated with research projects carried out by researchers working in the Public Sector; and
- purchase of materials and equipment by the associations of volunteer firefighters.

The tax rate of the PAIS Tax is 30% and the tax base is the total amount of each transaction subject to tax. In the case of acquisition of passenger transportation services (by any means of transport) with an international destination, the tax base is the price charged by the transportation company, net of taxes and fees.

In the case of transactions expressed in foreign currency, the conversion to its equivalent in pesos must be made by applying the seller exchange rate set by the Banco de la Nación Argentina at close of the last business day immediately preceding the date of issuance of the credit card statement, the settlement or the relevant invoice or equivalent document.

Tax payment: although the tax will be the responsibility of the acquirer, purchaser or borrower, a collection mechanism of the PAIS tax was established in the Social Solidarity Law and the Argentine Tax Authority will establish the formalities, terms, requirements and other conditions for collecting and paying the PAIS Tax, as well as the evidence that will be required to invoke an exemption to the PAIS tax.

Finally, the Argentine Executive Branch has the following faculties: (i) incorporate new transactions subject to PAIS Tax, as long as those transactions directly or indirectly requires the acquisition of foreign currency, and appoint new collection agents; (ii) reduce the PAIS Tax rate; (iii) suspend the application of the PAIS tax; (iv) establish a reduced PAIS Tax rate for certain digital services rendered from abroad that are already subject to VAT; and (v) conduct studies on the social and economic impact of the PAIS tax.

The proceeds of the PAIS Tax will be distributed by the Argentine Executive Branch in accordance with the following priorities: (i) 70% for the financing programs in charge of the Argentine Social Security Agency (the “ANSES” by its Spanish acronym); and (ii) 30% for

the financing of social housing, the trust denominated as “Fondo de Integración Socio Urbana” (created by Law 27,453), other works of economic infrastructure and the development of domestic tourism.

As to the energy sector, PEN is empowered to keep electricity and natural gas tariffs under federal jurisdiction and to begin a Comprehensive Rate Review (“RTI” in Spanish) renegotiation process or carry out an extraordinary review, under the terms of laws 24,065 and 24,076 and other related laws, as from the enforcement of the Social Solidarity Law and for a term of up to 180 days, aimed at reducing household, business and industry tariffs in 2020.

The Social Solidarity Law was further regulated by Decree N. 99/2019 published in the Official Gazette on December 12, 2019.

Exploration and Production

The Hydrocarbons Law establishes the basic legal framework for the regulation of oil and gas exploration and production in Argentina. The Hydrocarbons Law empowers the Argentine Executive Branch to establish a national policy for development of Argentina’s hydrocarbon reserves, with the main purpose of satisfying domestic demand.

Pursuant to the Hydrocarbons Law, exploration and production of oil and gas is carried out through exploration permits, production concessions, exploitation contracts or partnership agreements. The Hydrocarbons Law also permits surface reconnaissance of territory not covered by exploration permits or production concessions upon authorization of the SGE and/or competent provincial authorities, as established by Law No. 26,197, and with permission of the private property owner. Information obtained as a result of surface reconnaissance must be provided to the SGE and/or competent provincial authorities, which may not disclose this information for two years without permission of the party who conducted the reconnaissance, except in connection with the grant of exploration permits or production concessions.

Under the Hydrocarbons Law, the federal and/or competent provincial authorities may grant exploration permits after submission of competitive bids. Permits were granted to third parties in connection with the deregulation and demonopolization process and permits covering areas in which our predecessor company, Yacimientos Petrolíferos Fiscales Sociedad del Estado, was operating at the date of the Privatization Law were granted to us by such law. In 1991, the Argentine Executive Branch established a program under the Hydrocarbons Law (known as “Plan Argentina”) pursuant to which exploration permits were auctioned. The holder of an exploration permit has the exclusive right to perform the operations necessary or appropriate for the exploration of oil and gas within the area specified by the permit. Under the Hydrocarbons Law, each exploration permit may cover only unproved areas not to exceed 10,000 km² (15,000 km² offshore) and may have a term of up to 14 years (17 years for offshore exploration). The 14-year term is divided into three basic terms and one extension term. The first basic term is up to four years, the second basic term is up to three years, the third basic term is up to two years and the extension term is up to five years. At the expiration of each of the first two basic terms, the acreage covered by the permit is reduced, at a minimum, to 50% of the remaining acreage covered by the permit, with the permit holder deciding which portion of the acreage to keep. At the expiration of the three basic terms, the permit holder is required to surrender all of the remaining acreage to the Argentine government, unless the holder requests an extension term, in which case such grant is limited to 50% of the remaining acreage. Under Law No. 27,007, which applies to exploration permits issued on or after October 31, 2014, each exploration permit may have a term of up to 11 years for conventional objectives and 13 years for unconventional objectives and offshore exploration. The terms are divided into two basic terms and one extension term. The first and second basic terms are up to three years for conventional objectives and up to four years for unconventional objectives and offshore exploration, and the extension term is up to five years, as long as the permit holder has complied with its investments and other obligations. At the expiration of the first basic term, the permit holder will have the right to continue exploring the entire area for the second basic term as long as it has complied with all its obligations under the permit. At the expiration of the second basic term, the permit holder is required to surrender all of the remaining acreage, unless the holder requests an extension term, in which case such grant is limited to 50% of the remaining acreage.

If the holder of an exploration permit discovers commercially exploitable quantities of oil or gas, the holder has the right to obtain an exclusive concession for the production and development of this oil and gas. The Hydrocarbons Law, as modified by Law No. 27,007, provides that new conventional oil and gas production concessions shall remain in effect for 25 years from the date of the award of the production concession, new unconventional oil and gas production concessions shall remain in effect for 35 years from that date, and new offshore oil and gas production concessions shall remain in effect for 30 years from that date, in addition to any remaining exploration term at the date of such award. The Hydrocarbons Law, as modified by Law No. 27,007, further provides for the concession term to be extended for periods of up to ten additional years each, subject to terms and conditions approved by the grantor at the time of the extension. Such conditions may include the payment of an extension bond with a maximum amount equal to the result of multiplying the remaining proved reserves at the end of the concession period by 2% of the average basin price, for the period two years prior to the date the extension is granted, applicable to the hydrocarbons at issue. Under Law No. 26,197, the authority to extend the terms of current and new

permits and concessions has been vested in the governments of the provinces in which the relevant block is located (and the Argentine government in respect of offshore blocks beyond 12 nautical miles). In order to be entitled to the extension, a concessionaire, such as us, must have complied with all of its obligations under the Hydrocarbons Law, including, without limitation, evidence of payment of taxes and royalties and compliance with environmental, investment and development obligations, must be producing hydrocarbons in the area at issue and must present an investment plan to develop the concession. A production concession also confers on the holder the right to conduct all activities necessary or appropriate for the production of oil and gas, provided that such activities do not interfere with the activities of other holders of exploration permits and production concessions. A production concession entitles the holder to obtain a transportation concession for the oil and gas produced. See “—Transportation of Liquid Hydrocarbons.”

Exploration permits, and production concessions require holders to carry out all necessary work to find or extract hydrocarbons, using appropriate techniques, and to make specified investments. In addition, holders are required to:

- avoid damage to oil fields and waste of hydrocarbons;
- adopt adequate measures to avoid accidents and damage to agricultural activities, fishing industry, communications networks and the water table; and
- comply with all applicable federal, provincial and municipal laws and regulations.

According to the Hydrocarbons Law, holders of production concessions, including us, are also required to pay royalties to the province where production occurs. As modified by Law No. 27,007, royalty rates are set at a maximum of 12% (though 3% will be added for each extension up to a maximum of 18%). They are payable on the value at the wellhead (equal to the price upon delivery of the product, less transportation, treatment costs and other deductions) of crude oil production and natural gas volumes sold. These royalty rates may be reduced taking into account productivity and the type of production at issue. Notwithstanding the foregoing, in concessions extended prior to the effectiveness of Law No. 27,007, October 31, 2014, the previous conditions remain in force. In some cases, an additional 3% royalty has been added. See “—Main Properties—Argentine Exploration Permits and Exploitation Concessions.” In the extension of our concessions in Santa Cruz, we agreed to a 10% royalty (instead of 12%) for unconventional hydrocarbons. The value is calculated based upon the volume and the sale price of the crude oil and gas produced, less the costs of transportation and storage. In addition, pursuant to S.E. Resolution No. 435/04 issued by the SGE, if a concession holder allots crude oil production for further industrialization processes at its plants, the concession holder is required to agree with the provincial authorities or the SGE, as applicable, on the reference price to be used for purposes of calculating royalties.

Resolution No. 394/07 of the Ministry of Economy, among other things, increased duties on exports of certain hydrocarbons, as a result, Argentine companies began to negotiate the price for crude oil in the domestic market, which would in turn be used as the basis for the calculation of royalties. In January 2013, the Ministry of Economy issued Resolution No. 1/13, modifying Exhibit I of Resolution No. 394/07 of the Ministry of Economy, thus setting a new reference price for crude oil (U.S.\$ 70 per barrel) and certain products. In October 2014, the Ministry of Economy issued Resolution No. 803/2014, incorporating Exhibit III to Resolution No. 394/07 of the Ministry of Economy, thus modifying the applicable percentages of duties of exports for certain products below certain prices.

However, on December 29, 2014, Resolution No. 1,077/2014 repealed Resolution No. 394/07, as amended, and set forth a new withholding program based on the international price of crude oil (the “International Price”). The International Price was calculated based on the Brent value for the applicable month less U.S.\$ 8 per barrel. The new program established a 1% general nominal withholding applicable to all products covered by the resolution, including crude oil, diesel, gasoline and lubricants as well as other petroleum products, to the extent that the International Price was below U.S.\$ 71 per barrel. The resolution further provides an increasing variable withholding rate for crude oil exports to the extent the International Price exceeds U.S.\$ 71 per barrel. As a result, the maximum a producer may charge was approximately U.S.\$ 70 per barrel exported, depending on the quality of crude sold. The resolution also sets forth increasing withholding rates for exports of diesel, gasoline, lubricants and other petroleum products when the International Price exceeds U.S.\$ 71 per barrel at rates that allow the producer to receive a portion of the elevated price.

On January 8, 2017, export duties on hydrocarbon exports established by Law No. 26,732 ceased to be enforceable.

However, on September 3, 2018, customs duties were established on the export of hydrocarbons through Decree No. 793/2018, published in the Official Gazette on September 4, 2018. The export tax rate was increased to 12%, with a threshold of Ps. 3 or Ps. 4 per dollar depending on the product. In addition to the above, the Public Emergency Law, which created the export withholdings, established that export withholdings were not to be deducted from the export price for purposes of calculating the 12% royalties. The royalty expense incurred in Argentina is accounted for as a production cost (as explained in “—Upstream—Oil and gas production,

production prices and production costs”). According to the Hydrocarbons Law, any oil and gas produced by the holder of an exploration permit prior to the grant of a production concession is subject to the payment of a 15% royalty.

Thereafter, pursuant to Decree No. 37/2019 (published in the official gazette on December 14, 2019) the aforementioned cap was eliminated and Law No. 27,541 (published in the official gazette on December 23, 2019) established a threshold of 8% rate. As of the date of this annual report, the government authorities have not issued regulations on this matter, and the General Directorate of Customs continues to determine export duties in accordance with the rates that were in force prior to the effectiveness of Law No. 27,541.

Furthermore, pursuant to Sections 57 and 58 of the Hydrocarbons Law, holders of exploration permits and production concessions must pay an annual surface fee that is based on acreage of each block and that varies depending on the phase of the operation, such as exploration or production, and in the case of the former, depending on the relevant period of the exploration permit. These amounts were updated by Law No. 27,007 and may be partially adjusted as from the second basic exploration period in light of investments actually carried out. Exploration permits, and production or transportation concessions may be terminated upon any of the following events:

- failure to pay annual surface taxes within three months of the due date;
- failure to pay royalties within three months of the due date;
- substantial and unjustifiable failure to comply with specified production, conservation, investment, work or other obligations;
- repeated failure to provide information to, or facilitate inspection by, authorities or to utilize adequate technology in operations;
- in the case of exploration permits, failure to apply for a production concession within 30 days of determining the existence of commercially exploitable quantities of hydrocarbons;
- bankruptcy of the permit or concession holder;
- death or end of legal existence of the permit or concession holder; or
- failure to transport hydrocarbons for third parties on a non-discriminatory basis or repeated violation of the authorized tariffs for such transportation.

The Hydrocarbons Law further provides that a cure period, of a duration to be determined by the SGE and/or the competent provincial authorities, must be provided to the defaulting concessionaire prior to the termination.

When a production concession expires or terminates, all oil and gas wells, operating and maintenance equipment and facilities automatically revert to the province where the reservoir is located or to the Argentine Republic in the case of reservoirs under federal jurisdiction (for instance, located on the continental shelf or beyond 12 nautical miles offshore), without compensation to the holder of the concession.

Most of our production concession expirations have been extended from their original expiration dates. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Argentine oil and gas production concessions and exploration permits are subject to certain conditions and may be cancelled or not renewed.” The granting of an extension is an unregulated process and normally involves lengthy negotiations between the applicant and the relevant government. Although the Hydrocarbons Law, as modified, provides that applications must be submitted at least one year prior to the concession expiration date, it is industry practice to commence the process far earlier, typically as soon as the technical and economic feasibility of new investment projects beyond the concession term become apparent.

On March 16, 2006, the former Argentine Secretariat of Energy issued S.E. Resolution No. 324/06 requiring that holders of exploration permits and hydrocarbon concessions must file with such agency details of their proved reserves existing in each of their areas, certified by an external reserves auditor, each year. Holders of hydrocarbon concessions that export hydrocarbons are obliged to certify their oil and gas proved reserves. The aforementioned certification only has the meaning established by S.E. Resolution No. 324/06, according to

which it is not to be interpreted as a certification of oil and gas reserves under the SEC rules. See “—Upstream Overview—Oil and Gas Reserves.” On November 7, 2016, MINEM issued Resolution No. 69/2016, which included technical modifications to S.E. Resolution No. 324/06 by amending some of its technical annexes regulating the reserves information required to be provided. It also established sanctions for hydrocarbon producers in the case of irregularities in the reserves reports filed, including admonishment, suspension or cancellation of the Hydrocarbons Producers Registry, depending on the magnitude of the irregularity.

In March 2007, the former Argentine Secretariat of Energy issued Resolution No. 407/07 that approved new regulations concerning the Oil and Gas Exploration and Production Companies Registry. According to Resolution No. 407/07, YPF, as a holder of production concessions and exploration permits, is banned from hiring or in any way benefiting from any company or entity which is developing or has developed oil and gas exploration activities within the Argentine continental platform without an authorization from the relevant Argentine authorities.

In connection with the extension of concessions, see “—Upstream Overview—Main properties.”

Security Zones Legislation

Argentine law restricts the ability of non-Argentine companies and foreign individuals to own real estate, oil concessions or mineral rights located within, or with respect to areas defined as, security zones (principally border areas).

The purchase of real estate property by non-Argentine companies and foreign individuals in security zones (that is, zones that are between 150 km from terrestrial borders and 50km from shorelines) is subject to prior and special authorization issued by the National Commission for Security Zones (Comisión Nacional de Zona de Seguridad de Fronteras).

Additionally, prior approval of the Argentine government is required:

- for non-Argentine shareholders to acquire control of us (See “Expropriation of shares held by Repsol YPF”); or
- if and when the majority of our shares belong to non-Argentine shareholders, as was the case when we were controlled by Repsol for any additional acquisition of real estate, mineral rights, oil or other Argentine government concessions located within, or with respect to, security zones.

Natural Gas Transportation and Distribution

The gas transmission system is currently divided into two systems principally on a geographical basis (the northern and the southern trunk pipeline systems), designed to give both systems access to gas sources and to the main centers of demand in and around Buenos Aires. These systems are operated by two transportation companies. In addition, the distribution system is divided into nine regional distribution companies, including two distribution companies serving the greater Buenos Aires area.

The regulatory structure for the natural gas industry creates an open-access system, under which gas producers, such as us, will have open access to future available capacity on transmission and distribution systems on a non-discriminatory basis.

Cross-border gas pipelines were built to interconnect Argentina, Chile, Brazil and Uruguay, and producers such as us had been exporting natural gas to the Chilean and Brazilian markets, to the extent permitted by the Argentine government. During the last several years the Argentine authorities have adopted a number of measures restricting exports of natural gas from Argentina, including issuing domestic supply instruction pursuant to Regulation No. 27/04 and Resolutions No. 265/04, 659/04 and 752/05 (which require exporters to supply natural gas to the Argentine domestic market), issuing express instructions to suspend exports, suspending processing of natural gas and adopting restrictions on natural gas exports imposed through transportation companies and/or emergency committees created to address crisis situations. However, since 2017 the Argentine authorities have adopted a number of measures aiming at allowing companies to resume natural gas exports. See “—Market Regulation— Natural gas export administration and domestic supply priorities.”

Transportation of Liquid Hydrocarbons

The Hydrocarbons Law permits the Argentine Executive Branch to award 35-year concessions for the transportation of oil, gas and petroleum products following submission of competitive bids. Pursuant to Law No. 26,197, the relevant provincial governments have the same powers. Holders of production concessions are entitled to receive a transportation concession for the oil, gas and petroleum products

that they produce. The term of a transportation concession may be extended for an additional ten-year term upon application to the Argentine Executive Branch.

Law No. 27,007, which applies to concessions issued on or after October 2014 other than those already governed by previous laws, for the transportation of liquid hydrocarbons, permits the Argentine Executive Branch to award concessions for the transportation of oil, gas and petroleum products for terms equivalent to those granted for production concessions linked to those transport concessions, following submission of competitive bids. The term of a transportation concession may be extended for additional terms equivalent to those of the associated production concession. The holder of a transportation concession has the right to:

- transport oil, gas and petroleum products; and
- construct and operate oil, gas and products pipelines, storage facilities, pump stations, compressor plants, roads, railways and other facilities and equipment necessary for the efficient operation of a pipeline system.

The holder of a transportation concession is obligated to transport hydrocarbons for third parties on a non-discriminatory basis for a fee. This obligation, however, applies to producers of oil or gas only to the extent that the concession holder has surplus capacity available and is expressly subordinated to the transportation requirements of the holder of the concession. Transportation tariffs are subject to approval by the SGE for oil and petroleum pipelines and by ENARGAS for gas pipelines. Upon expiration of a transportation concession, the pipelines and related facilities automatically revert to the Argentine government without payment to the holder. The Privatization Law granted us a 35-year transportation concession with respect to the pipelines operated by Yacimientos Petrolíferos Fiscales Sociedad del Estado at the time. Gas pipelines and distribution systems sold in connection with the privatization of Gas del Estado are subject to a different regime as described above.

Additionally, pursuant to Law No. 26,197, all transportation concessions located entirely within a province's jurisdiction and not directly connected to any export pipeline are to be transferred to such province. The Argentine Executive Branch retains the power to regulate and enforce all transportation concessions located within two or more provinces and all transportation concessions directly connected to export pipelines.

Refining

Crude oil refining activities conducted by oil producers or others are subject to prior registration of oil companies in the registry maintained by the SGE and compliance with safety and environmental regulations, as well as to provincial environmental legislation and municipal health and safety inspections.

In January 2008, the Argentine Secretariat of Domestic Commerce issued Resolution No. 14/2008, whereby the refining companies were instructed to optimize their production in order to obtain maximum volumes according to their capacity.

Executive Decree No. 2,014/08 of November 25, 2008, created the "Refining Plus" program to encourage the production of diesel and gasoline. The former Argentine Secretariat of Energy, by S.E. Resolution No. 1,312/08 of December 1, 2008, approved the regulations of the program. Pursuant to this program, refining companies that undertook the construction of a new refinery or the expansion of their refining and/or conversion capacity, and whose plans were approved by the former Argentine Secretariat of Energy, were entitled to receive export duty credits to be applied to exports of products within the scope of Resolution No. 394/07 and Resolution No. 127/08 (Annex) issued by the Ministry of Economy. In February 2012, by Notes No. 707/12 and 800/12 (the "Notes") of the former Argentine Secretariat of Energy, YPF was notified that the benefits granted under the "Refining Plus" program had been temporarily suspended. The effects of the suspension extend to benefits accrued and not yet redeemed by YPF at the time of the issuance of the Notes. The reasons alleged for such suspension were that the "Refining Plus" program had been created in a context where domestic prices were lower than prevailing prices and that the objectives sought by the program had already been achieved. On March 16, 2012, YPF filed an administrative complaint against the temporary suspension. YPF has partially collected the compensation expected according to the Program.

Notwithstanding the suspension of the Program, and after different filings by YPF with additional technical information regarding the four remaining expansion/conversion plans, on August 27, 2019, the former Argentine Government Secretariat of Energy approved a compensation in favor of YPF of approximately U.S.\$68 million, to which YPF agreed to on August 30, 2019 and also requested the corresponding export duty credits.

Market Regulation

Overview

Under the Hydrocarbons Law and the applicable Decrees, holders of production concessions, such as us, have the right to produce and own the oil and gas they extract and are allowed to sell such production in the domestic or export markets, in each case subject to the conditions described below.

The Hydrocarbons Law authorizes the Argentine Executive Branch to regulate the Argentine oil and gas markets and prohibits the export of crude oil during any period in which the Argentine Executive Branch finds domestic production to be insufficient to satisfy domestic demand. If the Argentine Executive Branch restricts the export of crude oil and petroleum products or the sale of natural gas, the applicable Decrees provide that producers, refiners and exporters shall receive a price for the crude oil and petroleum products, not lower than that of imported crude oil and petroleum products of similar quality.

Furthermore, the applicable Decrees required the Argentine Executive Branch to give twelve months' notice of any future export restrictions. Notwithstanding the above provisions, certain subsequently-enacted resolutions (S.E. Resolution No. 1,679/04, S.E. Resolution No. 532/04 and Resolution No. 394/07 of the Ministry of Economy and Production) have modified the aforementioned price mechanism, resulting, in certain cases, in prices to producers that are below the levels described above.

In addition, in May 2012, the Expropriation Law was passed by the Argentine Congress and became effective. See “—The Expropriation Law” and “—Decree No. 1,277/2012” and “—Decree No. 272/2015 and Decree 7/2019.”

On July 15, 2013, Decree No. 929/2013 was published in the Official Gazette, which provides for the creation of an Investment Promotion Regime for the Exploitation of Hydrocarbons (the “Promotion Regime”), both for conventional and unconventional hydrocarbons to be applied across the Argentine territory. Applications to be included in this Promotion Regime may be filed by subjects duly registered with the National Registry of Hydrocarbon Investments who are holders of exploration permits and/or exploitation concessions and/or third parties associated with those holders and who submit an Investment Project for Hydrocarbon Exploitation (the “Investment Project”) to the Commission created by Decree No. 1,277/12, entailing a direct investment in foreign currency of at least U.S.\$ 1 billion, calculated at the time of submission of the Investment Project, and to be invested in the first five years of the Investment Project. Beneficiaries of this Promotion Regime shall enjoy the following benefits, among others: i) they shall be entitled, under the terms of the Hydrocarbons Law, from the fifth anniversary of the start-up of their respective Investment Project, to freely export 20% of the production of liquid and gaseous hydrocarbons produced under such Investment Projects, at a 0% export tax rate, if applicable; ii) they shall freely dispose of 100% of the proceeds derived from the export of the hydrocarbons mentioned in i) above, provided the approved Investment Project would have generated an inflow of foreign currency into Argentina’s financial market equal to at least U.S.\$ 1 billion, following the requirements mentioned above; iii) if hydrocarbon production in Argentina is not enough to cover domestic supply needs in accordance with section 6 of the Hydrocarbons Law, beneficiaries of the Promotion Regime, from the fifth anniversary of the start-up of their respective Investment Projects, shall be entitled to obtain, in relation to the aforementioned exportable rate of liquid and gaseous hydrocarbons produced in the Investment Projects, a price not lower than the reference export price calculated without deducting any export duties that would have been applicable. Law No. 27,007, as described above, has incorporated into this regime projects submitted to the Commission entailing a direct investment in foreign currency of at least U.S.\$ 250 million, calculated at the time of submission of the Investment Project, and to be invested in the first three years of the Investment Project. Further, Law No. 27,007 modifies the percentages of hydrocarbons to be benefitted under this regime to 20% of the production of conventional, unconventional and offshore concessions at depths less than or equal to 90 meters and 60% of the production of offshore concessions at depths greater than 90 meters. See “—Law No. 27,007 (amendment of the Hydrocarbons Law)” and “—Decree No. 272/2015.”

Additionally, the decree discussed above created a new type of concession for the “Exploitation of Unconventional Hydrocarbons,” which has been incorporated into the Hydrocarbons Law by Law No. 27,007, consisting of the extraction of liquid and/or gaseous hydrocarbons through unconventional stimulation techniques applied to reservoirs located in geological formations of schist and slates (shale gas or shale oil), tight sands (tight oil and tight gas), coal layers (coal bed methane) and, in general, from any reservoir that presents low-permeability rock as its main feature. The Decree provides that holders of exploration permits and/or exploitation concessions that are beneficiaries of the Promotion Regime shall be entitled to apply for a “Concession for Unconventional Hydrocarbons Exploitation.” Likewise, holders of a Concession for Unconventional Hydrocarbons Exploitation who are also holders of an adjacent and pre-existing concession may request the unification of both areas into a single unconventional exploitation concession, provided the geological continuity of such areas is duly proven.

As noted above, Law No. 27,007 provides for contributions by companies to the provinces where the projects take place, which amount to 2.5% of the initial investment amount of the project, to be directed to “Corporate Social Responsibility” contributions. In addition, an amount to be determined by the Commission in light of the extent of the project, to finance infrastructure, have to be contributed by the Argentine Republic. Finally, Law No. 27,007 establishes that capital goods and inputs that are essential to the execution of the investment plans of companies registered in the National Registry of Hydrocarbon Investments shall pay import duties indicated in Decree No. 927/13 (reduced rates). This list may be extended to other strategic products.

Production of crude oil and reserves

Executive Decree No. 2,014/08 of November 25, 2008, created the “Petroleum Plus” program to encourage the production of crude oil and the increase of reserves through new investments in exploration and development. The former Argentine Secretariat of Energy, through S.E. Resolution No. 1,312/08 of December 1, 2008, approved the regulations of the program. The program entitled production companies which increased their production and reserves within the scope of the program, and whose plans were approved by the former Argentine Secretariat of Energy, to receive export duty credits to be applied to exports of products within the scope of Resolution No. 394/07 and Resolution No. 127/08 (Annex) issued by the Ministry of Economy. In February 2012, YPF was notified by the former Argentine Secretariat of Energy that the benefits granted under the “Petroleum Plus” program had been temporarily suspended. The effects of the suspension extend to benefits accrued and not yet redeemed by YPF at the time of the issuance of the notice. The reasons stated for the suspension were that the “Petroleum Plus” program had been created in a context where domestic prices were lower than prevailing prices and that the objectives sought by the program had already been achieved. On March 16, 2012, YPF filed an administrative complaint against the temporary suspension. Executive Decree No. 1,330/2015 of July 13, 2015 provided for the termination of the “Petroleum Plus” program, establishing compensation in BONAR 2024 Argentine public bonds.

Refined products

In April 2002, the Argentine government and the main oil companies in Argentina, including us, reached an agreement on a subsidy provided by the Argentine government to public bus transportation companies. The Agreement on Stability of Supply of Diesel was approved by Executive Decree No. 652/02 and assured the transportation companies their necessary supply of diesel at a fixed price of Ps. 0.75 per liter from April 22, 2002 to July 31, 2002. Additionally, it established that the oil companies are to be compensated for the difference between this fixed price and the market price through export duty credits. Subsequent agreements entered into between the Argentine government and the main oil companies in Argentina extended the subsidy scheme until December 2009, while the aforementioned fixed price was revised from time to time.

In March 2009, Executive Decree No. 1,390/09 empowered the Chief of Staff to sign annual agreements extending the diesel subsidy to transportation companies for the fiscal year 2009 and until the end of the public emergency declared by the Public Emergency Law and its amendments, and instructed such official to incorporate the necessary modifications in order to extend the possibility to compensate with export duty credits on all hydrocarbon products currently exported, or with cash. Nevertheless, the subsidy scheme has continued to be in place on the basis of the monthly communications issued by the Argentine Secretariat of Transport notifying oil companies of the volumes to be delivered to each beneficiary of the scheme at the fixed price, and the Argentine government has continued to compensate oil companies for deliveries of diesel made under the scheme.

The former Argentine Secretariat of Energy has issued a series of resolutions in order to provide the market with information about liquid fuel prices and volumes. For example, S.E. Resolution No. 1,102/04 created the Registry of Liquid Fuels Supply Points, Self-Consumption, Storage, Distributors and Bulk Sellers of Fuels and Hydrocarbons, and of Compressed Natural Gas; S.E. Resolution No. 1,104/04 created a bulk sales price information module as an integral part of the federal fuel information system, as well as a mechanism for communication of volumes sold. S.E. Resolution No. 1,834/05 compels service stations and/or supply point operators and/or self-consumption of liquid fuels and hydrocarbons who have requested supply, and have not been supplied, to communicate such situation to the former Argentine Secretariat of Energy. S.E. Resolution No. 1,879/05 established that refining companies registered by the former Argentine Secretariat of Energy, who are parties to contracts that create any degree of exclusivity between the refining company and the fuel seller, shall assure continuous, reliable, regular and non-discriminatory supply to its counterparties, giving the right to the seller to obtain the product from a different source, and thereupon, charging any applicable cost overruns to the refining company.

Disposition S.S.C. No. 157/06 of the Undersecretariat of Fuels provides that fuel sellers who are parties to contracts that create any degree of exclusivity between the refining company and the fuel seller, and which for any reason are seeking to terminate such contract, shall report the termination in advance with the Undersecretariat of Fuels in order to inform the Argentine Secretariat of Domestic Commerce of the situation. In that case, the Argentine Secretariat of Domestic Commerce is to: (i) issue a statement regarding the validity of the termination of the contract and (ii) use all necessary means to allow the fuel seller terminating the contract to execute another agreement

with a refining company and/or fuel broker in order to guarantee its fuel supply. The Disposition has not been imposed by the authorities in cases involving YPF.

S.E. Resolution No. 1,679/04 reinstated the registry of diesel and crude oil export transactions created by Executive Decree No. 645/02, and mandated that producers, sellers, refining companies and any other market agent that wishes to export diesel or crude oil to register such transaction and to demonstrate that domestic demand has been satisfied and that they have offered the product to be exported to the domestic market. In addition, S.E. Resolution No. 1,338/06 added other petroleum products to the registration regime created by Executive Decree No. 645/02, including gasoline, fuel oil and its derivatives, aviation fuel, coke coal, asphalts, certain petrochemicals and certain lubricants. Resolution No. 715/07 of the former Argentine Secretariat of Energy empowered the National Refining and Marketing Direction to determine the amounts of diesel to be imported by each company, in specific periods of the year, to compensate exports of products included under the regime of Resolution No. 1,679/04; the fulfillment of this obligation to import diesel is necessary to obtain authorization to export the products included under Decree No. 645/02 (crude, fuel oil, diesel, coke coal and gasoline, among others). In addition, Resolution No. 25/06 of the Argentine Secretariat of Domestic Commerce, issued within the framework of Law No. 20,680, imposes on each Argentine refining company the obligation to supply all reasonable diesel demand, by supplying certain minimum volumes (established pursuant to the resolution) to their usual customers, mainly service station operators and distributors. YPF has duly fulfilled its obligation under this Resolution and has not received any type of sanction from the authorities in this regard.

On August 17, 2010, the Argentine Secretariat of Domestic Commerce issued Resolution No. 295/10, imposing that the trade price of liquid fuels should be rolled back to those prices prevailing on July 31, 2010. This resolution has been successfully challenged by another company and a preliminary injunction was granted suspending the effectiveness of such Resolution. This Resolution was later on repealed by Resolution No. 543/10 of the Argentine Secretariat of Domestic Commerce.

On February 2, 2011, the Argentine Secretariat of Domestic Commerce issued Resolution No. 13/11 stating that the retail price of liquid fuels had to be rolled back to those prices prevailing on January 28, 2011. This resolution also required refineries and oil companies to continue to supply amounts of fuel to the domestic market consistent with amounts supplied the prior year, as adjusted for the positive correlation between the increase in the demand of fuel and gross domestic product. On March 29, 2011, however, the Argentine Secretariat of Domestic Commerce issued Resolution No. 46/11, which repealed Resolution No. 13/11, alleging that market conditions had changed since its issuance.

On April 10, 2013, Resolution No. 35/2013 of the Argentine Secretariat of Domestic Commerce, determined a price cap for fuel at all service stations for period of six months, which shall not exceed the highest outstanding price as of April 9, 2013 in each of the regions identified of the Annex of the Resolution.

The above resolutions affecting domestic prices expired on November 24, 2013 and are no longer in effect.

In addition, in May 2012, the Expropriation Law was enacted by the Argentine Congress and became effective. See “—The Expropriation Law” and “—Decree No. 1,277/2012.”

On December 30, 2013, the Commission approved, through Resolution No. 99/2013, the general rules for the grant of quotes of liquid fuels volumes allowed to be imported by locally registered companies, including, among others, oil companies registered in the relevant registries of the Secretariat of Energy. These rules regulate the requirements, grant of volumes to be imported and other conditions to be complied with by the companies that wish to import liquid fuels free of the tax on liquid fuels (imposed by Law No. 23,966) and the tax on diesel (imposed by Law No. 26,098), jointly with other fuels up to a maximum aggregate amount of 7 mmcm.

The Secretariat of Hydrocarbon Resources from MINEM approved Resolution No. 5/2016 on May 31, 2016, replacing Annex II of Resolution No. 1,283/2006, which previously established specifications for Argentina’s two grades of gasoline, naphtha grades 2 and 3. The resolution’s new Annex includes modifications to the content of lead, manganese, oxygen and ethanol and, most significantly, sulfur, and requires oil and gas companies to implement a plan to lower sulfur limits to 50mg/kg for grade 2 gasoline, 10mg/kg for grade 3 gasoline, and to 350 mg/kg for diesel between 2019 and 2022. Oil and gas companies must file with the Secretariat of Hydrocarbon Resources a detailed timeline of the program of investments for the next four years, to reach the goals provided in Annex I. From June 1, 2016, the sulfur limit for fuel oil will be 7,000 mg/kg. Local refineries producing fuel oil that does not fulfill the abovementioned specifications must present to the Secretariat of Hydrocarbon Resources a remediation plan that includes steps and actions to fulfill the maximum limit of sulfur within 24 months. Based on the above, YPF has undertaken several studies in respect of investment configurations and estimations, under the advice of main technological experts in the field in order to adapt its industrial networking units according to the parameters required by the regulation. In October 2016, YPF submitted to the MINEM the following information: a) an investment plan towards 2019 containing detailed information about projects and terms necessary to fulfill the new quality specification of products required by Resolution No. 5/2016; and b) an evaluation of the necessary terms in order to develop the configuration of

studies, as discussed in the previous sentence. Once those studies, together with their economic impact, are completed, YPF will obtain internal approval from its Board of Directors and then submit to the MINEM its investment program towards 2022 to fulfill additional quality requirements established by Resolution No. 5/2016. Notwithstanding the foregoing, the Government Secretariat of Energy enacted Resolution N° 576-2019 which amended Resolution No. 5/2016 replacing its Annex I with specifications for Argentina's two grades of gasoline and naphtha grade 3, as well extended the deadline to comply with the new criteria until January 1, 2024. Consequently, YPF is currently reviewing its investment programs in view of this new resolution.

Agricultural Commodity Export Tax Changes

On March 4, 2020 the Government of Argentina exercised the powers granted by Law N° 27,541 of Social Solidarity Law and announced further adjustments to its export tax regime through Decree N° 230/2020, which included increasing the export tax on soybeans and soybean products to 33% (maximum permitted by Law N° 27,541). Wheat, corn, and sorghum export taxes remain at 12%. Other commodities saw reduction or maintenance of their current export tax rates.

Automatic and Non-Automatic Import Licenses

On December 23, 2015, the Ministry of Production published Resolution No. 5/2015, in the Official Gazette, which reinstated the automatic and non-automatic import licenses ("LAI" and "LNA," respectively). In 2013, the former Ministry of Economy and Public Finance eliminated the LNA, stating that it existed alongside the Anticipated Import Affidavit (Declaración Jurada Anticipada de Importación) requirement implemented in February 2012, which was recently repealed by AFIP (Administración Federal de Ingresos Públicos) Resolution No. 3823.

Resolution No. 5/2015 also established that importers of products included in the Mercosur Tariff Code must obtain a LAI prior to the entrance of the product into Argentina.

Certain products which are listed in Annexes II to XVII of Resolution No. 5/2015 will be subject to an LNA. The LNA will be applicable to a wide variety of products, including, but not limited to, textile, footwear, toys, domestic appliances, motorbikes, and automobile parts.

In order to obtain the LNA, importers must submit certain information from the importer itself (name, tax identification number) and the product (FOB value, type and quantity, commercial brand, model, country of origin and of shipping, etc.) through the Integral Import Monitoring System (Sistema Integral de Monitoreo de Importaciones) ("SIMI") created by AFIP Resolution No. 3,823. After submitting this information, importers will have ten business days to complete certain additional information required by Resolution No. 5/2015. If the ten-day term expires, the SIMI declaration will be automatically cancelled.

Regarding the LNA, Resolution No. 5/2015 establishes that, at any stage of the process, importers may be required to submit additional information or documents of the product subject to the LNA and request verification of technical agencies, as applicable.

Import licenses will be valid for 90 calendar days, once approved by the SIMI.

The following imports are exempt from the import regime established by Resolution No. 5/2015:

- Donation regime.
- Sample regime.
- Diplomatic exemption regime.
- Import of products with duties and tax exemption.
- Import of products from Special Custom Zone (Tierra del Fuego, Antártida and Islas del Atlántico Sur).
- Import of products by the General Secretary of Argentine Executive Branch (*Secretaria General de la Presidencia de la Nación*).
- Courier and mail delivery, only for importer private use or consumption.

Resolution No. 5/2015 became effective on December 24, 2015, and the Secretariat of Trade was the application authority, and was derogated by Resolution N° 292/2017 published in the Official Gazette on July 7, 2017.

Resolution No. 523- E/2017 from the Ministry of Production established a new import licensing regime that will still require importers of a broad range of products to obtain an import license prior to importation.

According to Resolution No. 523-E/2017, imports into Argentina must obtain an automatic import license except for a range of items that will need to obtain a non-automatic license. Automatic licenses will be processed through the Import Monitoring System (SIMI) after the importer provides certain information, including its name and tax identification number, the FOB value of the product, tariff classification, type and quantity, brand, model, version, state of the goods, country of origin and country of provenance.

Importers wishing to obtain a non-automatic import license must be duly registered in the Ministry of Production Single Registry (R.U.M.P.), provide the aforementioned information, and provide within 10 (ten) working days from the date the procedure was formalized and viewed certain additional information that may include, among other things, the name and address of the exporter and more detailed information on the goods to be imported as well as any applicable standards or certification requirements. In the case of covered travel goods and textile, apparel and footwear products (as well as certain other items), information must also be provided on the composition of the product. If the required information is not provided within 10 (ten) working days, the request for the non-automatic import license will be cancelled.

Recently, the Ministry of Productive Development (former Ministry of Production) issued Resolution No. 1/2020 introducing changes to the Import Monitoring System set forth by Resolution No. 523- E/2017, and the products falling under Automatic Importation Licenses and Non- Automatic Importation Licenses.

Below are the main changes introduced by the abovementioned Resolution:

- Expansion of the tariff codes subject to LNA.
- Reduction of the tolerance margin. The resolution lowers the tolerance margin to 5% (assessed over the FOB value) for merchandise subject to LNA. The former regime provided a tolerance of 7%.
- Reduction of term of validity of import licenses. The resolution limits the validity of import licenses to a 90 calendar-day term, which implies a substantial reduction compared to the 180 calendar days provided by the previous regime. This period may be extended at the request of the importer, as long as the extension request is made within at least 15 days before the expiration date and invoking substantiated reasons.
- Designation of new enforcement authority and determination of effective date. The new authority in charge of implementing the SIMI regime is the Undersecretary of Policy and Commercial Management of the Secretariat of Industry, Knowledge Economy and External Commercial Management of the Ministry of Productive Development. The Resolution is effective as of January 10, 2020.
- Grandfathering of existing licenses. Import licenses approved prior to the entry into force of the Resolution, will remain in effect until the earlier to occur between their use or the expiration of the term in respect of which they were granted.

Finally, on March 12, 2020, the Undersecretary of Policy and Commercial Management published Resolution No. 3/2020, in the Official Gazette, incorporating certain goods under the Non-Automatic Importation Licenses regime, including but not limited to crude oil, gasoline and diesel (tariff code 27); and certain petrochemical products (tariff code 29).

Natural gas

In January 2004, Executive Decree No. 180/04 (i) created the Electronic Gas Market (“MEG”) for the trade of daily spot sales of gas and a secondary market of transportation and distribution services, and (ii) established information obligations for buyers and sellers of natural gas in relation to their respective commercial operations, required as a condition to be authorized to inject into and transport through the transportation system any volume of natural gas (further regulated by Resolution No. 1,146/04 issued on November 9, 2004 and Resolution No. 882/05 issued by the former Argentine Secretariat of Energy). According to Executive Decree No. 180/04, all daily spot sales of natural gas must be traded within the MEG.

In January 2004, Executive Decree No. 181/04 authorized the former Argentine Secretariat of Energy to negotiate with natural gas producers a pricing mechanism for natural gas supplied to industries and electric generation companies. Domestic market prices at the retail market level were excluded from these negotiations.

On June 14, 2007, Resolution No. 599/07 of the former Argentine Secretariat of Energy approved a proposed agreement with natural gas producers regarding the supply of natural gas to the domestic market during the period 2007 through 2011 ("Agreement 2007-2011"). We executed Agreement 2007-2011 taking into account that producers that did not enter into Agreement 2007-2011 would be required to satisfy domestic demand before those who entered into Agreement 2007-2011. The purpose of Agreement 2007-2011 was to guarantee the supply of the domestic market demand at the levels registered in 2006, plus the growth in demand by residential and small commercial customers. However, we expressly stated that the execution of Agreement 2007-2011 did not entail any recognition by us of the validity of the terms and conditions of the various resolutions of the former Argentine Secretariat of Energy establishing programs for the curtailment or re-routing of exports to satisfy domestic demand. We challenged Resolution No. 599/07 and stated that we signed Agreement 2007-2011 taking into account the potential consequences of not doing so.

The former Argentine Secretariat of Energy created, through Resolution No. 24/08 issued on March 13, 2008, a program named "Gas Plus" to encourage natural gas production resulting from discoveries, new fields and tight gas, among other factors. The natural gas produced under the Gas Plus program is not subject to Agreement 2007-2011 and the price conditions established under such agreement.

The former Argentine Secretariat of Energy, through Resolution No. 1031/08 issued on September 12, 2008, modified Resolution No. 24/08, establishing the specific conditions petitioners must meet in order to qualify for the Gas Plus program. Certain of such conditions were modified by Resolution No. 695/09 of the former Argentine Secretariat of Energy, which demands compliance with commitments already assumed.

The former Argentine Secretariat of Energy, through Resolution No. 1070/08 issued on October 1, 2008, ratified the complementary agreement entered into between Argentine natural gas producers and the former Argentine Secretariat of Energy on September 19, 2008 (the "Complementary Agreement"), which (i) modified gas prices at the wellhead and segmented the residential sector in terms of natural gas demand, and (ii) established the requirement that natural gas producers contribute to the fiduciary fund created by Law No. 26,020. The Complementary Agreement also contains certain requirements concerning the provision of LPG to the domestic market. See "—Liquefied petroleum gas." Through Resolution No. 1,417/08, the Secretariat of Energy determined the basin prices for the residential segment applicable to the producers that signed the Complementary Agreement. On January 13, 2010, the natural gas producers signed an addendum to the Complementary Agreement which extended the commitment to contribute to the fiduciary funds created by Law No. 26,020 until December 31, 2010. On January 25, 2011, the natural gas producers signed a second addendum to the Complementary Agreement which extended such commitment until December 31, 2011.

On March 19, 2012, S.E. Resolution No. 55/2012 of the Secretariat of Energy was published in the Official Gazette, which extended the Complementary Agreement for 2012 and established the following with respect to non-signing parties: (i) the natural gas price increase established by the Complementary Agreement will not be applicable to natural gas injected into the gas system by non-signing parties; (ii) natural gas injected by non-signing parties will be consumed first in the order of priority by residential users, which has the lowest tariffs; and (iii) non-signing parties must fulfill all of the commitments undertaken by natural gas producers under Agreement 2007-2011, which was extended by Resolution S.E. No. 172. On March 23, 2012, S.E. Resolution No. 55/2012 was supplemented by ENARGAS Resolution No. 2087/2012, which sets forth, among others, the procedure that distribution companies should follow to secure amounts to be deposited with the fiduciary fund created by Law No. 26,020. Additionally, according to this resolution, producers that have not signed the 2012 extension of the Complementary Agreement are not allowed to charge the wellhead price increases for gas set forth in S.E. Resolutions No. 1,070/2008 and 1417/2008 to consumers directly supplied by distribution companies. Thus, such non-signing producers have to invoice the lower prices which were in effect prior to the adoption of these resolutions for the gas supplied to the distribution companies.

Thereafter, on April 19, 2012, December 18, 2012 and December 19, 2013, YPF signed the 2012, 2013 and 2014 extensions of the Complementary Agreement, respectively. The dispatch mechanism for natural gas was regulated further by Resolution No. 1,410, as explained below.

Executive Decree No. 2067/08 of December 3, 2008, created a fiduciary fund to finance natural gas imports destined for injection into the national pipeline system, when required to satisfy the internal demand. The fiduciary fund is funded through the following mechanisms: (i) various tariff charges which are paid by users of regular transport and distribution services, gas consumers that receive gas directly from producers and companies that process natural gas; (ii) special credit programs that may be arranged with domestic or international organizations; and (iii) specific contributions assessed by the former Argentine Secretariat of Energy on participants in the natural gas industry. This decree has been subject to different judicial claims and judges throughout the country have issued precautionary

measures suspending its effects. On November 8, 2009, ENARGAS published Resolution No. 1,982/11, which supplements Decree No. 2067/08. This Resolution adjusts the tariff charges established by Executive Decree No. 2,067/08 to be paid by users in the residential segment and gas processing and electric power companies, among others, starting December 1, 2011. On November 24, 2011, ENARGAS issued Resolution No. 1,991/11, which extends the type of users that will be required to pay tariff charges. YPF has challenged these resolutions. On April 13, 2012, a precautionary measure was granted regarding the processing plant El Porton, suspending the effects of these resolutions with respect to such plant.

On November 5, 2012, Law No. 26,784 was published in the Official Gazette, which approved the National Administration Budget for 2013. Article 54 of the Law established that the tariff charges and the fiduciary fund established by Executive Decree No. 2,067/08 and all its supplementary acts, shall be ruled by Law No. 26,095.

Through Resolution No. 28/2016, published on April 1, 2016, MINEM declared that all acts which determined the imposition of the tariff charge ceased to be effective and instructed ENARGAS to adopt measures to cease invoicing the tariff charge.

In April 2018 and with respect to tariff charge “Decree No. 2,067/08”, the Federal Administrative Court of Appeals No. 11 delivered judgement in favor of Mega (for the period subsequent to the adoption of the 2013 Budget Law No. 26,784), declaring Articles 53 and 54 of such law unconstitutional, with regards to Mega. The judgment is final since it was not appealed by the Argentine Government.

On July 17, 2009, the Ministry of Federal Planning and certain natural gas producers (including YPF) signed an agreement which sets forth: (i) natural gas prices at the wellhead for the electric power generators segment from July to December 2009, and (ii) amounts to be received by natural gas producers for volumes sold to the residential segment from August 2009 onwards. These amounts are adjusted on a monthly basis so that they represent 50% of the amount collected by the fiduciary fund to finance natural gas imports.

On October 4, 2010, ENARGAS Resolution No. 1,410/10, was published in the Official Gazette, which set forth new rules for natural gas dispatch applicable to all participants in the gas industry and imposing the following new and more severe priority demand gas restrictions on producers:

- Distributors remain able to solicit all the gas necessary to cover the priority demand despite such gas volumes’ exceeding those that the former Argentine Secretariat of Energy would have allocated by virtue of Agreement 2007-2011 ratified by the Resolution No. 599/07. See “—Gas and Power—Delivery commitments.”
- Producers are obligated to confirm all the natural gas requested by distributors in respect of the priority demand. The producers’ portion of such volumes follows the allocation criterion established by the Resolution No. 599/07. We cannot predict the amount of the estimated domestic demand that a producer may be required to satisfy, regardless of whether such producer signed Agreement 2007-2011.
- Once the priority demand has been satisfied, the remaining demands are fulfilled, with exports last in order of priority.
- In the event a producer is unable to meet the requested demand, transporters are responsible for redirecting gas until a distributor’s gas demand is met. The gas deficiency is either (i) deducted from the producer suffering the deficiency if it is able to meet the demands of its other clients in the same basin or (ii) recovered from the remainder of the gas producers in the event the deficient producer is not able to serve any of its clients in the same basin.

As a result, this regime imposes a jointly liable supply obligation on all producers in the event any producer experiences a gas supply deficiency. We have challenged the validity of the aforementioned regulation. On December 9, 2015, ENARGAS denied our administrative appeal.

On December 17, 2010 certain natural gas producers (including YPF) signed an agreement which set forth the percentage of regasified LNG assigned to each natural gas producer for 2011. Amounts produced under this agreement were counted towards such producers’ commitments to supply natural gas to distributors under Resolution No. 599/07. By means of Secretary of Energy Resolution No. 172/2011, published on January 5, 2012, rules of assignment and other criteria determined by Resolution 599/2007 on natural gas supply obligations within the framework of the Agreement 2007-2011, were temporarily extended until new regulation on the subject matter was implemented.

ENARGAS Resolution No. 1410/10 was amended by MINEM Resolution No. 89/2016, dated June 1, 2016, which required ENARGAS to develop a procedure to amend and supplement ENARGAS Resolutions No. 716/1998 and 1410/2010 and establish daily operating conditions of the Transportation and Distribution Systems, established the volumes that distributors may request in order to satisfy priority demand and, if there has been a contract with a producer to fulfill such request, reduced the contracted volume requirement in accordance with the framework provided by Resolution No. 1,410/2010. Pursuant to this resolution, ENARGAS Resolution I/3833 was issued on June 5, 2016, which established the “Supplementary Procedure for Gas Requests, Confirmations and Control”.

Pursuant to this resolution, on June 5, 2016 ENARGAS Resolution No. I/3833 was issued, which establishes the “Supplementary Procedure for Gas Requests, Confirmations and Control.” The purpose of the Procedure is to establish the transition mechanism and application criteria for the administration of the natural gas dispatch to preserve the operation of the transportation and distribution systems giving priority to the consumption of the Priority Demand in cases of supply crisis and / or emergencies which may put at risk the normal provision of the natural gas public service or which may affect the provision of another public service.

The new Procedure establishes that each day the Distribution Service Providers will request in the programming computer systems of the Transport Companies for the operational day $n + 1$, with first priority, the natural gas necessary to supply the Priority Demand, based on their consumption estimate and in accordance with the contracted transport capacity and its supply agreements.

The confirmation of natural gas in the TSEP (“Transport System Entering Point”) for Priority Demand will have priority over other segments. The confirmation of gas for segments other than the Priority Demand will maintain the confirmation priority established by the Producer in the respective contracts with direct consumers (or Marketers), which will be informed to Transportation and Distribution Service Providers.

The transportation nomination of each Distribution Service Provider will give priority to the supply of their Priority Demand over any other user of that Provider.

The Providers of the Transportation and Distribution Service that verify that the transportation capacity is not sufficient to supply the Priority Demand must summon the Emergency Committee, chaired by the president of ENARGAS, who will procure the means to allocate the volumes in the emergency situation.

On June 6, 2017 ENARGAS Resolution No 4.502/17 was issued which approved the Procedure for the administration of the office in the Emergency Executive Committee (“EEC”), modifying the procedure for the delivery request and gas confirmations which were approved by ENARGAS Resolution No. 3,833/16 and provided for measures and criteria to be adopted in a supply crisis of the Priority Demand for Natural Gas declared by the Transportation Companies, Distribution Companies or the ENARGAS.

Among such measures, it was provided that the EEC or (if the EEC disagrees to it) the ENARGAS, will define the way in which the Priority Demand will be supplied considering the quantities of natural gas available in each basin for each producer and discounting the amounts contracted to supply the Priority Demand.

On June 29, 2018, ENARGAS Resolution No. 124/2018 was published in the Official Gazette which (i) approves the restated text of the internal regulation of dispatch centers applicable as of June 30, 2018; (ii) derogates ENARGAS Resolutions No. I-1410/10, I-3833/16 and I-4502/17; (iii) acknowledges that ENARGAS has no observations to the reprogramming proposal made by the Transporter if there are no statements to the contrary within one hour of the request; and (iv) establishes that during this winter the Transitory Procedure for Dispatch Management in the Emergency Executive Committee shall be applicable.

On October 18, 2018, Resolution ENARGAS No. 302/18 was published which, considering that the gas supply contracts for the Priority Demand between Producers and Distribution Licensees had not been formalized, provides for the extension of the validity of Resolution ENARGAS N ° 59/18 for 180 calendar days from October 1, 2018.

On April 16, 2019, Resolution ENARGAS No. 215/2019 was published, which extends the validity of Resolution ENARGAS No. 59/18 for another 180 calendar days from the expiration of the term stipulated in Resolution ENARGAS No. 302 / 2018, considering that the reasons that motivated its dictation are maintained.

On October 21, 2019, the ENARGAS Resolution No. 656/2019 was published in the Official Gazette, which extends the validity of the ENARGAS Resolution No. 59/18 until April 30, 2020 (inclusive).

Under the energy sector normalization process, the MINEM called on natural gas producers (including YPF) and ENARSA to establish the basic conditions of those supply agreements to be executed to the distribution of Natural Gas through Networks as of January 1, 2018.

The MINEM stated that before the end of the extension period established in Law No. 27,200 regarding the public emergency that began in 2002, Law No. 24,076 regained effectiveness as it sets forth that the price of natural gas supply agreements will be that determined by the supply and demand free interaction.

In this sense, on November 29, 2017, natural gas producers (among them, YPF) and ENARSA, at the request of the MINEM, subscribed the “Terms and Conditions for the Provision of Natural Gas to Gas Distributors through Networks (the “Terms and Conditions”).

The Terms and Conditions establish the basic guidelines to assure the adequate supply of natural gas to the Distributors, and consequently to residential and commercial final consumers. Moreover, they establish the continuity of the gradual and progressive path of reduction of subsidies, all within the framework of the process of normalization of the natural gas market, which occurs within the period of validity of such Terms and Conditions until December 31, 2019 considered as the “transition period” until the normalization indicated above.

The guidelines established in the Terms and Conditions include, among others, the recognition of the right to transfer to the gas tariff the cost of gas acquisition paid by users and consumers; establishes the available volumes that each producer and each basin must make available daily to the distributors for each month, who may express their lack of interest before a certain date set forth in the Terms and Conditions; establishes penalties for non-compliance for any of the parties regarding their obligation to deliver or take gas; establishes gas prices for each basin for the next two years, in U.S. dollars, the parties being able to set prices lower than those established under the applicable free negotiations; establishes payment guidelines for the purchases made by the Distributors to producers; ENARSA assumes the obligation to supply the demand corresponding to areas reached by the subsidies of residential gas consumption contemplated in article 75 of Law No. 25,565 (corresponding to the areas of lower price of residential gas charged to users and consumers), during the period of Transition.

The Terms and Conditions constitute the terms and conditions to consider in the negotiations of their respective individual agreements, without this being construed as an obligation. Additionally, the Terms and Conditions establish guidelines for early termination in the event of non-compliance by the parties. YPF fulfilled its commitment to sign supply agreements, according to the Terms and Conditions.

As a consequence of certain macroeconomic variables, natural gas producers (including YPF) and distributors entered into a renegotiation process of the individual supply agreements entered into pursuant to the Terms and Conditions to address two main issues: (i) payment by distributors of debts arising from exchange rate differences (which resulted from the U.S. Dollars-Argentine Peso exchange rate used by distributors for natural gas volume prices payment (the exchange rate considered in natural gas tariffs) vs. the exchange rate that should have been considered as per the supply agreements, for April through September 2018 period) (“ER Debt”) and (ii) natural gas prices for the October-December 2018 period.

SGE Resolution No 20/2018 published on October 5, 2018 established that in relation to differences between the price of gas provided in the contracts and the price of gas recognized in the final tariffs of distribution companies, valued for the quantity of gas purchased from April 1 to September 30, 2018, ENARGAS would instruct distribution companies to recover the credit in favor of producers on a separate line in the invoice to be issued to its users, in 24 installments starting on January 1, 2019.

On October 16, 2018 the SGE issued Resolution No. 41/2018 which abrogated Resolution No. 20/2018 which attempted to establish an extraordinary and transitory mechanism to resolve the ER Debt by passing through such exchange rate difference into natural gas tariffs to be paid by final consumers.

On November 16, 2018, the Argentine Government published Decree No. 1053/18 in the Official Gazette, through which it assumed the payment of the daily differences accumulated on a monthly basis between the price of gas purchased by distributors and the price of natural gas included in tariff schemes effective from April 1, 2018 to March 31, 2019, exclusively generated due to exchange rate variations and corresponding to the natural gas volumes delivered in that same period. The conditions are as follows:

- Payment shall be made in 30 consecutive monthly installments beginning on October 1, 2019, at an interest rate determined using the *Banco de la Nación Argentina* effective interest rate for 30 day deposits in pesos. However, the payment of the first installment was in December 2019.
- Installments will be paid to distributors, and distributors will immediately pay natural gas producers.
- Distributors and natural gas producers should adhere to this regime and waive any claims relating to this matter.

In addition, Decree No. 1053/18 established that from April 2019 onwards future gas supply agreements between distributors and natural gas producers shall determine that in no event will additional costs generated as exchange rate differences for each season be passed through to final consumers. It also empowered ENARGAS to further regulate the abovementioned conditions.

On February 12, 2019, Resolution ENARGAS N° 72/2019 was published in the Official Gazette, which approved the methodology for gas transfer pricing and the general procedures for the calculation of the accumulated daily differences, which will be in effect as of April 1, 2019. Such resolution sets forth, among other things, with regards to transfer pricing for gas agreed in dollars, that ENARGAS will determine the type of exchange rate to be used in the conversion to pesos based on the BNA (Divisas) average seller exchange rate observed between the first and the fifteenth day of the month immediately preceding each seasonal period, or the exchange rates contained in the contracts when they contemplate lower rates. Regarding volumes of gas subject to export which are not covered by specific agreements, the provisions of Section 9.4.2.6 of the Basic Regulations of the Distribution License and Decree No. 1020/95 will apply as long as the necessary information for purposes of the applicable calculations is available.

On August 20, 2019, Resolution ENARGAS No. 466/2019 was published in the Official Gazette, which (i) approved the methodology for the determination of the net amount of the accumulated daily differences referred to in Article 7 of Decree No. 1053/2018; (ii) approved the template for soliciting the corresponding accession setting a deadline for its submission until September 15, 2019; (iii) established that, together with the application for accession, natural gas distributors and their suppliers shall submit and disclose before ENARGAS the instruments by which their commercial relationship is restructured pursuant to the terms set forth in Decree No. 1053/2018; (iv) stated that partial and/or conditional accession applications will not be accepted, and that distributors, once they have received the corresponding share from the National State for each corresponding month, shall use the entire amount received to make payments to the natural gas suppliers who have joined the Regime, within a maximum period of 5 days. The Resolution established as a general principle that the Gas Price Transfer Methodology and the General Procedure for Calculating Accumulated Daily Differences approved by Resolution ENARGAS No. 72/2019 shall be applied.

By means of Resolution ENARGAS No. 554/2019, which was published in the Official Gazette on September 16, 2019, the term to adhere to the regime established in Article 7 of Decree 1053/2018 was deferred until October 15, 2019. Subsequently, Resolution ENARGAS No. 636/2019, published on October 11, 2019, further deferred until October 25, 2019 the term to adhere to the regime established in Article 7 of Decree 1053/2018 and determined that the failure to submit the instruments by which the parties will restructure their commercial relationship under the terms of Decree No. 1053/2018, will not be deemed as an impairment to adhering to the aforementioned regime.

On October 25, 2019, YPF submitted the Application to Adhere to the regime established in article 7 of Decree No. 1053/2018 and regulated by ENARGAS Resolution No. 466/2019, which implies accepting such regime unconditionally and waiving all kind of administrative, arbitration or judicial claims against the Argentine Government, and therefore, the appeal filed by YPF against ENARGAS Resolution No. 466/2019 was automatically withdrawn. On November 14, 2019, the ENARGAS Resolution No. 735/2019 was published in the Official Gazette, which approved the net amount in pesos corresponding to the accumulated daily differences by exchange rate under the terms of Article 7 of Decree No. 1053 / 2018.

On February 11, 2019, Resolution SGE No. 32/19 was published in the Official Gazette, which approved the price tender mechanism for the provision of natural gas in firm condition to satisfy the demand of full service users of the public service of natural gas distribution provided by the distributors for the days of February 14, 2019 (for the Neuquina, Golfo San Jorge, Santa Cruz Sur and Tierra del Fuego basins) and February 15, 2019 (for the Northwest Basin).

Resolution SGE No. 32/2019 also approved the applicable offer template and instructed *Mercado Electrónico de Gas Sociedad Anónima* (“MEGSA”) to issue the complementary regulations it considers necessary for the organization and implementation of the approved price tender mechanism.

The price tenders were carried out within the scope of MEGSA on the dates already mentioned and, based on the results obtained, YPF proceeded to implement the contracts for the volumes awarded in relation to the participating natural gas distribution licensees corresponding to the period from April 2019 to March 2020.

On June 24, 2019, SGE Resolution No. 336/2019 was published in the Official Gazette, establishing a payment deferral for residential users of natural gas and networks-undiluted propane of 22% on invoices issued as of July 1, 2019 and until October 31, 2019, to be recovered from the regular invoices issued as of December 1, 2019 and for 5 equal and consecutive monthly periods. The financial cost of the deferral will be borne by the National State as a subsidy, through the payment of interest to distributors, sub-distributors, transporters and producers, in accordance with a methodology to be determined from time to time and with the corresponding prior controls, applying

for this purpose the rate for fixed-terms deposits in the amount of twenty million pesos or more for terms of 30 or 35 days, called TM20, published by the BNA. On July 3, 2019, Resolution ENARGAS No. 359/2019 was published in the Official Gazette, instructing the Natural Gas Public Distribution Service Licensees to apply the deferral approved by Resolution SGE No. 336/2019.

On August 23, 2019, the Resolution SGE 488/2019 was published in the Official Gazette which: i) approves the methodology for deferral of payment of residential consumption of natural gas and networks-undiluted propane in invoices issued as of July 1, 2019 and until October 31, 2019, established in Resolution No. 336 and the payment of interest; and ii) instructs the SSHC ("*Subsecretaría de Hidrocarburos y Combustibles*") to administer, execute and implement under its orbit the compensation procedure established and requires the ENARGAS to submit to the SSHC the reports required in the approved methodology.

On September 4, 2019, Resolution SGE 521/2019 was published in the Official Gazette, which established, among its most relevant aspects: i) the deferral of the semi-annual adjustment of the margins on natural gas transportation and distribution, scheduled as from October 1, 2019, to January 1, 2020; ii) to compensate the licensees of the natural gas transportation and distribution service by reviewing and adjusting -in their exact incidence- the mandatory investments under their charge; iii) to include the tariffs of networks-undiluted propane in the deferral, which shall be compensated, in the case of distribution licensees, through the adjustment of the mandatory investments, and in the case of sub-distributors, the compensation shall be recognized to propane suppliers as a bonus to be borne by the National State; iv) to defer the tariff adjustment due to the variation of the gas price in the PIST scheduled with effect from October 1, 2019, for January 1, 2020.

On November 25, 2019, Resolution SGE No. 751/2019 was published in the Official Gazette, which replaces Article 1 of Resolution SGE No. 521/2019, and establishes "To defer the semi-annual adjustment of the transportation and distribution margins scheduled as of October 1, 2019 for February 1, 2020, using, at that time, the corresponding adjustment index to reflect the price variation between the months of February and August 2019.

Subsequently, on December 5, 2019, the SGE Resolution No. 791/2019 was published in the Official Gazette, which modifies Article 5 of the SGE Resolution No. 521/2019, establishing the deferral of the adjustment for variation of the gas price in the PIST planned with effect from October 1, 2019 to February 1, 2020.

On December 23, 2019, the Social Solidarity Law, within the Public Emergency framework, was published in the Official Gazette, which, among its most relevant aspects, in its Article 5 empowers the PEN to "maintain" natural gas tariffs under federal jurisdiction, renegotiate the integral tariff revision (RTI) or initiate an extraordinary revision in accordance with Laws No. 24.065 and No. 24.076 for a term of maximum 180 days from the date the law is passed, offering a reduction of the real tariff burden on domestic, commercial and industrial consumers for the year 2020.

Compressed Natural Gas

Resolution No. 752/05 by the former Argentine Secretariat of Energy in May 2005 established among other things: (i) a special market, open and anonymous, for compressed natural gas stations to purchase natural gas under regulated commercial conditions, with the demand being ensured by the former Argentine Secretariat of Energy through Permanent Additional Supply required of exporting producers, and (ii) a mechanism of standardized irrevocable offers for electric power generators and industrial and commercial consumers to obtain supply of natural gas, with the demand being ensured by the former Argentine Secretariat of Energy through the issuance of the Permanent Additional Supply mentioned above. See "Natural gas export administration and domestic supply priorities"

On August 27, 2012, Resolution No. 1,445/2012 of the Secretariat of Energy was published in the Official Gazette, according to considerations set by Decree No. 1,277/2012, which modified gas prices at the wellhead for compressed natural gas (CNG) which represents an increase of approximately 369% of the prices realized by the Company for such segment product.

On April 4, 2014, Resolution S.E. No. 226/2014 of the former Argentine Secretariat of Energy was published in the Official Gazette. Under this resolution, the Secretariat of Energy set new prices for residential, commercial consumers and compressed natural gas consumers.

On November 17, 2014, Resolution No. 231/2014 of the Commission was published in the Official Gazette. Under this resolution, the price of compressed natural gas in service stations will be raised by the same percentage as the weighted average price within Argentina, excluding taxes, of "super" quality gasoline over 93 octanes or of any product that replaces it in the future as provided for under the resolution.

Liquefied Natural Gas Exports

On December 5, 2019, the SSHC Provision No. 329/2019 was published in the Official Gazette through which the LNG was included in the list of products which require prior registration of operations before export, pursuant to Resolution No. 241/2019. In order to obtain the registration and authorization to export, LNG exporters must verify before the former Ministry of Energy that they have granted the possibility of acquiring such product to potential domestic market agents who might be interested in purchasing the LNG.

The provisions of Law No. 27,541 of the Social Solidarity Law in the Framework of Public Emergency, which in its article 52 set the duties corresponding to the export of hydrocarbons.

Natural Gas Stimulus Programs

Commission Resolution No. 1/2013

On February 14, 2013, Resolution No. 1/2013 of the Commission was published in the Official Gazette. This resolution creates the “Natural Gas Additional Injection Stimulus Program.” Under this regulation, gas producing companies were invited to file with the Commission before June 30, 2013 projects to increase natural gas injection, in order to receive a compensation up to U.S.\$7.50 per mmBtu for all additional natural gas injected. These projects shall comply with minimum requirements established in Resolution No. 1/2013 and will be subject to consideration approval by the Commission, including a maximum term of five years, renewable at the request of the beneficiary, upon decision of the Commission. If the beneficiary company in a given month does not reach the committed production increase it will have to make up for such volumes not produced. In addition, the Commission may withdraw a previously approved proposal to increase the total injection of natural gas if some of the following events occur: (i) any omission, inaccuracy or distortion of information provided by a company participating in a project or during its execution; (ii) breach of the obligations set forth in Decree No. 1,277/2012 and its regulations or supplementary acts; (iii) breach by a company of its obligations under the program after notice of not less than 15 business days; (iv) if the import price is equal to or lower than the price of the additional natural gas injected for at least 180 days or (v) if the value of a company’s supply contracts or invoices used in the monthly calculation corresponding to each month covered by the program had weighted average price decreases or unjustified amounts. On May 23, 2013, the Commission approved the project submitted by YPF. A similar program was created under Resolution No. 60/2013 of the Commission, as amended by Resolution No. 83/2013 of the Commission for gas producers that failed to file their natural gas additional injection program filings before the expiration date established by Resolution No. 1/2013 of the Commission. The compensation to be received under this new program varies from U.S.\$ 4.00 per mmBtu to U.S.\$ 7.50 per mmBtu, depending on the production curve reached by the applicable company. Additionally, a third stimulus program entered into effect under Commission Resolution No. 185/2015 for companies without any prior gas production in Argentina at the time of issuance of the resolution. Similar to the Gas Plan, companies with an approved program under this new resolution will receive compensation for the difference between the price obtained in the market for the sale of all their gas production and U.S.\$ 7.50 per mmBtu. The gas production subject to such compensation only applies to the production from areas acquired by companies with approved programs under either Resolution No. 1/2013 or Resolution No. 60/2013, as long as such production was computed under these programs as “increased injection” as opposed to “base injection”.

On May 18, 2016, MINEM Resolution No. 74/2016 created the “Natural Gas New Projects Stimulus Program” in order to foster natural gas production for companies submitting new natural gas projects that are not beneficiaries of the “Natural Gas Additional Injection Stimulus Program” or the “Natural Gas Injection Stimulus for Companies with Reduced Injection” created by Resolutions No. 1/2013 and 60/2013, respectively, of the former Commission. The submission of new projects, which must be approved by the Secretariat of Hydrocarbon Resources, may obtain a stimulus price of U.S.\$ 7.50/mmBtu.

Moreover, the “Natural Gas Injection Stimulus for Companies without Injection”, created by Resolution No. 185/2015 of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan has been abolished, but any projects submitted under such program which are pending approval must be evaluated under the “Natural Gas New Projects Program”.

The “Natural Gas New Projects Program” will be effective from the date of the publication of the resolution in the Argentine Official Gazette (May 18, 2016) until December 31, 2018. The requirements to be considered a new natural gas project are as follows: it must (i) come from an exploitation concession granted as a result of a discovery reported after the effective date of Resolution No. 1/2013 of the former Commission; (ii) come from an exploitation concession of areas classified as “Tight Gas” or “Shale Gas”; or (iii) belong to companies without natural gas injection registers which acquire an interest in areas belonging to companies registered in the “Natural Gas Additional Injection Stimulus Program” or the “Natural Gas Injection Stimulus for Companies with Reduced Injection” created by

Resolutions No. 1/2013 and 60/2013, respectively, of the former Commission, but for which total injection coming from the areas in question, including the acquired areas, would have been zero during the period in which the selling company would have calculated its base injection.

Following this Resolution, no new projects may be submitted under the natural gas production incentive Program known as “Gas Plus”, created by Resolution No. 24/2008 of the former Energy Secretariat of the former Ministry of Federal Planning, Public Investment and Services, as amended. Notwithstanding the foregoing, any projects approved under said Program would remain in full force according to the terms of their respective approvals.

On May 20, 2016, Decree No. 704/2016 was published, whereby the pending debt which were in Peso terms for the natural gas stimulus programs debt was cancelled in Argentine National Bonds nominated in U.S. dollars and at an interest rate of 8% per annum maturing in 2020 (“BONAR 2020 USD”).

Accordingly, on July 13, 2016, the Group received, under the Natural Gas Additional Injection Stimulus Program, BONAR 2020 USD, with a face value of U.S.\$ 630 million.

In addition, on September 21, 2016, under the Supply of Propane Gas for Undiluted Propane Gas Distribution Networks Agreement, the Group received BONAR 2020 USD, with a face value of U.S.\$ 12 million.

MINEM Resolution No. 97/2018

On April 3, 2018, the MINEM Resolution No. 97/2018 was published in the Official Gazette that approves the procedure for cancelation of the pending compensations for settlement and/or payment in the context of the “Natural Gas Surplus Additional Injection Stimulus Program”, the “Natural Gas Surplus Injection Stimulus Program for Companies with Reduced Injection” and the “Natural Gas New Projects Program” to which beneficiary companies may adhere (the “Procedure”).

Gas producing companies are invited to join the Procedure by filing a form during 20 business days following the publication in the Official Gazette of the Resolution.

Each company may opt to receive compensations under the approved Procedure by demonstrating its accession within 20 business days of publication of the Resolution. It is required to waive all rights, actions, appeals and claims, administrative and/or judicial, based on the Procedure, except for: (i) challenge of the administrative acts that determine compensations that correspond according to the Procedure; and (ii) failure to make the payments provided under the Procedure for a minimum amount of three installments, at the discretion of each beneficiary company.

The amount of the compensation is determined in the following way: 85% of the amount in dollars calculated according to the exchange rate at the moment of the injection (“Program Exchange Rate”) and 15% of the amount in dollars multiplied by the quotient of the Program Exchange Rate and the exchange rate corresponding to the payment dates of the compensation resolutions that have already been issued or the date of publication of Resolution No. 97/2018, as the case may be. The debt will begin to be repaid on January 2019 in 30 monthly and consecutive installments, in pesos at the exchange rate of Communication “A” 3,500 Wholesale of the BCRA monthly average of the month preceding each installment.

On May 3, 2018, YPF adhered to the repayment Procedure.

On December 4, 2018, Law No. 27,467 which approved the 2019 Budget of the National Administration was published in the Official Gazette, which includes in its Article 55 the authorization for the issuance of public debt instruments for up to U.S.\$ 1.6 billion for the cancellation of the 2017 compensations of Plan Gas I (according to Resolution No. 97 of March 28, 2018 of the Ministry of Energy).

On February 21, 2019, Resolution SGE 54/2019, which partially modified Resolution 97/2018, was published in the Official Gazette, in order to conform Resolution 97/2018 to the payment mechanism set forth in article 55 of Law No. 27,467. It provides, among other things, that in order to request payment in accordance with such mechanism, the beneficiary must provide its consent (within ten of receiving notice) to waive all rights, actions or claims in relation to such programs, the administrative compensation acts and payment orders which they may have issued prior to such date.

On February 28, 2019, Resolution No 21/19 from the Ministry of Finance was published in the Official Gazette which established the issuance on February 27, 2019, of the Natural Gas Program Bonds, with an aggregate nominal value of up to U.S.\$ 1.6 billion, maturity on June 28, 2021, and amortization in 29 consecutive monthly installments. The Natural Gas Program Bonds do not accrue interest.

Also on February 28, 2019, YPF received notice from the SGE informing it that, in accordance with the framework of Resolution No. 97/2018, YPF was entitled to an aggregate compensation of U.S.\$758 million.

On March 1, 2019, the Company presented its consent letter to the SGE in the terms provided under the SGE Resolution No. 54/19.

As of the date of this annual report we have received the payment of 14 installments.

MINEM Resolution No. 46/2017

On March 6, 2017, the MINEM Resolution No. 46-E/2017 was published in the Official Gazette, which approved the “Investment in Natural Gas Production from Non-Conventional Reservoirs Stimulus Program”. The program was established in order to stimulate the investments in natural gas from non-conventional reservoirs in the Neuquina basin and will be in effect until December 31, 2021.

Resolution No. 46/2017 establishes compensation for the volume of non-conventional gas production from concessions located in the Neuquina basin included in the program. To be included in the program, the concessions must have a specific investment plan approved by the province’s application authority and the Secretariat of Hydrocarbon Resources.

The compensation will be determined by deducting from the effective sales price obtained from sales to the internal market, including conventional and non-conventional natural gas, the minimum sales prices established by Resolution No. 46/2017 each year, multiplied by the volumes of production of non-conventional gas. The minimum prices established by Resolution No. 46/2017 are U.S.\$ 7.50 per mmBtu for 2018, U.S.\$ 7.00 per mmBtu for 2019, U.S.\$ 6.50 per mmBtu for 2020 and U.S.\$ 6.00 per mmBtu for 2021.

Compensation from the program shall be paid, for each concession included in the program, 88% to the companies and 12% to the province corresponding to each concession included in the program.

On November 2, 2017, Resolution MINEM 419-E/2017 was published and its Annex replaces the similar Annex of Resolution 46-E/2017. The new resolution modifies the previous one in the following aspects:

- a) It defines that the Initial Production to be computed will be the “monthly mean Non-Conventional Gas production assessed for the period between July 2016 and June 2017”. Additionally, it states that the Production Included, to the effect of the compensation, shall be i) for the concessions with Initial Production lower than 500,000 cm/d, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting company is entitled, and ii) for the concessions with Initial Production higher than 500,000 cm/d, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting party is entitled, discounting the Initial Production.
- b) It modifies the definition of Effective Price, previously defined as “the average price weighted by volume of total natural gas sales of each company in the domestic market”, to “the average price weighted by volume of total natural gas sales in the Argentine Republic that will be published by the Secretariat of Hydrocarbon Resources”, regulating the guidelines to be followed for such calculation.
- c) A requirement to qualify for the Program is included, that is, that the investment plan submitted for each concession reaches a yearly mean production, in any consecutive period of twelve months before December 31, 2019, equal to or higher than 500,000 cm/d, and the obligation to reimburse the amounts of the compensation received (updated to reflect interest) corresponding to the concessions that do not reach the above mentioned production level, with the possibility that the Secretariat of Hydrocarbon Resources may require filing a surety bond to guarantee the eventual reimbursement of the compensations received by the participating companies, and retaining the power to suspend payments if such bond is not submitted.

On November 17, 2017, Resolution MINEM No. 447-E/2017 which extends the Stimulus Program to the non-conventional gas production from the Austral Basin was published. The only difference with respect to the Program applicable to the Neuquina Basin is that this resolution allows the Hydrocarbon Secretary to determine special technical conditions (such as initial production flow) that the production must meet in order to be considered “non-conventional gas” and thus be suitable for the program.

On January 23, 2018, MINEM Resolution No. 12-E/2018, which modified Resolution No. 46-E/2017, was published in the Official Gazette. Said Resolution entails the following:

- i. Makes the incentives applicable to the adjacent concessions that are operated in a unified manner and comply with the following requirements: have a common investment plan; be operated in joint manner using, substantially, the same surface installations; in case of co-ownership, there shall be the same participation percentages in all concessions and every transfer of participation is performed in a joint and simultaneous manner by all participants.
- ii. Adjusts the payment date of the first compensation under the Program and, correspondingly, performs the following revisions related to initial provisional payment, establishing that for requests presented until January 31, 2018, such date shall be the respective date in January 2018, and for requests presented after January 31, 2018, such date shall be the respective date in the month in which the request for inclusion in the Program was presented.

On December 4, 2018, Law No. 27,467 corresponding to the Budget of the National Administration for the year 2019, established in its section 58 the creation of a guarantee trust for contingent liabilities of the Gas Plan IV (“Stimulus Program for Investments in Natural Gas Production Developments from Non-Conventional Reservoirs” created by Resolution No. 46 dated March 2, 2017 issued by the former MINEM) in order to guarantee up to 30% of the obligations that may arise under such program after January 1, 2019.

In connection with Fernández Oro Concession, the Secretariat of Energy issued resolutions authorizing the payment to YPF of Definitive Compensations for the first quarter of 2018 and Provisional Compensations for the third quarter of 2018, whose amounts were determined considering as a limit the estimation of the Included Production YPF initially reported. Recently, YPF has administratively challenged these resolutions, understanding that the amount of the Compensations must be determined on the basis of the production actually produced each month in the Concession, without applying any limit.

In relation to the Fernández Oro Station Concession, on February 6, 2019, the Company filed reconsideration appeals against SGE Resolutions No. 356, 369, 370 and 371/2018 that authorized the payment to the Company of definitive compensation for the first quarter 2018 and provisional for the third quarter 2018, determining the amount of said compensation based on the volume of Included Production declared by the Company in an opportunity to adhere to the Program for the aforementioned concession, without considering the effective volume of Included Production recorded in the first quarter of 2018 and the update of the Included Production estimate presented by the Company in October 2018 in relation to the third quarter of 2018.

For the same reasons as above, on December 27, 2019, the Company filed reconsideration appeals against SGE Resolutions No. 608 (April 2018), 620 (payment adjustment for the months of August and September 2018) and 712/2019 (July 2019), requesting that the resources be made and the economic compensation to be paid based on the volumes requested by YPF be calculated.

Regarding the Aguada Pichana Este Concession, on October 9 and 10, the SGE Resolutions No. 345 (contemplative of the period from October 2018 to January 2019, but only contested for the month of January 2019) were challenged, 360 (February 2019), 366 (March 2019), 361 (April 2019) and 522/2019 (May 2019), for having arranged the payment of provisional compensations to YPF considering as a cap the volume of production included declared in opportunity of adhering to the Program. Also, on December 27, 2019, Resolution No. 722/2019 (July 2019) was challenged, because the compensation was calculated based on the production included initially declared by YPF at the time of joining the program.

Regarding the Aguada Pichana Oeste - Aguada de Castro Concession, on October 9, 2019, the SGE Resolutions No. 342 (November/December 2018), 351 (January 2019), 352 (February 2019), 350 (March 2019) and 353/2019 (April 2019), for having arranged the payment of provisional compensations to YPF considering as a cap the volume of production included declared in opportunity to join the Program.

Regarding the La Ribera I and II Concession, on October 10, SGE Resolutions No. 390 (April 2019), 497 (May 2019) and 516/2019 (June 2019) were challenged, for having arranged the payment of provisional compensations to YPF considering as a cap the volume of production included declared in opportunity to adhere to the Program. Likewise, on December 27, Resolution No. 711/2019 (July 2019)

was challenged, because the compensation was calculated based on the production included initially declared by YPF at the time of joining the program.

On August 22, 2019, YPF requested the Under-Secretariat of Energy, Mining and Hydrocarbons of Neuquén the readjustment of the Investment Plan corresponding to La Ribera I and II concession for the second semester of 2018 and the first semester of 2019, requiring that the six-month investment verifications for the second semester of 2018 and the first semester of 2019 should be conducted in compliance with the readjustment of the proposed Investment Plan. YPF justified the readjustment request based on the interruption of activities imposed within the framework of the judicial investigation with respect to an incident occurred on July 10, 2018, as well as on the change in circumstances faced by the Argentine natural gas market.

Subsequently, by filings made on November 8 and November 28, 2019, YPF fulfilled certain reporting requirements notified by the Under-Secretariat of Energy, Mining and Hydrocarbons of Neuquén and requested that the proposed readjustment of the Investment Plan be approved until the month of December 2019.

On January 14, 2020, the Under-Secretariat of Energy, Mining and Hydrocarbons of Neuquén requested of YPF that, given the current political and economic situation at country level, the readjustment proposal should be submitted on a comprehensive basis for the whole period covered by the Plan (2018-2021). As of the date of this annual report, due to the suspension of procedural deadlines related to the pandemic Covid-19, the deadline for answering the abovementioned requirement has not expired.

As of the date of this annual report, YPF subscribed to the Program for its participation in the concessions known as Aguada Pichana Este, Aguada Pichana Oeste-Aguada de Castro, Estación Fernández Oro and La Ribera I and II.

Natural Gas Underground Storage

On November 8, 2019 the Natural Gas Underground Storage Regulation was published in the Official Gazette by ENARGAS Resolution No. 722/2019. This Regulation sets forth the conditions, procedures and requirements to be fulfilled by private legal entities who wish to act as gas storage operators, together with the requirements for the registration of the corresponding gas storage facilities, thus creating the Natural Gas Storage Registry, in which said gas storage operators and gas storage facilities shall be registered.

Natural Gas Quality

On December 12, 2019 the quality of natural gas for transportation and distribution specifications was published in the Official Gazette by ENARGAS Resolution No. 819/2019, which approved NAG (Norma Argentina Gas) Rule No. 602 (2019) and derogated ENARGAS Resolution No. 259/2008.

Bid for New Transportation License

On July 10, 2019 Decree No. 465/2019 was published in the Official Gazette which instructs SGE to call for a national and international bid in order to grant a new license for transportation services of natural gas to connect Neuquén (nearby Trateyen) with Salliquelo in the Province of Buenos Aires. The new transportation license to be granted should provide for a new regime for a period of 17 years in which the following rules shall apply: (i) the remuneration for transportation companies and the adjustments shall be freely agreed by the parties without discrimination; (ii) the values agreed upon negotiation should not be transferred to residential users; (iii) the bid shall set for the partial assignment of the transportation capacity directly and the remaining capacity shall be granted through an open process in order to assure non-discrimination access.

Through SGE Resolution No 437/2019 published in the Official Gazette on July 30, 2019, the SGE called for the national and international bid in order to grant a new license for transportation services of natural gas to connect Neuquén (nearby Trateyen) to Salliquelo in the Province of Buenos Aires and approved the terms and conditions of the bidding process. It also established September 12, 2019 as the date for the bid openings, which date was later extended to March 31, 2020.

Tariffs

On April 4, 2014, Resolution S.E. No. 226/2014 of the former Argentine Secretariat of Energy was published in the Official Gazette. Under this resolution, the Secretariat of Energy set new prices for residential, commercial consumers and compressed natural gas consumers. Residential and commercial consumers that achieve certain consumption savings compared to prior years will be: (i) excluded from the price increase or (ii) subject to a lower price increase. Industrial users and power generation plants are excluded from the price increase. Consumers served by distributor Camuzzi Gas del Sur S.A., which is not an affiliate of YPF, or its sub-distributors, are excluded.

After public hearings with respect to the tariff review were held on September 16, 17 and 18, 2016, MINEM issued Resolution No. 212/2016 on October 7, 2016 that set forth new TSEP prices for natural gas and new natural gas tariff schedules for users who purchase gas from distributors.

Resolution No. 212/2016 instructs the Secretariat of Hydrocarbons to, until TSEP gas prices are established by the free interaction of supply and demand, submit to the MINEM for its approval a proposal of natural gas TSEP prices corresponding to each half-year period, starting April 1 and October 1 of each year, based on the values contemplated in the subsidy reduction scheme, adjusting the target price for each half-year period, as per the market conditions at the time of elaboration of the proposed prices. Such a proposal shall be submitted 30 days in advance at the beginning of each half-year period and shall be submitted with a report containing the basis of the adjustments or modifications proposed.

Resolution No. 212/2016 also instructs ENARGAS to provide for any such measures as required so that the final amount, including taxes of bills issued by distributors of utility gas through networks across the country, that users are required to pay based on consumptions after the effective date of the TSEP gas prices established in this resolution, does not exceed maximum amounts equivalent to the percentages below, considered as incremental percentages over the total amount, including taxes, of the bill issued to the same user for the same billing period in the previous year:

- Users R1-R23: 300%;
- Users R31-R33: 350%;
- Users R34: 400%; and
- Users SGP: 500%.

It further sets forth that the increase limits established above on the final invoice amounts shall apply, provided that the total amount of the bill exceeds the amount of Ps. 250.

On such same date, ENARGAS published Resolutions No. 4,044/2016, 4,045/2016, 4,046/2016, 4,047/2016, 4,048/2016, 4,049/2016, 4,050/2016, 4,051/2016, 4,052/2016, 4,053/2016 and 4054/2016, whereby it approved the tariff schedules for the users in the following license areas: Metrogas S.A., Gasnea S.A., Gas Natural Ban S.A., Camuzzi Gas Del Sur S.A., Camuzzi Gas Pampeana S.A., Distribuidora de Gas Cuyana S.A., Distribuidora de Gas del Centro S.A., Gasnor S.A., Litoral Gas S.A., Transportadora de Gas del Norte S.A. and Transportadora de Gas del Sur S.A.

On February 16, 2017, MINEM published Resolution No. 29-E/2017, through which it called a public hearing to be held on March 10, 2017 to consider new natural gas prices at TSEP that would be determined to apply to the half-year period commencing in April 2017. The hearing took place, and the final report by the Secretariat of Hydrocarbon Resources was issued to the MINEM; See – “New gas prices at the TSEP and Metrogas transition tariff schemes.”

Tariff renegotiation

Transitional Agreement 2017

On March 30, 2017, Metrogas executed a Transitional Agreement with the MINEM and the Ministry of Finance providing for the temporary adjustment of prices and tariffs for the Natural Gas Distribution Public Service, the specific impact of the amounts provided therein until the subscription of the Memorandum of Agreement for Comprehensive Contractual Renegotiation and the entry into force of the definitive tariff schemes resulting from the Comprehensive Tariff Review (the “CRT”). The 2017 Transitional Agreement is supplementary to the 2008 Transitional Agreement and amends the 2017 Transitional Agreement and the 2016 Transitional Agreement previously executed.

The 2017 Transitional Agreement, which is not subject to ratification by the PEN establishes a transitional tariff regime as of April 1, 2017, consisting of the readjustment of tariffs based on the guidelines necessary to maintain the continuity of the service for the purpose of allowing Metrogas to meet its operating and maintenance, administration and marketing expenses, those expenses corresponding to the execution of the mandatory investment plan determined by the ENARGAS and to comply with the respective payment obligations, maintaining its chain of payments for the purpose of ensuring the continuity of the regular provision of the public service under their charge until the entry into force of the tariff regime resulting from the Memorandum of Agreement for a Contractual Renegotiation.

Likewise, the 2017 Transitional Agreement provides for the transfer of the impact of changes in tax regulations pending resolution, and incorporates a Mandatory Investment Plan to which Metrogas is committed.

Lastly, Metrogas will not be authorized to distribute dividends without previously proving to ENARGAS the full compliance with the Mandatory Investment Plan.

On March 30, 2017, the MINEM instructed the ENARGAS, through Resolution No. 74 - E/2017, to put into effect the tariff schemes resulting from the CRT process.

In this regard, it set forth that for the gradual and progressive implementation of this measure, the ENARGAS should apply on a progressive basis, the rate increases resulting from the CRT as follows: 30% of the increase, from April 1, 2017, 40% of the increase, as of December 1, 2017, and the remaining 30%, as of April 1, 2018.

Moreover, and for cases in which the corresponding Memorandum of Agreement for a Contractual Renegotiation had not entered into force, it instructed the ENARGAS to apply to the Licensees (including Metrogas) a transitory tariff adjustment because of the CRT.

On March 31, 2017, ENARGAS Resolution No. 4,356/2017 was published in the Official Gazette through which the tariff schemes resulting from the Metrogas CRT, effective as of April 1, 2017 and the temporary tariff schemes applicable to Metrogas users were approved. Through differentiated tariffs, ENARGAS Resolution No. 4,356/2017 determined tariff schemes for residential users who recorded savings in their consumption equal to or greater than 15% with respect to the same period of 2015, as well as those that would apply to the beneficiaries of the "Social Tariff" (Resolutions No. 28/2016 of the MINEM and ENARGAS No. I-2,905/2014 and No. 3,784/2016) and the Entidades de Bien Público (Public Welfare Entities) (Law No. 27,218).

The tariff schemes corresponding to beneficiaries of the "Social Tariff" were rectified by ENARGAS Resolution No. 4,369 2017. The billing resulting from the application of the new transitory tariff schemes must respect the limits established in Article 10 of MINEM Resolution No. 212/2016, and therefore the criteria of ENARGAS Resolution No. I-4,044/2016 are maintained.

Likewise, ENARGAS Resolution No. 4,356/2017 overruled ENARGAS Resolutions No. I-2,407/12 and No. I-3,249/15 that enabled the collection of a fixed amount per invoice under the operation of the Fund for Gas Distribution Consolidation and Expansion Works ("FOCEGAS").

In addition, ENARGAS Resolution No. 4,356/2017 approved: (i) the technical economic studies of the Company's CTR, (ii) the non-automatic Semi-Annual Adjustment Methodology to become effective jointly with the License Readjustment Memorandum of Agreement and (iii) the Metrogas Investment Plan for the next five-year term.

On October 24, 2017, and through ENARGAS Resolution No. 74/2017, a public hearing was called for November 15, 2017 in order to consider the transitory tariff adjustment effective as of December 1, 2017, corresponding to Metrogas.

On December 1, 2017, the following were published in the Official Gazette: (i) ENARGAS Resolution No. 131/2017 that ordered (a) to declare the validity of the Public Hearing called by ENARGAS Resolution No. 74/2017, (b) approve Metrogas temporary tariff scheme applicable as of December 1, 2017; and (c) approve new values for the Rates and Charges received by Metrogas for Additional Services; and (ii) ENARGAS Resolution N° 132/2017 that provides for a bonus to be implemented by Metrogas in favor of certain users who (a) record savings in their consumption; or (b) are beneficiaries of the Social Tariff.

On January 31, 2018, ENARGAS Resolution No. 249/2018 was published in the Official Gazette, which called for a public hearing to be held on February 22, 2018 to consider (i) the application of the Semi-Annual Tariff Adjustment Methodology, if applicable, for the adjustment of Metrogas tariffs; (ii) the application of the transfer to tariffs of the price of the purchased gas; and (iii) methodological alternatives for a more predictable billing of residential users' consumption.

On March 27, 2018, a letter of intent was entered into with ENARGAS, producers, distributors and transporters of natural gas with the objective of committing efforts towards the development of a financing program of wintertime consumptions of natural gas between the signing parties.

On May 23, 2018, MINEM Resolution No. 218/2018 (previously regulated by ENARGAS by means of Resolution No. 86/2018) establishes the suspension of the application of the discount criteria for social tariff users according to Resolution No. 474/2017 for consumptions made during May and June 2018, while the social tariff regime pursuant to MINEM Resolution No. 28/2016 must apply for the invoicing of said consumptions, which establishes a discount of 100% of the consumed natural gas.

On June 12, 2018, ENARGAS Resolution No. 97/2018 that establishes the Financing Program of Wintertime Consumptions of Natural Gas (the “Program”) was published in the Official Gazette. Adherence to the program by beneficiary users is optional and voluntary. In accordance with the terms and conditions of the Program, residential and commercial consumers may finance the payment of 25% of the invoices issued between July 1 and October 31, 2018. The applicable interest rate shall be the private non-finance sector electronic channel rate of the BNA for placement at 30 days of the month prior to the month in which the invoice is issued. The accumulated financing and its interests are recovered as of the issuance of regular invoices from November 1, 2018, and for three consecutive periods for bimonthly clients and six consecutive periods for monthly clients. The financing involves each activity segment (gas, transport and distribution) and was exceptional for the winter of 2018.

As a consequence of the exchange rate variation, producers and distributors of natural gas initiated a renegotiation process with regard to the particular agreements signed under the Terms and Conditions, with prices denominated in U.S. dollars. This process has not yet terminated and includes two principal topics: (i) payment of debts generated due to the difference between the exchange rate at which the distributors made their payments and the exchange rate set forth contractually (period April – September 2018); and (ii) gas price to be applied for the period October – December 2018.

In terms of debts generated by the exchange rate differences, on November 18, 2018, by means of Decree No. 1053/18, the Argentine Government, as an exception, assumed responsibility for the payment of the daily differences accumulated monthly between the value of gas purchased by the distributors and the tariffs in force between April 1, 2018, and March 31, 2019. See “—Natural Gas.”

On August 13, 2018, ENARGAS Resolution No. 184/2018 was published in the Official Gazette, which called for a public hearing to be held on September 4, 2018 to consider (i) the application of the Semi-Annual Tariff Adjustment Methodology, for the adjustment of Metrogas Tariffs; (ii) the application of the transfer to tariffs of the price of the purchased gas and the consideration of the pass-through of the debt arising from cumulative daily differences; and (iii) the presentation of the Argentine Gas Subdistribution Institute.

On October 8, 2018, ENARGAS Resolution No. 281/2018 was published in the Official Gazette that (a) declare the validity of the Public Hearing called by ENARGAS Resolution No. 184/2018; (b) approve Metrogas temporary tariff scheme applicable as of October 8, 2018; (c) approve new values for the Rates and Charges received by Metrogas for Additional Services; (d) order Metrogas to implement the corresponding bonus to beneficiaries of the Social Tariff equivalent to 100% of the gas price on a block of consumption established by Resolution MINEM No. 474/2017. Gas consumptions over such block have to be fully paid; (e) limit to 50% the gas price increase for SGP 1 and SGP 2 Social Tariff consumers for consumptions made as from October 1, 2018; (f) order SGP 1 and SGP 2 Social Tariff consumers (small industries and retail stores) to register in the Company Registry established by Law No. 24,467 or being beneficiaries of Law No. 27,218 that established Public Welfare Entities regime; (g) SGP 1 and SGP 2 bonus shall be detailed in the invoice in a separate line as “Bonus Resolution N° 14/18”; and (h) GNC consumers shall be entitled to request distribution services only in case distribution companies have guaranteed the purchase of natural gas for twelve months and as from April 1, 2019 and shall inform distribution companies their natural gas needs 60 days in advance as from April 1, 2019.

On October 12, 2018, ENARGAS Resolution No. 292/2018 amended Metrogas tariff scheme and values for the Rates and Charges.

On March 29, 2019, the SGE Resolution No. 146/2019 was published, which modifies the discounts on the price of gas in the TSEP for Public Good Entities, setting them at 45% of the user P for the sub-zones not reached by the Subsidies for Residential Gas Consumption of Law 25,565 and 10% of residential users for the sub-zones reached by said subsidies.

On April 1, 2019, the SGE Resolution No. 148/2019 was published, which provides 27% and 12% discounts on the price of gas in the PIST for residential users in April and May respectively. In this sense, the resolution mentions that the bonus to residential users will have the corresponding reimbursement to the gas suppliers, in accordance with the methodology and with the controls prior to being arranged in due course. On May 30, 2019, the SGE Resolution No. 299/2019 was published, complementary to the previous one, which establishes that natural gas suppliers must issue the invoicing of the volume of gas delivered to the beneficiary users with gas price discounts arranged as a bonus and approves the applicable methodology for the declaration, verification, determination and payment of compensation to gas suppliers for the bonus applied to the price of gas in the TSEP.

Also, on April 1, 2019, Resolution ENARGAS No. 198/2019 was published, which declared the validity of Public Hearing No. 98 and approved the Metrogas Tariff Tables effective as of April 1, 2019 (winter period 2019).

On June 3, 2019, the SGE Resolution No. 312/2019 was published, which establishes that the surcharge provided for in article 75 of Law No. 25,565 and its amendments to the Trust Fund for Residential Consumer Subsidies of Natural Gas and Liquefied Gas, applicable for invoices issued from June 1, 2019, will be equivalent to 4.46% of the price of natural gas in the PIST for each cm of 9,300 kcal that enters

the pipeline system in the National Territory, corresponding to ENARGAS adjust the procedures for billing. The same percentage of surcharge will be applicable to the volumes involved in self-consumption.

On January 7, 2020, ENARGAS Resolution No. 838/2019 was published in the Official Gazette, amending Article 1 of the ENARGAS Resolution No. 750/2019, establishing that users within categories P1 and P2 (consumption of natural gas up to 9,000 cm per month) can only hire full service with the distribution companies of the corresponding area. Category P3 users (consumption of natural gas over 9,000 cm per month) are allowed to obtain natural gas from distribution companies, producers or the marketers. If they choose to hire the full service with the distribution companies, said consumers have time to do it two (2) months before each seasonal period and must stay for at least 12 months. This advance notice will not apply in the event that the distribution companies have the possibility of acquiring additional volumes of natural gas within the pre-existing contracts and at the pre-established prices.

Memorandum of Understanding for the Natural Gas Distribution License Contract (also known as “Memorandum of Understanding for the Comprehensive Contractual Renegotiation”)

On March 30, 2017, and within the framework of the renegotiation process of the public service contracts established by the Emergency Law, its extensions and Decrees No. 367/2016 and N° 2/2017, Metrogas subscribed with the MINEM and with the Ministry of Finance, a Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement (which contains the terms of the comprehensive renegotiation and conditions for the adjustment of the License Agreement. The Memorandum of Agreement is based on the 2008 Transitional Agreement, the 2014 Transitional Agreement, the 2016 Transitional Agreement and the 2017 Transitional Agreement.

The provisions contained in the Memorandum of Agreement, once it has entered into full force and effect after being ratified by the PEN, will be applied during the contractual period ranging from January 6, 2002 and the termination of the License Agreement.

A series of guidelines to be contemplated by the CRT process are established in the terms provided for therein.

The Metrogas tariff scheme resulting from the Integral Tariff Review according to the indicated guidelines will be applicable once all the procedures provided for the entry into force of the Memorandum of Agreement has been fulfilled. The CTR will become in full force and effect not later than December 31, 2017. In the event that ENARGAS provides for the phased and progressive application of the tariff increase resulting from the Comprehensive Tariff Review, the application of the last step may not exceed April 1, 2018.

As a condition prior to ratification, the Memorandum of Agreement for the Comprehensive Contractual Renegotiation provides for the suspension and withdrawal of all claims, appeals and complaints filed, pending or in the process of being executed, whether administrative, arbitral or judicial, in the Argentine Republic or abroad, which are founded or linked to the facts or provided measures, with respect to the License Agreement, as of the Emergency Law and/or in the annulment of the PPI Index (Producer Price Index of the United States of America). Moreover, the Memorandum of Agreement must be ratified by the Shareholders' Meeting of Metrogas, so that the PEN issues the Decree ratifying the terms of the Memorandum of Agreement. On April 27, 2017, the Shareholders' Meeting of Metrogas ratified the Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement.

Finally, the Memorandum of Agreement provides for the Company's commitment to make, during the effective term of the License, plus its potential ten-year extension and within the area of its License, additional sustainable investments equivalent to the amount of the award rendered in the arbitration proceedings in: “BG Group Plc. vs. The Argentine Republic (UNC 54 KGA)” with the proportional abatement percentage that would have been established in the payment agreement and excluding the amounts corresponding to the default interest on the payment of the award. The amount and the plan for additional investments will be determined by ENARGAS at the proposal of the Company and they will not be included in the rate base.

With respect to those Licensees whose Memorandum of Agreement had not entered into effect, ENARGAS was instructed to apply to them a temporary adjustment of tariffs on account of the CTR, taking into consideration, to such effects, the studies carried out under such CTR in compliance with the provisions set forth in Article 1 of MINEM Resolution No. 31/2016.

The Memorandum of Agreement is subject to the controls established by the Emergency Law in order for the PEN to issue the ratification Decree. On March 28, 2018 Decree No. 252/2018 was published in the Official Gazette by which the PEN ratified the Memorandum of Agreement. Additionally, Resolution ENARGAS No. 300/2018 was published on that day, with the new tariffs scheme applicable as from April 1, 2018.

On September 27, 2018, SGE Resolution No. 14/2018, applicable to invoicing of distributors as of October 1, 2018, was published, which, inter alia, (i) revokes the ceilings and discounts that were established in due time in MINEM Resolutions No. 212/2016 and No. 474/2017 and sets forth a new discount of 100% for social tariff users for the consumption block set forth in Annex II of MINEM Resolution No. 474/2017 and consumptions that exceed said block are paid at 100%; and (ii) established that the Fiduciary Fund for Residential Gas Consumption Subsidies (Section 75 of Law No. 25,565) shall be 2.96% on the gas price in the TSEP by cubic meter and established that the invoicing shall be adjusted to the procedures established by ENARGAS.

On October 8, 2018, Resolution ENARGAS No. 281/2018 was published in the Official Gazette, declaring valid Public Hearing No. 96 and approving the Metrogas Tariff Tables, in force as of the day of their publication for the summer period 2018-2019. Subsequently, on October 12, 2018, Resolution ENARGAS No. 292/2018 was published in the Official Gazette rectifying the tariff tables of mentioned Resolution ENARGAS No. 281/2018, with retroactive application as of October 8, 2018. ENARGAS Resolution No. 292/2018 published on October 12, 2018, modified the Tariff Schemes and the Schedule of Rates and Charges for the additional services provided by Metrogas.

In addition, on the same date, MINEM Resolution No. 91/2018 was published in the Official Gazette, by means of which the periods for adjustment of the purchased gas price variations or the seasonal adjustment and the semi-annual adjustment of the tariffs are unified, establishing that once the transition period has passed, the adjustments shall be seasonal, covering the periods of April 1 to September 30 of each year and of October 1 to March 31 of the following year.

Temporary economic assistance

MINEM Resolution No. 312 - E/2016 was published in the Official Gazette, on December 30, 2016, which ordered a new temporary economic assistance to the Licensees of the Natural Gas Distribution Service through Networks for the period April-September 2016, for the purpose of funding the mandatory investments established (with respect to Metrogas) in ENARGAS Resolutions No. 3,726/2016 and No. 4,044/2016, and the payment to gas producers; all of which is on account of the CTR.

Under the terms of the Resolution, the transfer of the amounts assigned to Metrogas of Ps. 759 million was applicable as long as, at the discretion of the ENARGAS, the financial situation of Metrogas that gave rise to the assistance was maintained taking into account the availability of funds to meet its investment obligations and payments to gas producers.

For the release of the funds corresponding to the temporary financial assistance, Metrogas had to file a sworn statement with the ENARGAS, in the terms of ENARGAS Note No. 106/2017, on the allocation to be given to the amounts required. In accordance with the ENARGAS criteria, if the sworn statements meet the requirements of MINEM Resolution No. 312 - E/2016, they would be sent to the MINEM Hydrocarbons Secretariat in order to arrange for the transfer of the assistance. Likewise, the Resolution set forth that the Licensees could not distribute dividends under the terms of Resolution No. 31/2016 of the MINEM.

On March 31, 2017, Metrogas received the amount of Ps. 759 million corresponding to MINEM Resolution No. 312 - E/2016.

New gas prices at the TSEP and Metrogas transition tariff schemes

Through Resolution No. 74 - E/2017, the MINEM determined the new natural gas prices at the TSEP applicable from April 1, 2017 to the categories of users indicated therein. Moreover, it determined the new prices at the TSEP, subsidized for natural gas Residential users who register savings in their consumption equal or superior to fifteen percent (15%) with respect to the same period in 2015. These new prices in the TSEP have been contemplated in ENARGAS Resolution No. 4,356/2017.

MINEM Resolution No. 474-E/2017 determined the new Gas prices at the TSEP as of December 1, 2017. In addition, a 10% discount is established on the Gas price for all categories of Residential users who register a saving in their consumption equal to or greater than 20% with respect to the same period in 2015, and it establishes that the bonus corresponding to the Social Tariff beneficiaries will be equivalent to: i) 100% of the Natural Gas price on the consumption block base determined by Resolution; and ii) 75% of the price of Natural Gas on a surplus consumption block of equal volume to that determined in paragraph i). Consumptions over and above the block indicated in paragraph ii) will be paid by 100%. It also establishes that the billing resulting from the application of the new tariff schedules must respect the limits established in Article 10 of Resolution No. 212 dated October 6, 2016 of the MINEM. These new prices in the TSEP have been contemplated in the ENARGAS Resolution No. 131/2017, which approved the Metrogas temporary tariff scheme, applicable as of December 1, 2017.

On August 1, 2018, MINEM Resolution No. 46/2018 was published in the Official Gazette, instructing the Electric Power Under-Secretariat to take the necessary measures in order for CAMMESA to implement the competitive mechanisms to assure availability of gas for electricity generation, for each basin of origin, that shall be applicable for the valuation of natural gas volumes destined for the generation of electricity to be commercialized in the MEM or, in general, destined for the provision of the public service of electricity distribution as of August 1, 2018.

Procedure for the compensation of the lower revenues that the Distributors receive from their users for benefits and / or bonuses and for higher costs of unaccounted gas

MINEM Resolution No. 508-E/2017, published on December 29, 2017, established the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a product of: (i) the application of benefits and/or discounts to users arising from the regulations in force in the tariff area of the distribution service of natural gas through networks, and (ii) the higher UNG costs compared to those established for its recognition in the rates, applicable as of January 1, 2018.

On December 7, 2018, ENARGAS communicated to the National Hydrocarbon Economy Department certain observations to the procedure established by MINEM Resolution No. 508-E/2017. Based on such observations, the SGE did not recognize the adjustment provided for in MINEM Resolution No. 508-E/2017 regarding UNG. Additionally, ENARGAS determined that all amounts received starting on January 2018 through such date were of a provisional nature and had to be set off with the amounts owed by the SGE to Metrogas. Moreover, the adjustments to actual values established by such procedure for the same period, and the excess in costs incurred from December 2018 to December 2019 were not recognized.

Note from the ENARGAS on deferred collection to residential users

On August 25, 2017, the ENARGAS issued some Notes instructing the Licensees of the Gas Distribution Service (“Distributors”), by virtue of the presentation received from the MINEM, and in relation to the invoices to be issued from August 25, 2017 and until October 31, 2017 for residential users, to contemplate a fifty percent (50%) payment deferral of the total amount of the settlement corresponding to the billing period, without any interest. According to this instruction, the amounts subject to deferral must be included in the first invoice issued after October 31, 2017 in accordance with the guidelines related to the issuance of Public Service Settlement receipts for bimonthly invoicing with monthly payment obligations currently in force, i.e., in two equal and consecutive monthly installments. Such deferral is not applicable to residential users who are beneficiaries of the Social Tariff.

The Notes sent by the ENARGAS also contemplate that, if there is a financial impact on the Distributors’ income by virtue of such deferral, such impact will be timely evaluated and assumed by the Argentine Government through the corresponding budgetary management.

On September 20, 2017, YPF submitted a note to the MINEM (with a copy to ENARGAS), requesting the intervention of the MINEM so that it adopts the necessary measures to prevent the instruction given by the ENARGAS from being misinterpreted by some Distributors to place on the Producers, such as YPF, the financial impact that such a measure could cause, through the unilateral postponement of the payment obligations by the Distributors.

As a result of the changes introduced through MINEM Resolution No. 474 - E/2017 and ENARGAS Resolutions No. 131/2017 and No. 132/2017, and the guidelines established in the Terms and Conditions MINEM, Resolution No. 508-E / 2017 was published on December 29, 2017, which establishes the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a result of: (i) the application of benefits and / or discounts to users resulting from the regulations in force regarding the tariffs applicable to the natural gas distribution service through networks; and (ii) the higher costs of the Unaccounted Natural Gas (“UNG”) with respect to those established for its recognition in the tariffs.

In accordance with the compensation procedure, the Distribution Licensees must inform to the ENARGAS within the terms established therein and based on the annualized monthly consumption and as a sworn statement, the amounts required to compensate the aforementioned differences. The same information regime is adopted in relation to UNG.

Thus, in order to calculate compensations for the amount that they do not receive for the discounts in billing as well as for the UNG differences, compensation is established resulting from the difference between the purchase price to the natural gas producer and the sale to its customers.

Benchmark prices for the butane commercialization chain

On April 5, 2017, the Secretariat of Hydrocarbon Resources published Resolution No. 56-E/2017 in the Official Gazette, establishing new maximum benchmark prices for the different segments of the butane commercialization chain to be bottled in 10, 12 and 15 kg bottles under the Household Program (Decree No. 470/2015 and former Energy Secretariat Resolution No. 49/2015), and modifying the benchmark prices established in former Energy Secretariat Resolution No. 70/2015. The new maximum benchmark prices for the Company are Ps. 2,568/TN for butane and Ps. 2,410/TN for propane. For fractionators such as YPF GAS S.A., the prices established by Resolution No. 56-E/2017 are Ps. 63.89 for 10 kg bottles, Ps. 76.67 for 12 kg bottles and Ps. 95.84 for 15 kg bottles.

On June 7, 2017, the Secretariat of Hydrocarbon Resources published Resolution No. 75/2017 in the Official Gazette, which modified the regulations applicable to the Household Program (former Energy Secretariat Resolution No. 49/2015) and provides that the adjustment of benchmark prices applicable to the different segments of the butane commercialization chain to be bottled in 10 and 12 kg bottles will not be implemented automatically in quarterly periods. Instead, those adjustments will be made at the discretion of the Secretariat of Hydrocarbon Resources in its capacity as enforcement authority of the Household Program. In addition, the resolution establishes that the adjustment of benchmark prices for LPG producers and fractionators on account of the Comprehensive Tariff Review established by the Household Program in its regulations will take place only after the prior analysis of cost variations and their incidence, and taking into account regional, distribution and logistical factors.

MINEM Resolution No. 287-E/2017, published on December 1, 2017, established new maximum benchmark prices and compensations for butane and propane producers effective from December 1, 2017, and introduced amendments to the Annex to the Regulation of the Bottle-to-Bottle Program approved by Resolution No. 49/2015, among which, it is prohibited to charge the distributors for any additional service whatever its denomination, if in doing so the maximum benchmark prices and the maximum allowed deviations are exceeded.

On March 28, 2018, Disposition No. 5/2018 of the Under-Secretariat of Hydrocarbon Resources was published, establishing new maximum reference prices for the commercialization of butane destined for sale of bottled LPG, in force as of April 1, 2018.

Hydrocarbon Resources Under-Secretariat Disposition No. 5/2018 published in the Official Gazette on March 28, 2018, established new maximum benchmark prices and compensations for butane and propane producers effective from April 1, 2018.

On January 28, 2019, the SGE Resolution No. 15/2019 was published, which updated the reference prices (at the producer plant) for the commercialization of butane and propane effective as of February 1, 2019 and fixed at \$ 0 the financial compensation to producers from the same date.

On April 24, 2019, Disposition SSHC No. 29/2019 was published, which replaces section VI of the annex to Resolution No. 49/2015 of the former Ministry of Energy, referring to the methodology for determining contributions of butane and propane by the producing companies and the quotes assigned to the fractional companies.

On June 27, 2019, Disposition SSHC No. 104/2019 was published, setting forth the adjusted benchmark prices and compensations for butane and propane producers effective on July 1, 2019. In connection therewith, Disposition No. 80/2019 had established the new compensation values for domestic users of bottled butane included in the registry of subsidies beneficiaries.

Natural gas export administration and domestic supply priorities

In March 2004, the former Argentine Secretariat of Energy issued S.E. Resolution No. 265/04 adopting measures intended to ensure the adequate supply of natural gas to the domestic market and regulate its consequences on electricity wholesale prices. Among the measures adopted were:

- the suspension of all exports of surplus natural gas;
- the suspension of automatic approvals of requests to export natural gas;
- the suspension of all applications for new authorizations to export natural gas, filed or to be filed before the former Argentine Secretariat of Energy; and

- the authorization to the Undersecretariat of Fuels to create a rationalization plan of gas exports and transportation capacity.

In March 2004, the Undersecretariat of Fuels, pursuant to the authority given to it under S.E. Resolution No. 265/04, issued S.S.C. Regulation No. 27/04 establishing a rationalization plan of gas exports and transportation capacity. Among other things, S.S.C. Regulation No. 27/04 established a limit on natural gas export authorizations, which, absent an express authorization by the Undersecretariat of Fuels, may not be executed for volumes exceeding exports registered during 2003.

In June 2004, the former Argentine Secretariat of Energy issued S.E. Resolution No. 659/04, which established a new program to assure natural gas supply to the domestic market (which substitutes for the program created by S.S.C. Regulation No. 27/04). Under S.E. Resolution No. 659/04 (amended by S.E. Resolution No. 1,681/04), natural gas exports may be restricted due to shortages of natural gas in the domestic market, because exporting producers may be required to supply additional volumes of natural gas to the domestic market beyond those that they are contractually committed to supply. The export of natural gas under current export permits is conditioned on the fulfillment of additional supply requirements imposed on exporting producers by governmental authorities.

This program was further amended and supplemented by S.E. Resolution No. 752/05 issued by the former Argentine Secretariat of Energy in May 2005, which further reduced the ability of producers to export natural gas, and created a mechanism under which the former Argentine Secretariat of Energy may require exporting producers to supply additional volumes to domestic consumers during a seasonal period (“Permanent Additional Supply”), which volumes of natural gas are also not committed by the exporting producers. Based on the provisions of Rule No. 27/04, S.E. Resolution No. 659/04 and S.E. Resolution No. 752/05, the former Argentine Secretariat of Energy and/or the Undersecretariat of Fuels have instructed us to redirect natural gas export volumes to the internal market, thereby affecting natural gas export commitments. We have challenged the validity of the aforementioned regulations and resolutions and have invoked the occurrence of a force majeure event under the corresponding natural gas export purchase and sale agreements. The counterparties to such agreements have rejected our position. See “Item 8. Financial Information—Legal Proceedings.”

S.E. Resolution No. 752/05 also establishes (i) a special market, open and anonymous, for compressed natural gas stations to purchase natural gas under regulated commercial conditions, with the demand being ensured by the former Argentine Secretariat of Energy through Permanent Additional Supply required of exporting producers, and (ii) a mechanism of standardized irrevocable offers for electric power generators and industrial and commercial consumers to obtain supply of natural gas, with the demand being ensured by the former Argentine Secretariat of Energy through the issuance of the Permanent Additional Supply mentioned above.

Pursuant to the standardized irrevocable offers procedure mentioned above, which operates at the MEG, any direct consumer may bid for a term gas purchase at the export average gas price, net of withholdings by basin. The volume necessary to satisfy the standardized irrevocable offers which have not been satisfied will be required as a Permanent Additional Supply only until the end of the seasonal period during which the unsatisfied requests should be made (October–April or May–September). Such Permanent Additional Supply will be requested from the producers that export gas and that inject the natural gas from the basins that are able to supply those unsatisfied irrevocable offers. S.E. Resolution No. 1,886/06, published on January 4, 2007, extended the term of effectiveness of this mechanism of standardized irrevocable offers until 2016, and empowered the Undersecretariat of Fuels to suspend its effectiveness subject to the satisfaction of internal demand of natural gas achieved by means of regulations, agreements or due to the discovery of reserves.

By means of S.E. Resolution No. 1,329/06, later supplemented by S.S.C. Note No. 1,011/07, the former Argentine Secretariat of Energy required producers to give first priority in their injections of natural gas into the gas pipelines to certain preferential consumers and obligated transportation companies to guarantee these priorities through the allocation of transportation capacity. In general, these regulations subordinate all exports of natural gas to the prior delivery of natural gas volumes that are sufficient to satisfy domestic market demand.

Additionally, during the severe Argentine winter in 2007 and continuing thereafter, we and most gas producers, as well as the transportation companies in Argentina, received instructions from the government to decrease exports, except for certain volumes addressed to satisfy Chilean residential consumption and other specific consumption.

National Decree No. 893/2016, dated July 25, 2016, determined that MINEM would be empowered to regulate the award of export permits for the following purposes: i) to deliver assistance with natural gas emergency situations of foreign countries, and ii) to replace natural local transport restrictions by means of utilizing foreign transportation infrastructure to ease transportation of natural gas within the Argentine market and allow for an increase in local production.

On January 8, 2017, export duties on hydrocarbon exports established by Law No. 26,732 ceased to be enforceable. Thereafter, there will be no export duties on natural gas exports.

On January 13, 2017, MINEM published Resolution No. 8/2017 regulated National Decree No. 893/2016, establishing an especial procedure to grant natural gas export permits subject to import commitments. Solicitors for both types of permits will have to commit to import the volumes of natural gas exported and to indemnify the Argentine government for breaching such obligation, including the payment of 150% of the import costs incurred by the Argentine government to replace the outstanding natural gas. Permits would be extended for a maximum period of two years and are subject to possible termination in the event that public interest makes it convenient for local market supply in accordance with MINEM's criteria.

On November 27, 2017, MINEM published Decree No. 962/2017 in the Official Gazette, which, among other aspects, modifies Article 3 of the Regulatory Decree of the gas law, establishing the following principles for export authorizations: 1) export authorizations will be issued by the MINEM once the applications have been evaluated; 2) the export agreements that imply the construction of new facilities and/or new connections to the gas pipelines, or the use of any of the existing systems, or other transportation alternatives, will be approved by the MINEM with the intervention of ENARGAS; 3) the authorizations issued by the MINEM may provide for the export of gas surplus to the amounts established therein, provided they are subject to interruption when there are internal supply problems.

In this case, it will not be necessary to obtain the approval of each surplus export transaction in the authorization, only to submit to ENARGAS, for informative purposes only, the respective contract evidencing the existence of a condition relating to the possibility of interruption should arise and the absence of compensation in case of such interruption. The modifications introduced by Decree No. 962/2017 do not modify the regime of temporary export permits subject to export commitments provided for in Decree No. 893/2016.

On August 22, 2018, the former Ministry of Energy and Mining issued Resolution No.104/2018, later modified by Resolution No. 9/2018 of the SGE, by which: i) it established a new procedure to obtain authorizations to export natural gas, ii) it abrogated Resolution No. 299/98 clarifying that any export permit awarded under such resolution would have to comply with the new procedure; iii) it abrogated former Energy and Mining Secretary Resolutions No. 131/2001, 265/2004, 883/2005 and former Ministry of Energy and Mining Resolution No. 8/2017; and iv) it delegates to the Hydrocarbon Resources Sub-Secretary the power to exercise the tasks described in the new procedure.

Resolution No. 104/2018 provided that in the case of export requests from a project included in MINEM Resolution No. 46-E/2017 (Unconventional Gas Production Stimulus Program), the quantities of gas would not be computed as part of and/or within the production included under the mentioned Program.

On September 4, 2018 Decree No. 793/2018 was published in the Official Gazette. See “—Exploration and Production.”

On November 14, 2018, in the Official Gazette was published the SGE Resolution No. 95/2018 by which it granted YPF a permit, under Resolution No. 104/2018, to export natural gas to Innergy Soluciones Energéticas S.A. on interruptible conditions for a volume of 1,500,000 cm³/d during the summer season.

On December 14, 2018, in the Official Gazette was published the S G E Resolution No. 262/2018 by which it granted YPF a permit, under Resolution No. 104/2018, to export natural gas to Colbún S.A. on interruptible conditions for a volume of 1,500,000 cm³/d during the summer season.

On December 21, 2018, in the Official Gazette was published the SGE Resolution No. 313/2018 by which it granted YPF a permit, under Resolution No. 104/2018, to export natural gas to Aproveisionadora Global De Energía Sociedad Anónima (AGESA) on interruptible conditions for a volume of 1,500,000 cm³/d during the summer season.

On December 27, 2018, in the Official Gazette was published the SGE Resolution No. 339/2018 by which it granted YPF a permit, under Resolution No. 339/2018, to export natural gas to Enel Generación Chile Sociedad Anónima on interruptible conditions for a volume of 2,000,000 cm³/d during the summer season.

On December 4, 2018, Law No. 27,467 relating to the National Budget for 2019 was published. Sections 81 and 82 thereof respectively establish i) that the PEN may fix export duties until December 31, 2020 which rate may not exceed 30% of the taxable value or the official FOB price, with a maximum limit of 12% for those goods that were not subject to export duties as of September 2, 2018 or that were taxed with a 0% rate as of that date, and ii) that Decree No. 793/18 continues in full force and effect.

On June 26, 2019, Resolution SGE No. 417/2019 was published in the Official Gazette, replacing the Procedure for the Authorization of Natural Gas Exports approved by Resolution No. 104/2018, which instructs the SSHC to regulate energy replacement mechanisms applicable to firm exports and to prepare an operating procedure in case the security of internal natural gas supply is at risk, and empowers

the SSHC to grant export permits, by issuing the relevant certificate. The most relevant modifications are the following: (i) the classification of the export permits is modified, establishing the following: firm, interruptible, operational exchanges and assistance agreements; ii) the processing procedure is simplified since it has to be carried out digitally through the Distance Processing platform; and iii) it is foreseen that the amounts of natural gas resulting from projects included in the “Program to Stimulate Investments in the Development of Natural Gas Production from Non-Conventional Reserves” will be deducted from the total production of the respective project prior to the determination of the volumes calculated as part of the Included Production.

On August 21, 2019, SSHC Disposition No. 168/2019 was published in the Official Gazette, which approves the terms and conditions of the regime for the export of natural gas under firm conditions applicable to the period September 15, 2019 to May 15, 2020, determines a maximum volume of natural gas that can be exported under firm conditions to the Republic of Chile of 10,000,000 cm/d (divided into three export zones, Northwest, Center-West and South, with a maximum volume of 1,000,000 cm/d, 6,500,000 cm/d and 2,500,000 cm/d respectively), establishes that applications shall be submitted until September 6, 2019 and provides that for the allocation of the volumes to be exported a performance index per applicant and per application will be developed, corresponding to each export zone, contemplating past production performance, past export performance, present performance and application term. It also contemplates that, in case of a future need for a higher use of imported natural gas, liquefied natural gas, coal, fuel oil and/or gas oil by the MEM, such cost being in charge of the National State, having the latter to assume it according to the substitution of energy established, the exporting companies shall borne the payment of a compensation to CAMMESA for the greater costs incurred by the National State, the amount of which will be determined by CAMMESA at the end of the application period. Pursuant to Resolution SGE 506/2019 published on August 30, 2019, in the Official Gazette, the minimum and maximum value, respectively, of the compensation to CAMMESA to be borne by authorized exporters was established at 0.1 and 0.2 U.S./MMBTU exported. Resolution SGE 506/2019, also established the mechanism by which at the end of the exporting period, CAMMESA will determine the exact compensation to be borne by each authorized exporting company.

On October 31, 2019, Disposition SSHC No. 284/2019 was published in the Official Gazette, which approves the Operating Procedure for Natural Gas Exports, effective until September 30, 2021, the purpose of which is to regulate any need to restrict natural gas exports that are operationally useful in the case of a shortage of supply in the Argentine domestic market.

On December 14, 2019 Decree No. 37/2019 was published in the Official Gazette by which the export tax was increased in most of the products, including hydrocarbons from 6,7% to 12% of the FOB value, abrogating Decree No.793/18 export tax’s cap. Afterwards on December 23, 2019, Law No. 27,541 of Solidarity and Productive Reactivation, within the Public Emergency framework, was published in the Official Gazette, by which a new export tax cap applicable to hydrocarbons and mining exports was determined in of 8% of the applicable value or FOB value. As of the date of this annual report, the government authorities have not issued regulations on this matter, and the General Directorate of Customs continues to determine export duties in accordance with the rates that were in force prior to the effectiveness of Law No. 27,541.

On December 5, 2019, Disposition SSHC No. 329 was published in the Official Gazette by which liquified natural gas was included among the list of products established by Resolution SRH No. 241/2017, requiring LNG exports to be previously registered before the Secretary of Energy. To obtain the export registry, the solicitant needs to demonstrate that the product was previously offered to the domestic market.

Likewise, LNG exports are subject to the provisions of Law No. 27,541 on Social Solidarity and Production Reactivation within the Public Emergency Framework, which in its section 52 established the rates for hydrocarbon exports.

Liquefied petroleum gas

Law No. 26,020, enacted on March 9, 2005, sets forth the regulatory framework for the industry and commercialization of LPG. This law regulates the activities of production, bottling, transportation, storage, distribution, and commercialization of LPG in Argentina and declares such activities to be of public interest. Among other things, the law:

1. creates the registry of LPG bottlers, obliging LPG bottlers to register the bottles of their property;
 2. protects the trademarks of LPG bottlers;
- creates a reference price system, pursuant to which the SGE shall periodically publish reference prices for LPG sold in bottles of 45 kilograms or less;

- requires the SGE to comply with the following tasks: (i) create LPG transfer mechanisms, in order to guarantee access to the product to all the agents of the supply chain; (ii) establish mechanisms for the stabilization of LPG prices charged to local LPG bottlers; and (iii) together with the CNDC, analyze the composition of the LPG market and its behavior, in order to establish limitations on market concentration in each phase, or limitations to the vertical integration throughout the chain of the LPG industry (such limitations apply to affiliates, subsidiaries and controlled companies);
- grants open access to LPG storage facilities; and
- creates a fiduciary fund to finance bottled LPG consumption for low-income communities in Argentina and the extension of the natural gas distribution network to new areas, where technically possible and economically feasible. The fiduciary fund is funded through the following mechanisms: (i) penalties established by Law No. 26,020, (ii) assignments from the General State Budget, (iii) funds from special credit programs that may be arranged with national or international institutions, and (iv) funds that may be assessed by the SGE on participants in the LPG industry.

The former Argentine Secretariat of Energy established, through several subsequent resolutions, reference prices applicable to sales of LPG bottles of less than 45 kilograms, and to sales of bulk LPG exclusively to LPG bottlers. Additionally, the former Argentine Secretariat of Energy approved the method for calculating the LPG export parity, to be updated monthly by the Undersecretariat of Fuels. In 2007, the former Argentine Secretariat of Energy increased the LPG volumes to be sold to bottlers at the reference prices set forth in the unconventional above-mentioned resolutions.

Disposition No. 168/04 of the Under-Secretariat of Fuels requires companies intending to export LPG to first obtain an authorization from the former Argentine Secretariat of Energy. Companies seeking to export LPG must first demonstrate that the local demand is satisfied or that an offer to sell LPG to local demand has been made and rejected.

On September 19, 2008, the Secretariat of Energy and Argentine LPG producers entered into the Complementary Agreement which, among other objectives, seeks to stabilize the price of LPG in the domestic market. The Complementary Agreement applies only to LPG sold to bottlers that declare their intention to bottle such LPG in LPG bottles of 10, 12 or 15 kilograms. The Complementary Agreement requires LPG producers to supply LPG bottlers with a prescribed volume and accept the price per ton set forth in the Complementary Agreement. The Complementary Agreement was then extended in the following years until 2015 with certain modifications in quantities and prices to be provided every year.

On April 7, 2015, Resolution No. 73 of the former Argentine Secretariat of Energy terminated the fiduciary agreement to which YPF was a party as a natural gas producer, contributing with funds for the payment of compensation for LPG producers and bottlers. As a result, natural gas producers that were parties to the Complementary Agreement are no longer required to contribute funds. At the same time, a new program for the provision of bottled LPG at reference prices was established by Decree No. 470/2015 dated March 31, 2015. This decree established that LPG producers and bottlers provide LPG at reference prices in the domestic market, gradually increasing the volumes provided in 2014.

This new program for the provision of bottled LPG has been modified by different succeeding resolutions which modified the benchmark prices and the methodology for reference price future updates, among other changes. These resolutions are: Hydrocarbon Secretary Resolution No. 56-E/2017, No. 75/2017 and MINEM Resolution No. 287-E/2017. Further adjustments of benchmark prices and compensations have been made pursuant Dispositions No. 5 and No. 104 of the Hydrocarbon Resources Under-Secretariat dated March 2018 and June 2019, respectively.

Electricity

By means of Decree No. 134/2015, published in December 2015, the Argentine Executive Branch declared the National Electric System Emergency through December 31, 2017. This decree instructs the Minister of Energy to develop and propose measures and to ensure adequate power supplies.

The following regulations were issued by the Ministry of Energy and its Secretariat of Electric Power (“SEE”) as measures to the National Electric System Emergency among others: MINEM No. 6/2016; SEE No. 21/2016; No. 22/2016; SEE No. 19/2017 and SEE No. 256/2017.

Through Resolution No. 06/2016, published in January 2016, MINEM established new seasonal reference prices of power and energy for the MEM from February 1, 2016 to April 30, 2016. The resolution also establishes a stimulus plan, with reference prices for residential consumers that reduce their consumption over the same month in 2015, and a social tariff.

Through Resolution SEE No. 21/2016, dated February 2016, the Secretariat of Electric Power called for a public bid for the installation of new thermic power generation and associated electric energy production that may confirm availability for summer 2016/2017, winter 2017 and summer 2017/2018.

Through Resolution No. 41/2016, published in January 2016, which modified Resolution No. 6/2016, MINEM established new seasonal reference prices of power and energy in the MEM from May 1, 2016 to October 31, 2016. It also confirms the applicability of the stimulus plan and social tariff until October 31, 2016.

Through Resolution No. 20/2017, published in January 2017, MINEM established, among other things, new seasonal reference prices of power and energy in the MEM from February 1, 2017 to April 30, 2017.

National Decree No. 531/2016, dated March 31, 2016, regulates Law No. 27,191 (regarding the national incentive for the use of renewable sources to generate electricity) and, among other things, establishes that “big consumers” shall contract for or co-generate renewable energy to comply with the obligation to consume 8% of its electricity from renewable sources, by December 2017. If such requirement is not met, the “big consumers” will be punished with a fine equal to the variable cost of producing the unmet electricity by a thermos-electrical power plant with imported gasoil fuel.

Argentine Secretariat of Electric Power Resolution No. 22/2016, dated March 30, 2016, modified Resolution No. 482/2015, adjusting the remuneration components for power generators that adhered to Resolutions No. 95/2013, 529/2014 and 482/2015, retroactively to February 2016.

MINEM Resolution No. 41/2016, dated April 13, 2016, establishes new prices on the natural gas at TSEP for each basin which would then be acquired for electric generation purposes and therefore commercialized within the MEM or generally destined to satisfy the electricity distribution services.

SEE Resolution No. 420/2016, published on November 2016, called for projects which may contribute to the electric market cost reduction and the increase in the Argentine electric system reliance.

Through Resolution No. 19/2017, published in January 2017, MINEM, through its Secretariat of Electric Power established a new set of prices for installed electricity generation facilities for any new contracts regarding guaranteed energy offers. Prices have been dollarized and represent an increase with respect to those in force in 2016. Resolution No. 19/2017 also determined a stimulus mechanism towards operative efficiency.

Through Resolution No. 256/2017, published in April 2017, MINEM established, among other things, new seasonal reference prices of power and energy in the MEM from May 1, 2017 until October 31, 2017.

Through Resolution SEE No. 287/2017, dated May 2017, within the framework of Resolution No. 420/2016 the Electric Power Secretariat established a public bid for projects willing to sell electricity produced by co-generation or close cycle projects.

Through Resolution No.1091/2017, published in November 2017, MINEM established, among other things, new seasonal reference prices of power and energy in the MEM from November 1, 2017 to April 30, 2018. It also establishes the Social Tariff Subsidy and the Stimulus Plan discounts for the period running from December 1, 2017 through April 30, 2018.

Electricity Secretary Resolution No. 926-E/2017, dated October 17, 2017 authorized CAMMESA the signature of purchase power agreements for YPF EE co-generation project in La Plata, Buenos Aires Province and YGEN Eléctrica S.R.L. close cycle project in El Bracho, Province of Tucumán, awarded in Resolution No. 287 public bid framework.

On November 7, 2018, SGE Resolution No. 70/2018 was published in the Official Gazette, amending Resolution No. 95/2013 of the former Ministry of Energy, which authorizes the Generating, Cogenerating and Self-Generating Agents of the MEM to contract the own fuel supply for the generation of electrical energy. In addition, the Resolution establishes that the costs of generation with own fuel will be valued in accordance with the mechanism of recognition of Variable Production Costs recognized by CAMMESA.

On December 30, 2019, Resolution No. 12/2019 of the Ministry of Productive Development was published in the Official Gazette, which through its article 1 repeals SGE Resolution No. 70/2018, re-establishing the validity of article 8 of Resolution No. 95/2013, as well as the validity of Article 4 of Resolution No. 529/2014; once again establishing the commercial management and dispatch of centralized

fuels in CAMMESA with some exceptions, such as the provision of fuels for generators under Energy Plus or the contracts concluded within the framework of the call made by Resolution No. 287-E / 2017 of the former Secretariat of Electricity.

On March 1, 2019, Resolution No. 1/2019 of the Secretary of Renewable Resources and Electric Market which derogated Resolution No. 19/2017 of the former Secretary of Electric Energy, effective as of March 1, 2019, and among other aspects provided for new mechanisms for payment of guaranteed power availability and generation by Generators, Co-generators and Self-generators from MEM (excluding binational hydroelectric generators, nuclear generators and Generators, Co-generators and Self-generators from MEM whose generating units had been committed as part of agreements for purposes of supplying the MEM from such regime). The prices for power and generation during the six months in which electric demand is lower were approved by Resolution No. 1/2019 are approximately 20% lower in dollar terms than those set forth in Resolution No. 19/2017.

Argentine Environmental Regulations

The enactment of Articles 41 and 43 in the National Constitution, as amended in 1994, as well as new federal, provincial and municipal legislation, has strengthened the legal framework dealing with damage to the environment. Legislative and government agencies have become more vigilant in enforcing the laws and regulations regarding the environment, increasing sanctions for environmental violations.

Under the amended Articles 41 and 43 of the National Constitution, all Argentine inhabitants have both the right to an undamaged environment and a duty to protect it. The primary obligation of any person held liable for environmental damage is to rectify such damage according to and within the scope of applicable law. The federal government sets forth the minimum standards for the protection of the environment and the provinces and municipalities establish specific standards and implementing regulations.

Federal, provincial and municipal laws and regulations relating to environmental quality in Argentina affect our operations. These laws and regulations set standards for certain aspects of environmental quality, provide for penalties and other liabilities for the violation of such standards, and establish remedial obligations in certain circumstances.

In general, we are subject to the requirements of the following federal environmental regulations (including the regulations issued thereunder):

- National Constitution (Articles 41 and 43);
- Law No. 25,675 on National Environmental Policy;
- Law No. 25,612 on Integrated Management of Industrial and Service Industry Waste;
- Law No. 24,051 on Hazardous Waste;
- Law No. 20,284 on Clean Air;
- Law No. 25,688 on Environmental Management of Waters;
- Law No. 25,670 on the Management and Elimination of Polychlorinated Biphenyls;
- Criminal Code; and
- the Argentine Civil and Commercial Code, which sets forth the general rules of tort law.

These laws address environmental issues, including limits on the discharge of waste associated with oil and gas operations, investigation and cleanup of hazardous substances, workplace safety and health, natural resource damage claims and toxic tort liabilities. Furthermore, these laws typically require compliance with associated regulations and permits and provide for the imposition of penalties in case of non-compliance.

In addition, we are subject to various other provincial and municipal regulations, including those relating to gas venting, oil spills and well abandonment, among other matters.

By Resolution No. 404/94, the former Argentine Secretariat of Energy amended Resolution No. 419/93, and created the Registry of Independent Professionals and Safety Auditing Companies (*Registro de Profesionales Independientes y Empresas Auditoras de Seguridad*), which may act with respect to areas of hydrocarbons storage, oil refineries, gas stations, fuel commercialization plants and plants for fractioning of LPG in containers or cylinders. The Resolution provides that external audits of oil refineries, gas stations and all fuel storage plants must be carried out by professionals registered in the Registry. Domestic fuel manufacturing companies and companies that sell fuels are prohibited from supplying these products to any station failing to comply with its obligations. Penalties for failure to perform the audits and remedial or safety tasks include the disqualification of plants or gas stations. In addition, a set of obligations was established regarding underground fuel storage systems, including a mechanism for instant notification in cases of loss or suspicion of loss from the storage facilities.

On July 19, 2001, the Secretariat of Environmental Policy of the province of Buenos Aires issued Resolution No. 1,037/01 ordering us to clean up certain areas adjacent to the La Plata refinery. The resolution was appealed through an administrative procedure which has not yet been resolved. Nevertheless, we have commenced certain actions in order to identify potential technical solutions for the treatment of the historical contamination, while reserving that the remediation must be made by the parties responsible for the environmental damage. Under current law, the Argentine government has the obligation to indemnify us against any liability and hold us harmless for events and claims arising prior to January 1, 1991, according to the Privatization Law.

During 2005, the former Argentine Secretariat of Energy, by means of Resolution No. 785/05, created the National Program of Hydrocarbons Warehousing Aerial Tank Loss Control, a measure aimed at reducing and correcting environmental pollution caused by hydrocarbons warehousing-aerial tanks.

During 2019, the National Congress passed the Law No. 27,520, published in the Official Gazette on December 20, 2019, regarding Minimal Standards on Global Climate Change Adaptation and Mitigation which focus on implementing policies, strategies, actions, programs and projects that can prevent, mitigate or minimize the damages or impacts associated with Climate Change and explore and take advantage of new opportunities of climate events as well.

The description of the material Argentine environmental regulations is only a summary and does not purport to be a comprehensive description of the Argentine environmental regulatory framework. The summary is based upon Argentine regulations related to environmental issues as in effect on the date of this annual report, and such regulations are subject to change.

Taxation

Holders of exploration permits and production concessions are subject to federal, provincial and municipal taxes and regular customs duties on imports. The Hydrocarbons Law grants such holders a legal guarantee against new taxes and certain tax increases at the provincial and municipal levels, except in the case of a general increase in taxes.

Pursuant to Sections 57 and 58 of the Hydrocarbons Law, holders of exploration permits and production concessions must pay an annual surface fee that is based on acreage of each block and which varies depending on the phase of the operation, i.e., exploration or production, and in the case of the former, depending on the relevant period of the exploration permit. On October 17, 2007, the Official Gazette published Executive Decree No. 1,454/07, which significantly increased the amount of exploration and production surface fees expressed in pesos that are payable to the different jurisdictions where the hydrocarbon fields are located. Law No. 27,007 published in the Official Gazette on October 31, 2014 updated amounts that must be paid pursuant to Sections 57 and 58 of the Hydrocarbons Law. See “—Upstream.”

For concessions located in the province of Neuquén, Provincial Decree No. 2,302/2019 establishes new values for the surface fee applicable beginning in 2020.

In addition, “net profit” (as defined in the Hydrocarbons Law) of holders of permits, or concessions accruing from activity as such holders, might be subject to the application of a special 55% income tax. This tax has never been applied. Each permit or concession granted to an entity other than us has provided that the holder thereof is subject instead to the general Argentine tax regime, and a decree of the Argentine Executive Branch provides that we are also subject to the general Argentine tax regime.

Following the introduction of market prices for downstream petroleum products in connection with the deregulation of the petroleum industry, Law No. 23,966 established a volume-based tax on transfers of certain types of fuel, replacing the prior regime, which was based on the regulated price. Law No. 25,745 modified, effective as of August 2003, the mechanism for calculating the tax, replacing the old fixed-value per liter according to the type of fuel for a percentage to apply to the sales price, maintaining the old fixed value as the minimum tax. Through Laws No. 26,028 and 26,181, new taxes on diesel and gasoline sales have been established.

See additionally Note 34 to the Audited Consolidated Financial Statements.

Reduction in tax rates for fuels

On December 30, 2014, Decree No. 2,579/2014 set forth a reduction in fuel taxes established by Laws No. 23,966 and 26,181 with respect to diesel and unleaded gasoline products. The reductions took effect on January 1, 2015.

On December 29, 2017, Law No. 27,430 introducing modifications to the fuel tax was published in the Official Gazette as follows (Laws No. 26,028 and 26,181 were repealed):

1. A new tax was created (the so called “CO2 Tax”). This new tax essentially applies to Fuel Oil, coke and coal, as well as the same fuels taxed by Law 23,966.
2. Starting in March 2018, the fuel tax and CO2 Tax will be calculated as a fixed amount per liter instead of as a percentage of the sales price.

Export taxes

Export duties on hydrocarbons were established in 2002 by Law No. 25,561 of Public Emergency, for a term of five years. The regime varied during in different periods until it ceased after the second extension expired on January 7, 2017.

However, on September 4, 2018, Decree No. 793/2018 has reinstated customs duties on the export of hydrocarbons. The export tax rate increased to 12% until December 31, 2020, with a threshold of Ps. 3 or Ps. 4 per dollar depending on the product.

Through Decree No. 37/2019 published on December 14, 2019 the aforementioned cap of Ps. 4 per dollar of the taxable value or the official FOB price for the right to export established by Decree No. 793/2018 was voided, being applicable the general rate of 12% to the export of hydrocarbons. However, article 52 of Law No. 27,541 provided that, for the export rights of hydrocarbons and mining, the aliquots may not exceed 8% of the taxable value or the official FOB price. This modification is pending regulation by the AFIP.

As of the date of this annual report, government authorities have not issued regulation on this matter, and the General Directorate of Customs continues to determine export duties in accordance with the rates that were in force prior to entry into validity of Law No. 27,541. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina- The implementation of new export duties, other taxes and import regulations could adversely affect our results.”

Repatriation of Foreign Currency

Decree No. 893/2017, published on November 1, 2017, completely revoked the different types of requirements and restrictions which were imposed from time to time in Argentina, with respect to the repatriation of foreign currency proceeds derived from exports.

Particularly concerning the upstream oil industry, Executive Decree No. 1,589/89, had allowed us and other companies engaged in oil and gas production activities in Argentina to freely sell and dispose of the hydrocarbons we produce. Additionally, under Decree No. 1,589/89, we and other oil producers were entitled to keep up to 70% of foreign currency proceeds received from crude oil and gas export sales outside of Argentina, but were required, at that time, to repatriate the remaining 30% through the exchange markets of Argentina.

After that, Decree No. 1,722/2011 of October 26, 2011 had required all oil and gas companies (including YPF) to repatriate 100% of their foreign currency export receivables. Although such mandatory requirement imposed by Decree No. 1,722/2011 remained in force and effect until late 2017, its practical application had been substantially relaxed during 2016 and 2017, specially by the Resolution No. 47-E/2017 (issued by the Argentine Secretariat of Commerce) which for the repatriation of foreign currency export receivables had significantly extended, from 30 calendar days as of December 2015, up to 10 years on December 2017.

However, as a result of Decree No. 893/2017 described in the first paragraph, complemented by the Argentine Central Bank’s Communication “A” 6244, during the validity term of such Decree, there were no requirements regarding mandatory repatriation of foreign currency export receivables.

Recently, by means of Decree No. 609, dated September 1, 2019 (the “Decree 609”), the Argentine Executive Branch established that, until December 31, 2019, the export value of goods and services must be repatriated to Argentina and converted to pesos in accordance with the conditions and terms set forth by the Central Bank. According to the provisions of Decree 609, the Central Bank by means of the FX Regime defined in which cases access to the foreign exchange market to purchase foreign currency and precious metals as well as transfers abroad will be subject to prior approval by the Central Bank, taking into consideration the different situation of individuals and legal entities. See “Item 3. Key Information—Exchange Regulations.”

On December 28, 2019, the Argentine Executive Branch, through Decree No. 91, amended Article 1 of Decree 609, which established that, until December 31, 2019, the value of export of goods and services must be repatriated to Argentina and converted to pesos in accordance with the conditions and terms set forth by the Central Bank. By means of this amendment, said obligation to repatriate and convert was extended for an indefinite period. Likewise, on December 30, 2019, the Central Bank by means of Communication “A” 6856 extended, as from December 31, 2019 and for an indefinite period, the effectiveness of FX Regime.

Currently and according to the FX Regime, only importers and exporters who meet the requirements set forth by the FX Regime can access to the foreign exchange market, individuals can buy U.S.\$200 per month in all entities licensed to operate in foreign exchange transactions and the Central Bank may intervene the foreign exchange market by selling or buying U.S. dollars in the foreign exchange market. See “Item 3. Key Information—Exchange Regulations.”

ITEM 4A. Unresolved Staff Comments.

YPF does not have any unresolved Staff comments.

ITEM 5. Operating and Financial Review and Prospects

The following discussion should be read in conjunction with our Audited Consolidated Financial Statements included in this annual report. See “Item 5. Operating and Financial Review and Prospects” in our Annual Report on Form 20-F for the fiscal year ended December 31, 2018 for a comparative discussion regarding changes in financial conditions and results of operations for the years ended December 31, 2018 and 2017.

Overview

We are Argentina's leading energy company, operating a fully integrated oil and gas chain with leading market positions across the domestic upstream and downstream segments. See "Item 4. Information on the Company—History and Development of YPF—Overview."

Presentation of Financial Information

Our Audited Consolidated Financial Statements are prepared in accordance with IFRS as issued by the IASB. Our Audited Consolidated Financial Statements are fully compliant with IFRS. See Note 2.a to the Audited Consolidated Financial Statements for additional information.

Selected consolidated financial information in this annual report as of December 31, 2019, 2018 and 2017 and for the years ended December 31, 2019, 2018 and 2017 has been derived from our Audited Consolidated Financial Statements included in this annual report, which were approved at the Board of Directors' meeting and authorized to be issued on March 5, 2020. These consolidated financial statements, which comprise those presented before the CNV on March 9, 2020, and an update of Note 38 – "Subsequent events" and the inclusion of Note 39 – "Supplemental information on oil and gas producing activities (unaudited)", have been approved by Management on April 24, 2020.

Additionally, certain oil and gas disclosures are included in Note 39 to the Audited Consolidated Financial Statements included in this annual report under the heading "Supplemental information on oil and gas producing activities (unaudited)."

Segment Reporting

In connection with our segment reporting, see Note 5 to our Audited Consolidated Financial Statements and "Item 4. Information on the Company—Business Organization."

Sales between business segments are made at internal transfer prices established by us, which generally seek to approximate market prices.

Summarized Statement of Comprehensive Income

	<i>For the Year Ended December 31,</i>		
	2019	2018	2017
	<i>(in millions of pesos)</i>		
Revenues	678,595	435,820	252,813
Costs	(575,608)	(359,570)	(211,812)
Gross profit	102,987	76,250	41,001
Administrative expenses	(24,701)	(13,922)	(8,736)
Selling expenses	(49,898)	(27,927)	(17,954)
Exploration expenses	(6,841)	(5,466)	(2,456)
(Impairment) / Recovery of property, plant and equipment	(41,429)	2,900	5,032
Other net operating results	(1,130)	11,945	(814)
Operating (loss) / profit	(21,012)	43,780	16,073
Income from equity interests in associates and joint ventures	7,968	4,839	1,428
Net financial results	6,034	41,525	(8,798)
Net (loss) / profit before income tax	(7,010)	90,144	8,703
Income tax	(26,369)	(51,538)	3,969
Net (loss) / profit for the year	(33,379)	38,606	12,672
Total other comprehensive income for the year	221,367	172,600	21,917
Total comprehensive income for the year	187,988	211,206	34,589

Factors Affecting Our Operations

Our operations are affected by a number of factors, including, but not limited to:

- the volume of crude oil, oil byproducts and natural gas we produce and sell;

- regulation of domestic pricing;
- our pricing policy regarding the sale of fuel;
- export administration by the Argentine government and domestic supply requirements;
- international and domestic prices of crude oil and oil products;
- our capital expenditures and financing availability;
- decisions of our partners in connection investments and production in areas we jointly operate and decide;
- high levels of inflation;
- abrupt changes in currency values;
- cost increases;
- domestic market demand for hydrocarbon products;
- operational risks, labor strikes and other forms of public protest in Argentina;
- taxes, including export taxes;
- regulation of capital flows;
- the Argentine peso/U.S. dollar exchange rate;
- the revocation of our concessions in case of noncompliance with certain provisions as set by laws and agreements with provinces in Argentina;
- dependence on the infrastructure and logistics network used to deliver our products;
- laws and regulations affecting our operations, such as import regulations;
- interest rates; and
- a pandemic disease, such as COVID-19.

During 2019 we had an operating loss of Ps. 21,012 million, compared to an operating profit of Ps. 43,780 million in 2018. This loss was attributable to the factors explained in “Principal Income Statement Line Items-Operating profit (loss).”

Our business is inherently volatile due to the influence of external factors, such as those listed above. Consequently, our past financial condition, results of operations and the trends indicated by such results and financial condition may not be indicative of the financial conditions, results of operations or trends in future periods. Our annual plan approved on December 2019 was based on variables and assumptions available as of such date, and therefore they contemplated crude oil production during 2020 despite the capital restriction and a decline in natural gas production based on our assumption that there would be stagnant demand and a low-price environment. In addition, our approved annual plan estimated in capital expenditures in an amount of 2.8 million for 2020, showing a decrease compared to 2019, mainly focused in our Upstream operations. However, these estimations were made prior to the current COVID-19 outbreak, with a significantly different environment in terms of oil prices, and not considering certain challenges arising from the sovereign debt restructuring and COVID-19 outbreak. The evolution of these situations may affect the length and depth of the Argentine crisis, with significant impact particularly in the oil & gas industry. Consequently, our prior estimates can no longer be considered valid in this new scenario. Since the COVID-19 outbreak (See “Item 5. Operating and Financial Review and Prospects --Factors Affecting Our Operations --Macroeconomic conditions -COVID-19 outbreak”), demand for gasoline and diesel has decreased by approximately 70% and 40%, respectively, when compared to prior sales levels, which in turn adversely affects our results of operations and cash flows. As these situations evolve, we continue to analyze and determine the possible impact of these new conditions. Consequently, our strategy, our result of operations, production, sales, margins, capital expenditures, cash flow from operations and financial activities and, in general, our business, will be negatively affected when compared to the annual plan which had been approved in late 2019. See “Item 5. Operating and Financial Review and Prospects --Factors Affecting Our Operations --Macroeconomic conditions.”

In addition to the issues previously mentioned, there can be no assurance that our production, costs, prices, volumes of sales or our estimates of future cash flows from operations, among other items, could not be affected by other factors beyond our control and, as such, differ from our estimates. See “Item 3. Key Information—Risk Factors.”

Macroeconomic conditions

Overview

Substantially all of our revenues are derived from our operations in Argentina and are therefore subject to prevailing macroeconomic conditions in Argentina. Changes in economic, political and regulatory conditions in Argentina and measures taken by the Argentine government have had and are expected to continue to have a significant impact on us.

The Argentine economy has experienced significant volatility in past decades, characterized by periods of low or negative growth and high variable levels of inflation. Inflation reached its peak in the late 1980s and early 1990s. Due to inflationary pressures prior to the 1990s, the Argentine currency devalued repeatedly, and macroeconomic instability led to broad fluctuations in the real exchange rate of the Argentine currency relative to the U.S. dollar. To address these pressures, past Argentine governments implemented various plans and utilized a number of exchange rate systems.

In the fourth quarter of 1998, adverse international financial conditions caused the Argentine economy to enter into a recession and GDP to decrease between 1999 and 2001. By the end of 2001, Argentina suffered a profound deterioration in social and economic conditions, accompanied by high political and economic instability. The restrictions on the withdrawal of bank deposits, the imposition of exchange controls, the suspension of the payment of Argentina's public debt and the abrogation of the peso's one-to-one peg to the dollar (with the consequent devaluation of the peso against the dollar) caused a decline in economic activity. Real GDP declined by 10.9% in 2002, annual inflation rose to 41%, the exchange rate continued to be highly volatile, and the unemployment rate rose to more than 20%. The political and economic instability not only curtailed commercial and financial activities in Argentina but also severely restricted the country's access to international financing.

Strong economic growth in the world's developed economies, favorable raw material prices from 2003 through the first half of 2008 and the implementation of new macroeconomic policies paved the way for Argentina's economic recovery. Real GDP grew at an average cumulative rate of 8.5% between 2003 and 2008. As a result of the crisis in the global economy, Argentina's real GDP growth rate decelerated in 2009 to 0.9% but recovered in 2010 and 2011 growing by approximately 9% each year.

After the growth in 2010 and 2011, several factors led to a decrease in growth of the Argentine economy from 2012 to 2018, including several years with negative GDP compared to the previous year. As of the date of this annual report, the provisional figures of the GDP of Argentina for 2016, the provisional figures for 2017 and the preliminary figures for 2018 published by INDEC, were 1.8% negative, 2.7% positive and 2.5% negative, respectively. Regarding 2019, according to the latest data published in the Activity Level Progress Report prepared by the National Institute of Statistics and Censuses of the Argentine Republic (INDEC), the preliminary showed a negative annual variation of the economic activity in the GDP of 2.2%.

Argentina has confronted and continues to experience inflationary pressures. According to inflation data published by INDEC, from 2008 to 2013, the Argentine consumer price index ("CPI") increased 7.2%, 7.7%, 10.9%, 9.5%, 10.8% and 10.9%, respectively, and the wholesale price index increased 8.8%, 10.3%, 14.5%, 12.7%, 13.1% and 14.7%, respectively. In 2014, the Argentine government established a new consumer price index known as the IPCNU, based on the belief of certain private analysts that the figures published by INDEC were lower than the actual ones, that more broadly reflects consumer prices by considering price information from the 24 provinces of the country, divided into six regions. According to INDEC, the IPCNU increased 23.9% in 2014. For 2015, INDEC published an alternative CPI that showed an increase of 26.9%. In 2016, the alternative CPI, from January to April, increased 4.1%, 4.0%, 3.3% and 6.5%, respectively, and from May to December, a new CPI was published that showed increases of 4.2%, 3.1%, 2.0%, 0.2%, 1.1%, 2.4%, 1.6% and 1.2% respectively. In 2017, the published CPI amounted 24.8% and in 2018 47.6%.

During 2019, the price increase reflected by the consumer price index (CPI) elaborated by INDEC, which is representative of the total number of households in the country, was 53.8%, while the wholesale internal price index (WPI), elaborated by the same agency, had an increase of 58.5% during 2019. In January, February and March of 2020, the CPI increased by 2.3%, 2.0% and 3.3%, respectively, while the WPI increased by 1.5%, 1.1% and 1.0% in January, February and March, respectively.

During 2017, the main national indicators showed favorable variations compared to the previous year, such as the reduction of the inflation rate, the stability of the exchange rate and the growth of GDP. However, during 2018, the variation of macroeconomic variables, as explained below, resulted in a negative impact on the level of economic activity, mainly in the second half of the year. Consequently, the National Government effective at that time decided to act, almost exclusively, in terms of contractionary monetary policy, reducing the amount of money supply, and raising interest rates, which had negative consequences on goods consumption and the economy in general. Additionally, the IMF approved a three-year stand-by agreement for Argentina for an amount over U.S. \$ 50 billion. Between 2018 and 2019, all funds disbursed by the IMF amounted to approximately U.S. \$ 44.1 billion. As of the date of issuance of this report, the Government has initiated negotiations with said agency in order to renegotiate the maturities of the agreement, originally planned for the years 2021, 2022 and 2023. We cannot assure the impact of such decision or the result of the aforementioned renegotiation in the Argentine economy and/or in our economic and financial conditions, and in our results of operations. For more information, see the section "Risk Factors—Risks Relating to Argentina—The evolution of the Argentine economy is largely dependent on a successful

restructuring of the public debt, including that held by the IMF,” “Risk Factors—Risks Relating to Our Business—Uncertainty and illiquidity in credit and capital markets can impair our ability to obtain credit and financing or obtain them on acceptable terms.” For information regarding our debt and maturity see “Item 11. Quantitative and Qualitative Disclosures about Market Risk—Interest rate exposure” and Note 20 to the Audited Consolidated Financial Statements.

During 2019, Argentina’s provisional trade balance was a surplus of approximately U.S.\$ 15.9 billion as of result of the reduction of imports, according to preliminary estimates from INDEC, with total exports of approximately U.S.\$ 65.1 billion during 2019, representing a 5.7% increase compared to the same period in 2018. Total imports were approximately U.S.\$ 49.1 billion, representing a decrease of 24.9% compared to the same period in 2018.

Regarding the conditions of the local foreign exchange market, the peso/dollar average exchange rate, amounted to 59.90 pesos per dollar at the end of 2019, having increased approximately 58% from its value of 37.81 pesos per dollar at the end of 2018. The average price for the year 2019 was 71.7% higher than the average registered during the year 2018. Additionally, as of the date of this annual report, the blue chip swap rate (Contado con liquidación) presents a gap with respect to the official exchange rate for dollar of approximately 60% which in turn indicates a possible lag in the official exchange rate (leading to devaluation) and represents potential pressure over the macroeconomic variables such as inflation, among others.

Regarding monetary policy, the Central Bank of the Argentine Republic (“BCRA”) based its policy on the control of the growth of some monetary aggregates, leaving the former policy based on inflation targets behind. Additionally, it established intervention and non-intervention exchange rate zones, where the exchange rate fluctuated freely within these limits. These areas were updated on April 16, 2019 for the last time. During 2019, the interest rate of the LELIQ (Liquidity Letters issued by the BCRA) fluctuated between 45% in February and maximums of 86% in September, closing at December 30, 2019 at 55%.

During the first quarter of 2020, the BCRA continued with the gradual lowering of the lower limit of the LELIQ interest rate, reaching a minimum of 38% as of the date of this annual report, considering that high interest rates proved ineffective in generating sustainable lowering of the inflation rate in time, and led to the recessive process of the last two years.

Since August 2019, the perception of the risk associated with Argentine assets increased, from the perception of the sovereign’s excess indebtedness, deteriorating the ability of the public sector to renew short-term debt maturities. This caused a sharp fall in the price of all Argentine assets (public and private securities, stocks and others), a depreciation of the exchange rate, a drop in dollar deposits and consequently of the external reserves of the BCRA. Likewise, the downward trend that inflation was showing in the months prior to the primary elections was interrupted.

As a consequence, the former National Government issued new measures that consisted of (i) the granting of bonds for public and private workers; (ii) the freezing, until November 2019, of the price of electricity and gas tariffs; (iii) the suspension of the increase in inflation of the UVA loan installments, until December 2019; (iv) the increase of the non-taxable minimum income tax; (v) the call to the Council of the Minimum Vital and Mobile Salary; (v) the elimination of value added tax (VAT) for some goods of basic necessity, until December 2019.

On August 29, 2019, Decree No. 596/19 (the “Decree 596”) was published in the Official Gazette, through which the payment obligations corresponding to the short-term national public debt securities were postponed (Letes, Lecap, Lecer and Lelink) for institutional holders, that is, it did not reach the human persons who were holders of said titles, and established that intervention would be given to the National Congress in order to promote the modification voluntary of the profile of the maturities of the financial commitments of the representative titles of national public debt of medium and long term, constituting an unprecedented case of a sovereign default in the national currency. Decree 596 provided that in the event that the holders of said titles are institutional holders, the payment thereof, although it would be made without a cut in capital or interest, will be made as follows: (i) 15 % at maturity, (ii) 25% 90 days after expiration; and (iii) the remaining 60% six months after expiration.

On September 1, 2019, the Argentine Executive Branch issued Decree No. 609 in order to maintain exchange stability and protect reserves before the high amount of uncertainty for more information see “Additional information - Exchange rates and exchange regulations”.

First measures of the elected government

On October 27, 2019, the presidential and legislative elections were held, which determined the election of Dr. Alberto Fernández as President of Argentina. On October 28, 2019, after the results of the elections were known, the Board of Directors of the BCRA decided to take a series of measures with the objective of suppressing the fall in dollar deposits and international reserves of the Central Bank. On that date, the BCRA Communication “A” 6815 that modifies Communication “A” 6770 and reinforces exchange controls was published in the Official Gazette, highlighting the restriction on the creation of external assets for resident Human Persons when the equivalent of U.S.\$ 200 is exceeded on a monthly basis.

On December 10, 2019, a new administration took office and has since been facing singular challenges in macroeconomic matters, such as those relating to the attempt to reduce the inflation rate, reach commercial and fiscal surplus, increase the country's foreign currency reserves, preserve the value of the peso, improve the competitiveness of the Argentine industry sector, ensure financial stability and the outbreak of COVID-19, among others, in addition to a large unregistered debt of the Treasury and Provincial Treasuries. It is difficult to predict the impact that the measures which the new government adopted or will adopt (including any measures related to the energy sector). This uncertainty could additionally lead to further volatility of Argentine stock market prices including, in particular, companies in the energy sector, like ours, given the degree of state regulation and intervention in this industry. Additionally, we cannot guarantee that the current policies and programs that apply to the oil and gas sector will continue in the future.

On December 13, 2019, the Decree of Necessity and Urgency No. 34/2019 was published in the Official Gazette, which declares a public emergency in occupational matters for a term of 180 days, establishing that in the event of dismissal without just cause during the aforementioned period, the affected worker will have the right to receive double compensation in accordance with current legislation.

On December 20, 2019, the Decree of Necessity and Urgency No. 49/2019 was published in the Official Gazette, which extended the maturity dates of the short-term national bonds denominated in U.S. dollars until August 31, 2020, only valid for legal persons that have acquired these titles before July 31, 2019.

Law No. 27,541, denominated "Law of Social Solidarity and Productive Reactivation in the Framework of Public Emergency" was published in the Official Gazette on December 23, 2019. Pursuant to such law the Argentine government declared a public emergency in terms of economic, financial, fiscal, administrative, pensions, tariffs, energy, health and social matters. Additionally, it also provided for the creation of a five year tax denominated "Tax for an Inclusive and Solidary Argentina (PAIS)", which corresponds to a 30% surplus charge on the purchase of foreign currency (which also applies to the monthly amounts which can be purchased pursuant to Communication "A" 6815 of the BCRA) regardless of the use of such currency, such as savings, the payment of offshore services, or international travel and transportation. Those measures were taken in order to create the conditions to ensure fiscal and public debt sustainability, promote productive recovery and strengthen the social redistributive nature (see "Item 3. Key Information—Exchange Regulations" and "Item 4 – Information on the Company – Legal and Regulatory Framework and Relationship with the Argentine Government – Public Emergency"). Regarding the national public debt, and in accordance with the BCRA Monetary Policy Report for the month of February 2020, the National Government is committed to restoring the sustainability of the public debt and for that reason the so-called "Law of Restoration of the Sustainability of External Public Debt", dated February 5, 2020, was approved by the Argentine Congress, authorizing the Argentine Executive Branch to carry out the liability management transactions, debt exchanges and general restructurings of Argentine sovereign debt securities subject to foreign law, in order to modify their interest and principal amortization schedules. This law also authorized the Ministry of Economy to issue new public securities for purposes of such reprofiling. We cannot assure whether the Argentine government will succeed in its negotiations with both the IMF and private holders of public debt, all of which could affect its ability to implement reforms and public policies in order to boost economic growth, nor the impact of the result this renegotiation will have on Argentina's ability to access to the international capital markets (including our ability to access such market), on the Argentine economy, or on our economic and financial condition, or our ability to extend our debt or other conditions that could affect our results of operations or businesses. For more information, see the section "Risk Factors—Risks Relating to Argentina—The evolution of the Argentine economy is largely dependent on a successful restructuring of the public debt, including that held by the IMF."

On February 11, 2020, Decree No. 141/2020 that postponed payment of the amortization of the "Argentine Dual Currency Bonds" through September 30, 2020 was published in the Official Gazette. However, this decree does not affect individuals who, as of December 20, 2019, held such securities in a principal amount of less than U.S.\$ 20,000. By means of Resolution No. 11/2020 issued by the Secretary of Finance and the Secretary of Treasury, the principal amortization of the Argentine Dual Currency Bonds shall be calculated at the applicable exchange rate at such date, as defined by the Resolution No. 7 dated July 11, 2018 issued by the Secretariat of Finance and the Secretariat of Treasury.

On March 10, 2020, Decree No. 250/2020 was published in the Official Gazette, which set forth that any liability management transactions to be conducted pursuant to debt exchanges or other means of restructuring of the public securities of the Argentine Republic would be limited to a principal amount of U.S.\$ 68,842 million, as this was the principal amount issued under foreign law and outstanding as of February 12, 2020. Furthermore, on March 16, 2020, the Ministry of Economy issued Resolution No. 130/2020, enabling the Argentine Republic to file with the Securities and Exchange Commission a registration statement for securities in an amount not to exceed the principal amount cap.

On April 6, 2020, Decree No. 346/2020 was published in the Official Gazette, which deferred payments of interest services and principal repayments of the national public debt instrumented by U.S. dollar-denominated securities issued under the law of the Argentine Republic until December 31, 2020. However, such Decree exempts from deferral, among others, the "Natural Gas Program Bonds" issued by Resolution No. 21/2019 of the Ministry of Finance (see "Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government— MINEM Resolution No. 97/2018). Additionally, the validity of Decree No. 668/2019 was extended until December 31, 2020, including the Sustainability Guarantee Fund ("Fondo de Garantía de Sustentabilidad").

On April 14, 2020, by virtue of Decree No. 250/2020 and Resolution No. 130/2020, the Argentine Republic submitted the registration for the offer of public securities for a maximum amount of nominal value of U.S.\$ 51,653 million (or its equivalent in other currencies).

On April 16, 2020, the Argentine Government announced its offer to holders of public debt, based on the following points: (i) postponement of interest and capital payments for three years; (ii) payment reduction of U.S.\$3.6 billion of capital and U.S.\$37.9 billion of interests, which represents a decrease of 5.4% and 62%, respectively, and (iii) an interest rate of 0.5% beginning in 2023, which shall grow year by year to sustainable levels, being 2.33% the average interest rate of the proposal.

On April 21, 2020, through the issuance of Decree No. 391/2020, the Argentine Government formalized the invitation for the restructuring of certain bonds denominated in and Euros, which are governed by foreign law, consisting of an exchange offer for new bonds for maximum aggregate amounts up to U.S.\$44.5 billion and 17.6 billion euros (the "Invitation"). In addition, on April 22, 2020 the Argentine Government, through the Ministry of Economy published the prospectus supplement dated April 21, 2020 (the "Prospectus Supplement") containing the terms and conditions of the Invitation to submit orders to exchange the eligible bonds described in the Prospectus Supplement (the "Eligible Bonds"). Such Invitation will expire at 5:00 p.m. (New York City time) on May 8, 2020, unless extended or earlier terminated by Argentina.

On April 22, 2020, Argentina failed to make interest payments under its 2021 Global Bond, 2026 Global Bond and 2046 Global Bond governed by foreign law in an aggregate amount of U.S.\$ 503 million; consequently, Argentina now has a 30-day grace period to make such coupon payments in order to prevent an event of default under the applicable indentures.

Hydrocarbon market

In terms of specific variables of the Petroleum activity, in 2016, a new reduction of approximately 10% in the domestic crude oil price per barrel compared to the price in effect on December 31, 2015 was agreed upon. This change stemmed from negotiations between producers, refiners and MINEM, whereby it was agreed to reduce the domestic price of Medanito crude oil and Escalante crude oil since January

2016 until July 2016 to U.S.\$ 67.50 and U.S.\$ 54.90 per barrel, respectively. In addition, in August 2016 a new agreement between producers, refiners and MINEM provided for a new gradual reduction in the domestic crude oil price per barrel by 2% per month in August, September and October for a 6% aggregate drop before November 2016.

In 2017, continuing the gradual reduction of crude oil prices in the market, an agreement among producers (the “Transitional Agreement”), refiners and MINEM was reached to attain price parity with international markets during the course of 2017 and sustain domestic production and labor sources. This agreement established decreasing prices for domestic crude oil during 2017, with the aim of reaching the price of Brent crude in the international market as of the effective date of the agreement. As a starting point, a reference price of U.S.\$ 59.40 and U.S.\$ 48.30 was set for Medanito and Escalante crude oil, respectively, for January 2017, with a gradual reduction to U.S.\$ 55.00 and U.S.\$ 47.00, respectively, in July 2017 and maintaining those prices until December 2017, provided that the price of Brent crude oil and the exchange rate of the Argentine peso to the U.S. dollar remains within certain parameters. It was also agreed that imports of crude oil and petroleum products as a complement to domestic production of these hydrocarbons will be subject to the shortage of both products in the domestic market, for which MINEM will promote the creation of a registry of imports of crude oil and derivatives to ensure the full utilization of domestic production within the constraints of production and processing of each producer and/or refiner.

The Transitional Agreement provided that if, at any time, the international average price of a barrel of Brent crude oil exceeded the reference value for local crude oil of Medanito type by less than one U.S. dollar per barrel for a period greater than 10 consecutive days, the commitments assumed by the parties to the agreement would be suspended, effective as of the immediately succeeding calendar month.

Additionally, the Transitional Agreement establishes mechanisms to adjust fuel prices, on a quarterly basis, in the domestic market in 2017 to reflect the impact of changes in crude oil prices, biofuels and changes to the exchange rate, in accordance with the formula established in the agreement. In the past, domestic fuel prices had been adjusted but not in line with international market prices for petroleum products mainly due to the market conditions affecting the Argentine market.

On September 26, 2017, MINEM informed that the conditions for the suspension of the Transitional Agreement had been achieved on September 13, 2017, and consequently the terms of the Transitional Agreement (other than the requirements relating to the import of crude oil and derivatives) were suspended, effective as of October 1, 2017. During November and December of 2017, the average price of the Brent crude oil continued to run higher than the reference value for local crude oil of Medanito. Consequently, the Transitional Agreement remained suspended and finally, as of December 31, 2017, the Transitional Agreement was officially discontinued.

Our pricing policy for fuels contemplates several factors such as international crude oil prices and, refining spreads, processing and distribution costs, biofuel prices, exchange rate, local demand and supply, competition, inventories, withholding tax on exports, local taxation, and domestic margins for our products, among others. Despite our expectation of substantially maintaining a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, we cannot assure you that other factors that are also considered in our pricing policy (including, but not limited to, abrupt changes in the exchange rate, or in international prices or potential legal or regulatory limitations that affect the ability of the market to face abrupt changes in the prices of our products), will not have an adverse impact on our ability to do so in the short term. For more information, see the sections “Risk Factors—Risks Relating to Argentina—Our business is largely dependent upon economic conditions in Argentina” and “Risk Factors—Risks Relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.”

Despite the price fixing mechanisms described above, due to the abrupt variation in the exchange rate and the consequent difficulties to pass-through the corresponding variation to domestic prices, in addition to the increase in international prices of oil, during the second quarter of 2018, the MINEM and the refining companies entered into a price stability agreement with a compensatory account, whereby refining companies undertook not to make changes in the prices of their products -net of fuel taxes- in force as of the date of the agreement, during the months of May and June. Moreover, at the beginning of June 2018, a supplemental agreement was entered into, which established a Brent referent price for oil purchase transactions between refining and producing companies, and an increase in the final prices of fuel and gasoil as of June 2, 2018, which included the variation of tax on liquid fuels, carbon dioxide tax and the prices of biofuels in force at that date.

However, due to the volatility and significant change in the variables which gave rise to the price stability agreements, YPF informed the former MINEM of its decision to implement, as of 1 July, 2018, the commercial policies applicable to the changes in the applicable variables, both for the determination of its products’ sale prices and for the purchase of crude oil, in a manner consistent with the evolution of the business environment in general and that of customers in particular, in accordance with the regulatory framework and applicable regulations. Consequently, the aforementioned agreements ceased to be in force for YPF as of June 30, 2018, the Company having nevertheless presented to the competent authorities the amounts resulting from the compensatory account, which represent contingent rights.

On December 6, 2018, YPF requested the SGE to set the guidelines for the implementation of the mechanism for the recovery of costs not transferred to fuel prices for the period covered by the Agreement, without having received a response as of the date of this annual report.

On August 15, 2019, the Argentine Executive Branch passed Decree No. 566/2019, which was later amended by Decree No. 601/2019 issued on August 30, 2019, and subsequently by SGE Resolution No. 557/2019 dated September 18, 2019, which established that: (i) until November 13, 2019 deliveries of crude oil made in the domestic market must be billed and paid at the price agreed between producers and refiners as of August 9, 2019, applying for this purpose an exchange rate of \$49.30/U.S.\$, equal to a 5.58% increase over the current reference price and a Brent reference price of U.S.\$ 59/bbl; and (ii) until the same date, the maximum price of all kinds of gasoline and diesel sold by refining companies and/or wholesalers and/or retailers, for the supply of fuel through fuel pumps at service stations may be increased by up to 4% compared to the prices in effect as of August 9, 2019.

Also, on November 1, 2019 SGE Resolution No. 688/2019 was published in the Official Gazette, modifying Decree No. 601/2019 and SGE Resolution No. 557/2019, and establishing that: (i) during the effective term of Decree No. 601/2019, crude oil deliveries made in the domestic market must be billed and paid at the price agreed between producing and refining companies as of August 9, 2019, applying a reference exchange rate of \$51.77/U.S.\$, equal to a 5% increase over the reference price established in SGE Resolution No. 557/2019, and a Brent reference price of U.S.\$ 59/bbl; and (ii) from November 1, 2019 and during the effective term of Decree No. 601/2019, the prices of all kinds of gasolines and diesel sold by refining companies and/or wholesalers and/or retailers, for the supply of fuel through fuel pumps at service stations may be increased by up to 5% compared to the prices in effect as of September 20, 2019.

After the price-freezing period ended, on November 14 and December 1, 2019, fuels increased on average 5% and 6%, respectively, the latter including a slight update of the fuel tax. As a result, our domestic prices did not reach international parity prices after the price-freezing period and before the recent substantial drop in the Brent price. Regarding this matter, the international price of a barrel of Brent fluctuated from 51.3 U.S.\$/bbl on March 5, 2020 to 35.3 U.S.\$/bbl on March 9, 2020 due to the rejection by Moscow of the proposal for new cuts, based on the increase in Arab production, to meet the challenges posed by the coronavirus (see “Item 3. Key Information --Risk Factors --Risks Relating to Our Business --We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.”) As of April 13, 2020, the price remains at 20.2 U.S.\$/bbl. As a result, the different players in the Argentine oil and gas industry have been proposing to set minimum local crude oil prices, regardless of international prices, with the purpose of protecting the local E&P industry. In that respect, according to certain recent newspaper reports, the Government is potentially working to put in place regulations regarding such minimum prices and certain other matters relating to the oil and gas industry. If these regulations were to enter into effect and the local price of the crude oil is set at values above those that were considered to set the price for our products (mainly gasoline and diesel), or if a new price-freezing period is established for our downstream products, such regulations will have a negative effect on our result of operations, financial conditions and cash flow. See “Item 3. Key Information --Risk Factors --Risks Relating to Our Business --If we fail to comply with the covenants set forth in our credit agreements and indentures or upon the occurrence of a change of control, we may be required to repay our debt”. As mentioned before, despite our expectation of substantially maintaining a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, we cannot assure you that other factors that are also considered in our pricing policy as mentioned above will not have an adverse impact on our ability to do so in the short term. For more information, see the section “Risk Factors --Risks Relating to Our Business --We are exposed to the effects of fluctuations in the prices of oil, gas and refined products” of this annual report.

During 2019 and 2018, the average annual prices of a barrel of Brent crude oil were U.S.\$ 64.4 and U.S.\$ 71.1, respectively, which represents a decrease of 9.4%. This variation was influenced by the production cuts of OPEC member countries and within the framework of international tensions that occurred in 2018, causing the price of a barrel of Brent crude oil to reach a maximum of approximately U.S.\$ 86 at the beginning of October, 2018. As for the local crude Medanita and Escalante, the average prices per barrel of crude oil were U.S.\$ 53.0 and U.S.\$ 54.9, respectively for the year 2019 and, U.S.\$ 65.4 and U.S.\$ 63.3, respectively for 2018. These prices were affected as of September 2018 by the export withholding regime established by Decree No. 793/2018, subsequently modified by Decree No. 37/2019, as well as by the freezing of domestic crude prices for 2019 mentioned below.

In relation to the natural gas market, since 2013 incentives were established to increase the total injection of natural gas. In particular in 2018 and 2019, an excess of supply was observed, from the greater production in unconventional fields, compared to domestic demand at certain times of the year. This was an atypical situation, compared to previous years, and it impacted on natural gas production by causing the temporary closure of production in some locations, as well as from the reinjection of the hydrocarbon. This situation caused a reduction in the sale price of natural gas in the domestic market. For information related to the natural gas market, see “Item 4. Legal and Regulatory Framework and Relationship with the Argentine Government—Market Regulation—Natural gas.”

COVID-19 outbreak

The coronavirus pandemic (COVID-19) is spreading rapidly, with tragic consequences for many people across many geographies. Global efforts to stop the virus are also having significant economic consequences. The financial markets are reflecting the disruption and our sector is particularly affected, not just by a virus-related shock on demand but by a supply-side shock as well in the world. In addition, the spread of coronavirus coupled with actions from OPEC+ has caused a significant drop in the oil price. See “—Hydrocarbon market.” The scale and duration of these developments remain uncertain. As of the date of this annual report, it is difficult to estimate the negative

impact this pandemic will have in the world economy and financial markets, in the Argentinean economy, and consequently in our financial condition and/or results of operations. We expect demand for our products to be affected by the new macroeconomic conditions because of the pandemic, and the measures which the Argentine Government adopted and may adopt in the future to protect the general population and fight the disease will likely also adversely affect demand for our products and services.

On March 20, 2020, the Argentine Executive Branch enacted the Emergency Decree No. 297/2020 (the “Decree 297”) establishing the Precautionary and Mandatory Social Isolation until March 31, 2020. The term of the Precautionary and Mandatory Social Isolation was initially extended by Emergency Decree No. 325/2020 of the Argentine Executive Branch until April 12, 2020, and further, extended, by Emergency Decree No. 355/2020 of the Argentine Executive Branch until April 26, 2020. During this Precautionary and Mandatory Social Isolation period, people must remain at their homes, and refrain from going to their workplace, moving by roads and public spaces, except to procure food, cleaning and medical supplies. The purpose of the aforementioned restrictions is to prevent circulation and spread of the virus COVID-19 and the consequent effects to public health, life and physical integrity.

Decree 297 contemplates certain activities and services, considered essential during the emergency, that are exempted from the Precautionary and Mandatory Social Isolation. Workers whose activities and services were declared essential during the emergency are allowed to commute, but only and exclusively for the purposes of those activities and services.

Among the exceptions to the Precautionary and Mandatory Social Isolation regulated by Decree 297 extended by several decisions rendered by the Chief of Staff (Jefatura de Gabinete de Ministros) are the following activities: public passenger transportation, transportation of goods, oil, fuels and LPG; guards to ensure the operation and maintenance of oil and gas fields, oil and gas treatment and/or refining plants, transportation and distribution of electrical energy, liquid fuels, oil and gas, fuel dispensing stations and electric power generators; industries that carry out continuous processes which interruption will imply structural damage to production lines and or machinery, (subject to authorization from the Ministry of Industry, Knowledge Economy and External Commercial Management in order to not to interrupt their production, but with minimized activity and staffing); production and distribution of biofuels; operation of nuclear power plants; sustaining activities related to mining environmental protection; activities related to forestry and mining production, distribution, and commercialization; activities related to foreign trade: export of finished products and essential imports for the operation of the economy; exploration, prospecting, production, transformation and commercialization of nuclear fuel; private construction of energy infrastructure; etc.

Both the Argentine Executive Branch and the Chief of Staff can either extend or reduce the number of exceptions during the time that the Precautionary and Mandatory Social Isolation lasts.

Furthermore, Emergency Decree No. 355/2020 also established that the Chief of Staff, with previous intervention of the national sanitary authority and by request of the governors or the mayor of the City of Buenos Aires, can exempt the workers whose activities and services were declared essential or the persons living in certain geographical specific areas, from complying with the Preventive and Mandatory Social Isolation, as long as the following requisites are fulfilled:

- a. The governor of each province or the mayor of the City of Buenos Aires must request it in writing, with prior intervention of the maximum sanitary local authority, observing the particular epidemiological situation.
- b. Along with the request, an operational protocol shall be sent, complying with the sanitary and security recommendations and instructions, both federal and local.

The federal authorities in coordination with the authorities of each province or the City of Buenos Aires, and of their respective cities will determine the proceedings for the control and supervision of the protocols and regulations applicable in each case.

The Argentine Executive Branch enacted the Emergency Decree No. 329/2020 prohibiting dismissals of workers without fair cause, as well as dismissals and suspensions for reasons of lack or reduction of activity and force majeure, for a period of 60 days as from March 31,

2020. Any dismissal or suspension resolved contravening such prohibition shall have no effects, and the existing labor relationships and its conditions shall be maintained.

This Decree excepted from the aforementioned prohibition the application of section 223 of the Labor Contract Act, which establishes, in the event of lack or reduction of work not attributable to the employer, or force majeure, the possibility of agreeing, either individually or collectively, with the approval of the enforcement authority, the payment of non-remunerative amounts to workers.

By Resolution No. 86/2020, in accordance with the faculties provided by the Law of Supply No. 20,680 (Ley de Abastecimiento), the Secretariat of Internal Commerce of the Ministry of Productive Development fixed maximum prices for alcohol-based hand sanitizers (alcohol en gel), and provided that all companies which are part of the chain of production, distribution and commercialization of such goods and inputs must increase their production to the maximum level of their installed capacity. This Resolution became effective on March 13, 2020 for a period of 90 calendar days which could be extended.

The Resolution No. 100/2020 of the Secretariat of Internal Commerce also fixed maximum prices for producers, distributors and resellers of certain goods (such as food, cleaning, and hygiene supplies). Furthermore, it provided that all the companies which are part of the chain of production, distribution and commercialization of such goods must increase their production to the maximum level of their installed capacity and secure their transport and supply. This Resolution became effective on March 20, 2020, for a period 30 calendar days, which could be extended.

Pursuant to Decree No. 351/2020, mayors of all cities in the country should control and supervise the compliance of the aforementioned Resolution No. 100/2020, or the regulations that may replace or amend it in the future. Finally, this Decree requests that the governors of all provinces and the mayor of the City of Buenos Aires to control the compliance of such Resolution and rule in accordance therewith, or the regulations that may replace or extend it in the future, and to coordinate actions with the mayors of the cities of their respective provinces. This Decree became effective on April 10, 2020 and will be applicable during the sanitary emergency declared by Emergency Decree 260/2020, which will last at least a year from March 13, 2020.

Since the implementation of all these measures, demand for gasoline and diesel has decreased by approximately 70% and 40%, respectively, when compared to prior sales levels, which in turn adversely affects our results of operations and cash flows. Any prolonged restrictive measures put in place in order to control an outbreak of a contagious disease or other adverse public health development in any of our targeted markets may have a material and adverse effect on our business operations. For more information see “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations” and “Item 3. Key Information—Risk Factors—Risks Relating to Our Business— An outbreak of disease or similar public health threat, such as COVID-19 (coronavirus), could adversely affect our business, financial condition and results of operations.”

The table below shows Argentina’s total sales, production, exports and imports of crude oil, diesel and gasoline products for the periods indicated.

	Year Ended December 31,		
	2019	2018	2017
Crude Oil in Argentina			
Production (mmbbl)	185.64	178.58	167.02
Exports (mmbbl)	22.44	21.07	9.91
Imports (mmbbl)	—	2.80	7.90
Diesel Fuel in Argentina			
Sales (mcm) ⁽¹⁾	13,928.76	13,992.85	14,192.94
Production (mcm)	11,599.83	11,538.86	11,858.23
Exports (mcm)	0.08	31.57	4.86
Imports (mcm)	2,101.28	2,170.14	2,131.90
Gasoline in Argentina			
Sales (mcm) ⁽¹⁾	9,353.66	9,517.56	9,465.37
Production (mcm)	8,757.54	8,885.47	8,763.76
Exports (mcm)	—	—	—

	Year Ended December 31,		
	2019	2018	2017
Imports (mcm)	520.92	617.72	415.67

(1) Includes domestic market sales.

Source: SE

Policy and regulatory developments in Argentina, including the Expropriation Law

The Argentine oil and gas industry has been subject to certain governmental policies and regulations that have resulted in: (i) domestic prices that do not keep pace with those prevailing in international markets (which usually resulted in lower local prices compared to prevailing international market prices before the recent decrease in international oil prices); (ii) export and import regulations; (iii) exchange controls; (iv) domestic supply requirements that oblige us from time to time to divert supplies from the export or industrial markets in order to meet domestic consumer demand; (v) increasingly higher export duties on the volumes of hydrocarbons allowed to be exported; (vi) increasingly higher investment and costs expenditure requirements in order to satisfy domestic demand and (vii) increasingly higher taxes. See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.” As discussed in “Item 3. Key Information—Risk Factors” and elsewhere in this annual report, actions by the Argentine government have had and will continue to have a significant effect on Argentine companies, including us.

Notwithstanding the foregoing, after the termination of the 2017 Transitional Agreement, according to Argentina’s Ministry of Energy and Mining, the hydrocarbons market in Argentina had become a liberalized market. Despite our expectation of substantially maintaining a constant relation between our internal prices and those of international markets over time, without considering short-term fluctuations, we cannot assure you that other factors (including, but not limited to, abrupt changes in the exchange rate, or in international prices or potential legal or regulatory limitations that affect the ability of the market to face abrupt changes in the prices of our products) that are also considered in our pricing policy as mentioned above, will not have an adverse impact on our ability to do so, in the short term. See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.” and see “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Limitations on local pricing in Argentina may adversely affect our results of operations” and “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—We are exposed to the effects of fluctuations in the prices of oil, gas and refined products.”

For information regarding policy and regulatory developments relating to the oil and gas industry in Argentina see “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government.”

The Expropriation Law declared achieving self-sufficiency in the supply of hydrocarbons, as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law.” Upon the passage of the Expropriation Law, the Argentine government gained control over the Company. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—The Argentine Republic owns 51% of the shares of the Company.”

Export volumes

The exported volumes of many of our hydrocarbon products have declined significantly in recent years, driven mainly by increasing domestic demand and export administration, as well as by declines in production.

The table below presents, for the periods indicated, the exported volumes of certain of our principal hydrocarbon products.

Product	Year Ended December 31,		
	2019	2018	2017
	(units sold)		
Natural gas (mmcm)	498	3	-
Gasoline and diesel (mcm)	256	200	213

	Year Ended December 31,		
	2019	2018	2017
		(units sold)	
Fuel oil (mtn) ⁽¹⁾	243	228	282
Petrochemicals (mtn)	301	410	206

(1) Includes bunker oil sales of 243 mtn, 228 mtn and 282 mtn in 2019, 2018 and 2017, respectively.

Exports accounted for 13.0%, 10.3% and 8.7% of our consolidated revenues in 2019, 2018 and 2017, respectively. Export duties are accounted for as tax expenses in our Audited Consolidated Financial Statements.

The Argentine government currently requires companies intending to export crude oil and diesel to obtain prior authorization from the Secretary of Energy by demonstrating that local demand for those products has been satisfied. The same criteria is applied to exports of LPG upon Law 26,020, dated 2005.

Seasonality

Historically, our results have been subject to seasonal fluctuations during the year, particularly as a result of greater natural gas sales during the winter. After the 2002 devaluation and as a consequence of the natural gas price freeze imposed by the Argentine government until recent years, the use of this fuel has diversified, generating an increase in its long-term demand throughout the year. However, since 2018 the Argentine natural gas market has been affected by the oversupply during the Off-Peak Period. This situation, in addition to CAMMESA's bidding processes, which promoted a strong competition in the power generation plants demand, had a sensitive effect on the demand for the remaining segments, generating a lower quantity of firm commitments and/or contracts for shorter terms. Most sales agreements on a firm basis during 2019 were renewed at lower prices due to the aggressive competition.

Consequently, natural gas prices purchased by segments as natural gas traders and industries (the last ones under private bidding processes) decreased due to a strong competition for demand not only in the Off-Peak Period but also during higher consume months, in accordance with a context of short term oversupply, economic recession and macroeconomic uncertainty (see "Item 4. Information on the Company --Legal and Regulatory Framework and Relationship with the Argentine Government --Market Regulations --Natural Gas --Tariffs."). Based on the detailed, we could be subject to fluctuations in non-winter season in our sales volumes and consequently our level of natural gas production could be negatively affected and resulted market prices could be lower than expected. See "Item 3. Key Information --Risk Factors -- Risks Relating to Our Business --Oil and gas activities are subject to significant economic, social, environmental and operational risks and to seasonal fluctuation of demand."

Critical Accounting Policies

Our accounting policies are described in Note 2.a and b. to the Audited Consolidated Financial Statements. IFRS requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses and disclosures of contingent assets and liabilities in our financial statements. Actual results could differ from those estimates. We consider the following policies or matters to be most critical in understanding the judgments that are involved in preparing our Audited Consolidated Financial Statements and the uncertainties that could impact our results of operations, financial condition and cash flows:

- Functional and reporting currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.
- Impairment of long-lived assets. See Notes 2.b.8 and 2.b.9 to the Audited Consolidated Financial Statements. Furthermore, for additional information regarding assumptions used for our impairment calculation as of December 31, 2019, see Note 2.c to the Audited Consolidated Financial Statements.
- Impairment of financial assets. See Notes 2.b.2 and 2.b.18) to the Audited Consolidated Financial Statements.
- Depreciation of oil and gas producing properties. See Note 2.b.6 to the Audited Consolidated Financial Statements.
- Asset retirement obligations. See Notes 2.b.6 and 15.b to the Audited Consolidated Financial Statements.
- Consolidation decisions and classification of joint arrangements. See Notes 2.a), 2.b.5), 3 and 10 to the Audited Consolidated Financial Statements.

- Environmental liabilities, litigation and other contingencies. See Notes 2.c, 15, 31 and 32.b to the Audited Consolidated Financial Statements.
- Leases. See Notes 2.b.12 and 2.b.26 to the Audited Consolidated Financial Statements.
- Income tax and deferred tax. See Notes 2. b.15 and 16 to the Audited Consolidated Financial Statements.

In connection with the disclosure of the impact that recently issued accounting standards will have on financial statements in future periods, see Note 2.b.26 to the Audited Consolidated Financial Statements as of December 31, 2019.

In addition, for information regarding our estimates of oil and gas reserves, see “Item 4. Information on the Company—Upstream—Oil and Gas reserves.”

During the third quarter of 2019, the Group recognized an impairment charge of property, plant and equipment, mainly for the CGU Gas – Neuquina Basin of Ps. 40,561 million (Ps. 30,421 million net of income tax effect), generated among others by the fall in natural gas prices (and liquids) due to the situation that the market is going through both globally and, by specific dynamics, at the local level. The aforementioned affects the investments and activity, generating the impairment of the related assets by the charge recorded. As discussed in Note 2.c to the Audited Consolidated Financial Statements as of December 31, 2019, the recoverable amount of property, plant and equipment and intangible assets analysis is performed on the year-end date or whenever there is evidence of impairment of the recoverable value. See Note 2.c – “Provision for impairment of property, plant and equipment and intangible assets” to the Audited Consolidated Financial Statements. It is difficult to predict with reasonable certainty the amount of expected future impairment losses given the many factors impacting the asset base and the cash flows used in the prescribed ceiling test calculation. These factors include, but are not limited to, future prices, operating costs, foreign exchange rates, capital expenditures timing, production and its impact on depletion and cost base, upward or downward reserve revisions, reserve additions, and tax attributes. According to the foregoing, and in connection with the estimation of impairment of long-lived assets as of December 31, 2019, if our future crude oil and natural gas prices were reduced by U.S.\$ 5/bbl and U.S.\$ 0.50/mmBtu, respectively, for all years of the future discounted cashflows, and assuming all other factors remain constant, our provision for impairment of long-lived assets comprising the upstream CGUs would increase by approximately U.S.\$ 1.8 billion before income tax effects.

Consequently, as noted above, actual cash flows may be materially affected by other factors. There are numerous uncertainties inherent in the present value estimate of future cash flow, so this hypothetical calculation should not be construed as indicative of our development plans or future results. For more information on recent declines in the international Brent crude oil prices, domestic crude oil prices and domestic gasoline prices, see “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions.” For information regarding our domestic oil prices and reserves sensitivity analysis, see “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our oil and natural gas reserves are estimates.”

Principal Income Statement Line Items

The following is a brief description of the principal line items of our income statement.

Revenues

Revenues include primarily our consolidated sales of crude oil and natural gas and refined fuel and chemical products net of the payment of applicable fuel transfer taxes and turnover taxes. Customs duties on exports are accounted as selling expenses in our consolidated results of operations. Royalty payments required to be made to a third party, whether payable in cash or in kind, which are a financial obligation, or are substantially equivalent to a production or similar tax, are accounted for as a cost of production and are not deducted from revenues. See “Item 4. Information on the Company—Upstream—Oil and gas production, production prices and production costs” and Note 23 to the Audited Consolidated Financial Statements.

Costs

The following table presents (in millions of pesos), for each of the years indicated, a breakdown of our consolidated cost by category:

	For the year ended December 31,	
	2019	2018
Inventories at beginning of year	53,324	27,149
Purchases	190,601	124,279
Production costs	378,281	234,340
Translation effect	33,385	26,514

	For the year ended December 31,	
	2019	2018
Inventories incorporated by business combination ⁽¹⁾	-	445
Adjustment for inflation ⁽²⁾	496	167
Inventories at end of year	<u>(80,479)</u>	<u>(53,324)</u>
Total	<u>575,608</u>	<u>359,570</u>

(1) See Note 3 to the Consolidated Audited Financial Statements as of December 31, 2019.

(2) Corresponds to adjustment for inflation of inventories' opening balances of subsidiaries with the Peso as functional currency, which was charged to other comprehensive income.

The table below presents, for each of the years indicated, a breakdown of our consolidated production costs by category:

	For the year ended December 31,	
	2019	2018
Salaries and social security taxes	33,991	18,908
Fees and compensation for services	2,491	1,772
Other personnel expenses	8,941	5,313
Taxes, charges and contributions	7,370	3,634
Royalties, easements and canons	42,135	31,677
Insurance	2,692	1,335
Rental of real estate and equipment	11,079	8,983
Depreciation of properties, plant and equipment	139,345	83,700
Amortization of intangible assets	2,020	1,497
Depreciation of right-of-use assets	9,835	-
Industrial inputs, consumable material and supplies	22,095	11,126
Operational services and other service contracts	18,512	14,973
Preservation, repair and maintenance	48,762	31,141
Transportation, products and charges	23,137	12,714
Fuel, gas, energy and miscellaneous	5,876	7,567
Total	<u>378,281</u>	<u>234,340</u>

Our cost accounted for 84.8% and 82.5% of our consolidated revenues in 2019 and 2018, respectively. Our costs of sales increased by 60.1% from 2018 to 2019 due to the factors explained in “-Principal Income Statement Line Items-Cost.”

Other net operating results

Other net operating results principally include provisions for pending lawsuits and other claims, provisions for environmental remediation, result from sale of participation in areas, insurance recoveries, construction incentives and provisions for defined benefit pension plans and other post-retirement benefits. See “—Other net operating results.”

Financial income (expense), net

Financial income (expense), net consists of the net of gains and losses on interest paid and interest earned, financial accretion, foreign currency exchange differences and other financial results.

Income Tax

The effective income tax rates for the periods discussed in this annual report differ from the statutory tax rate (30%) mainly because: the registration of the deferred income tax as a result of the effect of applying the current tax rate (30%) on the difference generated between the tax basis of fixed and intangible assets and their book value under IFRS, measured in its functional currency and converted into pesos,

as described in Note 2.b.1 to our Audited Consolidated Financial Statements. See Note 16 to the Audited Consolidated Financial Statements for a more detailed description of the difference between statutory income tax rate and effective income tax rate. For information regarding the Law No. 27,430 and 27,432 introducing modifications to the Income Tax, see “Item 10. Additional Information—Taxation.”

Results of Operations

Consolidated results of operations for the years ended December 31, 2019, 2018 and 2017

The section below provides a comparative discussion of our consolidated results of operations for the years ended December 31, 2019 and 2018. See “Item 5. Operating and Financial Review and Prospects” in our Annual Report on Form 20-F for the fiscal year ended December 31, 2018 for a comparative discussion of our consolidated results of operations for the years ended December 31, 2018 and 2017.

The following table sets forth certain financial information as a percentage of revenues for the years indicated.

	Year Ended December 31	
	2019	2018
Revenues	100.0	100.0
Costs	(84.8)	(82.5)
Gross profit	15.2	17.5
Administrative expenses	(3.6)	(3.2)
Selling expenses	(7.4)	(6.4)
Exploration expenses	(1.0)	(1.3)
Other net operating results	(0.2)	2.7
(Impairment) / Recovery of property, plant and equipment	(6.1)	0.7
Operating (loss) / profit	(3.1)	10.0

The tables below present, for the years indicated, volume and price data with respect to our sales of our principal products in the domestic and export markets, respectively. Due to the decreased export product volumes, the portion of our revenues accounted for by exports decreased steadily in recent years. Exports accounted for 13.0% and 10.3% of our consolidated revenues in 2019 and 2018, respectively.

Domestic Market

Product	Year Ended December 31,			
	2019		2018	
	Units sold	Average Price per unit ⁽¹⁾ (in pesos)	Units sold	Average Price per unit ⁽¹⁾ (in pesos)
Natural gas	11,666 mcm	6,442 /mcm	13,325 mcm	4,553 /mcm
Diesel	7,925 mcm	28,433/cm	8,099 mcm	17,516 /cm
Gasoline	5,275 mcm	26,826 /cm	5,350 mcm	18,148 /cm
Fuel oil	192 mtn	7,020 /ton	34 mtn	11,677 /ton
Petrochemicals	396 mtn	31,978 /ton	582 mtn	15,053 /ton

⁽¹⁾ Average prices shown are net of applicable domestic fuel transfer taxes payable by consumers.

Export Markets

Product	Year Ended December 31,			
	2019		2018	
	Units sold	Average	Units sold	Average

		Year Ended December 31,			
		Price per unit ⁽¹⁾		Price per unit ⁽¹⁾	
		(in pesos)		(in pesos)	
Natural gas	498 mmcm	6,837 / mcm	3 mmcm	9,991 / mcm	
Gasoline	90 mcm	34,313 / cm	87 mcm	17,812 / cm	
Diesel	167 mcm	26,870 / cm	113 mcm	16,995 / cm	
Fuel oil	243 mtn	23,415 / ton	228 mtn	12,940 / ton	
Petrochemicals ⁽²⁾	301 mtn	30,140 / ton	410 mtn	17,377 / ton	

(1) Average prices shown are gross of applicable export withholding taxes payable by us.

(2) Includes exports of refined paraffinic.

Revenues

Revenues in 2019 were Ps. 678,595 million, representing a 55.7% increase compared to Ps. 435.820 million during 2018. Among the main factors contributing to the increase were:

- Diesel revenues in the Argentine domestic market increased by Ps. 85,605 million, or 61.3%, primarily as a result of an increase in the average price for diesel mix of approximately 64.8%, partially offset by a decrease in sales volumes of approximately 2.2%, along with the decrease of the market demand for this product of approximately 0.8%. Additionally, sales volumes of Infinia diesel, (premium diesel), decreased by 1.6%;
- Gasoline revenues in the Argentine domestic market increased by Ps. 44,416 million, or 45.7%, as a result of an increase in the average price for gasoline mix of approximately 47.8%, which was partially offset by a decrease in the aggregate sales volumes of approximately 1.4%, along with an approximately 1.9% decrease of the market demand for this product. Additionally, sales volumes of Infinia gasoline (premium gasoline) decreased by 14.4%;
- Natural gas revenues increased by Ps. 14,767 million, or 24.5%, as a result of an increase in the average price of 42.1%, offset by a decrease in sales volumes of 12.4%. The decrease in sales volumes is explained by the excess supply of natural gas compared to the demand which implies a decrease in price of all segments especially in gas power plants. Therefore, there was an impact on the production of natural gas and in consequence a lower volume shipping, mostly in the first semester of 2019. This trend about shipping volumes was reversed in the second semester of 2019 after capturing a greater demand of generators;
- Natural gas revenues to the retail segment (residential and small general service category) increased by Ps. 17,768 million, or 71.5%, mainly explained by the increased of our controlled company Metrogas S.A. sales by Ps. 21,826 million, due to an increase in the average price of 21.8% and an increase in sales volumes 41.5%;
- Other revenues in the Argentine domestic market increased by Ps. 36,205 million, or 52.6%, mainly due to an increase of fuel oil revenues by 239.7%, liquefied petroleum gas (LPG) revenues by 21.1%, aerokerosene revenues by 69.3%, crude oil revenues by 127.9%, petrochemicals revenues by 44.6%, fertilizer revenues by 86.1%, and lubricant revenues by 54.5%, all due to higher prices of those products, partly offset by a decrease in revenues of virgin gasoline by 45.2%;
- Export revenues increased by Ps. 44,014 million, or 98.0%, primarily due to increases in exports of aerokerosene by Ps. 10,459 million, or 69.7%, due to an increase in average prices in Argentine peso terms by 53.5%, and an increase in sales volumes of 10.6% as well as increases in exports of petrochemicals, representing incremental revenues of Ps. 1,601 million or 21.4%, due to better prices in Argentine pesos despite a decrease in the amount of volume and in fuel oil export representing an increase of Ps. 2,735 million or 92.5% due to an increase in average prices in Argentine peso and in the amount of volume. Export revenues of crude oil and virgin gasoline increased by Ps. 8,574 million and Ps. 2,568 million respectively, in both cases due to higher sales volumes and spot exports during the period. Exports of soybean meal and oil increase by Ps. 10,196 million, or 147.6%, due to an increase of 53.5% in average prices in Argentine peso terms and an increase of 61.3% in sales volumes. Furthermore, exports of natural gas had an increase of Ps. 3,371 million.

Costs

Costs during 2019 were Ps. 575,608 million, representing a 60.1% increase compared to Ps. 359,570 million during 2018, including increases in production costs and purchases of 61.4% and 53.4%, respectively. Among the main factors contributing to this increase were:

Production costs

- Property, plant and equipment depreciation costs increased by Ps. 55,645 million, or 66.5%, primarily as a result of overall increases in Argentine peso terms of the value of fixed assets, which was related to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company, which was partially offset by a decrease in the amortization coefficient due to the incorporation of reserves during 2018;
- Lifting costs increased by Ps. 45,708 million, or 73.0%, considering an increase of the unit indicator in Argentine peso terms of 79.0%, consistent with the general price increase of local economy and increased as well as a result of the higher workover activities tending to improve developed fields production performance, weighted by the fewer production as indicated before and a higher consume of chemical products for the use of wells and facilities;
- Royalty and other charges related to the production increased by Ps. 9,247 million, or 30.5%, with an increase of Ps. 7,874 million, or 36.6%, in crude oil royalties, and an increase of Ps. 1,374 million, or 15.6%, in natural gas royalties and other charges associated with the production of natural gas, in both cases due to the higher value at the wellhead of this products measured in pesos, partially affected to the downside from the lower production of natural gas in 2019 and as mentioned above;
- Transportation costs increased by Ps. 10,423 million, or 82.0%, mainly due to increases in rates;
- Refining costs increased by Ps. 11,580 million, or 87.6%. This increase was driven by higher charges for consumption of materials, spare parts and other supplies, salaries and social security taxes and preservation, repair and maintenance. As a result of this and also for lower processing level in refineries by 2.2%, the unit refining cost in 2019 increased by 91.8% compared to the same period of 2018;

Purchases

- Fuel imports increased by Ps. 9,133 million, or 39.9%, mainly due to higher imports of gas oil by Ps. 3,218 million, or 22.2%, jet fuel by Ps. 5,257 million, or 91.8%, and premium gasoline by Ps. 658 million, or 24.5% due to the devaluation that occurred in the aforementioned period;
- Purchases of crude oil from third parties increase of approximately Ps. 14,533 million, or 46.3%, due to an increase of 35.1% in the average purchase price to third parties in pesos, and an increase in purchase volumes of approximately 8.3%. However, purchases of light crudes have increased compared to a lower acquisition of heavy crudes leveraging the performance of our refineries;
- Natural gas purchases from other producers in order to sell to the retail segment (residential and small general service category) increased by Ps. 9,909 million, or 65.6% mainly due to an increase in the average prices of approximately 39.3% and an increase in volumes acquired of 13.1%;
- Purchases of biofuels increased by Ps. 10,671 million, or 44.6%, mainly due to an increase of 52.6% in the price of the FAME and 40.4% in the price of bioethanol and despite the decrease in the volumes purchased of FAME of 2.6% and the decrease in the volumes purchased of bioethanol of 0.5%;
- Receipt of grain increased by Ps. 7,458 million, or 105.1%, through the modality of exchange in the Agro sales segment, which are accounted for as purchases. This increase is due to an increase of 55.0% in the average price and 32.3% in the volumes received;
- During 2019, a negative existence variation of Ps. 6,726 million was registered, compared to the negative existence variation registered in 2018 of Ps. 951 million, mainly as a consequence of the higher consume of existences.

Administrative expenses

Administrative expenses during 2019 were Ps. 24,701 million, representing a 77.4% increase compared to Ps. 13,922 million during 2018, primarily as a result of increases in salaries and social security taxes expenses, higher fees and compensation for services expenses, operation services and other service contracts, many of which are dollarized, higher charges related to institutional advertising and to higher charges in the depreciation of property, plant and equipment.

Selling expenses

Selling expenses during 2019 were Ps. 49,898 million, representing an increase of 78.7% compared to the Ps. 27,927 million recorded during the same period of 2018, mainly due to higher charges for transportation, products and charges expenses, mainly linked to the

increase in fuel transportation rates in the domestic market and logistic changes on the distribution of fuel during 2019, higher taxes, charges and contributions expenses mainly due to the increase in export taxes, higher charges for depreciation of property, plant and equipment expenses, higher salaries and social security taxes expenses, higher provision for doubtful trade receivables, and higher fuel, gas and energy expenses, among others.

Exploration expenses

Exploration expenses during 2019 were Ps. 6,841 million, representing a 25.2% increase compared to Ps. 5,466 million in exploration expenses during 2018, mainly due to higher negative results from unproductive exploratory drilling in the current year, for a differential amount of Ps. 501 million versus the previous year. In turn, higher expenses of seismic and geological studies were recorded for Ps. 364 million. It should be noted that the exploratory investment during 2019 was 20.1% higher than the same period of the previous year.

(Impairment) / Recovery of Property, plant and equipment

During the third quarter of 2019, the Group recognized an impairment charge of property, plant and equipment, mainly for the CGU Gas – Neuquina Basin of Ps. 40,561 million (Ps. 30,421 million net of income tax effect), generated among others by the fall in natural gas prices (and liquids) due to the situation that the market is going through both globally and, by specific dynamics, at the local level. The aforementioned affects the investments and activity, generating the impairment of the related assets by the charge recorded.

Other net operating results Other net operating results, in 2019 were a loss of Ps. 1,130 million, compared to a gain of Ps. 11,945 million during 2018. Mainly, due to the recording of the result of the revaluation of YPF's investment in YPF EE for Ps. 11,980 million in the first quarter of 2018, as a result of the agreement for the capitalization of the latter, subscribed between YPF and a subsidiary of GE Financial Services, Inc.

Operating (Loss) / Profit

Operating loss in 2019 was Ps. 21,012 million due to the factors discussed above, representing a 148.0% decrease compared to the operating profit of Ps. 43,780 million in 2018.

Net Financial results

During 2019, financial results, net, was a gain of Ps. 6,034 million compared to a gain of Ps. 41,525 million during 2018. In this order, higher negative interests were recorded for Ps. 19,419 million as a result of higher interest rates during 2019 compared to 2018. Additionally, in 2019, net negative charges were recorded for financial accretion for Ps. 5,592 million, mainly due to the updating of liabilities for plugging, compared to the net positive charges recorded in 2018 for Ps. 7,627 million, as a result of the increase in the discount rate applied in the abandonment provision for wells. Finally, smaller positive exchange differences were recorded for Ps. 6,524 million, due to the devaluation of the Argentine peso against the U.S. dollar in 2019 compared to 2018.

Income tax

Income tax in 2019 represented a loss of Ps. 26,369 million, compared to a loss of Ps. 51,538 million in 2018. This increase was mainly due to the negative deferred tax charge of Ps. 3,588 million recorded in 2019, in comparison with the negative charge registered in 2018 for Ps. 50,595 million, in both cases, mainly as a result of the effects of the exchange rate fluctuations as mentioned previously. See Note 16 to the Consolidated Audited Financial Statements as of December 31, 2019.

Net (loss) / profit and other comprehensive income

Net profit in 2019 represented a loss of Ps. 33,379 million, compared to a gain of Ps. 38,606 million in 2018.

Other comprehensive income in 2019 was Ps. 221,367 million compared to income of Ps. 172,600 million in 2018, this is mainly attributable to the translation differences of property, plant and equipment.

As a result of the foregoing, total comprehensive income in 2019 represented a gain of Ps. 187,988 million, compared to a gain of Ps. 211,206 million in 2018.

Consolidated results of operations by business segment for the years ended December 31, 2019, 2018 and 2017

See the table of revenues and operating profit for each of our business segments for the years ended December 31, 2019 and 2018 in “Item 4. Information on the Company—Business Organization.” See “Item 5. Operating and Financial Review and Prospects” in our Annual Report on Form 20-F for the fiscal year ended December 31, 2018 for a comparative discussion of our consolidated results of operations by business segment for the year ended December 31, 2018 and 2017.

Upstream

During 2019, the Upstream segment had an operating loss of Ps. 49,194 million, compared to an operating profit of Ps. 22,483 million in 2018.

Crude oil and natural gas sales revenues, net in 2019 were Ps. 288,631 million, representing an 37.1% increase compared to Ps. 210,588 million in 2018. This increase is mainly due to the following factors:

- Crude oil sales increased Ps. 59,579 million or 41.0%, due to the fact that the intersegment price of crude oil increased approximately 42.2% measured in pesos (a decrease of 17.0% in U.S. dollars). Additionally, the crude oil volume transferred between the Upstream and the Downstream segments decreased by 1.8% (approximately 235 mmcm). The crude oil production during 2019, had a decrease of 0.5% compared to 2018 reaching 226 thousand bbl/d.
- Natural gas sales increased by Ps. 22,196 million, or 35.0%, as a consequence of a 44.5% increase in the average price in Argentine pesos and considering the devaluation produced between both periods. Additionally, the natural gas volume transferred between the Upstream and the Gas & Energy segments decreased by 4.7%, mostly due to the excess of supply of natural gas compared to the domestic and gas power plants demand which has an effect in the natural gas production, reaching 39.7 mmcm/d and representing a 5.5% decrease compared to 2018.

Total operating costs in 2019 were Ps. 290,745 million (excluding exploration costs), representing an 56.0% increase compared to Ps. 186,426 million in 2018. Among the main factors contributing to the increase were:

- Property, plant and equipment depreciation costs increased by Ps. 47,777 million, or 66.3%, mainly due to the appreciation of the assets taking into account their valuation in historical U.S. dollars according to the functional currency of the Company, partially offsetting by a decrease in the amortization coefficient as a result of the incorporation of reserves during the year 2018
- Lifting costs increased by Ps. 45,708 million, or 73.0%, considering an increase of the unit indicator in Argentine peso terms of 79.0%, consistent with the general price increase of local economy and increased as well as a result of the higher workover activities tending to improve developed fields production performance, weighted by the fewer production as indicated before and a higher consume of chemical products for the use of wells and facilities;
- Royalty and other charges related to the production increased by Ps. 9,247 million, or 30.5%, with an increase of Ps. 7,874 million, or 36.6%, in crude oil royalties, and an increase of Ps. 1,374 million, or 15.6%, in natural gas royalties and other charges associated with the production of natural gas, in both cases due to the higher value at the wellhead of this products measured in pesos, partially affected to the downside from the lower production of natural gas in 2019 and as mentioned above;
- Transport costs linked to production (truck, pipelines and pipelines in deposits) increased by Ps. 4,738 million, which represents an increase of 107.1%, mainly due to an increase in tariffs in pesos and a higher activity in non-conventional areas.

Exploration expenses in 2019 were Ps. 6,816 million, representing a 25.3% increase compared to Ps. 5,438 million in 2018, mainly due to higher negative results from unproductive exploratory drilling in the current year, for a differential amount of Ps. 501 million versus the previous year. In turn, higher expenses of seismic and geological studies were recorded for Ps. 364 million. It should be noted that the exploratory investment in pesos during 2019 was 20.1% higher than the same period of the previous year.

During the third quarter of 2019, the Group recognized an impairment charge of property, plant and equipment, mainly for the CGU Gas – Neuquina Basin of Ps. 40,561 million (Ps. 30,421 million net of income tax effect), generated among others by the fall in natural gas prices (and liquids) due to the situation that the market is going through both globally and, by specific dynamics, at the local level. The aforementioned affects the investments and activity, generating the impairment of the related assets by the charge recorded.

Downstream

Operating profit for the Downstream business segment during 2019 was Ps. 40,653 million, representing an increase of 420.0% compared

to operating profit of Ps.7,818 million during 2018.

During 2019, the processing level of our refineries was 86.9%, standing at approximately 2.2% below the level observed in 2018, mainly due to incidents in the Topping D furnace of the La Plata Industrial Complex, the power cut in Argentina of June 16, 2019 and plants shutdowns for repair and maintenance. With these levels of processing a lower production of 0.8% Gas Oil was obtained and a lower production of 2.3% gasoline (the latter corresponds to a lower production of Infinia “premium” gasoline 12.2% compensated in part by the greater production of Super gasoline 1.7%). Additionally, the production of other refined products such as liquefied petroleum gas (LPG), petroleum coal and asphalts decreased, and the production of fuel oil, petrochemical naphtha and lubricant bases increased, all in comparison with the productions of 2018.

Revenues from the Downstream business segment in 2019 were Ps. 535,171 million, representing a 57.5% increase compared to Ps. 339,730 million in 2018. Among the different aspects, that affected the income, the following stand out:

- Diesel revenues in the Argentine domestic market increased by Ps. 85,605 million, or 61.3%, primarily as a result of an increase in the average price for diesel mix of approximately 64.8%, and a decrease in sales volumes of approximately 2.2%, along with the decrease in the market for this product of approximately 0.8%. Additionally, sales volumes of Infinia diesel, a premium diesel, decreased by 1.6%;
- Gasoline revenues in the Argentine domestic market increased by Ps. 44,416 million, or 45.7%, as a result of an increase in the average price for gasoline mix of approximately 47.8%, which was partially offset by a decrease in the aggregate sales volumes of approximately 1.4%, along with an approximately 1.9% decrease in the market for this product. Nevertheless, sales volumes of Infinia gasoline, a premium gasoline, decreased by 14.4%;
- Other revenues in the Argentine domestic market increased by Ps. 23,084 million, or 39.8%. It highlights the highest sales of aerokerosene by 69.3%, petrochemical products by 44.6%, the highest sales of crude oil by 127.9%, fertilizers in 86.1%, lubricants in 54.5%, liquefied petroleum gas (LPG) in 21.1%, in in all these cases mainly due to the higher prices of these products in pesos, partially offset with a decrease in residual coal in 15.1%;
- Revenues obtained by the Downstream segment in the foreign market increased by Ps. 42,336 million, or 94.2%. They stand out among them, the greater sales to the outside of aerokerosene by Ps. 10,459 million, or 69.7%, due to an increase in the average prices of sale measured in pesos of 53.5% and in 10.6% in the volumes sold. Foreign sales of petrochemical products increased by Ps. 1,601 million, or 21.4% due to better average prices obtained in Argentine pesos, and lower volumes commercialized and fuel oil by Ps. 2,735 million or 92.5%, due to better average prices obtained in Argentine pesos, and higher volumes commercialized. There were also higher foreign sales of crude oil and virgin gasoline for Ps. 8,574 and Ps. 2,568 million respectively, mainly due to a greater commercialized volume and spot exportations during the period. There was also an increase in diesel and lubricants in Ps. 1,526 million and Ps. 1,564 million respectively. Additionally, higher sales of flours and oils were recorded for Ps. 10,196 million, or 147.6%, due to an increase in average sales prices of 53.5% measured in pesos and a higher sales volume of 61.3%.

Total operating costs increased 46.8% during 2019, reaching Ps. 448,202 million compared to Ps. 305,234 million in 2018. The following stand out within this variation:

- Increase in purchases of crude oil for Ps. 72,709 million or 40.8%. A rise of 40.8% was observed in the prices of crude oil expressed in pesos, mainly due to the devaluation that occurred, net from the effect of DNU N° 566/19 previously mentioned. In turn, the volume purchased from third parties increased by 8.3% (approximately 234 thousand cm), while the volume of crude transferred from the Upstream segment decreased by 1.8% (approximately 235 thousand cm)
- Fuel imports increased by Ps. 9,133 million, or 39.9%, mainly due to higher imports of gas oil by Ps. 3,218 million, or 22.2%, jet fuel by Ps. 5,257 million, or 91.8%, and premium gasoline by Ps. 658 million, or 24.5% due to the devaluation that occurred in the aforementioned period;
- Purchases of biofuels increased by Ps. 10,671 million, or 44.6%, mainly due to an increase of 52.6% in the price of the FAME and 40.4% in the price of bioethanol and despite the decrease in the volumes purchased of FAME of 2.6% and the decrease in the volumes purchased of bioethanol of 0.5%;
- During 2019, a negative existence variation of Ps. 8,736 million was recorded in this segment, in comparison with the negative existence variation registered in 2018 of Ps. 1,808 million, mainly as a consequence of the decrease in the price of crude oil in the fourth quarter of 2018 (valued at transfer price);
- Receipt of grain increased by Ps. 7,458 million, or 105.1%, through the modality of exchange in the Agro sales segment, which are accounted for as purchases. This increase is due to an increase of 55.0% in the average price and 32.3% in the

volumes received;

- Refining costs increased by Ps. 11,580 million, or 87.6%. This increase was driven by higher charges for consumption of materials, spare parts and other supplies, salaries and social security taxes and preservation, repair and maintenance. As a result of this and also for lower processing level in refineries by 2.2%, the unit refining cost in 2019 increased by 91.8% compared to the same period of 2018;
- Transport costs linked to production (naval, pipelines and pipelines) show an increase of Ps. 4,174 million, which represents an increase of 58.8% mainly due to an increase in peso rates;
- Depreciation of property, plant and equipment increased by Ps. 6,925 million, or 68.1%, motivated by the higher values of assets subject to depreciation with respect to the same period of the previous year due to the higher valuation thereof, taking into account the functional currency of the Company;

Selling expenses increased by Ps. 18,830 million, or 71.9%, primarily as a result of increases in, for transportation, products and charges, mainly linked to the increase in fuel transportation rates in the domestic market, which includes necessary spot changes on the logistic during 2019, as well as higher charges for depreciation of property, plant and equipment, higher salaries and social security taxes expenses and higher amounts of taxes on withholdings on exports.

Gas and Power

The Gas and Power business segment recorded an operating profit in 2019 of Ps. 2,944 million, which represents a decrease of 82.5% compared to the Ps. 16,786 million operating profit during 2018.

Revenues during 2019 were Ps. 139,752 million, representing an increase of 41.1% in relation to the Ps. 99,038 million corresponding to 2018. This increase is mainly due to the following factors:

- Sales as natural gas producers in the domestic and foreign markets increased by Ps. 20,153 million, or 30.6%, as a consequence of an increase in the average price of 41.9% in pesos, offset by an 8.0% reduction in volume sold. This reduction is explained mainly by an excess supply of natural gas compared to domestic and gas power plants demand which had an impact on the production and therefore a decrease in shipped volumes.
- Gas revenues to the retail segment (residential and small general service category) increased by Ps. 17,768 million, or 71.5%, mainly explained by the increased of our controlled company Metrogas S.A. sales by Ps. 21,826 million, due to an increase in the average price of 21.8% and an increase in sales volumes 41.5%;
- During 2019, we started to operate with Tango FLNG unit, a floating facility for natural gas liquefaction which exportations totalize Ps. 668 million.

In terms of total operating costs, an increase of 44.5% was observed during 2019, reaching Ps. 134,784 million compared to Ps. 93,296 million during 2018. The following stand out within this variation:

- Natural gas purchases increase by Ps. 21,356 million or 32.5%. A rise of 42.4% was observed in the prices of natural gas expressed in pesos, mainly due to the devaluation that occurred. In turn, the volume purchased from third parties decreased by 61.8%, while the volume of natural gas transferred from the Upstream segment decreased by 4.7%;
- Natural gas purchases from other producers for resale in retail distribution segment (residential and small businesses and industries) increase by Ps. 9,909 million, or 65.6%, mainly due an increase in the purchase price of approximately 39.3%, and an increase in volumes acquired of 13.1%;

Central Administration and Other

During the 2019, the operating loss of Central Administration and Other amounted to Ps. 15,866 million, compared to the operating loss of Ps. 6,055 million of 2018, which represents an increase in the loss of 162.0%. This greater loss is mainly explained by the expected losses in ongoing projects, mostly of our controlled company A-Evangelista S.A.. In the current period, there were increases in salaries and social security taxes expenses, higher charges for operation services and other service contracts and computer licenses, which are dollarized, and institutional advertising, added to higher charges for depreciation of property, plant and equipment partially offset with the income obtained by the segment.

Consolidation Adjustments

During 2019, the consolidation adjustments, which correspond to the elimination of certain results between business segments, which do not involve third parties, amounted to a gain of Ps. 451 million in of 2019, compared to a gain of Ps. 2,748 million in 2018. For both, 2019 and 2018, the difference between transfer prices across segments and the production cost of the Company's inventories decreased. In both cases, the movement of transfer prices reflects the changes in market prices, especially of crude oil.

Liquidity and Capital Resources

Financial condition

Total loans outstanding as of December 31, 2019, 2018 and 2017 were Ps. 526,760 million, Ps. 335,078 million and Ps. 191,063 million, respectively, consisting of (i) current loans (including the current portion of non-current loans) of Ps. 107,109 million and non-current loans of Ps. 419,651 million as of December 31, 2019, (ii) current loans of Ps. 64,826 million (including the current portion of non-current loans) and non-current loans of Ps. 270,252 million as of December 31, 2018 and (iii) current loans of Ps. 39,336 million (including the current portion of non-current loans) and non-current loans of Ps. 151,727 million as of December 31, 2017. As of December 31, 2019, 2018 and 2017, 92%, 86%, and 77% of our loans were denominated in U.S. dollars, respectively.

In the past we have repurchased certain of our publicly-traded bonds in open market transactions on an arms-length basis. The position of our repurchased bonds as of December 31, 2019 and 2018, was Ps. 326 million and Ps. 410 million, respectively. We may, from time to time, make additional repurchases of, or effect other transactions relating to, our publicly-traded bonds if, in our own judgment, the market conditions are attractive.

The following tables set forth our consolidated cash flow information for the periods indicated.

	For the year ended	
	December 31,	
	2019	2018
	(in millions of pesos)	
Net cash flows from operating activities	217,137	125,058
Net cash flows used in investing activities	(163,879)	(82,251)
Net cash flows used in financing activities	(56,082)	(43,656)
Translation differences provided by cash and equivalents	22,896	18,139
Reclassification of assets held for disposal	—	—
Net increase in cash and equivalents	<u>20,072</u>	<u>17,290</u>
Cash and cash equivalents at the beginning of the fiscal year	46,028	28,738
Cash and cash equivalents at the end of the fiscal year	66,100	46,028

Net cash flows from operating activities were Ps. 217,137 million in 2019 compared to Ps. 125,058 million in 2018. This 73.6% increase was primarily due to better operating results (without considering impairment of property, plant and equipment and intangible assets, depreciation of property, plant and equipment, amortization of intangible assets, depreciation of right of use assets, and unproductive exploration drilling) increased non-cash provisions and a decrease in working capital that includes the collection of eleven installments of the "Natural Gas Programs", offset by the payments for adhesion to the tax revaluation established by the Law No. 27,430 and the adhesions to the facilities payment plan established in relation to the deduction of the cost of abandonment of wells corresponding to the periods 2005 to 2010 of the Income Tax (see additionally Note 16 and 15.a.5 to the Consolidated Condensed Interim Financial Statements). It also excludes IFRS 16 and IAS 29 effects which did not involve expenditures, and without considering the revaluation result of the aforementioned investment in YPF EE.

Cash flows used in investing activities were Ps. 163,879 million in 2019, compared to Ps. 82,251 million in 2018, representing a 99.2% increase compared with 2018, as a result of an increase in investments of property, plant and equipment and intangible assets in pesos mainly due to the devaluation of the Argentine peso against the U.S. dollar, which is the functional currency of the Company, the acquisition of Aguada del Chañar field and the contributions realized in Central Térmica Barragán (see Note 3 to the Audited Consolidated Financial Statements) and for a lower realization of the holdings of public bonds BONAR 2020 and 2021 during 2019 compared to the previous year.

Net cash flows used in financing activities in 2019 were Ps. 56,082 million, which came primarily from an increase of the payment of interest leases and dividends, partially offset by a higher takeover, net cancellation of debt maturity. In 2019, at the shareholders' ordinary and extraordinary general meeting held on April 26, 2019, a dividend of Ps. 2,300 million (Ps. 5.85 per share or ADS) was authorized and paid in July 2019.

A Global Medium-Term Notes Program was approved at a shareholders' meeting held on January 8, 2008 for an amount up to U.S.\$1.0 billion. The funds of the program can be used exclusively to make investments in fixed assets and working capital within the Argentine country. On September 13, 2012 and on April 30, 2013, the shareholders' meeting approved the increase of the amount of the program, mentioned above, for an amount of U.S.\$ 2.0 billion each time, resulting in a maximum nominal amount in circulation at any time under the program of U.S.\$ 5.0 billion, or its equivalent in other currencies, and providing the use of the proceeds to cover all alternatives contemplated by Article 36 of Law No. 23,576 of Negotiable Obligations and Supplementary rules. On February 5, 2015, the shareholders' meeting resolved by a majority of computable votes to approve the increase of the amount of the Company's Global Medium-Term Notes Program of U.S.\$ 5.0 billion or its equivalent in other currencies by U.S.\$ 3.0 billion, resulting in the total maximum nominal amount outstanding under the program at any time becoming U.S.\$ 8.0 billion, or its equivalent in other currencies, or a lower amount as may be determined by the Board of Directors. On April 29, 2016, the Ordinary and Extraordinary General Meeting of Shareholders approved the increase of the amount of the Company's Global Medium Term Note Program (Programa Global de Emisión de Títulos de Deuda de Mediano Plazo de la Compañía) by U.S.\$2.0 billion, to a total of U.S.\$10.0 billion, or its equivalent in other currencies to remain outstanding at any time under the program. In addition, the term of the Program was extended for five years starting from October 25, 2017 by our shareholders at a meeting held on April 28, 2017 and in a meeting of our Board of Directors held on June 7, 2017. On March 5, 2020, at its meeting, our Board of Directors resolved to approve the update of the Program.

On December 28, 2018, by means of Resolution No. RESFC-2018-19961-APN-DIR # CNV, we were registered as "frequent issuer No. 4" under the simplified regime for frequent capital markets' issuers (régimen simplificado para emisores frecuentes) created by the CNV on June 2018. On April 9, 2019, through Disposition No. DI-2019-30-APN-DIR#CNV, the CNV authorized the public offer of negotiable obligations to be issued under the frequent issuer regime for an amount up to U.S.\$ 1.0 billion. On February 20, 2020, by means of Disposition No. DI-2020-APN-GE#CNV, the CNV authorized the public offer of negotiable obligations to be issued under the frequent issuer regime for an amount up to U.S.\$ 1.5 billion. This regime seeks to speed internal authorization processes within the CNV in order to promote the development of local capital markets, while also generating more efficient control. The main benefit for frequent issuers such as YPF is that the new regime allows them to significantly reduce timeline of the offering process, which would in turn provide us with more flexibility and agility to take advantage of favorable market conditions in local and international markets.

Under the Global Medium-Term Notes Program and under the Frequent Issuer Regime, the Company issued several series of notes in the local and international markets at different interest rates. All such securities are authorized to be traded on the Buenos Aires Stock Exchange (Bolsa de Comercio de Buenos Aires) and/or the Electronic Open Market (Mercado Abierto Electrónico) in Argentina, while international issues are also traded on the Luxembourg Stock Exchange. For additional information about the outstanding notes of YPF S.A. and our controlled companies as of December 31, 2019, see Notes 4 and 20 to the Audited Consolidated Financial Statements.

On April 7, 2020, Moody's Investor Service modified its rating of YPF S.A.'s Negotiable Obligations from "Caa2" to "Caa3" in its global scale rating, and from "B1" to "Caa1" in its national scale rating, in both cases with a negative outlook. Such downgrades are attributable to the April 3, 2020, decrease in Argentine sovereign debt ratings and the change in the Argentine outlook to negative.

The following table sets forth our commitments for the periods indicated below with regard to the principal amount of our debt, as of December 31, 2019, plus accrued but unpaid interest as of that date:

	Expected Maturity Date						
	Total	Less than 1 year	1 – 2 Years	2 – 3 Years	3 – 4 Years	4 – 5 Years	More than 5 years
	(in millions of pesos)						
Loans	526,760	107,109	85,882	42,520	28,954	37,390	224,905

In March 2021, our 2021 bond classes XLVI and XLVII matures. This represents approximately Ps. 61,140 million included in column 1-2 years of the table above. So, as of March 31, 2020, the expected maturity of our financial debt with less than 1-year amounts to Ps. 152 billion.

Description of Liquidity

We closely monitor our liquidity levels in order to attend cash needs from business operations and financial obligations. We have a conservative approach to the management of our liquidity which consists mainly of (i) cash and cash equivalents (cash in banks, liquidity funds and investments with a maturity of less than three months at the date of purchase), and (ii) other investments (fixed income securities, time deposits, and fund investments). We hold our liquidity primarily in U.S. dollars and in first-class financial entities.

According to our annual plan originally approved by our Board of Directors, we estimated that, given the level of cash flow provided by operating activities, including our expectation of reducing accounts receivable from transactions with government entities (see "Item 3. Key Information—Risk Factors—Risks Relating to Our Business—A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities") and certain private clients, our working capital was reasonable for the Company's present requirements. Notwithstanding the foregoing, the outcome of the sovereign debt restructuring, the current COVID-19 outbreak and oil price environment, among others, will be key issues in determining the length and depth of the Argentine and particularly oil & gas industry crisis. According to this, and also considering our capacity to implement necessary measures to afford that situation that are currently under evaluation, this could have a negative impact in our results of operations, cash flows, financial position and also on potential available financing for our operations (See "—Covenants in our indebtedness"), thus affecting our liquidity.

Description of Indebtedness

As of December 31, 2019, our total consolidated debt was Ps. 526,760 million, of which 20% was current debt and 80% was non-current debt. Additionally, 92% of our total consolidated debt was denominated in U.S. dollars and 8% in Pesos. Moreover, 83% of our total consolidated debt accrues interest at a fixed rate. Regarding our debt composition, our senior notes represent 81%, while the remaining 19% is represented by trade facilities and other loans.

Uncommitted bank credit facilities together with debt capital markets provide a material source of funding for the Company.

For detailed information regarding our indebtedness, see Notes 4 and 20 to the Audited Consolidated Financial Statements.

Covenants in our indebtedness

Most of our financial debt generally contains usual covenants for contracts of this nature, which includes financial covenants in respect of the Group's leverage ratio, debt service coverage ratio, and events of defaults triggered by materially adverse judgments, among others. For additional information see Notes 15, 31 and 32 to the Audited Consolidated Financial Statements.

As of December 31, 2019, we were in compliance with all covenants in connection with our indebtedness. See "Item 3. Key Information—Risk Factors—Risks Relating to Our Business—If we fail to comply with the covenants set forth in our credit agreements and indentures or upon the occurrence of a change of control, we may be required to repay our debt." As of the date of this annual report, to the extent that current conditions (see "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—Hydrocarbon Market" and "Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions—COVID-19 outbreak.") are maintained over time, the Company may be limited in its capacity to incur in additional indebtedness as a result of surpassing the limit imposed by certain covenants, such as the leverage ratio and/or debt service coverage ratio. In addition, the current macroeconomic environment in the world, and also in Argentina, could negatively affect our access to available financing, thus affecting our operations and financial condition.

Guarantees provided

As of December 31, 2019, in relation to compliance with obligations of YPF and its subsidiaries, YPF has issued bank guarantees for approximately U.S.\$ 19 million and has assumed other commitments for an approximately U.S.\$ 314 million.

Additionally, see Note 33.b to the Audited Consolidated Financial Statements for a description of the Chevron transaction and see Note 20 to the Audited Consolidated Financial Statements for a description of the financial loans and notes secured by cash flows.

Contractual obligations

The following table sets forth information with regard to our commitments, expressed in U.S. dollars, under commercial contracts for the periods indicated below, as of December 31, 2019:

Contractual Obligations ⁽¹⁾	Total	Less than 1 year	1 – 3 Years	3 – 5 Years	More than 5 years	
		(in millions of U.S.\$) ⁽⁷⁾				
Debt ⁽²⁾	12,817	2,394	3,112	1,808	5,502	
Lease liabilities	1,033	358	407	146	123	
Purchase obligations ^{(3) (4)}	1,944	756	413	258	517	
Purchases of services	1,450	457	385	230	377	
Purchases of goods	494	298	28	28	140	
Gas	56	56	—	—	—	
Oil	25	25	—	—	—	
Gas Oil, Fuel Oil and Gasoline	64	64	—	—	—	
Steam	210	14	28	28	140	
Others	139	139	—	—	—	
Other liabilities ⁽⁵⁾⁽⁸⁾	6,548	3,096	996	1,113	1,344	
Total ⁽⁵⁾⁽⁶⁾	22,342	6,603	4,928	3,325	7,486	

- (1) The expected timing for payments of the obligations in the preceding table is estimated based on current information. Timing of payments and actual amounts paid may be different, depending on the time of receipt of goods or services, or changes to agreed-upon amounts for some obligations.
- (2) These projected amounts include interest due during all the periods presented. Interest on variable rate instruments is calculated using the rate as of December 31, 2019 for all periods. See additionally “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources—Covenants in our indebtedness.”
- (3) Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on YPF and specify all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum, or variable price provisions; and the approximate timing of the transaction. For obligations with cancellation provisions, the amounts included in the preceding table were limited to the non-cancellable portion of the agreement terms or the minimum cancellation fee. In addition, the table includes purchase commitments under commercial agreements that do not provide for a total fixed amount, which have been valued using our best estimates. Accordingly, our actual purchase obligations may differ from the estimated amounts shown in the table.
- (4) Some of our purchase orders represent authorizations to purchase rather than binding agreements. In that regard, we have entered into certain agreements for the purchase of products that specify minimum prices and quantities based on a percentage of the total available market or based on a percentage of our future purchasing requirements. Due to the uncertainty of the future market and our future purchasing requirements, as well as the non-binding nature of these agreements, obligations under these agreements have been excluded from the preceding table. Payments related to these obligations were not significant as of December 31, 2019.
- (5) Provisions for contingent liabilities, which amounted to U.S.\$ 755 million as of December 31, 2019, are not included in the table above since we cannot, based on available evidence, reasonably estimate the settlement dates of such contingencies.
- (6) As a result of the extension of our concessions in certain exploration areas, we are committed to carrying out explorations activities and making certain investments and expenditures until the expiration of some of our concessions. The commitments for these investments and expenditures amounted to 8 billion as of December 31, 2019. The table includes the portion of this amount for which contracts have been executed.
- (7) The table is presented in U.S.\$, which is the Company’s functional currency.
- (8) Includes accounts payable, salaries and social security, taxes payable, provisions for pensions, provisions for environmental liabilities and provisions for hydrocarbon wells abandonment obligations as set forth in our audited consolidated financial statements included as of December 31, 2019.

We have additional commitments under guarantees. For a discussion of these additional commitments see “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources—Guarantees provided.”

Capital investments, expenditures and divestitures

Capital investments and expenditures

The table below sets forth our capital expenditures and investments by activity for each of the years ended 2019, 2018 and 2017.

	2019		2018		2017	
	(in millions of pesos)	(%)	(in millions of pesos)	(%)	(in millions of pesos)	(%)
Capital expenditures and investments (1)						
Upstream	138,426	79%	77,016	79%	45,380	77%
Downstream	22,455	13%	15,632	16%	8,179	14%
Gas and Power	6,170	4%	1,968	2%	3,867	7%
Central Administration and Others	7,630	4%	2,877	3%	1,639	3%
Total	174,681	100%	97,493	100%	59,065	100%

(1) Includes acquisitions of properties, plant and equipment and exploration expenses, net of unproductive drilling expenses and well abandonment costs.

We make capital expenditures to achieve the goals of the Company's strategy described under "Item 4. Information on the Company—History and Development of YPF."

Capital divestitures

We have not made any significant divestitures in the past three years.

Quantitative and Qualitative Disclosures about Market Risk

For a description of our exposure to market risk, see "Item 11. Quantitative and Qualitative Disclosures about Market Risk."

Off-Balance Sheet Arrangements

We do not have any material off-balance sheet agreements. Our off-balance sheet agreements are described in "—Liquidity and Capital Resources—Guarantees provided" and Note 2.b.12), 8 and 25 to the Audited Consolidated Financial Statements.

Research and Development, Patents and Licenses, etc.

For a description of our research and development policies, see "Item 4. Information on the Company—Research and Development."

ITEM 6. Directors, Senior Management and Employees

Management of the Company

On May 3, 2012, the Argentine Congress enacted the Expropriation Law. Among other matters, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol and its controlled or controlling entities. The shares subject to expropriation, which have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. To ensure compliance with its objectives, the Expropriation Law provides that the Argentine Executive Branch, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed.

The Expropriation Law states that YPF shall continue as a publicly traded corporation and the management of the shares subject to expropriation shall be carried out according to the following principles: (i) strategic contribution of the Company to the aims established in the Expropriation Law; (ii) the management of the Company in accordance with the best industry and corporate governance practices, preserving the interests of the Company's shareholders and creating value for them; and (iii) the professional management of the Company. See "Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law."

The information provided below describes the composition and responsibilities of our Board of Directors and committees as of the date of this annual report.

Board of Directors

Composition of our Board of Directors

Our Board of Directors is currently composed of 11 directors and 8 alternates. The fiscal year in which they were last elected and the fiscal year their term of appointment expires is as follows:

Name	Position	Age	Director Last Elected on	Term Expiration
Guillermo Emilio Nielsen	Chairman and Director	69	2019	2020
Norberto Alfredo Bruno	Director	60	2019	2020
Horacio Oscar Forchiassin	Director	64	2020	2020
Ignacio Perincioli	Director	43	2019	2020
Pedro Martín Kerchner Tomba	Director	45	2019	2020
María Cristina Tchintian	Director	43	2019	2020
Ramiro Gerardo Manzanal	Director	48	2020	2020
Héctor Pedro Recalde	Director	81	2020	2020
Celso Alejandro Jaque	Director	59	2020	2020
Lorena Sánchez	Director	47	2019	2020
Arturo Carlos Giovenco (1)	Director	54	2019	2020
Gerardo Damián Canseco (2)	Alternate Director	55	2019	2020
Fernando Martín Cerdá	Alternate Director	45	2019	2020
Lucio Mario Tamburo	Alternate Director	59	2019	2020
Miguel Lisandro Nieri	Alternate Director	47	2019	2020
Carlos Alberto Alfonsi (2)	Alternate Director and Operations and Transformations Executive Vice President	59	2019	2020
Santiago Martínez Tanoira (2)	Alternate Director and Downstream Executive Vice President	47	2019	2020
Marcos Miguel Browne (2)	Alternate Director and Gas and Power Executive Vice President	50	2019	2020
Fernando Pablo Giliberti (2)	Alternate Director and Supply Chain Vice President	53	2019	2020

(1) Represents our Class A shares.

(2) As of March 31, 2020, the individual owns less than one percent of our Class D shares.

The General Ordinary and Extraordinary Shareholders' meeting held on April 29, 2016 approved, by a majority of computable votes, the modification of Article 17, subsections i) and xiii); Article 18, subsections a), b), c), d) and e); and Article 19, subsections iii), iv) and v) of the Company's By-laws, which separated the functions of the Chairman and the Chief Executive Officer (CEO).

The Chairman of the Board of Directors, who, according to our by-laws, must be a Class D director, was elected by the members of the Supervisory Committee and informed to the Board of Directors at the meeting held on December 13, 2019.

Outside business interests and experience of the members of our Board of Directors

Guillermo Emilio Nielsen

Mr. Nielsen obtained a degree in Economics from the Universidad de Buenos Aires, he is also a Ph. D. candidate and holds a M.A. in Economics from the Boston University in the U.S. Among other positions in local and foreign companies he served as President and CEO of UNITEC SemiCondutores S.A., Brazil. He was an Executive of Socma Americana S.A. and The Campbell Soup Co.. He was a trade negotiator in the General Agreement on Tariffs and Trade (GATT) and with the European Economic Community (EEC) in Brussels. He served as Chief Economist at the Argentine in Fundación de Investigaciones Económicas Latinoamericanas (FIEL). Between May 2002 and December 2005, he served as Secretary of Finance of the former Ministry of Economy and Production of the Nation, where he led the restructuring of Argentina's public debt and two stand-by agreements with the International Monetary Fund (IMF). During 2006 he was Minister of the Treasury in the Government of the Autonomous City of Buenos Aires. He was Ambassador of Argentina in Germany between March 2008 and September 2010. Since June 2016, Mr. Nielsen is also serving as a member of the board of directors of Grupo San José in Madrid, Spain and from July 2017 he is also serving as a member of the board of Carlos Casado S.A. in Argentina. Mr. Nielsen is Consulting Member of the Consejo Argentino para las Relaciones Internacionales (CARI). Mr. Nielsen is the Chairman and a member of the Board of Directors YPF S.A. since December 2019.

Norberto Alfredo Bruno

Mr. Bruno holds a degree in Business Administration from the Universidad Argentina de la Empresa and completed postgraduate studies in Strategic Management from the Instituto de Administración Estratégica; Organization and Business Management at the Instituto Argentino de Economía Energética as well as in Energetic Economy at the Massachusetts Institute of Technology. He held different positions at YPF, where he served as International Development Manager, from 1983 to 1998 and at YPF Perú where he was the General Manager from 1998 to 2000. From October 2001 to December 2013, he was the General Manager of Empresa de Energía Río Negro S.A. Thereafter, he served as a business consultant and advisor. Between December 2015 and December 2019 he was the Minister of Economy and Infrastructure of the Province of Neuquén. He has been a member of the Board of Directors of YPF since April 2016.

Horacio Oscar Forchiassin

Mr. Forchiassin holds a degree in Industrial Engineering from the National University of Patagonia San Juan Bosco, of Comodoro Rivadavia, Province of Chubut, Argentina. He held various positions at Transportes Dimópulos S.R.L since 1973 until he became Operations Manager between January 1980 and September 1995. Between 1991 and 1995 he served in Operaciones Especiales Argentinas S.A. as Commercial Manager and as Technical Representative in Operación Cañadón León. From 1995 to 2016 he held various positions in Tuboscope Vetco de Argentina S.A., Operations Manager for south regional, Operations Manager for Argentina, until he was appointed General Manager in January 2011. He was also member of the Board of Directors, serving as Chairman and General Manager from March 2012 to December 2016. During the same period he was Director in Tuboscope Vetco of Canada INC. Between March 2013 and December 2016, he was Director of Black Max Argentina S.A. and in January 2017 he was appointed as Alternate Director. Between February 2013 and December 2016, he was a member of the Board of Directors of Tradimex SAIyC, where he was an Alternate Director from January 2017 to December 2019. He has been a member of the Board of Directors of YPF since March 2020.

Ignacio Perincioli

Mr. Perincioli holds a degree in Business Administration and is a Certified Public Accountant from the Universidad de Buenos Aires. He has also completed a Project Management specialization of the Asociación Argentina de Evaluadores (ASAE) and a specialization in Management of Small and Medium Sized Enterprises at the Universidad de Buenos Aires. He served in the Department of Control of External Indebtedness of the Auditor General's Office, in the Under Secretariat of Coordination and Management Control, in the Provincial Road Program within the Ministry of Federal Planning, Public Investment and Services, and in the Management of

Administration and Finance of La Opinión Austral S.A. in Río Gallegos, Province of Santa Cruz. From December 2015 to March 2018 he was President of Fomento Minero de Santa Cruz S.E., Director and Vice-President of Cerro Vanguardia S.A., and a member of the Supervisory Committee in Patagonia Gold S.A. Between July 2014 and December 2015 he was a member of the Board of Directors of YPF S.A. Currently, he is the Minister of Economy, Finance and Infrastructure of the Province of Santa Cruz. He has been a member of the Board of Directors of YPF since April 5, 2018.

Pedro Martín Kerchner Tomba

Mr. Kerchner Tomba obtained a degree as Certified Public Accountant from the Economic School of the Universidad Católica Argentina. He completed postgraduate degrees in financial strategy at the Universidad Nacional de Cuyo and in Taxation at the Universidad de Tres de Febrero with a specialization in local taxation. Among other positions, between July 2006 and March 2008, he was Manager of the Mendoza Province Branch at Vangent S.A. He served as Administration Director of Justice and Security Minister of the Province of Mendoza, as Secretary of Finance of the Municipality of Godoy Cruz, Province of Mendoza and was elected as Deputy of the Province of Mendoza, Minister of Finance of the Province of Mendoza, and Alternate Director of YPF S.A. from December 2015 to March 2017. Between 2016 and March 2017 he was President of the Federal Council of Fiscal Responsibility, moment in which he assumes the position of Minister of Economy, Infrastructure and Energy of the Province of Mendoza until December 2019. In addition, he is President of the Institute of Technological Industrial Development and Services of Mendoza (IDITS). He is President and Vice President of the ProMendoza foundation. He is President of the Institute of Commercial Development of Mendoza IDC. He was the founder of PMK Consultora S.A. Currently, he practices the profession privately. He has been a member of the Board of Directors of YPF S.A. since December 2019.

María Cristina Tchintian

Ms. Tchintian holds a degree in Political Sciences focused in Political Processes from the Pontificia Universidad Católica Argentina. Between 2004 and 2006 she worked in the General Coordination of Political Institutional Affairs of the President Unit, Presidency of the Nation. Between 2004 and 2016, she performed comprehensive consulting in public policies. From March 2016 to November 2017, she was Undersecretary of Institutional Support in the Development and Investment Secretariat of the Government of the Province of Tierra del Fuego, Antártica and the South Atlantic Islands. From November 2017 to December 2019 she worked as Undersecretary of Coordination and Political Articulation in charge of the Secretariat of Official Representation in the City of Buenos Aires of the Government of the Province of Tierra del Fuego. She has been a member of the board of Directors of YPF S.A. since December 2019.

Ramiro Gerardo Manzanal

Mr. Manzanal earned a degree in Economics, with orientation in Economic Planning and Development from the Faculty of Economic Sciences of the Universidad de Buenos Aires. He completed a Postgraduate in Economics and Public Policies in Torcuato Di Tella University. Between 1998 and 2000 he worked as a Consultant in the Secretary of Industry, Commerce and Mining. Between 2000 and 2004 he was an Advisor in the Cabinet Floor of the Secretary of Economic Development of the Government in Buenos Aires City. Between 2004 and 2006 he was Advisor to the Undersecretary of Production, Secretariat of Production, Tourism and Sustainable Development, of the Government in Buenos Aires City. Between 2006 and 2008 he was Executive Coordinator of the Interamerican Development Bank belonging to the Secretariat of Industry, Commerce and SMEs, Ministry of Economy and Production of the Nation. Between 2008 and 2012 he was Advisor to the Presidency of the Grupo Banco Nación - Nación AFJP. Between 2012 and 2014 he was an advisor to the General Management of the Central Bank of the Argentine Republic. Between 2014 and 2015, was a Member of the Board of Directors of the National Commission for Foreign Trade. Between 2016 and 2019 he served as a consultant at Idear Desarrollo. During 2019 he worked in the general coordination of the SME Center of the School of Economics and Business of the Universidad Nacional de San Martín in the Province of Buenos Aires. He has been a member of the Board of Directors of YPF since March 2020.

Héctor Pedro Recalde

Mr. Recalde holds a Law degree from the Universidad de Buenos Aires, he was Full Professor of different subjects related to Labor Law at the University of Buenos Aires. He was a Legal Advisor of Trade Union Organizations, Chief of Advisors in the General Confederation of Labor of the Argentine Republic, Member of the Advisory Council of the Association of Labor Lawyers. He was a technical Advisor representing the workers sector of the Employment, Productivity and Minimum Living and Mobile Wages Council, General Secretary of the Association of Personnel of Social Welfare Organizations. He was a counselor of the Judicial School of the Council of the Magistracy of the Nation, Director of the Labor Law Magazine, Editorial Ministry of Justice and Human Rights of the Nation. He served as Deputy of the Nation and President of the Labor Legislation Commission of the Honorable Chamber of Deputies of the Nation between 2006 and 2015. From November 2014 to July 2016 he was a member of the Council of the Magistracy of the Nation. He has been a member of the board of directors of YPF since March 2020.

Celso Alejandro Jaque

Mr. Jaque is a National Public Accountant and Partitioning Expert of the Universidad Nacional de Cuyo, Faculty of Economic Sciences. Between 1991 and 1995 he was a Provincial Deputy of the Fourth Electoral District of the Province of Mendoza. He was the Town Mayor of Malargüe, Mendoza in two periods: between December 1995 and December 1999 and between December 1999 and December 2003. He was Senator of the Nation for the Province of Mendoza, Honorable Chamber of Senators of the Nation during 2003 and 2007. Between 2007 and 2011 he was Governor of the Province of Mendoza. Among other positions, he served as Private Secretary to the Minister of Finance of the Province of Mendoza in 1987. From 1989 to 1991 he was General Director of Administration of Finance Ministry in Mendoza Province. From 2012 to November 2015, he was Ambassador Extraordinary and Plenipotentiary of the Argentine Republic in the Republic of Colombia. He served as Administrative Manager in several service companies in the province of Mendoza. He also practiced the profession privately. He has been a member of the Board of Directors of YPF since March 2020.

Lorena Sánchez

Mrs. Sánchez holds a Law degree from the Universidad de Buenos Aires. She also obtained a Master's Degree in Corporate Law from Universidad Austral, Buenos Aires. She completed an International Business Law Program in Louisiana State University in the United States and an MBA in IAE Business School, Buenos Aires. She also completed programs on innovation, creativity and communications

in Arthur Andersen, and on strategic planning in IDEA (Instituto para el Desarrollo Empresarial de la Argentina). In 2018 she completed the ARPEL Leadership Program for Senior Management (program aimed at leaders of energy companies in the region and given by renowned IHS Markit experts, whose objective is to provide an updated vision of the international context and the energy business, with a focus on Latin America). She worked in law firms between 1994 and 1997 and then she joined as a young professional in Acindar Industria Argentina de Aceros S.A. (Acindar Group ArcelorMittal), where she worked as a lawyer until she was appointed as Legal Area Manager, in charge of corporate legal advisory in business matters, M&A, capital markets, corporate governance, compliance and litigation. She joined YPF in 2009 as legal advisor in the Legal Services Department, where she was also in charge of the Board's coordination. Since 2013 she is the Corporate Affairs and Corporate Governance Manager. She is the Corporate Secretary of the Board of Directors and of the Audit Committee and of the Risks and Sustainability Committee of YPF. She is also member of the Administration Council of YPF Foundation and its Secretary. She is a member of Women Corporate Directors Foundation (WCD). She has been a member of the Board of Directors of YPF since April 2018.

Arturo Carlos Giovenco

Mr. Giovenco obtained a Law degree from the Universidad de Buenos Aires, with honors. He completed a Postgraduate Degree in Corporate Legal Advice from the Pontificia Universidad Católica Argentina. From December 1992 to March 1998 he held several positions in the Comisión Nacional de Valores where he reached the position of Deputy Manager of Issuers. From March 2000 to May 2003 he served as Legal Affairs Manager at Banco de Inversión y Comercio Exterior S.A. From June 2003 to December 2005 he was Chief of Advisors of the Finance Secretary in the Ministry of Economy and Production. Between February 2015 and March 2018, he was the Secretary of the Board of Nación Fideicomisos S.A. He also practiced law privately in Buenos Aires. He has been a member of the Board of Directors of YPF since December 2019.

Gerardo Damián Canseco

Mr. Canseco earned a Law degree and specializes in Trade Union Law. Since 1984, he has been an employee of YPF. He has held several other positions, including Government Secretary for the Municipality of San Lorenzo in the Province of Santa Fe from 2007 to 2011, Undersecretary of Labor for the Labor and Social Security Ministry from 2011 to 2014, and President of the Centro de Estudios Laborales y Sociales of Rosario from 2014 to 2016. He is currently the General Secretary in San Lorenzo Subsidiary of United Petroleum and Hydrocarbon Trade Union. He has been an Alternate member of the Board of Directors of YPF since April 2016.

Fernando Martín Cerdá

Mr. Cerdá is an Electronic Engineer from Universidad Nacional de La Plata. He was Director of Petrominera del Chubut S.E. between February 2016 and January 2018. He held several positions at Halliburton Argentina S.R.L., since joining as a profile analyst, Desk Engineer, and later was appointed as head of the Geoscience group F.R.S. (Formation Reservoir Solution) in the San Jorge Gulf basin. He also provided advice in the Neuquina Cuyana Basins, and in Santa Cruz de la Sierra, Bolivia. He is currently the Minister of Hydrocarbons and Mines of the Province of Chubut. He has been an Alternate member of the Board of Director of YPF since April 27, 2018.

Lucio Mario Tamburo

Mr. Tamburo earned a Civil Engineering degree from the Universidad Nacional del Sur Bahía Blanca. He has held several positions, including Inspection Assistant for the Provincial Roads Direction in the Province of Río Negro and as Sanitation Consultant for the National Undersecretary of Water Resources. He was the Engineering and Construction Manager and Service and Maintenance Chief of Bahía Blanca at Azurix Buenos Aires S.A. He also served as Administrator of the National Entity of Water Works of Sanitation (ENOHSA) until December 2015 and he served as President of Servicios Públicos Sociedad del Estado of the Province of Santa Cruz from December 2015 until December 2019. He has been an alternate member of the Board of Directors of YPF since December 2015.

Miguel Lisandro Nieri

Mr. Nieri earned a degree in Economics from the National Universidad Nacional de Cuyo and holds a master's degree in Finance and Management control from the ADEN Business School, University of San Francisco. He has held several positions throughout his career, including Advisor of the Ministry of Finance of the Province of Mendoza from January 2000 to November 2003, Subdirector of Finance of the Provincial Fund for the Transformation and Growth of Mendoza from July 2004 to February 2007, member of the Board of Directors of Mendoza Fiduciaria S.A. from June 2006 to April 2007, Business Manager of Puente Hnos. Sociedad de Bolsa in Cuyo from March 2008 to June 2009, and Administrator of Financing for the Development of Mendoza Agency from December 2015 to March 2017. He was Minister of Finance and Treasury of the Province of Mendoza from March 2017 until July 2018. Between July 2018 and December 2019, he served as Minister of Government, Labor and Justice. Currently he is Minister of Finance, of the Province of Mendoza. He has been an alternate member of the Board of Directors of YPF since March 2017.

Carlos Alberto Alfonsi

Mr. Alfonsi is a Chemical Engineer who graduated from the Universidad Tecnológica de Mendoza, Argentina. He qualified as IMD Managing Corporate Resources from Lausanne University and studied at the Massachusetts Institute of Technology. In 1987, he joined YPF and held several positions as Operations Manager, Director of La Plata Refinery, Director of Operation Planning, Director of Trade and Transport in Latin America, Director of Refinery and Marketing in Perú, Country Manager for Perú and R&M for Perú, Chile, Ecuador and Brazil. He was the Executive Vice President for Downstream from June 2010 to August 2016. He is President of AESA S.A. He was Alternate Director of YPF from March 2008 to June 2012 and Director from 2012 until 2016. He has been an Alternate member of the Board of Directors since April 2016. He is currently our Executive Vice President of Operations and Transformation.

Santiago Martínez Tanoira

Mr. Martínez Tanoira earned a degree in Industrial Engineering from the Instituto Tecnológico de Buenos Aires (ITBA), he holds a master's degree in Business Administration from Universidad Austral. He completed specialization courses at the Universities of Darden, Wharton and Harvard in the USA. In 1998, he joined YPF and took on several roles within the Petrochemical Business Development area of the Petro-chemistry Division. He was in charge of Marketing area and Business, also served as Planning and Development Manager within the Chemical Industrial Products Business Unit in Argentina between December 2002 and April 2008. In May 2008, he held the position of Basic Petrochemical and Intermediate Products Director at Repsol Química in Spain. Afterwards he was appointed Chemistry Director at YPF from August 2011 until 2012. He was also member of the Board of Directors of Profertil. From 2012 until September 2016 he served as Executive Manager of the Mendoza Region, in charge of the Upstream operations. Mr. Martínez Tanoira was our Upstream Executive Vice President from October 2016 until August 2017. He has been an alternate member of the Board of Directors since April 2017 and has been our Downstream Executive Vice President since August 2017.

Marcos Miguel Browne

Mr. Browne earned a degree in Industrial Engineering from the Instituto Tecnológico de Buenos Aires (ITBA), obtained a master's degree in business administration from Henley Management College in the United Kingdom and a diploma in natural gas management and economics from the College of Petroleum Studies, validated by the University of Oxford United Kingdom. He further completed a specialization in economics of oil and natural gas at the ITBA and a Management Development Program at IAE Business School. He has held several positions at YPF, including Head of Supply and Processing of Natural Gas from February 1994 to May 2000. He served as Head of the Gas and Liquid Gas Processing Business at TGS S.A. where he held several roles from June 2000 to March 2004. He is a founding partner of Endriven S.A. where he served as Director until March 2016. He also served as General Manager of Gas Meridional S.A., General Manager of C3Plus S.A. and President of Fuels Meridional S.A. He is President of the Board of Directors of Compañía Mega S.A., and of YPF Energía Eléctrica S.A., and Director of YPF Tecnología S.A. Mr. Browne has been our Gas & Energy Executive Vice President since March 2016 and he has been an alternate member of the Board of Directors since April 2017.

Fernando Pablo Giliberti

Mr. Giliberti earned a certified public accountant degree from the Pontificia Universidad Católica Argentina, a Master's degree in Business Administration from the Argentine University of Business, a postgraduate diploma from the College of Petroleum and Energy Studies at the University of Oxford and a Master of Science in Management degree from the Sloan Master's Program at Stanford University. He held several positions at YPF, including Head of Accounting and Finance at our headquarters in Mendoza, South Division Business Support Manager, Asset Manager of the El Guadal-Lomas del Cuy, Business Development Manager and Exploration and Production Business Development Director. In San Antonio, he was Vice President of Business Development and Vice President of the Latin America Division of Pride International. He later served as Vice President of Business Development at Pioneer Natural Resources of Argentina. In 2006, he founded Oper-Pro Services S.A. He was our Strategy and Business Development Vice President from June 2012 until December 2016. He was member of the Board of Directors of YPF from June 2012 to April 2013. He has been an alternate member of the Board of Directors of YPF since April 2014 and our Supply Chain Vice President since December 2016.

Board practices

The information provided below describes the responsibilities of our Board of Directors.

Board practices of our Board of Directors

In accordance with the Argentine General Corporations Law, directors have an obligation to perform their duties with loyalty and with the diligence of a prudent business person. Directors are jointly and severally liable to the Company, its shareholders and to third parties for the improper performance of their duties, for violating the law or our by-laws or regulations, and for any damage caused by willful misconduct, abuse of authority or gross negligence. Specific duties may be assigned to a director by the by-laws, applicable regulations, or by shareholders resolution. In such cases, a director's liability will be determined by reference to the performance of those specific

duties so long as the director's appointment and assignment of duties was approved at a shareholders' meeting and was registered with the Superintendence of Corporations.

Only shareholders, through a shareholders' meeting, may authorize directors to engage in activities in competition with the Company. Transactions or contracts between directors and us in connection with our activities are permitted to the extent they are performed under fair market conditions. Transactions that do not comply with the above requirements may only be carried out with prior approval of the Board of Directors or, in the absence of a quorum at a Board of Directors meeting, the Supervisory Committee. In addition, these transactions must be subsequently approved by our shareholders at a general meeting. If our shareholders do not approve the relevant transaction, the directors and members of the Supervisory Committee who approved the transactions will be held jointly and severally liable for any damages caused to us.

Any director whose personal interest conflicts with those of the Company on any matter shall notify the Board of Directors and the Supervisory Committee and abstain from voting on the matter. Otherwise, such director may be held liable to the Company.

A director will not be liable if, notwithstanding his presence at the meeting at which a resolution is adopted or his knowledge of such resolution, a written record exists of his opposition to such resolution and he reports his opposition to the Supervisory Committee before any complaint against him is brought before the Board of Directors, the Supervisory Committee, the shareholders' meeting, the appropriate governmental agency or judicial action is brought to the courts. Any liability of a director to us terminates upon approval of the director's actions by the shareholders at a general meeting, provided that shareholders representing at least 5% of our capital stock do not object and provided further that such liability does not result from a violation of the law, our by-laws or other regulations.

As part of its continuing process of improving the corporate governance of the Company, the Board of Directors implemented an evaluation process for fiscal year 2019.

In that sense, the Board's self-assessment was carried out during 2019 and covered aspects related to the functioning of the Board of Directors in general, its committees and its members individually. This assessment was carried out taking into consideration the input of third-party experts.

With the implementation of this process, the functioning of the Board of Directors can be monitored regularly, in order to ensure its efficiency and the fulfillment of its duties, as well as to professionalize its management, among other issues, all of which follow the best corporate governance practices in line with global trends. This is also a requirement of the ByMA Corporate Governance Panel - of which the company is a party -, the CNV Standards, the NYSE Listing Regulations and is aligned with the OECD, G20 and other international practices.

The Board of Directors was informed of the results of such self-assessment and concluded that the operation and effectiveness of the Board of Directors of YPF S.A. is satisfactory and entrusted the Corporate Secretary with the preparation and implementation of improvement proposals for the year 2020 based on the results obtained under the Corporate Governance Continuous Improvement Plan.

Board of Directors and Senior Management Roles in cybersecurity

The Board of Directors has analyzed risks, action plans and evolution of cybersecurity in the company, according to the cybersecurity maturity model adopted by YPF.

The Audit Committee of the Company's Board of Directors oversees the Company's risk mitigation strategies related to cybersecurity. The Risks and Sustainability Committee monitors the main risks that are specific to the Company and/or its activity, including cyber risks; and ensures that the Company implements the corresponding mitigation actions, among other functions.

Also during 2019, different awareness and training actions were carried out to several audiences within Technology Areas as IT and Cybersecurity. Additionally, we continued raising internal awareness about typical security issues like: phishing, ransomware, data leak, etc. See "Item 3. Key Information—Risk Factors—Risks Relating to Our Business— We could be subject to information technology system failures, network disruptions, and breaches in data security which could negatively affect our business, financial position, results of operations, and cash flows."

Senior Management

Our current senior management as of the date of this annual report consists of:

<i>Name</i>	<i>Position</i>
Daniel Cristian González Casartelli ⁽¹⁾	Chief Executive Officer
Diego Martín Pando	Controller and President of the Disclosure Committee
Luis Miguel Sas ⁽¹⁾	Chief Financial Officer
Santiago Martínez Tanoira ⁽¹⁾	Downstream Executive Vice President
Pablo Bizzotto ⁽¹⁾	Upstream Executive Vice President
Carlos Alberto Alfonsi ⁽¹⁾	Operations and Transformations Executive Vice President
Marcos Browne ⁽¹⁾	Gas and Power Executive Vice President
Santiago Álvarez	Corporate Affairs, Communication and Marketing Executive Vice President
Sergio Fabián Giorgi ⁽¹⁾	Strategy and Business Development Vice President
Germán Fernández Lahore ⁽¹⁾	Legal Affairs Corporate Vice President

(1) As of March 31, 2020, the individual has less than one percent of our Class D shares. None of our Senior Management has more than one percent of our Class D shares.

As of January 10, 2020, Mr. Sebastián Mocerrea no longer serves as Executive Vice-President of Corporate Affairs Communication and Marketing, and on that date, the Board of Directors of the Company approved the appointment of Santiago Álvarez as Corporate Affairs, Communication and Marketing Executive Vice President.

In addition to the members of our senior management for whose outside business interests and experiences were described above, we include the following:

Daniel Cristian González Casartelli

Mr. Gonzalez earned a degree in business administration from the Pontificia Universidad Católica de Argentina. He worked for the investment bank Merrill Lynch & Co. in Buenos Aires and New York where he held the positions of Head of Mergers and Acquisitions for Latin America and President for the Southern Cone (Argentina, Chile, Peru and Uruguay), among others. While at Merrill Lynch, Mr. Gonzalez played a leading role in several of the most important investment banking transactions in the region and was an active member of the firm's global fairness opinion committee. He remained as a consultant to Bank of America Merrill Lynch after his departure from the bank. Additionally, he has held the position of Head of Financial Planning and Investor Relations in Transportadora de Gas del Sur SA. Currently, he is a member of the Board of Directors of Adecoagro S.A. He was an alternate member of our Board of Directors from April 2014 to June 2014, a member of our Board of Directors from June 2014 to April 2016. He was CEO on an interim basis from April 2016 until June 2016 and was our Chief Financial Officer from July 2012 until April 2018. He is member of the Board of Directors of YPF Energía Eléctrica S.A. He has been our CEO since April 2018.

Diego Martín Pando

Mr. Pando holds a Public Accountant degree from the Universidad Nacional de Rosario, a Master degree in Corporate Finance from Universidad CEMA and a Postgraduate degree in Business Administration from Universidad Austral de Rosario. He started his career joining the ex-brand "Arthur Andersen" company in which he performed in the audit and corporate finance area. In 2002 he joined the YPF group originally working in one of its subsidiaries, A-Evangelista S.A. He is member of the Board of Directors of YPF Energía Eléctrica S.A. and A- Evangelista S.A. Since 2005 he joined YPF S.A. where he held several positions. Currently, he is our Controller and President of the Disclosure Committee.

Luis Miguel Sas

Mr. Sas holds a Public Accountant degree from the Universidad de Buenos Aires. He also holds an MBA - Master's Degree in Business and Administration from the IAE and an executive program from Columbia University. He has an extensive background in corporate finance, financial operations, capital markets and projects finance. He worked in management positions at Petrobras, Edesur and Pérez Companc. In addition, he participated in the privatization of Telecom, Edesur, TGS and Metrogas, and was a member of financial committees in various companies. He is member of the Board of Directors of YPF Energía Eléctrica S.A. Since June 2018 he joined the Financial Vice Presidency at YPF. Currently, he is our CFO.

Pablo Bizzotto

Mr. Bizzotto holds a petroleum engineering degree from Universidad Nacional del Comahue. He completed a Management Development Program (“PDD” Programa de Desarrollo Directivo) at IAE and earned an MBA from the University of Barcelona. He started his career in the Young Professionals Program at Tecpetrol (Techint Group). Then, he worked for thirteen years at Panamerican Energy, where he held several positions. He served as Acambuco Unit Manager, in the North of Argentina, and Cerro Dragón General Manager, in Golfo San Jorge Basin. He then joined YPF in 2013, where he served as Neuquén Gas Business Manager, and as Executive Manager of the Unconventional Region between April 2014 and August 2017. Since August 2017, he has been our Upstream Executive Vice President.

Santiago Álvarez

Mr. Álvarez holds a law degree from the Universidad de Buenos Aires. From 2007 to 2009 he was Legislative Advisor of the Social Communication Committee in the Legislature of the Autonomous City of Buenos Aires. From 2009 to 2011 he served as Deputy Manager of Institutional Relations of Aerolíneas Argentinas SA. From 2011 to 2012 he was the News Manager in TV Pública. Between 2012 and 2015 he was Chairman of Agencia Télam. From 2016 to 2020 he worked as Creative Director in Monteagudo Agencia. He has been our Corporate Affairs, Communications and Marketing Executive Vice President since January 2020.

Sergio Fabián Giorgi

Mr. Giorgi earned a degree in Civil Engineering from the University of Buenos Aires and a Postgraduate degree from the French Institute of Petroleum. He completed a General Management Program organized by Total Group, in partnership with (HEC Paris and Saïd Business School) from Oxford University. In 1994, he joined YPF in the Drilling and Wells Area in Neuquén. In 1996, he joined Total where he assumed different positions within the oil exploration and exploitation areas for Argentina, Scotland, Indonesia, Italy, Libya and France. In 2007, he managed Total’s drilling and wells operations for Asia, North Africa, Middle East and Australia. In 2009, he was in charge for Development and Planning Studies group with focus in Africa. In 2011, he was appointed Total’s New E&P Business Project Director for Latin America until September 2013 where, he joined Total Austral in Argentina as Unconventional Resources Director. Mr. Giorgi was appointed as our Business Development and Project Architecture Vice President in December 2016 and is our Strategy and Business Development Vice President, also overseeing the Company’s Investor Relations Management.

Germán Fernández Lahore

Mr. Fernández Lahore earned a law degree from the Universidad de Buenos Aires, participated in the Academy for American and International Law, Southwestern Legal Foundation, Dallas, Texas and obtained a diploma in Oil and Gas Law from Universidad de Buenos Aires. As Chevening scholar, he earned a master’s degree in Natural Resources, Law and Policy from the Centre for Energy, Petroleum and Mineral Law and Policy (University of Dundee, Scotland, United Kingdom). He also earned a postgraduate degree in Tax Law from Universidad Austral, and completed the Management Development Program at IAE Business School. Prior to joining YPF, he served as an attorney at Estudio Beccar Varela, and as foreign associate at Haynes and Boone, LLP in Dallas, Texas. He is a member of the Academic Council of the Argentine Journal of Energy, Hydrocarbons and Mining Law *Revista Argentina de Derecho de la Energía, Hidrocarburos y Minería (RADEHM)*. His areas of expertise include Corporate Law, M&A, Energy Law, Oil and Gas Law and Mining Law and Natural Resources Taxation and Financing. He joined our company in February 2002 and served as our Upstream Legal Affairs Manager. Mr. Fernandez Lahore has been our Legal Affairs Corporate Vice President since December 2015.

The Audit Committee

The information provided below describes the composition and responsibilities of our Audit Committee.

Composition and responsibilities of our Audit Committee

The Capital Markets Law, as such term is defined in “Item 9. The Offer and Listing” and Resolution No. 622/2013 of the Argentine National Securities and Exchange Commission (Comisión Nacional de Valores) (“the CNV”) require Argentine public companies to appoint an Audit Committee (Comité de Auditoría) composed of at least three members of the Board of Directors. The by-laws must set forth the composition and regulations for the operation of the Audit Committee and a majority of its members must be independent directors. Executive directors of the Company are not permitted to sit on the Audit Committee.

See “—Independence of the Members of our Board of Directors and Audit Committee.”

The Board of Directors of the Company, at its meetings held on April 26, 2019, appointed the members of the Audit Committee, which was composed by Carlos Felices, Daniel Gustavo Montamat and Emilio José Apud. Also, on December 13, 2019 the Board of Directors accepted the resignation of Mr. Emilio José Apud and appointed Mr. Arturo Giovenco as member of the Board of Directors and of the Audit Committee, and on March 27, 2020, the Board of Directors of the Company accepted the resignation of, Mr. Carlos Felices and Mr Daniel Gustavo Montamat. The current members of the Audit Committee are Ramiro Gerardo Manzanal, as chairman, and Pedro Martín Kerchner Tomba and

Arturo Carlos Giovenco, as members. Additionally, until March 27, 2020 Mr. Carlos Felices was the “Audit Committee Financial Expert”. Since March 27, 2020 Mr. Kerchner Tomba was designated by our Board of Directors as the “Audit Committee Financial Expert” pursuant to the rules and regulations of the SEC.

Our Audit Committee, among other functions:

- periodically inspects the preparation of our financial and economic information;
- reviews and opines on the Board of Directors’ proposals regarding the designation of the external auditors and the renewal, termination and conditions of their appointment;
- evaluates internal and external audit work, monitors our relationship with the external auditors, and assures their independence;
- provides complete disclosure regarding transactions where a conflict of interest exists with members of the corporate bodies or controlling shareholders;
- opines on the reasonability of proposals brought forth by the Board of Directors on fees and stock option plans for directors and administrators;
- verifies compliance with applicable national or international regulations for matters related to behavior in the stock markets; and
- ensures that the internal Code of Ethics complies with normative demands and is adequate.

Activities of the Audit Committee

The Audit Committee, pursuant to its regulations, must meet as many times as needed and at least once every quarter. From April 2019 to April 2020, the Audit Committee held 12 formal meetings.

The Audit Committee must support the Board of Directors in its oversight duties, periodically review economic and financial information relating to us, supervise the internal financial control systems and oversee the independence of external auditors.

Economic and financial information

Using the assessment of the Controller and the work performed by our external and internal auditors, the Audit Committee analyzes the consolidated annual and quarterly financial statements before they are submitted to the Board of Directors. The Audit Committee reviewed our consolidated financial statements as of and for the year ended December 31, 2019 included in our report on Form 6-K furnished to the SEC on March 13, 2020.

Oversight of the internal control system

The Audit Committee oversees the progress of our annual internal audit, which is aimed at identifying critical risks, to supervise internal financial control systems and ensure that they are sufficient, appropriate and efficient.

Throughout the year, the Audit Committee is kept informed by our internal audit department of the most relevant facts and recommendations arising out of its work and the status of the recommendations issued.

The Audit Committee supervised the alignment of our internal control system for financial reporting with the requirements established by Section 404 of the Sarbanes-Oxley Act. These regulations require that, along with the annual audit, a report must be presented by our management relating to the design, maintenance and periodic evaluation of the internal control system for financial reporting and be accompanied by a report from our external auditor. Several of our departments are involved in this activity, including the internal audit department.

Relations with the external auditors

The Audit Committee interacts closely with the external auditors, allowing them to make a detailed analysis of the relevant aspects of the audit of financial statements and to obtain detailed information on the planning and progress of the work.

The Audit Committee also evaluates the services provided by our external auditors, determines whether the conditions for independence of the external auditors, as required by applicable law, are met and monitors the performance of external auditors to ensure that it is satisfactory.

As of the date of this annual report, and pursuant to the evaluation process described in the above paragraph, the Audit Committee had no objections to the designation of Deloitte & Co. S.A. as our external auditors of the financial statements for the year ended December 31, 2019. In addition, the Audit Committee, at its meeting held on March 4, 2020, as a result of the evaluation process outlined in the preceding paragraph, had no objections to the designation of Deloitte & Co. S.A. as our external auditors for the year ended December 31, 2020, which will be considered at the next general shareholders' meeting.

Independence of the Members of our Board of Directors and Audit Committee

The following described CNV regulations were taken into account to assess a director's independence. In that sense, a director is not considered independent when such director (i) holds a position in the board of directors of an entity's controlling shareholder or any other entity in the issuer's corporate group at the time of the director's appointment or if it held such position during the immediately preceding three years; (ii) has an affiliation with the issuer or to any of its shareholders who have a "Significant Participation" (defined as the right to appoint one or more directors in a company) at the time of the director's appointment, or if it had such affiliation during the immediately preceding three years; (iii) has a professional relationship with, or is a member of a company that maintains professional relationships with, or receives remuneration or fees (other than those received in consideration of his performance as a director) from the issuer or any of its shareholders who has a direct or indirect Significant Participation in or significant influence on the issuer, or with a third-party company that has a direct or indirect Significant Participation or a significant influence. This prohibition extends through the preceding three year period to the director's appointment; (iv) directly or indirectly owns at least 5% in the issuer or in any other entity which holds a Significant Participation in the issuer; (v) directly or indirectly sells or provides goods or services (other than those set forth in (iii) above) to the issuer or to any of its shareholders who has a direct or indirect Significant Participation in or significant influence on the issuer for an amount substantially exceeding his remuneration as a member of the board of directors. This prohibition extends through the preceding three year period to the director's appointment; (vi) has been a director, manager or executive officer of not-for profit organizations which have received contributions in excess of those set forth in Resolution UIF N° 30/2011 (as amended) from the issuer, its controlling shareholder, any other member of the issuer's corporate group or any of their executive officers; (vii) is entitled to any payments, including those derived from the director's participation in stock option plans of the issuer or any company of its corporate group (other than those received in consideration of his performance as a director, dividends perceived pursuant to item (iv) or payments pursuant to item (v) above; (viii) has been a director of the issuer, its controlling shareholder or any other member of the issuer's corporate group for more than ten years, provided that the director will be deemed independent following a three year period after he ceased to hold any such position; or (ix) is the spouse or legally recognized partner or family member (up to second grade of affinity or up to third grade of consanguinity) of persons who, if they were members of the board of directors, would not be deemed independent, pursuant to items (i) through (viii) above. In case that, following the director's appointment, such director became subject to any of the restrictions in items (i) through (ix) above, such director shall be required to disclose this to the issuer, who in turn will be required to disclose it to the CNV. The directors and members of the Supervisory Committee trustees appointed by the State are independent.

As of the date of this annual report, Directors Guillermo Emilio Nielsen, Norberto Alfredo Bruno, Horacio Oscar Forchiassin, Ignacio Perincioli, Pedro Martín Kerchner Tomba, Maria Cristina Tchintian, Ramiro Gerardo Manzanal, Hector Pedro Recalde, Celso Alejandro Jaque, and Arturo Carlos Giovenco, and Alternate Directors, Fernando Martín Cerdá, Lucio Mario Tamburo and Miguel Lisandro Nieri qualified as independent members of our Board of Directors under the above-described criteria.

Disclosure Committee

Composition and responsibilities of our Disclosure Committee

In February 2003, the Board of Directors created a Disclosure Committee to:

- monitor overall compliance with regulations and principles of conduct of voluntary application, especially in relation to listed companies and their corporate governance;
- direct, establish and maintain procedures for the preparation of accounting and financial information to be approved and filed by us or generally released to the markets;

- direct, establish and maintain internal control systems that are adequate and efficient in order to ensure that our financial statements included in annual and quarterly reports as well as any accounting and financial information to be approved and filed by us is accurate, reliable and clear;
- identify significant risks to our businesses and activities that may affect the accounting and financial information to be approved and filed by us;
- assume the activities that, according to U.S. laws and SEC regulations, are applicable to us and may be assumed by disclosure committees or other internal committees of a similar nature, especially those activities relating to the SEC regulations dated August 29, 2002 (“Certification of Disclosure in Companies’ Quarterly and Prospectus” —SEC Release number 33-8124) and the existence and maintenance of adequate procedures and controls for the generation of the information to be included in our annual reports on Form 20-F and other information of a financial nature as required to be certified by our Chief Executive Officer and Principal Financial Officer;
- take on activities similar to those stipulated in SEC regulations for a disclosure committee with respect to the existence and maintenance of adequate procedures and controls for the preparation and content of the information to be included in the annual financial statements and any accounting or financial information to be filed with the CNV and other regulators of the stock markets where our stock is traded; and
- formulate proposals for an internal code of conduct with respect to stock markets that follow applicable rules and regulations, or any other standards deemed appropriate.

In addition, the Disclosure Committee reviews and supervises our procedures for the preparation and filing of:

- official notices to the SEC, the Argentine stock market authorities and other regulators of the stock markets where our stock is traded;
- interim financial reports;
- press releases containing financial data on results, earnings, large acquisitions, divestitures or any other information relevant to shareholders;
- general communications to shareholders; and
- presentations to analysts, investors, rating agencies and lending institutions.

As of the date of this annual report, the Disclosure Committee is composed of the following individuals:

Name	Position
Daniel Cristian González Casartelli	Chief Executive Officer
Diego Martín Pando	Controller and President of the Disclosure Committee
Luis Miguel Sas	Chief Financial Officer
Germán Fernández Lahore	Legal Affairs Corporate Vice President and Secretary of the Disclosure Committee
Santiago Martínez Tanoira	Downstream Executive Vice President
Pablo Bizzotto	Upstream Executive Vice President
Gustavo Chaab	Environment, Security and Health Vice President
Carlos Alfonsi	Operations and Transformations Executive Vice President
Marcos Browne	Gas and Power Executive Vice President
Fernando Giliberti	Supply Chain Vice President
Santiago Álvarez	Corporate Affairs, Communication and Marketing Executive Vice President
José Manuel Aggio	Human Resources Vice President
Sergio Damián Fernandez	Chief Technical Officer
Javier Fevre	Internal Auditor
Carlos Colo	Reserves Auditor
Sergio Fabián Giorgi	Strategy and Business Development Vice President

In addition to the members of our senior management whose outside business interests and experiences were described above, we include the following:

Gustavo Chaab

Mr. Chaab earned a degree in industrial engineering from the Universidad Nacional de Cuyo, a postgraduate degree in energy and energetic planning from the IDEE/Fundación Bariloche, a master's degree in International Business from the National Ponts et Chaussées Ecole and completed the Advanced Study Program from the Massachusetts Institute of Technology. In 1994, he joined YPF at the Luján de Cuyo Refinery and took on several roles including Chief of Administration and Sales Area of this Refinery, Planning and Movement of products until 2001; Downstream Operative Planning Manager in 2004, Lubricants Business Manager in 2008, and Planning and Technical Development Manager for Refinement, Logistic and Chemistry in 2008. From 2011 to March 2017, he served as Manager of the Industrial Complex in La Plata. Mr. Chaab has been our Environment, Security and Health Vice President since March 2017.

José Manuel Aggio

Mr. José Manuel Aggio earned a law degree from the Universidad de Buenos Aires and completed the Executive Program at IAE Business School. He started his professional career at the Pérez Companc Group, where he held several management positions. For 25 years he held various positions in the HR area in Aguas Argentinas, Prudential Financial, Barrick Gold Corporation (Argentina and South America), San Miguel, el Tejar and Danone. His most recent function was HR Director for the Southern Cone at Danone. He has been our Human Resources Vice President since February 2018.

Sergio Damián Fernández

Mr. Fernández is an Electronics Engineer graduated from the Universidad Nacional del Tucumán. He also holds an MBA from Universidad Torcuato di Tella. He has over 20 years of experience leading the IT areas at Cargill. In 2003, he was in charge of setting up the shared services area for the Latin American infrastructure which required an organizational redesign to reduce costs and gain efficiencies. He became part of the Global IT Executive Committee, participating in key definitions of the organization. His last position, which reported to the CEO of that company, was Global IT Head, Food Ingredients and Bio Industrial Enterprise. He was also responsible for leading and developing the current Global IT strategy, holding at the same time the position as IT Head for Latin America. He is our Chief Technology Officer (CTO) and President of the Board of Directors of YPF Tecnología S.A. since June 2017.

Javier Fevre

Mr. Fevre earned a certified public accountant degree from the Argentine University of Business. He has held several positions throughout his career, including Auditor for the General Auditor Office, Advisor to the Deputy General Syndic at the Argentine Office of the General Comptroller, Assistant Internal Auditor at the Ministry of Foreign Affairs, International Trade and Worship and General Coordinator of Internal Audit at Aerolíneas Argentinas S.A. He has been our Internal Auditor since September 2012.

Carlos Colo

Mr. Carlos Agustín Colo is a Geologist graduated from Universidad Nacional de la Patagonia San Juan Bosco. In 1979 he joined YPF where he developed his career in the Upstream Sector. He started as Exploration geologist and then he served in different positions related to exploration and production. He held various positions within the Company as General Manager in Colombia, Director of the Las Heras Economic Unit, Director of the E&P Technical Management, Exploration Director and Executive Manager of Exploration and Development. He has been our Reserve Auditor since June 2017.

Compliance with New York Stock Exchange Listing Standards on Corporate Governance

In accordance with the NYSE corporate governance rules, effective as of July 31, 2005, all members of the Audit Committee are required to be independent. Independence is determined in accordance with highly detailed rules promulgated by the NYSE and SEC. Each of the members of our Audit Committee was determined to be independent in accordance with the applicable NYSE and SEC rules.

Significant differences between our corporate governance practices and those required by NYSE listing standards

Non-U.S. NYSE-listed companies may, in general, follow their home country corporate governance practices in lieu of most of the NYSE corporate governance requirements. The NYSE rules, however, require that non-U.S. companies disclose any significant ways in which their specific corporate governance practices differ from those of U.S. companies under the NYSE listing standards.

The following is a summary of the significant differences between our corporate governance practices and those applicable to U.S. companies under the NYSE listing standards.

Independence of the directors on the Board of Directors

In accordance with the NYSE corporate governance rules, a majority of the board of directors of U.S. companies listed on the NYSE must be composed of independent directors, whose independence is determined in accordance with highly detailed rules promulgated by the NYSE. The relevant Argentine rules for determining director independence are described under “—Independence of the Members of our Board of Directors and Audit Committee” above.

Compensation and nomination committees

In accordance with the NYSE corporate governance rules, all U.S. companies listed on the NYSE must have a compensation committee and a nomination committee and all members of such committees must be independent in accordance with highly detailed rules promulgated by the NYSE. Under Argentine law, these committees are not mandatory, but are recommended by the CNV under CNV’s General Resolution No. 622/13. The Company follows the CNV’s recommendation and has a Nomination and Compensation Committee established by the Board of Directors under the option provided in Article 17 clause (xii) of the Company’s by-laws, which currently is composed of Directors Horacio Oscar Forchiassin, Guillermo Emilio Nielsen and Arturo Carlos Giovenco. As a result of the foregoing, all the members of the Compensation and Nomination Committee are independent.

Shareholder approval of equity compensation plans

The NYSE rules require that, with limited exemptions, all equity compensation plans be subject to a shareholder vote. Under Argentine law, the approval of equity compensation plans is within the authority of the Board of Directors.

Separate meetings for non-management directors

In accordance with the NYSE corporate governance rules, independent directors must meet periodically outside of the presence of its executive directors. Under Argentine law, this practice is not required and as such, the independent directors on our Board of Directors do not meet outside of the presence of the other directors, except for the meetings of the Audit Committee, which is comprised of independent directors.

Compensation of members of our Board of Directors

Argentine law provides that the aggregate annual compensation paid to the members of the Board of Directors (including those directors acting in an executive capacity) and of the members of the Shareholders’ Surveillance Committee (Consejo de Vigilancia), if applicable, with respect to a fiscal year may not exceed 5% of net income for such year if YPF is not paying dividends in respect of such net income. If the Company pays dividends, that percentage is increased proportionally up to 25% of net income, based on the amount of such dividends.

The Shareholders’ Surveillance Committee is a control entity regulated by the Argentine General Corporations Law, composed of shareholders of a corporation. As of the date of this annual report, YPF does not have a Shareholders’ Surveillance Committee, since the Argentine General Corporations Law requires us to have a Supervisory Committee, composed of statutory auditors.

The compensation of the Chairman and other directors acting in an executive capacity, together with the compensation of all other directors and members of the Shareholders’ Surveillance Committee, if applicable, requires the approval of an ordinary general shareholders’ meeting as provided by Argentine law. When one or more directors exercise special commissions or technical administrative functions and there are reduced profits or there is a lack of them, and there is a need to exceed the abovementioned limits, such remunerations may only be paid in excess of those limits if expressly agreed by the shareholders’ meeting, for which purpose the matter should be included on the agenda.

For the year ended December 31, 2019, the aggregate compensation accrued by the members of the Board of Directors and YPF’s executive officers for services in all capacities was Ps. 659.9 million, excluding social security payments made by the Company as required by law, but including Ps. 145.1 million in the form of equity compensation plans, pensions, retirement or similar benefits that YPF provides to its Board of Directors and executive officers. During 2019, YPF’s performance-based compensation programs included a performance bonus program for approximately 7,300 non-unionized YPF employees and 8,900 unionized YPF employees. This bonus program is intended to motivate and reward individuals for the annual achievement of business objectives. The program compensated

participants in cash based on a measurable and specific set of objectives established by YPF's Management by Objectives Program and individual performance results.

In 2019, our shareholders' meeting, as proposed by our Board of Directors, approved the creation of a voluntary reserve of Ps. 280 million for the fulfillment of our long-term incentive plan which contemplates compensation in shares for certain employees. To that end, the Company purchased its own shares in accordance with Section 64 et seq. of Law No. 26,831. For additional information see Note 2.b.10.iii and 36 to our Audited Consolidated Financial Statements. The share-based benefit plan: (i) encourages key personnel to align their performance with the objectives of the Company's strategic plan, (ii) generates a clear and direct link between the creation of shareholder value and compensation of key personnel, rewarding them for achieving long-term results reflected in share price and (iii) assists in the retention of key personnel in the organization.

YPF's directors do not have any service contracts with YPF involving the payment of compensation other than those previously mentioned for the performance of their duties with the Company. None of the members of our Board of Directors are party to any service contract with us or any our subsidiaries providing for benefits upon termination of their term in office.

Supervisory Committee

The Supervisory Committee is responsible for overseeing compliance by the management and the Board of Directors with Argentine General Corporations Law, the by-laws and regulations (if any), and shareholders' resolutions. The functions of the Supervisory Committee include, among others, attending all meetings of the Board of Directors, preparing a report of the financial statements for our shareholders, attending shareholders' meetings and providing information upon request to holders of at least 2% of our capital stock.

The by-laws provide for a Supervisory Committee composed of three to five members and three to five alternate members that are elected for one-fiscal year term. The Class A shares are entitled to elect one member and one alternate member of the Supervisory Committee so long as one share of such class remains outstanding. The holders of Class D shares may elect up to four members and up to four alternates. Under the by-laws, meetings of the Supervisory Committee may be called by any member. The meetings require the presence of all members and a majority vote of the members in order to make a decision. The members and alternate members of the Supervisory Committee are not members of our Board of Directors. The role of our Supervisory Committee is distinct from that of the Audit Committee. See "—The Audit Committee." In 2019, the aggregate compensation paid to the members of the Supervisory Committee was Ps. 7.7 million.

The current members of the Supervisory Committee, the year in which they were appointed and the year their current term expires is as follows:

Name	Class of Shares Represented	Age	Member Since	Term Expires
Guillermo Stok	A	64	2019	2020(*)
María Dolores Pujol	D	38	2019	2020(*)
Raquel Inés Orozco	D	64	2019	2020(*)
Alejandro Fabián Díaz (alternate member)	A	55	2019	2020(*)
Pilar Passaglia (alternate member)	D	27	2019	2020(*)
Hebe Cereseto (alternate member)	D	56	2019	2020(*)

(*) Members of our Supervisory Committee are appointed each fiscal year. Our shareholders, in the Ordinary and Extraordinary General Shareholders' meeting held on April 26, 2019 appointed the members of our Supervisory Committee for fiscal year 2019.

Guillermo Stok

Mr. Stok earned a certified public accountant degree and business administration degree from the Pontificia Universidad Católica de Argentina and completed postgraduate studies in public sector economics, the management of sustainable economic development and social economics. He was appointed by the World Bank (PNDU) to advise the Treasury and Finance Secretary at the Buenos Aires City Government. In 2001, he was designated General Manager of the National Administration of Social Security (ANSES). Currently, he works for the Argentine National Office of the Comptroller General as an Assistant Manager supervising majority state-owned enterprises. He is member of the Supervisory Committee since April 2018.

María Dolores Pujol

Ms. Pujol earned a law degree from Pontificia Universidad Católica Argentina. She obtained a postgraduate degree in Economic Administrative Law. She completed a Compliance Program for Specialists at IAE Business School and an Executive Program in Prevention of Money Laundering, Money Laundering from Drug Trafficking and Financing of Organized Crime at University of CEMA. She has worked at the General Auditor's Office of the Autonomous City of Buenos Aires and at the Administrative and Tax Litigation Court No. 19 of the Autonomous City of Buenos Aires. Between 2013 and 2015, she worked in various areas of the Government of the Autonomous City of Buenos Aires, as Legal and Technical Secretary and Chief of the Cabinet of Ministers. She currently serves as Executive Director at the Lottery of the Autonomous City of Buenos Aires. She is member of the Supervisory Committee since April 2017.

Raquel Inés Orozco

Ms. Orozco earned a law degree from the Universidad de Buenos Aires and she is specialized in Corporate Governance, Social Responsibility and Social Balance. Currently, she is a member of the Supervisory Committees of YPF GAS S.A., Ubatec S.A., Foncap S.A. and LT10 Radio Universidad del Litoral S.A., IEASA (Integración Energética Argentina S.A), Transportadora de Gas del Sur S.A. (TGS S.A.) and EDUCAR S.E. She is member of the Supervisory Committee since April 2017.

Alejandro Fabián Díaz

Mr. Díaz earned a certified public accountant degree from the Universidad de Buenos Aires and completed postgraduate studies in social responsibility, social accounting and business management. Since 2000, he has held several roles for the Argentine National Office of the Comptroller General, including Auditing Supervisor, Certified Accountant, member of the Supervisory Committee of first-tier businesses and Manager of Business Audits. He has been a member of the Latin American Network on Corporate Governance of State-Owned Enterprises since 2010. He has been developing his role as a teacher at universities and postgraduate institutions. He has also been a speaker at several conferences and has written books and articles related to his specialty. He is an Alternate member of the Supervisory Committee of YPF since April 2018.

Pilar Passaglia

Mrs. Passaglia, obtained a Law degree from the Pontificia Universidad Católica Argentina and mention of Honor from the Colegio de Abogados de la Ciudad de Buenos Aires. She completed the Civil and Commercial Code Updating courses among other trainings. She worked at Passaglia Law Firm as Paralegal in 2014 and at Estudio O'Farrell in the Corporate Law Department in 2015. She also served as Legal Advisor at the Instituto de Juegos y Apuestas in 2016 and at Loteria de la Ciudad de Buenos Aires S.E. where she also serves as an Alternate Director since 2017. Mrs. Passaglia has been an Alternate member of the Supervisory Committee of YPF since April 2018.

Hebe Cereseto

Mrs. Cereseto holds a Law degree from the Law and Social Sciences School of the UBA. She holds a Magister in Economic Business Law and a Specialization on Economic Administrative Law, both from the Pontificia Universidad Católica Argentina. She is a professor at UBA Law and Social Sciences School since 1992. She worked in several Law Firms between 1984 and 1992. She joined SIGEN where she worked in different management areas until obtaining the position of Deputy Manager of Companies with Minority State Participation and Financial Entities. Later, she served as a member of Supervisory Committee of Radio and Television Argentina S.E. and Vientos de la Patagonia S.A. She is currently a member of the Supervisory Committee of Nucleoeléctrica Argentina S.A. (NASA) and Grupo Aerolíneas Argentinas S.A. Mrs. Cereseto has been an alternate member of YPF Supervisory Committee since April 2018.

The Legal and Institutional Affairs Committee

The information provided below describes the composition and responsibilities of our Legal and Institutional Affairs Committee as of the date of this annual report.

Composition and responsibilities

In April 2016, the Board of Directors created the Compliance Committee, and changed its name in 2018 to Legal and Institutional Affairs Committee. Among its main functions, this committee is responsible for the supervision of management and analysis of the litigation strategy of the main pre-trial, arbitral and judicial disputes where YPF is a party, among other matters.

As of the date of this annual report, the Legal and Institutional Affairs Committee is composed of the following members:

<u>Name</u>	<u>Position</u>
Arturo Carlos Giovenco	Director - President
Guillermo Nielsen	Director
Hector Pedro Recalde	Director

The Risk and Sustainability Committee

The information provided below describes the composition and responsibilities of our Risk and Sustainability Committee as of the date of this annual report.

Composition and Responsibilities

In April 2016, the Board of Directors created the Risk and Sustainability Committee to establish comprehensive management policies for business risks and to monitor their adequate implementation; to identify and evaluate the principal risk factors that are specific to the Company and/or its activity; and to monitor risks and implement corresponding mitigation actions, among other functions.

As of the date of this annual report, the Risk and Sustainability Committee is composed of the following members:

<u>Name</u>	<u>Position</u>
Pedro Martín Kerchner Tomba	Director - President
Horacio Oscar Forchiassin	Director
Norberto Alfredo Bruno	Director
Ignacio Perincioli	Director
Ramiro Gerardo Manzanal	Director

The Strategy and Transformation Committee

In August 2017, the Board of Directors created the Strategy and Transformation Committee to discuss issues related to the Company's medium and long-term strategy and to act as liaison between the Board of Directors and the Executive Management Committee and the Company executives who are its members, in order to facilitate and expedite the internal treatment of the Company's business development overall strategies; to promote and transversally review the Company's transformation agenda, covering aspects of excellence and best operational practices in the industry, the commercial agenda, reviewing its organization with a central focus on the customer, the Company's digitalization and technological renewal agenda, and the renewal of support areas with a special focus on cultural change in the area of human resources; and to resolve, in the event of unforeseen or emergency situations, the approval of the Company's operations and / or necessary management.

As of the date of this annual report, The Strategy and Transformation Committee is composed of the following members:

<u>Name</u>	<u>Position</u>
Guillermo Emilio Nielsen	President of the Board of Directors
Ramiro Gerardo Manzanal	President of the Audit Committee
Horacio Oscar Forchiassin	President of the Compensation and Nomination Committee
Pedro Martín Kerchner Tomba	President of Risk and Sustainability Committee

Name

Position

Arturo Carlos Giovenco

President of the Legal and Institutional Affairs Committee –
Director for Class A Shares

Diversity and Inclusion

YPF is a company that represents different and countless ideas, experiences and contexts. It is committed to respecting and valuing the contribution of all of its employees.

Since 2017, the YPF Diversity Committee, integrated by a multidisciplinary team, represents the company's main cross-sectional areas. Its mission is to promote a culture of diversity and gender equality at YPF.

In continuity with our 5-year action plan:

2018: Begin

2019: Create awareness

2020: Expand

2021: Change

2022: Naturalize

In 2019, we have been moving forward, focusing on creating awareness. This meant delving deeper along the path taken, making progress on new initiatives, and broadening the perspective and scope, focusing on three big axes:

- *Gender Equality*

To remove barriers related to the admission, participation, promotion, compensation and recognition that hinder equity and equal opportunities.

- *Diversity*

To promote equal opportunities at YPF, its value chain and participating companies. Be a point of reference for the community and customers.

- *Inclusion*

Promote engagement, innovation and resilience through the sense of belonging.

2019 Highlights

Diversity continues as a strategic value in the Sustainability Report 2018, where we published an annex with the first YPF Diversity Report with the results from 2018.

We are one of the five leading companies driving the National Government Gender Equality Initiative with the support of the Interamerican Development Bank (IDB) and the World Economic Forum (WEF). In this context, in 2019, we conducted the referential self-diagnosis Occupational Quality Management in order to qualify to obtain the IRAM Certification for Gender Equality.

Likewise, we included gender equality and diversity as a value in our Code of Ethics and Conduct, adding Diversity & Inclusion Policy and Workplace Free of Abuse and Harassment Policy as additional annexes to our Code, and accompanied by the publication of a new version of the Behavior Manual.

By 2025 we have a milestone to reach 25% of women in leadership positions, so to reach this goal we incorporated, as part of the company's goals, the objective of having women in leadership positions, hiring new professionals and implementing internships, as well as, a goal for including women as candidates for leadership and pre-leadership positions (coordinating and leadership positions). To comply with this, we continue monitoring the indicators that make possible to assess potential barriers to the admission, participation, promotion, compensation, and recognition of women at YPF.

Finally, among other measures, the following stand out:

- We started 2019 by declaring our support to the Women’s Empowerment Principles (WEPs) from the UN Women and United Nations Global Compact, and we took the self-assessment of the WEP Gender Business Tool to identify our strengths and improvement areas.
- We continue during 2019 with the cycle of offering inspiring open talks on gender, innovation, biases, diversity and inclusion.
- Modules on diversity and gender equality were included in the company’s leadership programs.
- A communication campaign promoting diversity was launched, telling the stories of YPF collaborators and their families, as well as an internal communication campaign about inappropriate conduct.
- We launched an internal pilot mentoring program for 22 Mentees, 73% of the participants were female, and 38% of the female participants had a promotion during the program.
- Within the framework of the YPF Union Career, a module on diversity and gender equality was developed and AMJA (Asociación de Mujeres Jueces de Argentina) members provided training on gender awareness, domestic violence and human trafficking.
- We hold courses on unconscious bias for different groups of interest and inclusion culture workshops.
- We also participate as sponsors of the “Campaña del Consejo Publicitario Argentino sobre Estereotipos de Género” with the objective of making public our commitment to gender equity.
- We launched the LIFE Leadership program focusing on female leadership and the Self-Development Workshop: Women in the lead.

Employability Programs

In 2019 we continued to develop our Employability Programs which reach different social groups in situations of vulnerability. Since its creation in 2016, 220 people with different types of disabilities were already part of this inclusive experience.

During December 2019, in accordance with the International Day of Persons with Disabilities, we celebrated the first year of “Full de la sonrisa” program, aimed at young people with intellectual disabilities (Down and Asperger syndromes).

On the other hand, we continue with the youth program for people between 18 and 24 years old, from adverse social environments and with incomplete secondary studies. To 2019, more than 350 young people have already participated.

Finally, we continue with the program aimed at people who were deprived of their freedom. This initiative is carried out with the support of the “Fundación Espartanos” and, likewise with the other initiatives, with the help of the National Ministry of Labor. As a result, ten participants at the end of their training, and as a result of their good performance, were incorporated in our staff.

Inclusive Purchases

We continue with our Programa de Compras Inclusivas Responsables (CIR), adding organizations to our Inclusive Supplier Base and making purchases for more than Ps. 10 million during 2019.

We created, registered and patented our CIR seal, with the aim of internally identifying the management and actions related to adjudications within the program’s scope.

Employee Matters

Our total workforce consists of permanent and temporary employees. As of December 31, 2017, 2018 and 2019, we had 19,072, 21,314 and 22,932 employees, respectively. In 2019, the number included 9,122 employees in the Downstream business segment, 3,519 employees in the Upstream business segment, 1,553 employees in the Gas & Power business segment and 8,738 employees in the Central Administration and Other business segments. We had 2,615 temporary employees in 2019. The most significant variation in 2019 included an increase of employees at A-Evangelista S.A., our engineering and construction company, by 1,273 employees during 2019 due to the implementation of new projects. Approximately 39% of our employees are represented by the Federation of Oil Workers Union (“SUPeH”) that negotiates labor agreements and salaries applicable to YPF and OPESSA unionized employees. SUPeH is in continuous negotiation with YPF, and we maintain a good level of communication. In general, requests of labor unions in connection with the oil industry were consistent with general wage increases given by the General Unions Confederation.

In addition, labor conditions and salaries of third-party employees are mainly represented by sixteen other unions. Approximately 56% of third-party employees, mostly in the Upstream business, are represented by nine unions with whom we directly negotiate labor agreements and salaries. These unions are clustered into three groups: Petroleros Privados, which consists of five unions, Personal

Jerárquico, which consists of three unions, and SUPeH Emprendimientos. The remaining 44% of third-party employees are represented by unions with whom we do not participate in labor agreements.

During 2016, YPF sought to create an addendum to the main Union’s Labor Agreements that would result in better levels of efficiency, productivity and sustainability in the Shale and Tight operations. During 2017, as a result of collaboration with the main actors in the industry, including the Argentine government, provincial governors, Unions and representatives of the main production companies, YPF created and rolled out an addendum to the main union’s labor agreements that resulted in better levels of efficiency, productivity and sustainability in the Shale and Tight operations. The addendum was signed with both Neuquén Unions in January 2017, and extended to the Chubut unions, including shale, tight and conventional operations. By the end of 2017, similar agreements were reached individually with Santa Cruz’s main services companies. During 2018, as a result of collaboration with the main actors in the industry, including Neuquén authorities, and the Oil & Gas Unions, YPF came out with an “armor” to prevent strikes, by using every dispute resolution mechanism included in Collective Bargaining Agreements. During 2019 collective bargaining agreements with similar mechanisms were reached in Mendoza.

As of December 31, 2019, YPF was a party to approximately 1,075 labor lawsuits related to events or acts that took place after December 31, 1990. The outcome of these lawsuits will depend on factual issues that vary from case to case, and it is not always feasible to predict the outcome of particular cases. However, based on the number and nature of the lawsuits already commenced, the estimated likelihood of additional claims in view of the number of dismissed employees, applicable statutes of limitations, the legal principles involved in the suits and the financial statement reserves previously established, our management does not expect the outcome of these lawsuits to have a material adverse effect on our financial condition or future results of operations.

As of December 31, 2019, there were also approximately 45,000 third-party employees under contract, mainly with large international service providers. Although we have policies regarding compliance with labor and social security obligations for our contractors, we are not in a position to ensure that the contractors employees will not initiate legal actions against us seeking indemnification based upon a number of Argentine judicial labor court precedents that recognized joint and several liabilities between the contractor and the entity to which it was supplying services under certain circumstances.

The following table provides a breakdown of our employees by segment as of December 31, 2019.

Employees by Business Units

Upstream	3,519
Downstream	9,122
Gas and Power (1)	1,553
Central Administration and Others (2)	8,738
Total YPF	22,932

(1) Includes 1,439 employees of Metrogas S.A. and its subsidiaries.

(2) Includes 6,406 employees of A-Evangelista S.A.

The following table provides a breakdown of our employees by geographic location as of December 31, 2019.

Employees by geographic location

Argentina	22,776
Rest of South America	156
Total YPF	22,932

ITEM 7. Major Shareholders and Related Party Transactions

The Expropriation Law has significantly changed our shareholding structure. The Class D shares subject to expropriation from Repsol or its controlling or controlled entities, which represent 51% of our share capital and have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. In addition, the Argentine Republic and certain provincial governments already own our Class A and Class B shares. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—The Argentine Republic owns 51% of the shares of the Company.” Additionally, see “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Law No. 26,932” for a description of the agreement between Repsol and the Argentine Republic relating to compensation for the expropriation of 51% of the share capital of YPF owned, directly or indirectly, by Repsol. As of the date of this annual report, the transfer of the shares subject to expropriation between the Argentine Executive Branch and the provinces that compose the National Organization of Hydrocarbon Producing States is still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, taking into account their respective levels of hydrocarbon production and proved reserves. To ensure compliance with its objectives, the Expropriation Law provides that the Argentine Executive Branch, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder’s agreement with the federal government which will provide for the unified exercise of its rights as a shareholder. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law.”

The following table sets forth information regarding ownership of our capital stock by each person known to us to own beneficially at least 5% of our common shares, the Argentine federal and provincial governments and our Employee fund as of April 16, 2020:

	Number of shares	(%)
Shareholders Class D:		
National State ⁽¹⁾	200,589,525	51.000%
Floating ⁽²⁾	192,671,458	48.987%
Shareholders Class A:		
National State ⁽³⁾	3,764	0.001%
Shareholders Class B:		
Argentine provincial governments ⁽⁴⁾	7,624	0.002%
Shareholders Class C:		
Employee fund ⁽⁵⁾	40,422	0.010%

- (1) The expropriated Class D shares, which represent 51% of our share capital, and which now are owned by the Republic of Argentina, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. The completion of this assignment is pending. To ensure compliance with its objectives, the Expropriation Law provides that the Argentine Executive Branch, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder’s agreement with the federal government which will provide for the unified exercise of its rights as a shareholder. See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law,” “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Decree No. 7/2019
- (2) According to data provided by The Bank of New York Mellon, as of April 16, 2020, there were 161,558,849 ADSs outstanding and 46 holders of record of ADSs. Such ADSs represented approximately 41% of the total number of issued and outstanding Class D shares as of such date.
- (3) Reflects the ownership of 3,764 Class A shares by the Argentine Republic.
- (4) Reflects the ownership of 7,624 Class B shares by provincial governments.
- (5) Reflects the ownership of 40,422 Class C shares.

Related Party Transactions

All material transactions and balances with related parties as of December 31, 2019 are set forth in Note 35 to the Audited Consolidated Financial Statements. The main related party transactions were our sales of refined and other products to certain joint ventures and affiliates (which amounted to Ps. 28,116 million in 2019), our purchase of petroleum and other products and services that we do not

produce ourselves from certain joint ventures and affiliates (which amounted to Ps. 15,603 million in 2019), as well as what is mentioned in the following paragraphs.

In addition, since the Expropriation Law (See “Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law.”), the Argentine Republic owns 51% of the shares of the Company. Consequently, and in addition to transactions mentioned in the paragraph above, we are party to numerous agreements with the federal government, as well as with certain agencies or institutions of companies with state participation.

The information disclosed in Note 35 to the Audited Consolidated Financial Statements disclose the balances with joint ventures and affiliated companies as of December 31, 2019, December 31, 2018 and December 31, 2017, and transactions with the aforementioned parties for the twelve-month periods ended December 31, 2019, 2018 and 2017. Information regarding major transactions with government entities are also described in Note 35 to the Audited Consolidated Financial Statements.

In addition, see Note 2.b.10 to our Audited Consolidated Financial Statements regarding our long-term share compensation plan and other plans offered to certain personnel.

For an organizational chart showing our organizational structure, including our interests in our principal affiliates, see Note 1 to our Audited Consolidated Financial Statements.

Argentine Law Concerning Related Party Transactions

Sections 72 and 73 of the Capital Markets Law provide that before a company whose shares are listed in Argentina (the “Issuer”) may enter into an act or contract involving a “significant amount” with a “related party” or “related parties”, the Issuer must obtain approval from its Board of Directors, and obtain an opinion, prior to such board approval, from its audit committee or from two independent valuation firms that states that the terms of the transaction are consistent with those that could be obtained on an arm’s-length basis.

For the purpose of Section 72 of the Capital Markets Law and CNV Regulations, “significant amount” means an amount that exceeds 1% of the issuer’s net worth as reflected in the latest approved financial statements. For purposes of these Sections of the Capital Markets Law, “related party” means (i) the directors, members of the Supervisory Committee or of the Surveillance Committee, or managers of the Issuer; (ii) the persons or entities that control or hold a significant participation in the Issuer or in its controlling shareholder (as regulated by CNV); (iii) any other company under common control of the same controlling company; (iv) ascendants, descendants, spouses or brothers of the persons mentioned in (i) and (ii); or (v) companies in which the persons referred to in (i) to (iv) hold directly or indirectly significant participations.

As long as it is not included in items (i) to (v) above, a company controlled by the Issuer shall not be considered a “related party” with regards to Section 72 of the Capital Markets Law.

The acts or contracts referred to above, immediately after being approved by the board of directors, shall be disclosed to the CNV, making express indication of the audit committee’s and/or independent valuation firm’s opinion, as the case may be. Additionally, on the business day following the day the transaction was approved by the board of directors, the Audit Committee’s or the independent valuation firms’ opinions, as the case may be, shall be made available to the shareholders at the Issuer’s principal executive offices. This shall also be informed to the shareholders by a publication in the market’s bulletin.

If the Audit Committee and/or the two independent valuation firms do not consider that the contract is on arm’s-length terms, approval must be obtained at the Company’s shareholders’ meeting, prior to the transaction.

ITEM 8. Financial Information

Financial Statements

See Item 18 for our Audited Consolidated Financial Statements.

Legal Proceedings

The descriptions of the legal proceedings in Notes 15, 31 and 32.b to the Audited Consolidated Financial Statements are incorporated herein by reference.

Additionally, on March 23, 2020, the Bankruptcy Court of the District of Delaware denied the motion to withdraw the reference previously filed by Repsol and its affiliates that are part of the Claim, as well as the one filed by YPF together with the other companies of the Group that are part of the Claim.

On March 30, 2020, each party filed a letter to the Bankruptcy Court explaining outstanding issues related to the discovery process, and on April 10, 2020, the parties filed their answers to the letters filed on March 30, 2020.

Dividend Policy

See “Item 10. Additional Information—Dividends.”

Significant Changes

Since December 31, 2019, there have been no significant changes regarding the Company. Notwithstanding the foregoing, see Note 38 to the Audited Consolidated Financial Statements.

ITEM 9. The Offer and Listing

Shares and ADSs

New York Stock Exchange

The ADSs, each representing one Class D share, are listed on the NYSE under the trading symbol “YPF.” The ADSs began trading on the NYSE on June 28, 1993, and have been issued by The Bank of New York Mellon, as depositary (the “Depositary”).

According to data provided by The Bank of New York Mellon, as of April 16, 2020, there were 161,558,849 ADSs outstanding and 46 holders of record of ADSs. Such ADSs represented approximately 41% of the total number of issued and outstanding Class D shares as of such date. The Buenos Aires Stock Market is the principal Argentine Market for trading the ordinary shares. “BYMA” (Bolsas y Mercados Argentinos) is the largest stock market in Argentina and has been authorized by the CNV to delegate certain functions to the Buenos Aires Stock Exchange (“BASE”). Trading on the BYMA is conducted either through the traditional auction system from 11 a.m. to 5 p.m. on trading days, or through Millenium, which allows electronic negotiation with automatic execution of transactions. Currently, all transactions relating to listed securities can be executed through Millenium.

Investors in the Argentine securities market are mostly individuals and companies. Institutional investors, which are responsible for a growing percentage of trading activity, consist mainly of insurance companies and to a lesser extent mutual funds.

The last information available to us regarding the Argentine stock market is set forth in the table below:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Market capitalization (in billions of pesos) ⁽¹⁾	2,409	10,786	6,877
As percent of quarterly GDP ⁽²⁾	11%	74%	65%
Volume (in billions of pesos)	10,467	4,071	2,559
Average daily trading volume (in millions of pesos)	32,080	19,278	13,509

(1) Market capitalization as of end of December for each year.

(2) INDEC GDP Provisional Data.

Admission to the ByMA Corporate Governance Plus Panel

The Company was admitted to the special panel denominated “Corporate Governance Plus Panel” (CG+ Panel) created by ByMA on December 2018.

ByMA’s Corporate Governance Panel is a market segment which is composed by companies who voluntarily adhere to increased standards of good corporate governance and transparency compared to those required under Argentine regulations and who assume the commitment to their monitoring on a periodic basis. Such standards are in line with the corporate governance principles of the Organization for Economic Co-operation and Development (OECD), which were adopted by the G20.

Argentine Securities Market

The securities market in Argentina was originally composed of 5 stock exchanges, which are located in the City of Buenos Aires (the

“BASE”), Córdoba, Mendoza, Rosario and Santa Fe, with affiliated stock markets and, accordingly, authorized to quote publicly offered securities. However, this system was affected by the enactment of Law No. 26,831 as amended by Law No. 27,440 and its regulatory Decree No. 471/2018 (the “Capital Markets Law”), along with the regulations issued by the CNV, mainly contained in Resolution No. 622/2013, as amended and complemented (the “CNV Rules”), which stated that securities can only be listed and exchanged in stock markets authorized to function as such by the CNV.

The BASE, which began operating in 1854, was the principal and longest-established stock exchange in Argentina. The exchange functions of the BASE have now been absorbed by the S&P Merval, which is a stock market authorized by the CNV to function as such, under the Capital Markets Law. The S&P Merval and the BASE have entered into an agreement which has been approved by the CNV, whereby the S&P Merval has delegated to the BASE certain functions, such as: (i) the authority to grant listing authorization for securities; (ii) the authority to constitute arbitration courts; and (iii) the issuance of a public information bulletin.

On December 29, 2016, the Board of Directors of the CNV approved the creation of Bolsas y Mercados Argentinos (“ByMA”) as a new market. The shareholders of ByMA are the S&P Merval and BASE, with each holding 60% and 40% of the capital stock of ByMA, respectively.

The Argentine securities market is regulated and overseen by the CNV, pursuant to the Capital Markets Law which governs the regulation of securities exchanges, as well as stockbroker transactions, market operations, the public offering of securities, corporate governance matters relating to public companies and the trading of futures and options. Argentine institutional investors and insurance companies are regulated by separate government agencies, whereas financial institutions are regulated primarily by the Argentine Central Bank.

In Argentina, debt and equity securities traded on an exchange or the over-the-counter market must, unless otherwise instructed by their shareholders, be deposited with Stock Exchange Incorporated (Caja de Valores S.A.), a corporation owned 99.96% by ByMA. Stock Exchange Incorporated is the central securities depository of Argentina and provides central depository facilities, as well as acting as a clearinghouse for securities trading and as a transfer and paying agent for securities transactions. Additionally, it handles the settlement of securities transactions carried out by the ByMA and operates through Millenium.

Among the key provisions of the Capital Markets Law are the following: the definition of a “security,” that governs the treatment of negotiable securities; the corporate governance requirements, including the obligations for publicly listed companies to form audit committees composed of three or more members of the Board of Directors (the majority of whom must be independent under CNV regulations); regulations for market stabilization transactions under certain circumstances, regulations that govern insider trading, market manipulation and securities fraud and regulates going-private transactions and acquisitions of voting shares, including controlling stakes in public companies. In addition, the Capital Markets Law includes provisions regarding the demutualization of the stock exchanges; new regulatory powers and resources for the CNV; a mandatory tender offer system – as well as regulations for voluntary tender offers - and other provisions, like new requirements for brokers/dealers and other market participants. These provisions were regulated by the CNV pursuant to General Resolution No. 622/2013, as amended. Before offering securities to the public in Argentina, an issuer must fulfill certain requirements established by the CNV in regard to the issuer’s assets, operating history and management. Only securities approved for a public offering by the CNV may be listed on an authorized market. However, CNV approval does not imply any kind of certification as to the quality of the securities or the solvency of the issuer, even though issuers of listed securities are required to file unaudited quarterly financial statements and audited annual financial statements in accordance with IFRS and various other periodic reports with the CNV and the authorized market on which their securities are listed, as well as to report to the CNV and the relevant authorized market any event related to the issuer and its shareholders that may materially affect the value of the securities traded.

Anti - Money laundering and Terrorism Prevention regulations

Modifications to Argentine money laundering regulations have resulted in their application to increasing numbers and types of securities transactions.

The notion of money laundering is generally used to refer to transactions aimed at introducing funds derived from unlawful activities into the institutionalized system and therefore, transforming profits obtained from unlawful activities into assets having a presumed lawful origin.

Law No. 25,246 (as subsequently amended by Law No. 26,087, Law No. 26,119, Law No. 26,268 and Law No 26,683), Law No. 26,374 and Law No. 27,446) provides for an administrative criminal system and replaces several sections of the Argentine Criminal Code, incorporating, among other matters, the definition of money laundering as a type of crime committed whenever a person converts, transfers, manages, sells, charges, conceals or otherwise markets any asset derived from a criminal offense, with the possible consequence

that the original assets or substitutes thereof appear to come from a lawful source, provided that the total value of the asset exceeds Ps. 300,000 regardless of whether such amount results from one act or a series of related acts. Law No. 26,683 considers money laundering to be an autonomous crime against the economic and financial order, separate from the crime of concealment, which is an offense against the public administration, which allows for sanctions for the autonomous crime of money laundering regardless of participation in the crime that originated the funds subject to such money laundering. With the enactment of Law No. 27,260 and Decree No. 895/2016, the Financial Information Unit (*Unidad de Información Financiera* or "UIF") was moved under the jurisdiction of the Ministry of Finance and Public Finance. Subsequently, in accordance with Decree No. 2/2017, the UIF acts under the jurisdiction of the Ministry of Finance.

According to Article 303 of the Argentine Criminal Code, money laundering (as defined above) shall be punished with three to ten years of imprisonment and a fine of two to ten times the amount of the transactions made. The penalty prescribed above shall be increased by one third of the maximum and one half of the minimum if: (a) the wrongdoer carries out the act on a regular basis or as a member of an association or gang organized with the purpose of continuously committing acts of a similar nature; or (b) if the primary wrongdoer is a public officer who committed the infringement in the exercise of his/her duties (in such a case, the wrongdoer shall also be punished by special disqualification for three to ten years, and the same penalty shall apply to a wrongdoer who commits the offense in the service of a profession or trade requiring special qualification). The individual who receives money or other assets derived from a criminal offense with the purpose of applying them to a money laundering transaction shall be punished with imprisonment from six months to three years. If the value of the assets is not over Ps. 300,000, the wrongdoer will be punished with imprisonment from six months to three years. The provisions in this section shall apply even when the criminal offense is committed outside the geographical jurisdiction of the Argentine Criminal Code, so long as the crime is also penalized in the jurisdiction where it was committed.

Article 277 of the Argentine Criminal Code sets forth that an imprisonment of between six months and three years shall be applied (with varying minimum terms attaching depending on the particular circumstances) to any person who helps a perpetrator avoid or be removed from prosecution, obscures or destroys evidence of a crime, acquires, receives, hides or alters money or other proceeds from a crime, does not report the commission of the crime or does not identify the perpetrator or participant in a crime with knowledge that such person would have been obliged to assist in the criminal prosecution of such crime and/or aids or abets the perpetrator or participant in making safe the proceeds of the crime. The minimum and maximum terms of punishment shall be doubled when: (a) the offense implies a particularly serious crime (for which minimum penalty is higher than three years of imprisonment); (b) the abettor acts for profit; (c) the abettor habitually commits concealment acts; or (d) the abettor is a public official.

At the end of 2011, with the enactment of Laws No. 26,733 and 26,734, new crimes were introduced into the Argentine Criminal Code to protect financial and stock market activities and to prevent the financing of terrorism. On the one hand, Law No. 26,733 established penalties of imprisonment, fines and special disqualification for anyone who: uses or supplies inside information to conduct securities transactions (Article 307); manipulates stock markets by offering or conducting securities transactions through false information, feigned negotiations or meeting of the main shareholders in order to negotiate at a certain price (Article 308); and carry out financial and stock market activities without corresponding authorization (Article 309). On the other hand, Law No. 26,734 incorporated into the Argentine Criminal Code Article 306, which punishes with imprisonment and fines those who directly or indirectly collect assets or money to be used to finance a crime or an individual or organization that threatens the population, or to force national or foreign authorities or an international organization to perform or refrain from performing a particular act. The penalties will apply regardless of whether the crime was committed, or the financing was used. Additionally, the penalties will apply if the crime, individual or organization that is intended to be financed is carried out or located outside of Argentina. Likewise, the UIF was empowered to freeze assets linked to the financing of terrorism through a reasoned decision and immediate communication to a competent judge.

Law No. 25,246 contemplates that the legal entity whose management collected or provided assets or money, whatever their value, knowing that such assets were to be used by a terrorist organization, may be subject to a fine between five to 20 times the value of such assets. Furthermore, whenever the management of the legal entity infringes the duty to treat the information submitted to the UIF as confidential, the legal entity shall be subject to a fine between Ps. 50,000 to Ps. 500,000. Additionally, such regulation created the UIF as an autonomous and financially self-sufficient entity within the jurisdiction of the Argentine Ministry of Justice and Human Rights, in charge of analyzing, treating and transmitting information in order to preclude and prevent money laundering. Pursuant to this legislation, the UIF is empowered to receive and request reports, documents, background and any other information deemed useful to fulfill its duties from any public entity, whether federal, provincial or municipal, and from individuals or public or private entities, all of which entities must furnish such information in accordance with Law No. 25,246. Whenever the information furnished, or analyses performed by the UIF show the existence of sufficient evidence to suspect that a money laundering or terrorist financing crime has been committed, the UIF shall transmit such evidence to the Government Attorney's Office so that it may start the relevant criminal action, and the UIF may appear as an accusing party to such proceedings. Moreover, Law No. 26,087 mandates that banking secrecy or professional privilege, or legal or contractual commitments, cannot be considered exceptions to the compliance with the obligation to submit information to the UIF in the context of an investigation of suspicious activity. The main goal of Law No. 25,246 is to prevent money laundering and the financing of terrorism. In line with internationally accepted practices, the duty to control such illegal transactions is not concentrated

solely in Argentine federal governmental entities but also distributed among several private sector entities such as banks, brokers, brokerage firms and insurance companies. One of the mechanisms of the regime of preventing and combating these crimes consists of the obligation to inform the UIF imposed by Article 20 of the Prevention of Money Laundering Law to those parties listed that, due to their profession, activity or industry, hold a key position in the detection of suspicious money-laundering operations and/or terrorist financing transactions. Such duties mainly consist of data collection functions, such as: (i) gathering from clients, applicants or contributors any documentation sufficient to prove their identity, legal capacity, domicile and further data as necessary on a case by case basis; (ii) reporting any suspicious fact or transaction irrespective of its amount; and (iii) abstaining from disclosing to the client or third parties any procedures being followed pursuant to law. According to Law No. 25,246, a suspicious transaction shall mean any transaction that, in accordance with standard business practices and in the experience of the entities and individuals subject to reporting obligations, is regarded as unusual, unjustified from an economic or legal standpoint, or unnecessarily complex, whether it is a one-time transaction or a series of transactions.

In February 2016, the Argentine Executive Branch issued Decree No. 360/2016, through which it creates, under the jurisdiction of the Ministry of Justice and Human Rights, and directly dependent on its leadership, the “National Coordination Program in the Fight against Money Laundering and Terrorist Financing,” with the mission of reorganizing, coordinating and strengthening the national anti-money laundering system and against the financing of terrorism, attending to the specific risks that could impact national terrorism and effective global exigencies in compliance with international obligations and recommendations established by the United Nations Conventions and the standards of the Financial Action Task Force (“FATF”). By virtue of Article 6 of Decree No. 360/2016, the UIF will act as the coordinator in the material operation of the national, provincial and municipal order in the strict compliance of its duties as a financial information organization.

Resolution No. 30-E/2017 of the UIF (“Resolution 30”), which became effective on September 15, 2017, abrogated Resolution No. 121/2011 and set forth new obligations that financial entities subject to Law No. 21,526 and exchange entities subject to Law No. 18,924, as amended (the “Resolution 30 Reporting Parties”), must observe in their capacity as reporting parties pursuant to article 20, paragraphs 1 and 2, of Law No. 25,246. Resolution 30 follows the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation issued by the Financial Action Task Force in 2012, with the purpose of adopting a risk-based approach to ensure that measures to prevent or mitigate money laundering and terrorist financing are commensurate with the risks identified.

Among other duties and obligations, Resolution 30 provided that Resolution 30 Reporting Parties must: (i) develop and document the risk identification and assessment methodology they will implement in order to identify, evaluate, mitigate and monitor their ML/TF (as defined below) risks, prior to December 31, 2017; (ii) have a technical report reflecting the results of the implementation of the methodology described in (i) above, prior to March 31, 2018; and (iii) have adjusted their policies and procedures, as set forth in Resolution 30, and in accordance with the results of the risk self-assessment performed (which policies should be incorporated into the Resolution 30 Reporting Party’s money laundering and financing of terrorism (“ML/FT”) Prevention Manual (as defined below).

Resolution No. 229/2011 of the UIF, as amended by UIF Resolutions No. 52/2012, 140/2012, 104/2016, 141/2016 and 4/2017 (“Resolution 229”), is applicable to Stockbrokers and stockbrokerage firms, companies managing mutual funds, over-the-counter market agents, and all those intermediaries engaged in the purchase, lease or borrowing of securities trading in the field of stock exchanges with or without markets attached to them and intermediaries registered with futures and options markets, whichever their purpose may be (“Resolution 229 Reporting Parties”, and together with the Resolution 30 Reporting Parties, the “Reporting Parties”). Resolution 30 and Resolution 229 regulate, among other matters, (i) the obligation to collect certain documentation from clients, (ii) the obligations and internal restrictions to be implemented for purposes of complying with their duty to report suspicious ML/TF operations and (iii) know your customer (KYC) policies (including the distinction between regular and occasional clients), information which must be requested from clients, documentation storage requirements and the procedures for purposes of detecting and reporting suspicious transactions.

Pursuant to Resolution 30 and Resolution 229, the Reporting Parties’ main duties consist of: a) implementing a manual (the “Prevention Manual”), based on the Reporting Party’s particular activities, setting forth the mechanisms and procedures to be used to prevent ML/TF; b) the designation of a compliance officer pursuant to article 20 bis of Law 25,246, as amended, and article 20 of Decree No. 290/07, as amended; c) the implementation of periodic audits; d) personnel training; e) elaborating and maintaining analysis records and risk management of detected unusual operations and operations reported because they were considered suspicious; f) implementation of technological tools to have efficient control systems and be able to prevent money laundering and terrorism financing; and g) implementation of measures that allow the Reporting Parties, respectively, to electronically consolidate the operations they perform with clients, as well as technological tools, which enable analyzing or monitoring different variables to identify certain behaviors and detect possible suspicious operations. The Reporting Parties must report to the UIF any suspicious transaction within 30 calendar days from the day a transaction is qualified as a suspicious transaction on money laundering grounds (and regardless of whether the action was completed or attempted) and any suspicious transaction on terrorism financing grounds of within 48 hours of its occurrence.

Resolution 30 defines (i) “unusual transactions” as those which lack economic and/or legal justification, whether attempted or performed in isolation or repeatedly, regardless of their amount, do not correspond to the client’s risk or transactional profile, or that, due to their frequency, recurring nature, amount, complexity, nature and/or other particular characteristics, deviate from standard market practices, and (ii) “suspicious transactions” as those operations, whether attempted or performed, that cause a suspicion of ML/FT activities, or that have previously been identified as an unusual transaction, and after the analysis and evaluation carried out by the Reporting Party, cannot be justified. Resolution 229 defines (i) “unusual transactions” as those operations that are attempted or carried out in isolation or repeatedly, without economic and/or legal justification, and that do not relate to the risk or transactional profile of the client or deviate from standard market practices, due to their frequency, recurring nature, amount, complexity, nature and/or particular characteristics, and (ii) “suspicious transactions” as those operations that are attempted or carried out that cause a suspicion of ML/FT activities, or that have previously been identified as an “unusual transaction”, and after the analysis and evaluation carried out by the Reporting Party, they create a doubt about the authenticity, veracity or coherence of the documentation presented by the client, in relation to their activity. Pursuant to Resolution 30, financial entities have the duty to (i) implement an ML/FT prevention system (the “Prevention System”), which must contain all the policies, procedures and controls established for ML/FT risk management to which they are exposed, and the elements of compliance required by such resolution and (ii) constitute an anti-ML/FT prevention committee.

Furthermore, Resolution 30 modified compliance officers’ duties and required entities to upload the following reports through the UIF website: (a) a report of cash transactions in excess of Ps. 200,000; (b) a report detailing international transfers from and to Argentine accounts; and (c) an annual systematic report.

Resolution No. 92/2016 of the UIF imposed on the reporting parties the obligation to implement a risk management system in accordance with the “voluntary and exceptional affidavit of holding of national currency, foreign currency and other assets in the country or abroad” established by Law No. 27,260, in order to report suspicious transactions performed by clients until March 31, 2017, derived from the tax amnesty regime.

In addition, the CNV rules, under Title XI of “Prevention of Money Laundering and Terrorist Financing,” establish that brokers and brokerage firms, and companies managing common investment funds, agents of the over-the-counter market, intermediaries in the purchase or lease of securities affiliated with stock exchange entities with or without associated markets and intermediary agents registered on forwards or option markets, and individuals or legal entities acting as trustees, for any type of trust fund, and individuals or legal entities, owners of or related to, directly or indirectly, with trust accounts, trustees and grantors in the context of a trust agreement, shall comply with Law No. 25,246, the UIF’s rulings and the CNV’s regulations. Additionally, companies managing common investment funds, any person acting as placement agent or performing activities relating to the trading of common investment funds, any person acting as placement agent in any primary issuance of marketable securities, and any issuer with respect to capital contributions, irrevocable capital contributions for future issuances of stock or significant loans, must also comply with such regulations.

Such resolutions also contain certain requirements for the reception and delivery of checks and payments made between the individuals and entities listed above, as well as the prohibition of transactions relating to the public offering of securities, when they are consummated or ordered by individuals or companies domiciled or residing in domains, jurisdictions, territories or associated states not included in the list of Decree No. 589, as amended (regulating mainly the jurisdictions which are considered “cooperatives for fiscal transparency purposes”).

Brokers and dealers must duly know their clients and apply policies and maintain adequate structures and systems in line with a policy against money laundering and terrorist financing. Additionally, interested investors undertake the obligation to submit any information and documents that may be required in order to comply with criminal regulations and other laws and regulation in connection with money laundering, including capital market regulations preventing money laundering issued by the UIF and similar regulations issued by the CNV.

According to the regulations related to the prevention of money laundering, the financing of terrorism and other illicit activities issued by the Central Bank, financial entities should take certain measures with respect to its clients, including, without limitation:

- observe the regulations governing the collection of proceeds, the legislation applicable to these matters (laws and regulatory decrees) and the regulations of the UIF. This includes the decrees of the Argentine Executive Branch with reference to the decisions adopted by the United Nations Security Council in combatting terrorism and comply with the resolutions (and their respective annexes) issued by the Ministry of Foreign Affairs and Worship;
- in the absence of documentation or the existence of doubts and/or the detection of irregularities regarding veracity, accuracy, coherence or integrity of the documents provided by the clients, or because situations have been detected that

deviate from the customer profile (as determined in accordance with existing regulations), require additional information and/or documentation, indicating to the client the obligation to comply with such additional requests;

- under no circumstance can relationships with new clients be carried out until the provisions of current regulations regarding the identification and knowledge of the client, and risk management are duly complied with;
- in the case of existing clients in respect of which identification and knowledge could not be complied with in accordance with the regulations in force, an analysis should be made with a risk-based approach, in order to assess the continuity of the relationship with the client. In September 2016, Communication “A” 6,060 of the BCRA came into force, which set forth that the criteria and procedures to be applied in this process must be described by the financial entities in their Prevention Manual. If it is appropriate to discontinue the relationship with a client, the procedures and deadlines established by the provisions of the Argentine Central Bank that are specific to the applicable product(s) must be observed. The reporting subjects must keep the written records of the procedures applied in each case where they discontinue the relationship with a client, for a period of 10 years;
- send a certified copy of the designation of the regular and alternate chief compliance officer, if any, to the UIF of the Central Bank, carried out in accordance with the conditions and within the terms established in the regulations issued by the UIF;
- keep a database with information corresponding to clients that perform individual operations for amounts equal to or greater than Ps. 240,000 (or its equivalent in other currencies) for certain concepts. The scope of this obligation will also include cases relating to customers who, in the opinion of the intervening entity, carry out related-party operations that do not reach the minimum threshold on an individual basis, but exceed or reach such amount in the aggregate. For such purpose, they are also required to store information corresponding to persons who conduct transactions which in the aggregate during any day are equal to or greater than Ps. 30,000 (or its equivalent in other currencies).

Failure to comply with the requirements established by the BCRA to access the local exchange market for transactions involving the purchase and sale of securities of all types constitute an infraction subject to the criminal exchange regime.

In addition, in November 2016, BCRA Communication “A” 6,094 established that the regulations of the prevention of money laundering, terrorist financing and other illicit activities issued by the Central Bank must also be complied with by the foreign representatives of the financial entities that are not authorized to operate in Argentina.

Through the enactment of Law No. 27,260 and its related regulations and Decree No. 895/2016, the UIF was granted the power to communicate information to other public entities with intelligence or investigation powers, provided that such powers can only be exercised following a well-founded resolution issued by the UIF’s president and solely in those case where there are serious, precise and concordant signs regarding the commission of any of the crimes set forth by Law No. 25,246. Any information provided by the UIF will be transferred along with the obligation to maintain secrecy pursuant to Article 22 of Law No. 25,246, and any unlawful disclosure of confidential information by any entity will be subject to certain penalties. The UIF will not exercise the authority referred to in cases related to voluntary and exceptional declarations made under Law No. 27,260.

On June 18, 2018, by means of Law No. 27,446, modifications to numerous sections of the Anti-Money Laundering Law were introduced, with the purpose of simplifying and streamlining judicial proceedings, adapting the regulations in force to the operative reality of the UIF and to adopt certain international standards in the field of information exchange.

Over the course of 2018 the UIF reviewed its anti-money laundering and counter terrorism financing rules in line with certain Financial Action Task Force (FATF) and Organization for Economic Co-Operation and Development (OECD) recommendations in order to comply with international standards by consolidating a new “risk-based” approach regarding obligations of certain reporting entities, by adjusting its regulations regarding Politically Exposed Persons, and by implementing coordinated surveillance.

The main regulatory developments made by UIF in 2018 were:

Updating rules applicable to reporting entities

The UIF is reviewing its regulations applicable to its reporting entities, to align them with international standards. For this purpose, it consolidated an adjustment to the regulatory framework applicable to the financial and exchange sector, capital markets sector, and

insurance sector establishing new measures, proceedings and controls that the reporting entities must adopt and apply to manage the risk of being used as vehicles of money laundering or terrorism financing, moving from a “normative approach” to a “risk-based approach”.

In addition, Resolution No. 130/2018 amended the minimum thresholds established in Argentine Pesos set forth in the regulations applicable to reporting entities/individuals (such as, notaries, entities receiving donations or contributions from third parties, accountants, individuals or entities that sell or purchase works of art, antiques, among others) and includes a comprehensive review and update of the amounts that were formerly set forth by Resolution No.104/2016.

Updating list of individuals considered as Politically Exposed Persons (“PEP”)

On March 23, 2019, Resolution No. 134/2018, as amended by Resolution No. 15/2019, entered into force whereby a new list of PEPs was approved. This Regulation is based on a risk based approach and establishes the following categories of individuals considered as PEP, setting forth in each case, the scope, functions and/or positions:

- Foreign PEP;
- PEPs from the Argentine government;
- PEPs from provincial government, municipal government and the government of the Autonomous City of Buenos Aires;
- Other PEPs. This category includes:
 - Individuals acting (or that have acted) in important positions within (i) political parties or coalitions; (ii) trade unions or business organizations; and (iii) healthcare insurance organizations;
 - Individuals in decision-making positions, or those who manage, control or dispose of the assets in companies that receive funds.
- PEP by closeness or affinity. This category includes individuals that present personal ties (for example, spouse or relative up to second degree of blood or affinity) or legal ties with other individuals who are considered as PEP. Although the rule establishes guidelines regarding this category, it also includes as PEP “all other relation or tie that may be relevant to the reporting entity for its characteristics and based on a risk based analysis”.

The reporting entities must determine the risk level upon initiating or continuing the contractual relationship with a PEP, and must implement adequate due diligence measures, proportional to the related risk and the transaction or transactions involved. Upon initiating the commercial relationship, reporting entities must request each client a sworn statement whereby she/he discloses whether she/he qualifies or not as PEP.

In addition, the condition as PEP does not automatically cease after two years as of the date the individual has left public office. Reporting entities must make their own assessments, on a case-by-case basis, to determine whether or not an individual will be considered as PEP, pursuant to the guidelines established in the regulation.

Surveillance. Collaboration between UIF and other regulators

One of the main concerns of the current administration is to promote a collaborative approach between the UIF and agencies acting as regulators of the reporting entities, to optimize the surveillance processes of each of the entities under their oversight.

In such connection, Resolution No. 97/2018 and Resolution No. 155/2018 were passed, to establish collaboration duties between UIF and:

- the Central Bank;
- the CNV;
- the Superintendence of Insurance (Superintendencia de Seguros de la Nación); and
- the Cooperative Authorities (Instituto Nacional de Asociativismo y Economía Social).

In this sense, upon carrying out a surveillance proceeding, these agencies must provide due collaboration to UIF to assess the reporting entities’ degree of compliance with the Anti-Money Laundering.

In addition, a “task force” is created with these agencies, meeting on a monthly basis, to ensure an adequate level of coordination and collaboration, with surveillance and follow-up activities, setting technical criteria and assessing the risks of each sector, as well as informing and analyzing the outcome of their surveillance.

Furthermore, Resolution No. 154/2018, approved the “UIF’s Risk-based approach proceeding”, applicable to surveillance proceedings initiated by UIF aimed at controlling the regulated entities’ degree of compliance with the Anti-Money Laundering Law and the UIF resolutions.

On July 2019, by means of Decree No. 489/2019 the Argentine Executive Branch create the Public Registry of Persons or Entities Linked to Acts of Terrorism and their Financing (Registro Público de Personas y Entidades vinculadas a actos de Terrorismo y su Financiamiento, the “RePET”) in order to centralize and manage all information relating to administrative freezes of assets linked to acts of terrorism and their financing.

The RePET is enabled to provide public access and ensure the exchange of information with the agencies with competence in the field and with third countries, which will make it possible to strengthen the mechanisms of domestic and international cooperation and the reporting entities must provide them all the information related to operations accomplished or attempted by individuals or legal entities incorporated in the RePET.

On November 17, 2019, by means of Resolution No. 117/2019, the UIF updated the minimum thresholds upon which reporting entities are required to carry out reinforced control and due diligence requirements established by the applicable anti money laundering and terrorism financing regulations. This measure aims to “contribute to an efficient prevention of money laundering and terrorism financing” from a risk-based approach, in accordance to the international standards promoted by the FATF.

The recitals of the Resolution highlight the fact that the latest update to the minimum thresholds was implemented more than two years ago by UIF Resolution No. 130/2018 and that, given the time elapsed and the variation of prices in the economy, an update to such thresholds was necessary.

Likewise, the Resolution includes means of payment such as personal checks and payments made through the financial system as exceptions to the determination of client profiles in the regulations applicable to dealerships and resellers.

For a more exhaustive analysis of the anti-money laundering regime applicable as of the date of this annual report, it is suggested that investors should consult with their legal advisors regarding the applicable regulations as Title XVIII, Book Two of the Argentine Criminal Code, and the regulations issued by the UIF, the CNV and the Central Bank regulations, which can be found on the website of the Ministry of Justice and Human Rights of Argentina, under the section Legislative Information (www.infoleg.gov.ar), and/or on the UIF’s website (www.uif.gov.ar) and/or on the CNV’s website (www.cnv.gov.ar) and/or the Central Bank’s website (www.bcra.gov.ar).

Law No. 27,401 on Corporate Criminal Liability

On November 8, 2017, a law establishing the criminal liability regime applicable to private legal entities, state-owned or not, was enacted by the Argentine Congress and published in the Official Gazette of the Argentine Republic on December 1, 2017 (the “Corporate Criminal Liability Law”). The law entered into force in March 2018, 90 days following its publication.

The Corporate Criminal Liability Law applies to private legal entities for the crimes of national and transnational bribery and influence peddling; transactions that are incompatible with the exercise of public offices; and illegal exaction committed by public officials; among others.

Legal entities are liable for those crimes, carried out directly or indirectly, with their intervention or in their name, interest or benefit. The legal entity is also liable if a third party, without any capacity to act on its behalf, acted in its own benefit or interest, provided the legal entity has ratified the third party’s acts, even implicitly.

In the event of transformation, merger, absorption, spin-off or any other corporate restructuring, the legal entity’s responsibility will be transferred to the resulting or absorbing legal entity.

The law also provides that the legal entity may be convicted even if the individual involved could not be identified or judged, provided that the circumstances of the case allow establishing that the crime could not have been committed without the acquiescence of the legal entity’s bodies.

The penalties that could be applicable to legal entities included fines, total or partial suspension of business activities of up to ten (10) years, suspension from participating in public bids or tenders for the execution of public works or services, dissolution and winding up of the legal entity under certain circumstances, loss or suspension of government benefits, among others.

Penalties can be graduated by judges, who will contemplate the compliance of internal rules and procedures, the number and hierarchy of the officials, employees and collaborators involved; the lack of surveillance; the extent of damage caused; the amount of money involved; the willingness to reduce or repair the damage and recidivism.

The legal entity will be exempted from penalties and administrative liability provided that: a) It has self-reported an offense under the Corporate Criminal Liability Law; b) It has implemented an adequate monitoring and supervision system (Compliance Program), pursuant to the risks of its activity, dimension and economic capacity, prior to the fact under prosecution occurred, and c) It has returned the undue benefit obtained.

The Ministerio Público Fiscal (Public Prosecutor's Office) and the legal entity may enter into an effective collaboration agreement, whereby the latter undertakes to cooperate by disclosing data or information for the clarification of the facts, the identification of the participants and/or the recovery of the assets or profits proceeding from the crime, as well as to comply with the other conditions established by the Corporate Criminal Liability Law.

Legal entities are not required under the Corporate Criminal Liability Law to implement Compliance Programs with the exception of those entering into certain agreements with the Government. The Compliance Programs shall include a set of internal actions, mechanisms and procedures to promote integrity, supervision and control aimed at preventing, detecting and correcting irregularities and unlawful acts under this law.

ITEM 10. Additional Information

Capital Stock

Our capital stock consists of Ps 3,933,127,930, divided into 3,764 Class A shares, 7,624 Class B shares, 40,422 Class C shares and 393,260,983 Class D shares, each fully subscribed and paid, with a par value of ten pesos each and the right to one vote per share. Our total capital stock has not changed since December 31, 2004.

In November 1992, the Privatization Law became effective. Pursuant to the Privatization Law, in July 1993, we completed a worldwide offering of 160 million Class D shares, representing approximately 45% of our outstanding capital stock, which had been owned by the Argentine government. Concurrently with the completion of such offering, the Argentine government transferred approximately 40 million Class B shares to the Argentine provinces, which represented approximately 11% of our outstanding capital stock, and made an offer to holders of pension bonds and certain other claims to exchange such bonds and other claims for approximately 46.1 million Class B shares, representing approximately 13% of our outstanding capital stock. As a result of these transactions, the Argentine government's ownership percentage of our capital stock was reduced from 100% to approximately 30%, including shares that had been set aside to be offered to our employees upon establishment of the terms and conditions by the Argentine government in accordance with Argentine law. The shares set aside to be offered to employees represented 10% of our outstanding capital stock.

In July 1997, the Class C shares set aside for the benefit of our employees in conjunction with the privatization, excluding approximately 1.5 million Class C shares set aside as a reserve against potential claims, were sold through a global public offering, increasing the percentage of our outstanding shares of capital stock held by the public to 75%. Proceeds from the transactions were used to cancel debt related to the employee plan, with the remainder distributed to participants in the plan. Additionally, Resolution No. 1,023/06 of the Ministry of Economy, dated December 21, 2006, effected the transfer to the employees covered by the employee share ownership plan, or PPP, of 1,117,717 Class C shares, corresponding to the Class C shares set aside as a reserve against potential claims, and reserving 357,987 Class C shares until a decision was reached in a pending lawsuit. Subsequently, with a final decision having been reached in the lawsuit, and consistent with the mechanism of conversion of Class C shares into Class D shares established by Decree 628/1997 and its accompanying rules, as of December 31, 2009, 1,447,983 Class C shares had been converted into Class D shares. In 2010, a former employee of the Company who was allegedly excluded from the Argentine government's YPF PPP filed a claim against YPF seeking recognition of his status as a shareholder of YPF. In addition, the Federation of Former Employees of YPF joined the proceeding as a supporting third-party claimant, purportedly acting on behalf of other former employees who were also allegedly excluded from the PPP. Under the jurisprudence of the CSJN upholding numerous decisions of the relevant Argentine Courts of Appeals, YPF believes it will

not be held liable for claims of this nature related to the PPP. Through Law No. 25,471, the Argentine government assumed sole responsibility for any compensation to be received by YPF's former employees who were excluded from the PPP.

The Expropriation Law has significantly changed our shareholding structure. The Class D shares subject to expropriation from Repsol YPF or its controlling or controlled entities, which represent 51% of our share capital and were declared of public interest and are currently held by the Republic of Argentina, will be assigned as follows: 51% to the Argentine federal government and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. In addition, the Argentine federal government and certain provincial governments already own our Class A and Class B shares. See "Item 3. Key Information—Risk Factors—Risks Relating to Argentina—The Argentine Republic owns 51% of the shares of the Company."

See Note 29 to the Audited Consolidated Financial Statements, "Item 4. Information on the Company—History and Development of YPF," "Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law," "Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—Decree No. 272/2015 and Decree N° 7/2019" and "Item 7. Major Shareholders and Related Party Transactions."

Memorandum and Articles of Association

YPF's by-laws were approved by National Executive Decree No. 1,106, dated May 31, 1993, and notarized by public deed No. 175, dated June 15, 1993 at the National Notary Public Office, sheet 801 of the National Registry, and registered at the Inspection Board of Legal Entities of the Argentine Republic on the same date, June 15, 1993 under number 5,109 of the book of Corporations number 113, volume "A."

At a shareholders' meeting on April 29, 2016, YPF's shareholders approved an amendment to YPF's by-laws. Copies of the by-laws, which have been filed as Exhibit 1.2. to YPF's 2016 annual report on Form-20 filed on April 7, 2017, are also available at the offices of YPF, and on its own web site at

<https://www.ypf.com/english/investors/Corporate-governance/Paginas/By-Laws.aspx>

For a detailed description of YPF's object and purpose, see "Item 4. Information on the Company." YPF's object is set forth in Section 4 of its by-laws.

Pursuant to Argentine General Corporations Law, the Board of Directors or the Supervisory Committee shall call either annual ordinary or extraordinary shareholders' meetings in the cases provided by law and whenever they consider appropriate. Shareholders representing not less than 5% of YPF's capital stock may also request that a shareholders' meeting be called.

A shareholders' meeting shall be called at least 20 calendar days – and no more than 45 calendar days - prior to the meeting date by notice published in the legal publications journal (Official Gazette), in an Argentina newspaper of wide circulation and in the bulletin of the BASE for a period of 5 days. The notice shall include the type of meeting to be held, date, time and place of the meeting, the agenda to be discussed and the specific requirements shareholders must meet to attend the meeting.

Shareholders' Meetings

As previously noted, pursuant to the Argentine General Corporations Law, the Board of Directors or the Supervisory Committee shall call either annual ordinary or extraordinary shareholders' meetings in the cases provided by law and whenever they consider appropriate. Shareholders representing not less than 5% of the capital stock of the Company may also request that a shareholders' meeting be called, in which case the meeting must be held within 40 days of such shareholders' request. If the Board of Directors or the Supervisory Committee fails to call a meeting following such a request, a meeting may be ordered by the CNV or by the courts.

Shareholders' meetings may be ordinary meetings or extraordinary meetings. The Company is required to convene and hold an ordinary meeting of shareholders within four months of the closing of each fiscal year to consider the matters specified in the first two paragraphs of Section 234 of the Argentine General Corporations Law, such as the approval of our financial statements, allocation of net income for such fiscal year, consideration of the reports of the Board of Directors and of the Supervisory Committee, consideration of the performance and determination of the remuneration of directors and members of the Supervisory Committee. In addition, pursuant to the Capital Markets Law, at ordinary shareholders' meetings, shareholders must consider (i) the disposition of, or creation of any lien over, all or a substantial part of the assets of the Company as long as such decision has not been performed in the ordinary course of business, and (ii) the execution of administration or management agreements and whether to approve any agreement by virtue of which the assets or services provided to the Company are paid partially or totally with a percentage of the income, results or earnings of the Company, if the payment

is material when measured against the volume of the ordinary course of business and our shareholders' equity. Other matters which may be considered at an ordinary shareholders' meeting convened and held at any time include the responsibility of directors and members of the Supervisory Committee, capital increases and the issuance of certain notes. Extraordinary shareholders' meetings may be called at any time to consider matters beyond the authority of an ordinary meeting including, without limitation, the amendment of our by-laws, issuance of debentures, early dissolution, merger, spin-off, reduction of capital stock and redemption of shares, transformation from one type of entity to another and limitation or suspension of shareholders' preemptive rights.

Notices of meetings

Notice of shareholders' meetings must be published for 5 days in the Official Gazette, in an Argentine newspaper of wide circulation and in the bulletin of the BASE, at least 20 but not more than 45 calendar days prior to the date on which the meeting is to be held. Such notice must include information regarding the type of meeting to be held, the date, time and place of such meeting, the agenda, and the specific requirements shareholders must meet to attend the meeting. If a quorum is not available at such meeting, a notice for a meeting on second call, which must be held within 30 days of the date on which the first meeting was called, must be published for 3 days, at least 8 days before the date of the meeting on second call. Shareholders' meetings may be called simultaneously on first and second in the same notice, only in the case of ordinary meetings. Shareholders' meetings may be validly held without publication of the call if all the shares of the outstanding share capital of the Company are present in the meeting and resolutions are adopted by unanimous vote of shares entitled to vote.

Quorum and voting requirements

Except as described below, the quorum for ordinary meetings of shareholders on first call is a majority of the shares entitled to vote, and action may be taken by the affirmative vote of an absolute majority of the shares present that are entitled to vote on such action. In case of a meeting on second call (provided that the quorum is not available at the first meeting), action may be taken by the holders of an absolute majority of the shares present, regardless of the number of such shares. The quorum for an extraordinary shareholders' meeting on first call is 60% of the shares entitled to vote and pursuant to our by-laws if such quorum is not available, a meeting on second call may be held, with the presence of any number of shares entitled to vote. In both cases action may be taken, by the holders of an absolute majority of the shares present, regardless of the number of such shares.

Our by-laws establish that in order to approve (i) the transfer of our domicile outside Argentina, (ii) a fundamental change of the corporate purpose set forth in our by-laws, (iii) delisting of our shares from ByMA or NYSE, and (iv) a spin-off by us, when as a result of such spin-off more than 25% of our assets are transferred to the resulting corporations, (even in case that such result is reached by several spin-offs during a one year term), a majority of the shares representing 75% or more of our voting shares is required, both in first and second call.

Our by-laws also establish that in order to approve (i) certain amendments to our by-laws concerning tender offers of shares, (ii) the granting of certain guarantees in favor of our shareholders, (except when the guarantee and the guaranteed obligation were assumed while procuring the corporate purpose set forth in our by-laws) (iii) full stop of refining, commercialization and distribution activities and (iv) rules regarding appointment, election and number of members of our Board of Directors, a majority of the shares representing 66% or more of our voting shares is required, both in first and second call.

The affirmative vote of Class A shares, voting at a special meeting of the holders of such shares is also needed to: (i) decide upon the merger of the company; (ii) approve any acquisition of shares by a third party representing more than 50% of the company's capital; (iii) transfer to third parties all the exploitation rights granted to YPF pursuant to the Hydrocarbons Law, applicable regulations thereunder or the Privatization Law, if such transfer would result in the total suspension of the company's exploration and production activities; (iv) voluntarily dissolve the company; and (v) transfer our legal or fiscal domicile outside Argentina. The actions described in clauses (iii) and (iv) above also require prior approval of the Argentine Congress through enactment of a law

To affect the rights of any class of shares, the affirmative vote of such Class of shares, voting at a special meeting of the holders of such shares, is required.

A special majority is required to amend any rule provided by the by-laws of the Company in which such same special majority is required.

In order to attend the meeting, shareholders must deposit their shares, or a certificate representing book-entry shares issued by a bank, clearing house or depository trust company, with us. This certificate will allow each shareholder to be registered in the attendance book which closes 3 business days before the date on which the meeting will be held. The Company will issue to each shareholder a deposit

certificate required for admission into the meeting. Shares certified and registered in the attendance book may not be disposed of before the meeting is held unless the corresponding deposit is cancelled.

Under the Argentine General Corporations Law, foreign companies that own shares in an Argentine corporation are required to register in the National Corporations Registry (held by the Ministry of Justice and Human Rights, or the agency to be determined by such ministry to that effect, according to Decree No. 27/2018 - published on January 11, 2018 in the Official Gazette) in order to exercise certain shareholder rights, including voting rights. Such registration may require the filing of certain corporate and accounting documents. Accordingly, if a shareholder owns Class D shares directly (rather than in the form of ADSs) and it is a non-Argentine company, and such shareholder fails to register in the National Corporations Registry, the ability to exercise its rights as a holder of Class D shares may be limited.

According to Section 62 Bis of the Capital Markets Law and to General Resolution No. 789 of the CNV, issued on March 29, 2019, foreign companies may vote in shareholders' meetings by a duly authorized attorney in fact.

Directors, members of the Supervisory Committee and senior managers are both entitled and required to attend all shareholders' meetings. These persons may only exercise voting power to the extent they have been previously registered as shareholders, in accordance with the provisions described in the above paragraph. Nevertheless, these persons are not allowed to vote on any proposal regarding the approval of their management duties or their removal for cause.

Shareholders who have a conflict of interest with the Company and who do not abstain from voting may be liable for damages to the Company, but only if the transaction would not have been approved without such shareholders' votes. Furthermore, shareholders who willfully or negligently vote in favor of a resolution that is subsequently declared void by a court as contrary to the law or our by-laws may be held jointly and severally liable for damages to the Company or to other third parties, including shareholders.

The affirmative vote of our major shareholder is needed to adopt certain resolutions of the Company.

Directors

Election of Directors

Our business and affairs are managed by the Board of Directors in accordance with our by-laws and the Argentine General Corporations Law. Our by-laws provide for a Board of Directors of 11 to 21 members, and up to an equal number of alternates.

Alternates are elected by the shareholders to replace directors appointed by the same Class of shares who are absent from meetings or who are unable to exercise their duties, prior acceptance by the Board of Directors of the cause of absence or inability when they are transitory. Alternates have the responsibilities, duties and powers of Directors only if and to the extent they are called upon to attend board meetings and as long as they perform duties of a Director.

According to our by-laws and the Argentine General Corporations Law, shareholders elect the directors by majority vote by class of actions in shareholders meetings. In accordance with our by-laws, the Argentine government, as sole holder of Class A shares, is entitled to elect one director and one alternate.

The Supervisory Committee may elect directors in case of vacancies, in accordance to our by-laws and the Argentine General Corporations Law. In these cases, the member of the Supervisory Committee elected by the Class A shareholder - after consulting with the shareholder- may elect a director of the same class. The members of the Supervisory Committee elected by Class D shareholders may elect directors of that same class.

Directors hold office from 1 to three 3 fiscal years, as determined by the shareholders' meetings. If elected by the Supervisory Committee, directors hold office until the election of directors of the following shareholders' meeting.

Under the Argentine General Corporations Law, a majority of our directors must be residents of Argentina. All directors must establish a legal domicile in Argentina for service of notices in connection with their duties.

The Argentine General Corporations Law and our by-laws require the Board of Directors to meet at least once every quarter in person or by video conference, and an absolute majority of directors is required in order to constitute a quorum (including those participating by video conference). If a quorum is not met one hour after the start time set for the meeting, the President or his substitute may invite alternates of the same class as that of the absent directors to join the meeting until the quorum is reached, or call a meeting for another

day. Resolutions must be adopted by a majority of the directors present, and the President or his substitute is entitled to cast the deciding vote in the event of a tie. Our Directors are not required to hold any shares in the Company, and there is no age limit requirement for the retirement or non-retirement of our Directors.

According to our by-laws, the Board of Directors shall have wide powers to organize, conduct and manage the affairs of the Corporation. Specifically, it is empowered to approve the annual budget, expenditure and investment estimates, the necessary borrowing levels and the annual action plan of the Corporation.

Duties and liabilities of Directors

In accordance with the Argentine General Corporations Law, directors have an obligation to perform their duties with loyalty and with the diligence of a prudent business person. Directors are jointly and severally liable to the Company, its shareholders and to third parties for the improper performance of their duties, for violating the law or our by-laws or regulations, and for any damage caused by fraud, abuse of authority or gross negligence. Specific duties may be assigned to a director by the by-laws, company regulations, or by resolution of the shareholders' meeting. In such cases, if the assignment of specific duties is duly registered, a director's liability will be determined by reference to the performance of such duties.

Only shareholders, through a shareholders' meeting may authorize directors to engage in activities in competition with the Company. Transactions or contracts between directors and the Company in connection with its activities are permitted to the extent they are performed under fair market conditions. Transactions that do not comply with the Argentine General Corporations Law require prior approval of the Board of Directors or the Supervisory Committee. In addition, these transactions must be subsequently approved by the shareholders at a general meeting. If our shareholders do not approve the relevant transaction, the directors and members of the Supervisory Committee who approved such transactions are jointly and severally liable for any damages caused to the Company.

Any director whose personal interests are averse to those of the Company, shall notify the Board of Directors and the Supervisory Committee and abstain from voting on such matters. Otherwise, such director may be held liable to the Company.

A director will not be liable if, notwithstanding his presence at the meeting at which a resolution was adopted or his knowledge of such resolution, a written record exists of his opposition to such resolution and he reports his opposition to the Supervisory Committee before any complaint against him is brought before the Board of Directors, the Supervisory Committee, the shareholders' meeting, the appropriate governmental agency or the courts. Any liability of a director to the Company terminates upon approval of the director's actions by the shareholders at a general meeting, provided that shareholders representing at least 5% of our capital stock do not object and provided further that such liability does not result from a violation of the law, our by-laws or other regulations.

Foreign Investment Legislation

Under the Argentine Foreign Investment Law, as amended, and its implementing regulations (together, referred to as the "Foreign Investment Legislation"), the purchase of shares of an Argentine corporation by an individual or legal entity domiciled abroad or by an Argentine company of "foreign capital" (as defined in the Foreign Investment Legislation) constitutes foreign investment. Currently, foreign investment in industries other than broadcasting, purchase land located in frontier and other security areas by foreigners and limits on the ownership of rural land by foreign individuals or legal entities according to Law 26,737, is not restricted, and no prior approval is required to make foreign investments. No prior approval is required in order to purchase Class D shares or ADSs or to exercise financial or corporate rights thereunder (with respect to YPF, see "Item 4. Information on the Company—Legal and Regulatory Framework and Relationship with the Argentine Government—The Expropriation Law.")

Dividends

Under our by-laws, all Class A, Class B, Class C and Class D shares rank equally with respect to the payment of dividends. All shares outstanding as of a particular record date share equally in the dividend being paid, except that shares issued during the period to which a dividend relates may be entitled only to a partial dividend with respect to such period if the shareholders' meeting that approved the issuance so resolved. No provision of our by-laws or of the Argentine General Corporations Law gives rise to future special dividends only to certain shareholders.

The amount and payment of dividends are determined by majority vote of our shareholders voting as a single class, generally, but not necessarily, on the recommendation of the Board of Directors. In addition, under the Argentine General Corporations Law, our Board of Directors has the right to declare dividends subject to further approval of the shareholders' meeting.

Although we have not adopted a formal policy regarding dividends, we intend to maintain the practice of an annual distribution, within the framework of a management that will also consider, among other factors, the capital requirements related to investment plans, the attention of debt services, working capital needs, legal and / or contractual restrictions that apply at all times, and the general conditions of the economic and financial context. At the shareholders' ordinary and extraordinary general meeting held on April 29, 2016, a dividend of Ps. 889 million (Ps. 2.26 per share or ADS) was authorized for distribution by December 31, 2016, which was paid in July 2016. At the shareholders' ordinary and extraordinary general meeting held on April 28, 2017, a dividend of Ps. 716 million (Ps. 1.82 per share or ADS) was authorized and paid in December 2017. At the shareholders' ordinary and extraordinary general meeting held on April 27, 2018, a dividend of Ps. 1,200 million (Ps. 3.05 per share or ADS) was authorized and paid in December 2018. At the shareholders' ordinary and extraordinary general meeting held on April 26, 2019, an allocation of Ps. 4,800 million to a reserve for future dividends was authorized empowering the Board of Directors, up to the date of the next General Ordinary Shareholders Meeting that will consider the Financial Statements closed as of December 31, 2019. Dividends of Ps. 5.85 per share or ADS was authorized and paid in July 11, 2019. On March 5, 2020, the Board decided to propose the following to the General Ordinary Shareholders' Meeting: a) to completely eliminate the reserve for future dividends, the reserve for purchasing YPF shares and the reserve for investments; b) to fully absorb accumulated losses in unallocated results of up to Ps 34,071 million against amounts corresponding to the discontinued reserves for up to that amount; and c) to allocate the remaining of the discontinued reserves for up to Ps 13,184 million as follows: (i) Ps 550 million to establish a reserve for purchasing YPF shares, in order to grant the Board of Directors the possibility to acquire YPF shares, subject to the provisions under the "Bonus and incentives plan" of the annual report, at any time as it considers appropriate, and comply, in carrying out the share compensation plan, with the obligations currently existing under such plan and those that may arise in the future; (ii) the sum of Ps 3,700 million to a reserve for future dividends, authorizing the Board of Directors, until the date of the next Ordinary General Shareholders' Meeting that will consider the Financial Statements closed as of December 31, 2020, to determine the opportunity and the amount of such distribution, if it is considered convenient and doable, taking into account contractual, financial conditions and the availability of funds, as well as operating results, investments and other aspects that it deems relevant in the development of the activities of YPF S.A; and (iii) the sum of Ps 8,934 million to establish a reserve for investments in accordance with article 70, paragraph third of the General Corporations Law N° 19,550, as amended.

The following table sets forth for the periods and dates indicated, the dividend payments made by us, expressed in pesos.

<u>Year Ended December 31,</u>	<u>Pesos Per Share/ADS</u>				<u>Total</u>
	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	
2005	—	8.00	—	4.40	12.40
2006	—	6.00	—	—	6.00
2007	6.00	—	—	—	6.00
2008	10.76	6.50	—	6.35	23.61
2009	—	6.30	—	6.15	12.45
2010	—	5.50	—	5.80	11.30
2011	—	7.00	—	7.15	14.15
2012	—	—	—	0.77	0.77
2013	—	—	0.83	—	0.83
2014	—	—	1.18	—	1.18
2015	—	—	1.28	—	1.28
2016	—	—	2.26	—	2.26
2017	—	—	—	1.82	1.82
2018	—	—	—	3.05	3.05
2019	—	—	5.85	—	5.85

Amount Available for Distribution

Under Argentine General Corporations Law, dividends of a listed Argentine company that makes public offering of its shares may be lawfully paid only out of liquid and realized profits reflected in the annual audited financial statements of the Company prepared in accordance with accounting rules prevailing in Argentina and CNV regulations and approved by a shareholders' meeting. The Board of Directors of a listed Argentine company that makes public offering of its shares may declare interim or provisional dividends, in cash, or based on special or quarterly financial statements with the report of the external auditor and the Supervisory Committee, in which case the members of the Board, the members of the Shareholders' Surveillance Committee (*Consejo de Vigilancia*) when applicable, and of

the Supervisory Committee are jointly and severally liable for the repayment of such dividends if retained earnings at the close of the fiscal year in which such dividends were paid would not have been sufficient to permit the payment of them.

According to the Argentine General Corporations Law and our by-laws, the Company is required to maintain a legal reserve of at least 5% of the fiscal year's income until such reserve equals 20% of the then-outstanding capital stock of the Company. The legal reserve is not available for distribution to shareholders.

Under our by-laws, the Company's liquid and realized profits are applied as follows:

- 1) at least 5% of net income, plus (less) prior fiscal year adjustments, is segregated to build the legal reserve until such reserve is equal to 20% of our subscribed capital;
- 2) an amount is segregated to pay the accrued fees of the members of the Board of Directors and of the Supervisory Committee. See "Item 6. Directors, Senior Management and Employees—Compensation of members of our Board of Directors";
- 3) an amount is segregated to pay dividends on preferred stock, if any; and to unpaid cumulative dividends, as the case may be (the Company does not currently have preferred stock); and
- 4) the remainder, in whole or in part may be distributed as dividends to common shareholders or allocated for voluntary or contingent reserves or otherwise as determined by the shareholders' meeting.

Our Board of Directors submits the Company's financial statements for the preceding fiscal year, together with reports thereon by the Supervisory Committee and the external auditor, at the annual ordinary shareholders' meeting for approval. Within four months of the end of each fiscal year, an ordinary shareholders' meeting must be held to consider the yearly financial statements of the Company and determine the allocation of its net income for such year.

Under applicable CNV regulations, cash dividends must be paid to shareholders within 30 days from the shareholders' meeting approving such dividends. In cases where the shareholders meeting delegates the authority for the distribution of dividends to the Board of Directors, the payment of dividends has been usually resolved within 30 days from the relevant Board of Directors' resolution. In the case of payment of stock dividends, or payment of both stock and cash dividends, both shares and cash are required to be available within three months of the receipt of notice of the authorization of the CNV for the public offering of the shares arising from such dividends. In accordance with the Argentine Civil and Commercial Code, the statute of limitations to the right of any shareholder to receive dividends declared by the shareholders' meeting is five years from the date on which it has been made available to the shareholder. However, according to Article 2,537 of the Argentine Civil and Commercial Code, the statute of limitations on the right of any shareholder to receive dividends declared before August 1, 2015 is three years.

Owners of ADSs are entitled to receive any dividends payable with respect to the underlying Class D shares. Cash dividends are paid to the Depositary in pesos, directly or through BoNY, as depositary, although the Company may choose to pay cash dividends outside Argentina in a currency other than pesos, including U.S. dollars as long as the applicable laws and regulations allow it. The deposit agreement provides that the Depositary shall convert cash dividends received by the Depositary in pesos to dollars, to the extent that, in the judgment of the Depositary, such conversion may be made on a reasonable basis, and, after deduction or upon payment of the fees and expenses of the Depositary, shall make payment to the holders of ADSs in U.S. dollars.

Preemptive and Accretion Rights

Except as described below, in the event of a capital increase, a holder of existing shares of a given class has a preferential right to subscribe a number of shares of the same class sufficient to maintain the holder's existing proportionate holding of shares of that class. Preemptive rights also apply to issuances of convertible securities, but do not apply upon conversion of such securities. Pursuant to the Argentine General Corporations Law, in exceptional cases and on a case-by-case basis when required for the best interest of the Company, the shareholders at an extraordinary meeting with a special majority may decide to limit or suspend shareholders' preemptive rights, provided that such limitation or suspension of the shareholders' preemptive rights is included in the agenda of the meeting and the shares to be issued are paid in kind or are issued to cancel preexisting obligations.

Under its by-laws, the Company may only issue securities convertible into Class D shares, and the issuance of any such convertible securities must be approved by a special meeting of the holders of Class D shares.

Holders of ADSs may be restricted in their ability to exercise preemptive rights if a registration statement under the Capital Markets Law relating thereto has not been filed or is not effective. Preemptive rights are exercisable during the 30 days following the last publication of notice informing shareholders of their right to exercise such preemptive rights in the Official Gazette and in an Argentine newspaper of wide circulation. Pursuant to the Argentine General Corporations Law, if authorized by an extraordinary shareholders' meeting, companies authorized to make public offering of their securities, such as YPF, may shorten the period during which preemptive rights may be exercised from 30 to 10 days following the publication of notice of the offering to the shareholders to exercise preemptive rights in the Official Gazette and a newspaper of wide circulation in Argentina. Pursuant to our by-laws, the terms and conditions on which preemptive rights may be exercised with respect to Class C shares may be more favorable than those applicable to Class A, Class B and Class D shares.

Shareholders who have exercised their preemptive rights have the right to exercise accretion rights, in proportion to their respective ownership, with respect to any non-preempted shares, in accordance with the following procedure:

- Any non-preempted Class A shares will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise additional preemptive rights with respect to any such Class A shares.
- Any non-preempted Class B shares will be assigned to those provinces that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to such shares; any excess will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to any such Class B shares.
- Any non-preempted Class C shares will be assigned to any PPP participants who exercised preemptive rights and indicated their intention to exercise accretion rights with respect to such shares; any excess will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to any such Class C shares.
- Any non-preempted rights will be assigned to holders of Class D shares that exercised their preemptive rights and indicated their intention to exercise accretion rights; any remaining Class D shares will be assigned pro rata to any holder of shares of another class that indicated his or her intention to exercise accretion rights.

The term for exercise of accretion rights is the same as that fixed for exercising preemptive rights.

Voting of the Underlying Class D Shares

Under the by-laws, each Class A, Class B, Class C and Class D share entitles the holder thereof to one vote at any shareholders' meeting of YPF, except that a specified number of Directors is elected by majority vote of each class (except as provided below). See "—Directors—Election of Directors" above for information regarding the number of directors that holders of each class of shares are entitled to elect and certain other provisions governing nomination and election of directors. The Depositary has agreed that, as soon as practicable after receipt of a notice of any meeting of shareholders of YPF, it will mail a notice to the holders of ADRs, evidencing ADSs, registered on the books of the Depositary which will contain the following:

- a summary in English of the information contained in the notice of such meeting;
- a statement that the holders of ADRs at the close of business on a specified record date will be entitled, subject to any applicable provisions of Argentine law, the by-laws of YPF and the Class D shares, to instruct the Depositary to exercise the voting rights, if any, pertaining to the Class D shares evidenced by their respective ADSs; and
- a statement as to the manner in which such instructions may be given to the Depositary.

The Depositary shall endeavor, to the extent practicable, to vote or cause to be voted the amount of Class D shares represented by the ADSs in accordance with the written instructions of the holders thereof. The Depositary will vote Class D shares, as to which no instructions are received, in accordance with the recommendations of the Board of Directors of YPF. The Depositary will not vote Class D shares, as to which no instructions have been received, in accordance with the recommendations of the Board of Directors, however, unless YPF has provided to the Depositary an opinion of Argentine counsel stating that the action recommended by the Board of Directors

is not illegal under Argentine law or contrary to the by-laws or Board regulations of YPF. In addition, the Depositary will, if requested by the Board of Directors and unless prohibited by any applicable provision of Argentine law, deposit all Class D shares represented by ADSs for purposes of establishing a quorum at meetings of shareholders, whether or not voting instructions with respect to such shares have been received.

Voting

Under our by-laws, each Class A, Class B, Class C and Class D share entitles the holder thereof to one vote at any meeting of our shareholders, except that the Class A shares (i) vote separately with respect to the election of members of the Board of Directors and the Supervisory Committee and are entitled to appoint one director, and the alternate director and one member of the Supervisory Committee and the alternate member, (ii) have certain veto rights, as described below.

Class A Veto Rights

Under the by-laws, so long as any Class A shares remain outstanding, the affirmative vote of such shares is required in order to: (i) decide upon the merger of the company; (ii) approve any acquisition of shares by a third party representing more than 50% of the company's capital; (iii) transfer to third parties all the exploitation rights granted to YPF pursuant to the Hydrocarbons Law, applicable regulations thereunder or the Privatization Law, if such transfer would result in the total suspension of the company's exploration and production activities; (iv) voluntarily dissolve the company; and (v) transfer our legal or fiscal domicile outside Argentina. The actions described in clauses (iii) and (iv) above also require prior approval of the Argentine Congress through enactment of a law.

Reporting Requirements

Pursuant to our by-laws, any person who, directly or indirectly, through or together with its affiliates and persons acting in concert with it, acquires Class D shares or securities convertible into Class D shares, so that such person controls more than 3% of the Class D shares, is required to notify the Company of such acquisition within 5 days of its closing, in addition to complying with any requirements imposed by any other authority in Argentina or elsewhere where our Class D shares are traded. Such notice must include the name or names of the person or persons, if any, acting in concert with it, the date of the acquisition, the number of shares acquired, the price at which the acquisition was made, and a statement as to whether it is the purpose of the person or persons to acquire a greater shareholding in, or control of, the Company. Each subsequent acquisition by such person or persons, as long as it exceeds the above mentioned 3% of the Class D shares, requires a similar notice.

In addition, pursuant to the regulations of CNV, any person that directly or indirectly, or any group of persons acting in concerted form, by any means and with a certain purpose:

- a) acquire or dispose of shares or securities convertible into shares, or acquire call or put options over them;
- b) alter the integration or configuration of its direct or indirect interest over the capital stock of an issuer;
- c) convert notes ("obligaciones negociables") into shares;
- d) exercise the put or call options of the securities referred to in a); or
- e) change their purpose regarding their interest in an issuer at the time of occurrence of any the abovementioned events;

is required to inform CNV and BYMA of such circumstances, immediately after executing the acquisition, disposal, alteration of the integration or configuration of the interest, conversion into shares, and/or exercise of the calls or put options referred to above, or after the occurrence of the change in the purpose referred to above.

In any case, the information shall be submitted only as long as the acquisitions involved and/or facts referred to above grant 5% or more of the voting rights that can be exercised in the shareholders' meetings of YPF.

Similar information is required to be submitted to CNV and BYMA in the event of changes over the interests previously informed, until becoming a controlling shareholder in which case the regulations applicable to him shall become applicable.

Certain Provisions Relating to Acquisitions of Shares

Pursuant to our by-laws:

- each acquisition of shares or convertible securities, as a result of which the acquirer, directly or indirectly, through or together with its affiliates and persons acting in concert with it (jointly referred to as an “Offeror”), would hold or control shares that, in concert with the prior holdings of such Offeror, of shares of such class, if any, would represent:
- 15% or more of the outstanding capital stock, or
- 20% or more of the outstanding Class D shares; and
- each subsequent acquisition by an Offeror (other than subsequent acquisitions by an Offeror owning or controlling more than 50% of our capital prior to such acquisition) (collectively, “Control Acquisitions”), must be carried out in accordance with the procedure described under “—Restrictions on Control Acquisitions”.

In addition, any merger, consolidation or other combination with substantially the same effect involving an Offeror that has previously carried out a Control Acquisition, or by any other person or persons, if such transaction would have for such person or persons substantially the same effect as a Control Acquisition (“Related Party Share Acquisition”), must be carried out in accordance with the provisions described under “—Restrictions on Related Party Share Acquisitions” below. The voting, dividend and other distribution rights of any shares acquired in a Control Acquisition or a Related Party Share Acquisition carried out other than in accordance with such provisions will be suspended, and such shares will not be counted for purposes of determining the existence of a quorum at shareholders’ meetings.

The Expropriation Law has not triggered these obligations.

Restrictions on Control Acquisitions

Prior to consummating any Control Acquisition, an Offeror must obtain the approval of the Class A shares, if any are outstanding, and make a public tender offer for all of the outstanding shares and convertible securities of the Company. Such public tender offer shall not be needed for the subsequent acquisitions of an Offeror, who already owns or controls shares that represent 15% or more of the outstanding capital stock, or 20% or more of the outstanding Class D shares, as long as such Offeror does not own or control, previously or as a consequence of these acquisitions, shares that represent more than 50% of the capital stock. For any subsequent acquisition made by an Offeror already owning or controlling more than 50% of the capital stock of the Company prior to such acquisition it is neither required to obtain the approval of the Class A shares, nor to make a public tender offer. The Offeror will be required to provide the Company with notice of, and certain specified information with respect to, any such tender offer at least fifteen business days prior to the commencement of the offer, as well as the terms and conditions of any agreement with any shareholder proposed for the Control Acquisition (a “Prior Agreement”). The Company will send each shareholder and holder of convertible securities a copy of such notice at the Offeror’s expense. The Offeror is also required to publish a notice containing substantially the same information in a newspaper of general circulation in Argentina, New York and each other city in which the Company’s securities are traded on an exchange or other securities market, at least once per week, beginning on the date notice is provided to us, until the offer expires.

Our Board of Directors shall call a special meeting of the holders of Class A shares to be held 10 business days following the receipt of such notice for the purpose of considering the tender offer. If the special meeting is not held, or if the shareholders do not approve the tender offer at such meeting, neither the tender offer nor the proposed Control Acquisition may be completed.

The tender offer must be carried out in accordance with a procedure specified in our by-laws and in accordance with any additional or stricter requirements of jurisdictions, exchanges or markets in which the offer is made or in which the securities of the Company are traded. Under the by-laws, the tender offer must provide for the same price for all shares tendered, which price may not be less than the highest of the following (the “Minimum Price”):

- (i) the highest price paid by, or on behalf of, the Offeror for Class D shares or convertible securities during the two years prior to the notice provided to the Company, subject to certain antidilution adjustments with respect to Class D shares;
- (ii) the highest closing price for the Class D shares on the BASE during the thirty-day period immediately preceding the notice provided to the Company, subject to certain antidilution adjustments;
- (iii) the price resulting from clause (ii) above multiplied by a fraction, the numerator of which shall be the highest price paid by or on behalf of the Offeror for Class D shares during the two years immediately preceding the date of the notice provided to the Company and the denominator of which shall be the closing price for the Class D shares on the BASE on the date immediately preceding the first day in such two-year period on which the Offeror acquired any interest in or right to any Class D shares, in each case subject to certain antidilution adjustments; and
- (iv) the net earnings per Class D share during the four most recent full fiscal quarters immediately preceding the date of the notice provided to us, multiplied by the higher of (A) the price/earnings ratio during such period for Class D shares (if

any) and (B) the highest price/earnings ratio for the Company in the two-year period immediately preceding the date of the notice provided to the Company, in each case determined in accordance with standard practices in the financial community.

Such offer must remain open for a minimum of 20 days and a maximum of 30 days following the provision of notice to the shareholders or publication of the offer, and shareholders must have the right to withdraw tendered shares at any time up until the close of the offer. Following the close of such tender offer, the Offeror will be obligated to acquire all tendered shares or convertible securities, unless the number of shares tendered is less than the minimum, if any, upon which such tender offer was conditioned, in which case the Offeror may withdraw the tender offer. Following the close of the tender offer, the Offeror may consummate any Prior Agreement within 30 days following the close of the tender offer; provided, however, that if such tender offer was conditioned on the acquisition of a minimum number of shares, the Prior Agreement may be consummated only if such minimum was reached. If no Prior Agreement existed, the Offeror may acquire the number of shares indicated in the notice provided to the Company on the terms indicated in such notice, to the extent such number of shares were not acquired in the tender offer, provided that any condition relating to a minimum number of shares tendered has been met.

The Expropriation Law has not triggered these obligations.

Restrictions on Related Party Share Acquisitions

The price per share to be received by each shareholder in any Related Party Share Acquisition must be the same as, and must not be less, than the highest of the following:

- (i) the highest price paid by or on behalf of the party seeking to carry out the Related Party Share Acquisition (an “Interested Shareholder”) for (A) shares of the class to be transferred in the Related Party Share Acquisition (the “Class”) within the two-year period immediately preceding the first public announcement of the Related Party Share Acquisition or (B) shares of the Class acquired in any Control Acquisition, in each case, subject to certain antidilution adjustments;
- (ii) the highest closing sale price of shares of the Class on the BASE during the thirty days immediately preceding the announcement of the Related Party Share Acquisition or the date of any Control Acquisition by the Interested Shareholder, subject to certain antidilution adjustments;
- (iii) the price resulting from clause (ii) multiplied by a fraction, the numerator of which shall be the highest price paid by or on behalf of the Interested Shareholder for any share of the Class during the two years immediately preceding the announcement of the Related Party Transaction and the denominator of which shall be the closing sale price for shares of the Class on the date immediately preceding the first day in the two-year period referred to above on which the Interested Shareholder acquired any interest or right in shares of the Class, in each case, subject to certain antidilution adjustments; and
- (iv) the net earnings per share of the shares of the Class during the four most recent full fiscal quarters preceding the announcement of the Related Party Transaction multiplied by the higher of the (A) the price/earnings ratio during such period for the shares of the Class and (B) the highest price/earnings ratio for the Company in the two-year period preceding the announcement of the Related Party Transaction, in each case determined in accordance with standard practices in the financial community.

In addition, any transaction that would result in the acquisition by any Offeror of ownership or control of more than 50% of our capital stock, or that constitutes a merger or consolidation of us, must be approved in advance by the Class A shares while any such shares remain outstanding.

The Recently amended Capital Markets Law and CNV Regulations:

CNV passed in December 2018 the General Resolution No. 779 which regulates the new regime of tender offers established by Law No. 27,440 which amended the Capital Markets Law and was published in May 2018. Under this new regime, a mandatory tender offer at a fair price (determined according to such law) shall be issued by anyone who acting individually or in coordination with others, has effectively obtained a controlling interest of a public company, which is deemed to occur: i) directly or indirectly, when obtaining a percentage of votes equal to or higher than 50% of a public company or, ii) when the percentage of votes obtained is below 50% but acts as controller of a public company (i.e. has an interest in the capital stock of the company or securities with voting rights that grants the necessary votes to adopt resolutions in ordinary general shareholders meetings or to appoint or revoke the majority of the directors or

members of the Statutory Auditor's Committee). The tender offer shall be made as soon as possible after closing of the share acquisition but no later than 1 month from such closing.

Material Contracts

None.

Exchange Regulations

See "Item 3. Key Information—Exchange Regulations" for information on the monetary and currency exchange control restrictions in effect in Argentina.

Taxation

Argentine Tax Considerations

The following discussion is a summary of the material Argentine tax considerations relating to the purchase, ownership and disposition of our Class D shares or ADSs.

Dividends tax

Dividends paid on our Class D shares or ADSs, whether in cash, property or other equity securities, are subject to income tax withholding for dividends paid in excess of our taxable accumulated income for the previous fiscal period, at a rate of 35% in respect of such excess. This is a final tax, and it is not applicable if dividends are paid in shares rather than in cash. On December 29, 2017, Law No. 27,430 introducing modifications to the income tax was published in the Official Gazette, and this "equalization tax" no longer applied to income accrued from January 1, 2018.

The law also establishes dividend withholding tax rates of 7% for profits accrued during fiscal years starting January 1, 2018 to December 31, 2019, and 13% for profits accrued in fiscal years starting January 1, 2020 and onwards.

On December 23, 2019, Law No. 27,541 was published in the Official Gazette which introduced modifications to the income tax, as well as suspended the modification of the tax rate from 7% to 13% until the fiscal years starting on January 1, 2021, inclusive.

Personal assets tax

Argentine individuals and undivided estates, foreign individuals and undivided estates, and foreign entities are subject to personal assets tax of 0.25% of the value of any shares or ADSs issued by Argentine entities, held at December 31 of each year. The tax is levied on the Argentine issuers of such shares or ADSs, such as the Company, which must pay this tax in substitution of the relevant shareholders, and is based on the equity value (valor patrimonial proporcional), of the shares derived from the latest financial statements at December 31 of each year. Pursuant to the Personal Assets Tax Law, we are entitled and expect to seek reimbursement of such paid tax from the applicable shareholders, including by foreclosing on the shares, or by withholding dividends.

On December 23, 2019, Law No. 27,541 was published in the Official Gazette which makes changes to the Argentine tax laws and establishes a new tax rate of 0.50% for fiscal years starting in 2019, inclusive.

Tax on debits and credits in bank accounts

Tax on debits and credits in bank accounts is levied, with certain exceptions, for debits and credits on checking accounts maintained at financial institutions located in Argentina and other transactions that are used as a substitute for the use of checking accounts. The general tax rate is 0.6% for each debit and credit, although in certain cases a decreased rate may apply. The account holder may use up to 34% of the tax paid in respect of credits as a credit against other federal taxes. On December 29, 2017, Law No. 27,432 introducing modifications to this credit mechanism was published in the Official Gazette. The PEN may fix the tax percentage to be computed as payment on account of the income tax, which will be progressively increased by up to 20% per year as of January 1, 2018, and it may also establish that this tax will be fully computed as payment on account of the income tax in 2022.

On May 7, 2018 Decree No. 409/2018 established that the account holder may use up to 33% of the tax paid in respect of credits and debits as a credit against other federal taxes. This rule was applicable as of January 1, 2018.

Value added tax

The sale, exchange or other disposition of our Class D shares or ADSs and the distribution of dividends are exempt from the value added tax.

Stamp taxes

Stamp taxes may apply in certain Argentine provinces if transfer of our Class D shares or ADSs is performed or executed in such jurisdictions by means of written agreements. Transfer of our Class D shares or ADSs is exempt from stamp tax in the City of Buenos Aires.

Estate and gift tax

The province of Buenos Aires has imposed a tax on the reception of assets through inheritance or gift, effective January 1, 2011. The tax rates vary from 1.6026% to 8.784%, depending on the value of the transferred assets and the relationship between the transferor and the transferee. The transfer of Class D shares or ADSs among residents of the province of Buenos Aires shall be subject to this tax if other applicable conditions are met.

Other taxes

Subject to the discussion above regarding state and gift taxes in the province of Buenos Aires, there are no Argentine inheritance or succession taxes applicable to the ownership, transfer or disposition of our Class D shares or ADSs. In addition, neither the minimum presumed income tax nor any local gross turnover tax in the City of Buenos Aires is applicable to the ownership, transfer or disposition of our Class D shares or ADSs.

In the case of litigation regarding the Class D shares or ADSs before a court of the City of Buenos Aires, a 3% court fee would be charged, calculated on the basis of the claim.

Tax treaties

Argentina has tax treaties for the avoidance of double taxation currently in force with Australia, Belgium, Bolivia, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Italy, Mexico, the Netherlands, Norway, Russia, Spain, Sweden, Switzerland, the United Arab Emirates, the United Kingdom and Uruguay. Tax treaties between Argentina and China, Japan, Luxemburg, Qatar and Turkey have been signed, but the treaties have not yet been ratified by their respective governments. There is currently no tax treaty or convention in effect between Argentina and the United States. It is not clear when, if ever, a treaty will be ratified or entered into effect. As a result, the Argentine tax consequences described in this section will apply, without modification, to a holder of our Class D shares or ADSs that is a U.S. resident. Foreign shareholders located in certain jurisdictions with a tax treaty in force with Argentina may be (i) exempted from the payment of the personal assets tax and (ii) entitled to apply for reduced withholding tax rates on payments to be made by Argentine parties.

Modifications to the Income Tax Law

On December 29, 2017, Law No. 27,430 and 27,432 introducing modifications to the Income Tax and other taxes was published in the Official Gazette. On December 27, 2018, this law was regulated by the Argentine Executive Branch, by Decrees No. 279/2018, 976/2018 and 1170/2018. Finally, on December 23, 2019 those provisions were modified by Law No. 27,541. This summary describes some of the main changes to the corporate income tax and cross-border transaction provisions.

Income tax

- Corporate income tax rate and dividend withholding tax

The Law No. 27,430 decreases the corporate income tax rate from 35% to 30% for fiscal years starting January 1, 2018 to December 31, 2019, and to 25% for fiscal years starting January 1, 2020 and onwards. This law also establishes a dividend withholding tax and repeals the current “equalization tax”. See section “Dividends tax.”

Law No. 27,541 suspended the modification of the tax rate -from 30% to 25%- until fiscal years starting on January 1, 2021 inclusive.

- Nonresident’s capital gains tax

The Law No. 27,430 establishes a 15% withholding on capital gains derived from the sale of shares or other similar securities (calculated on the actual or presumed gains equivalent to 90% of the sale price). The law establishes an exemption applicable to foreign beneficiaries who sell listed shares under the supervision of the CNV. Furthermore, an exemption is established for the interest and sale results of government bonds, NO and ADRs. These exemptions will only apply to non-resident foreign beneficiaries do not reside or whose funds do not derive from non-cooperating jurisdictions. Finally, such exemptions do not apply to those benefits derived from the securities known as Lebaes.

In the case of ADRs, the law established that the “source” thereof is given by the residence of the issuer of the respective shares. The law established that the income from the purchase-sale of an ADR is of Argentine source if the company that issues the share is Argentine and that it is from a foreign source if the issuer is foreign.

- Indirect transfers made by nonresidents

The law establishes a tax on the indirect transfer of assets located in Argentina. In particular, the tax is triggered on the sale or transfer by nonresidents of shares or other participations in foreign entities when the following two conditions are met: (i) at least 30% of the value of the foreign entity derives from assets located in Argentina; and (ii) the participation being transferred represents (at the moment of the sale or during the 12 prior months) at least 10% of the equity of the foreign entity.

The applicable rate is generally 15% (calculated on the actual net gain or a presumed net gain equal to 90% of the sale price), of the proportional value that corresponds to the Argentine assets.

For other Tax Regulations see Note 34.j) to the Audited Consolidated Financial Statements.

United States Federal Income Tax Considerations

The following are the material U.S. federal income tax consequences of owning and disposing of our Class D shares or ADSs. This discussion does not purport to be a comprehensive description of all the tax considerations that may be relevant to a particular person’s decision to hold such securities.

This discussion applies only if you are a U.S. Holder (as defined below) and you hold our Class D shares or ADSs as capital assets for U.S. federal income tax purposes, and it does not describe all the tax consequences that may be relevant to holders, subject to special rules, such as:

- certain financial institutions;
- insurance companies;
- dealers and traders in securities or financial instruments, who use a mark-to-market method of tax accounting;
- persons holding Class D shares or ADSs as part of a hedge, “straddle,” wash sale, conversion transaction, integrated transaction or similar transaction or persons entering into a constructive sale with respect to the Class D shares or ADSs;
- persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- entities classified as partnerships for U.S. federal income tax purposes;
- persons liable for the alternative minimum tax;

- persons who acquired our Class D shares or ADSs pursuant to the exercise of an employee stock option or otherwise as compensation;
- persons holding Class D shares or ADSs in connection with a trade or business conducted outside of the United States;
- tax-exempt entities, including “individual retirement accounts” or “Roth IRAs”; or
- persons holding Class D shares or ADSs that own or are deemed to own ten percent or more of our voting stock.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds Class D shares or ADSs, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and upon the activities of the partnership. Partnerships holding Class D shares or ADSs and partners in such partnerships should consult their tax advisers as to the particular U.S. federal income tax consequences of holding and disposing of the Class D shares or ADSs.

This discussion is based on the Internal Revenue Code of 1986, as amended (the “Code”), administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations, all as of the date hereof. These laws are subject to change, possibly on a retroactive basis. It is also based in part on representations by the Depository and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms.

You are a “U.S. Holder” if you are a beneficial owner of Class D shares or ADSs and are, for U.S. federal income tax purposes:

- a citizen or individual resident of the United States for U.S. federal income tax purposes;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia; or that is treated as a U.S. resident; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

In general, if you own ADSs, you will be treated as the owner of the underlying shares represented by those ADSs for U.S. federal income tax purposes. Accordingly, no gain or loss will be recognized if you exchange ADSs for the underlying shares represented by those ADSs.

The U.S. Treasury has expressed concerns that parties to whom American depositary shares are released before the underlying shares are delivered to the depository, or intermediaries in the chain of ownership between U.S. Holders and the issuer of the shares underlying the American depositary shares, may be taking actions that are inconsistent with the claiming of foreign tax credits by U.S. holders of American depositary shares. Such actions would also be inconsistent with the claiming of the reduced rate of tax, described below, applicable to dividends received by certain non-corporate holders. Accordingly, the analysis of the creditability of Argentine taxes, and the availability of the reduced tax rate for dividends received by certain non-corporate holders, each described below, could be affected by actions taken by such parties or intermediaries.

Please consult your own tax adviser concerning the U.S. federal, state, local and foreign tax consequences of owning and disposing of Class D shares or ADSs in your particular circumstances.

This discussion assumes that YPF is not, and will not become, a passive foreign investment company, as described below.

Taxation of distributions

Distributions paid on Class D shares or ADSs, other than certain pro rata distributions of ordinary shares, will be treated as dividends to the extent paid out of current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Because we do not maintain calculations of earnings and profits under U.S. federal income tax principles, it is expected that distributions will generally be reported to U.S. Holders as dividends. Subject to applicable limitations (including a minimum holding period requirement), the discussion above regarding concerns expressed by the U.S. Treasury and the discussion below regarding passive foreign investment company rules, certain non-corporate U.S. dividends paid by qualified foreign corporations to certain non-corporate U.S. Holders are taxable at a reduced rate if they are “qualified dividend income”. Dividends paid on the Class D shares or ADSs will be treated as qualified dividend income if (i) the Class D shares or ADSs are readily tradable on an established securities market in the United States, (ii) the U.S. Holder meets the holding period requirement for the Class D shares or ADSs (generally more than 60 days during the 121-day period that begins 60 days before the ex-dividend date), and (iii) we were not in the year prior to the year in which the dividend was paid, and are not in the year in which the dividend is paid, a PFIC (Passive foreign investment company). Some non-corporate U.S. Holders may also be subject to a 3.8% net investment surtax. A foreign corporation is treated as a qualified foreign corporation with respect to dividends

paid on stock that is readily tradable on an established securities market in the United States, such as the NYSE, where our ADSs are listed. As it relates to certain corporate U.S. Holders, U.S. tax rules may apply to reduce the tax rate on dividend income based on the holders' ownership and minimum holding period in the Class D shares or ADSs. You should consult your own tax adviser to determine whether the favorable rate may apply to dividends you receive in respect of our Class D shares or ADSs and whether you are subject to any special rules that limit your ability to be taxed at this favorable rate. The amount of a dividend will include any amounts withheld by us in respect of Argentine income taxes. The dividends will be treated as foreign-source dividend income and may, other than as discussed above, not be eligible for the dividends-received deduction generally allowed to U.S. corporations under the Code.

Any dividends paid in pesos will be included in your income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date of your, or in the case of ADSs, the Depositary's, receipt of the dividend, regardless of whether the payment is in fact converted into U.S. dollars. If the dividend is converted into U.S. dollars on the date of receipt, you generally would not recognize foreign currency gain or loss in respect of the dividend income. You may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt. Foreign currency gain or loss that you recognize will generally be treated as U.S.-source ordinary income.

Subject to applicable limitations (including a minimum holding period requirement) that may vary depending upon your circumstances and, in the case of ADSs, subject to the discussion above regarding concerns expressed by the U.S. Treasury, Argentine income taxes, if any, withheld from dividends on Class D shares or ADSs will be creditable against your U.S. federal income tax liability. Amounts paid on account of the Argentine personal assets tax may not be eligible for credit against your U.S. federal income tax liability. You should consult your tax adviser to determine the tax consequences applicable to you as a result of the payment of the Argentine personal assets tax or the withholding of the amount of such tax from distributions, including whether such amounts are includible in income or are deductible for U.S. federal income tax purposes. The rules governing the foreign tax credit are complex. You are urged to consult your tax adviser regarding the availability of the foreign tax credit under your particular circumstances.

Sale or other disposition of Class D shares or ADSs

For U.S. federal income tax purposes, gain or loss you realize on the sale or other disposition of Class D shares or ADSs generally will, subject to the discussion below regarding passive foreign investment company rules, be capital gain or loss and will be long-term capital gain or loss if you held the Class D shares or ADSs for more than one year. The amount of your gain or loss will be equal to the difference between the amount realized on the disposition and your adjusted tax basis in the relevant Class D shares or ADSs, each as determined in U.S. dollars. The deductibility of capital losses is subject to limitations.

If Argentine income tax is withheld on the sale or other taxable disposition of a Class D share or ADS, the amount realized by a U.S. Holder will include the gross amount of the proceeds of the sale or other taxable disposition before deduction of such tax. Capital gain or loss, if any, realized by a U.S. Holder on the sale or other taxable disposition of the Class D share or ADS generally will be treated as U.S.-source gain or loss for U.S. foreign tax credit purposes. Consequently, in the case of a gain from the disposition of a Class D share or ADS that is subject to Argentine income tax, the U.S. Holder may not be able to benefit from the U.S. foreign tax credit for the tax unless the U.S. Holder can apply the credit against U.S. federal income tax payable on other income from foreign sources. Alternatively, the U.S. Holder may take a deduction for the Argentine income tax if it does not elect to claim a foreign tax credit for any non-U.S. income taxes paid during the taxable year.

Passive foreign investment company rules

YPF believes that it was not a PFIC for U.S. federal income tax purposes for the taxable year of 2019 and does not expect to be a PFIC in the foreseeable future. However, since PFIC status depends upon the composition of a company's income and assets and the market value of its assets (including, among other things, less than 25 percent owned equity investments) from time to time, there can be no assurance that YPF will not be considered a PFIC for any taxable year. If YPF were treated as a PFIC for any taxable year during which you held a Class D share or ADS, you generally would be subject to additional filing requirements, imputed interest charges and other disadvantageous tax treatment (including the denial of taxation at the lower rates applicable to long-term capital gains with respect to any gain from the sale or exchange of Class D shares or ADSs). Certain elections might be available that would result in alternative treatments (such as mark-to-market treatment). U.S. Holders should consult their tax advisers to determine whether any of these elections would be available and, if so, what the consequences of the alternative treatments would be in their particular circumstances.

In addition, if YPF were to be treated as a PFIC in a taxable year in which it paid a dividend or the prior taxable year, the 20% dividend rate discussed above with respect to dividends paid by qualified foreign corporations to certain non-corporate holders would not apply.

Information reporting and backup withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting and may be subject to backup withholding unless (i) you are an exempt recipient or (ii) in the case of backup withholding, you provide a correct taxpayer identification number and certify that you are not subject to backup withholding.

The amount of any backup withholding from a payment to you will be allowed as a credit against your U.S. federal income tax liability and may entitle you to a refund, provided that the required information is timely furnished to the Internal Revenue Service.

Certain U.S. Holders may be required, generally on Internal Revenue Service Form 8938, to report information relating to their ownership of securities of a non-U.S. person, subject to certain exceptions (including an exception for stock held in certain accounts maintained by a U.S. financial institution, such as our ADSs). A U.S. Holder who fails to timely furnish the required information may be subject to a penalty. U.S. Holders are urged to consult their tax advisers regarding the effect, if any, of these rules on their ownership and disposition of Class D shares or ADSs.

Documents on Display

YPF is subject to the information requirements of the U.S. Securities Exchange Act (the “Exchange Act”), except that as a foreign issuer, YPF is not subject to the proxy rules or the short-swing profit disclosure rules of the Exchange Act. In accordance with these statutory requirements, YPF files or furnishes reports and other information with the SEC. Reports and other information filed or furnished by YPF with the SEC may be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N. E., Washington, D.C. 20549. Copies of such material may be obtained by mail from the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the Public Reference Section by calling the SEC at +1-800-732-0330. All of the SEC filings made electronically by YPF are available to the public on the SEC’s website at <http://www.sec.gov>.

ITEM 11. Quantitative and Qualitative Disclosures about Market Risk

The following quantitative and qualitative information is provided about financial instruments to which we are a party as of December 31, 2019, and from which we may derive gains or incur losses from changes in market, interest rates, foreign exchange rates or commodity prices. We do not enter into derivative or other financial instruments for trading purposes. For detailed information regarding our outstanding derivatives as of December 31, 2019, see Note 2.b.17 to the Audited Consolidated Financial Statements.

This discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results could vary materially as a result of a number of factors including those set forth in “Item 3. Key Information—Risk Factors.”

Foreign currency exposure

The value of financial assets and liabilities denominated in a currency different from the Company’s functional currency is subject to variations resulting from fluctuations in exchange rates. Since YPF’s functional currency is the U.S. dollar, the currency that generates the greatest exposure is the Argentine peso, the Argentine legal currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.

In addition, our costs and receipts denominated in currencies other than the Argentine peso, including the U.S. dollar, often do not match. We generally follow a policy of not hedging our debt obligations in U.S. dollars. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—We may be exposed to fluctuations in foreign exchange rates.”

Additionally, YPF is enabled to operate as settlement agent in the Rosario Futures Market (“ROFEX”).

The annual rate of devaluation of the Argentine peso was approximately 59.0% considering the period-end exchange rates for U.S. dollars as of December 31, 2019 and 2018. See “Item 5. Operating and Financial Review and Prospects—Factors Affecting Our Operations—Macroeconomic conditions” for additional information. The main effects of a devaluation of the Argentine Peso on our net profit are those related to the accounting of deferred income tax related mainly to fixed assets, which we expect would have a negative effect; current income tax which we expect would have a positive effect; increased depreciation and amortization resulting from the remeasurement in pesos of our fixed and intangible assets; and exchange rate differences as a result of our exposure to the peso, which we expect would have a positive effect due to the fact that our functional currency is the U.S. dollar. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—We may be exposed to fluctuations in foreign exchange rates.”

For additional information about our assets and liabilities denominated in currencies other than pesos (principally U.S. dollars) see Note 37 to our Audited Consolidated Financial Statements.

Interest rate exposure

The table below provides information (in millions of pesos) about our assets and liabilities as of December 31, 2019 that may be sensitive to changes in interest rates. Additionally, On July 27, 2017, the Financial Conduct Authority (the “FCA”) announced its intention to phase out LIBOR rates by the end of 2021. See “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—Variations in interest rates and exchange rate on our current and/or future financing arrangements may result in significant increases in our borrowing costs”. See additionally, Note 4 and Note 20 to the Audited Consolidated Financial Statements.

	<i>Expected Maturity Date</i>						<i>Total</i>	<i>Fair Value</i>
	<i>Less than 1 year</i>	<i>1 – 2 years</i>	<i>2 – 3 years</i>	<i>3 – 4 years</i>	<i>4 – 5 years</i>	<i>More than 5 years</i>		
Assets								
<i>Fixed rate</i>								
Other Receivables	59,912	-	-	-	-	-	59,912	59,912
Interest rate	1.55%-8.5%							
<i>Variable rate</i>								
Other Receivables	7,668	-	-	-	-	-	7,668	7,668
Interest rate	TM20 ⁽¹⁾							
	BADLAR ⁽²⁾							
	+5%							
Liabilities								
<i>Fixed rate</i>								
YPF’s Negotiable								
Obligations	4,645	59,790	31,903	27,303	36,404	224,760	384,805	356,101
Interest rate	3.5%-8.25%	8.5%	8.75%-16.5%	8.75%	8.75%	6.95%-10%		
Other debt	23,623	17,843	-	-	-	-	41,466	41,466
Interest rate	5%-9.75%	4.2%-7.1%						
<i>Variable rate</i>								
YPF’s Negotiable								
Obligations	23,839	2,183	834	834	167	-	27,857	18,829
Interest rate	BADLAR ⁽²⁾	BADLAR ⁽²⁾	BADLAR ⁽²⁾	BADLAR ⁽²⁾	BADLAR ⁽²⁾			
	+0%-+9.75%	+0%-+6%	+0%-+0.1%	+0%-+0.1%	+0%-+0.1%			
Other debt	41,005	6,065	9,784	817	819	145	58,635	58,635
Interest rate	LIBOR	LIBOR	LIBOR	LIBOR	LIBOR	LIBOR		
	+1.25%- 6.25% /	+1.5%- 3.75%	+1.5%-+3.5%	+1.5%-+3.45%	+1.5%-+3.45%	+1.5%-		
	BADLAR ⁽²⁾							
	+4.5%-+10%							

(1) Refers to the average interest rate that banks pay for deposits of more than Ps. 20 million.

(2) Refers to the average interest rate that banks pay for deposits of more than Ps. 1 million.

Crude oil and other hydrocarbon product price exposure

Our results of operations are also exposed to volatility mainly in the prices of certain oil products, especially in connection with imports. For detailed information regarding our outstanding derivatives as of December 31, 2019, see Note 2.b.17 to the Audited Consolidated Financial Statements. For information on our hydrocarbons delivery commitments as of December 31, 2019, see “Item 4. Information on

the Company— Gas and Power —Delivery commitments.” In addition, see “Item 3. Key Information—Risk Factors—Risks Relating to Argentina—Our derivative risk management activities could result in financial losses.”

ITEM 12. Description of Securities Other than Equity Securities

American Depositary Shares

Our ADSs are listed on the NYSE under the symbol “YPF.” The Bank of New York Mellon is the Depositary. Each ADS represents the right to receive one share.

The Depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The Depositary may collect its annual fee for depositary services by deductions from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The Depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

The table below sets forth the fees payable, either directly or indirectly, by a holder of ADSs as of the date of this annual report.

<u>Persons depositing or withdrawing shares must pay to the Depositary:</u>	<u>For:</u>
U.S.\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADRs (including, without limitation, issuance pursuant to a stock dividend or stock split declared by YPF, an exchange of stock or a distribution of rights) and surrender of ADRs
Cancellation of ADSs for the purpose of withdrawal	
A fee equivalent to the fee that would be payable if securities distributed to a holder had been shares and the shares had been deposited for issuance of ADSs	Sale, on behalf of the holder, of rights to subscribe for additional shares or any right of any nature distributed by YPF
Transfer fees, as may from time to time be in effect	Transfer and registration of shares on YPF share register to or from the name of the depositary or its agent when a holder deposits or withdraws shares
Expenses of the depositary	Cable, telex and facsimile transmission expenses, as provided in the deposit agreement Expenses incurred by the depositary in the conversion of foreign currency (1)
Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	As necessary

(1) Pursuant to our deposit agreement, whenever the depositary shall receive foreign currency, as a cash dividend or other distribution which, in the judgment of the depositary, can be converted on a reasonable basis into U.S. dollars and transferred to the United States, it will convert such foreign currency into U.S. dollars and transfer the resulting U.S. dollars (after deduction of its customary charges and expenses in effecting such conversion) to the United States.

In 2019, the Depositary made payments totaling U.S.\$ 110,980.50 to YPF for ADR program related expenses.

PART II

ITEM 13. Defaults, Dividend Arrearages and Delinquencies

None.

ITEM 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

ITEM 15. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

As of December 31, 2019, YPF, under the supervision and with the participation of YPF's management, including our current Principal Executive Officer and Principal Financial Officer, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Exchange Act). There are, as described below, inherent limitations to the effectiveness of any control system, including disclosure controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives.

Based on this evaluation, the Chief Executive Officer and the Controller concluded that there was reasonable assurance that the design and operation of these disclosure controls and procedures were effective as of December 31, 2019, in ensuring that information required to be disclosed in reports that the company files under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Management of YPF is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15 (f) under the Exchange Act). YPF's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS and includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of YPF;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that our receipts and expenditures are being made only in accordance with authorizations of YPF's management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, any system of internal control over financial reporting, no matter how well designed, may not prevent or detect misstatements, due to the possibility that a control can be circumvented or overridden or that misstatements due to error or fraud may occur that are not detected. Additionally, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of YPF's management, including our current Principal Executive Officer and Principal Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting using the criteria established in "Internal Control-Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission ("the COSO criteria"). Based on this assessment, our management concluded that, our internal control over financial reporting was effective as of December 31, 2019.

Our internal control over financial reporting as of December 31, 2019 has been audited by Deloitte & Co. S.A., an independent registered public accounting firm, as stated in their report included in the F-pages of this annual report.

Changes in Internal Control Over Financial Reporting

Except for the implementation of IFRS 16-Leases as mentioned in Note 2.b.26 to the Financial Statements, there were no other changes in the YPF's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the period covered by this annual report on Form 20-F that have materially affected, or are reasonably likely to materially affect our internal

control over financial reporting.

ITEM 16.

ITEM 16A. Audit Committee Financial Expert

Until March 27, 2020, Mr. Felices was the Audit Committee Financial Expert designated by our Board of Directors, at its meeting held on April 26, 2019

Additionally, our Board of Directors, at its meeting held on March 27, 2020, determined that Mr. Kerchner Tomba is the Audit Committee Financial Expert pursuant to the rules and regulations of the SEC. YPF believes that Mr. Kerchner Tomba possesses the attributes of an Audit Committee Financial Expert set forth in the instructions to Item 16A of Form 20-F. Mr. Kerchner Tomba possesses is an independent director.

ITEM 16B. Code of Ethics

During 2019, the Code of Ethics and Conduct of YPF S.A. was renewed as a fundamental pillar of the compliance program by establishing the company's integrity standards, based on corporate ethical values essential for the maintenance of an economically viable and sustainable long-term business. The Code's renovation was carried out through a consensual process, which included the participation of leaders from different areas of the company and the support of senior management. The Code is aligned with current legislation and market best practices.

Its content includes principles and rules to guide employees and those third parties who carry out activities with the company or by name and account thereof. It highlights what are the individual and collective responsibilities, what is acceptable and not acceptable within the organization.

The Code of Ethics and Conduct is applicable to employees and directors of YPF as well as to YPF's subsidiaries, wholly-owned companies, its respective contractors, subcontractors, suppliers, consultants and other "business partners" and their respective members who carry out business with the company, whether directly or on its behalf and on its account.

The Code of Ethics and Conduct also details the available means to both employees and third parties to report breaches to the Code, in particular, an ethics hotline to receive complaints regarding the lack of fulfilment of the Code of Ethics. The Code expressly states the company's no retaliation policy and protection for whoever makes a complaint, and the establishment of an Ethics Committee together with the role of the Compliance Officer.

Since August 15, 2003, we have not waived compliance with the Code of Ethics. YPF undertakes to provide to any person without charge, upon request, a copy of such Code of Ethics.

The Code of Ethics also includes a policy on prohibited periods for trading YPF securities to be followed by officers and those others to whom the Code of Ethics is applicable when conducting stock transactions, among other requirements.

A copy of the Code of Ethics can be found at the Company's web page, www.ypf.com, or it can be requested in writing by telephone or facsimile from us at the following address: YPF S.A.

Office of Investors Relations
Macacha Güemes 515
C1106BKK Buenos Aires, Argentina
Tel. (011-54-11) 5441-3664/1215
Fax (011-54-11) 5775-2165

Ethics Committee

The Board of Directors created the Ethics Committee to oversee the company's policy so that we achieve the highest standards of quality with regard to the principles and values we promote. It is composed of six members, four of which shall serve as Internal Auditor, Legal Affairs Corporate Vice-President Human Resources Vice-President and Chief Compliance Office, while the other two will be appointed by the Chairman of the Board of Directors of YPF S.A. from among employees who perform in operative or business areas to ensure the

decision making process is both fair and comprehensive. The Committee is organized through a committee's charter.

As of the date of this annual report, the Ethics Committee is composed of the following members: Javier Fevre (Internal Auditor) Germán Fernández Lahore (Legal Affairs Corporate Vice President), José Manuel Aggio (Human Resources Vice President – President of the Committee), María Luján Bianchi (CCO), Marcos Browne (Gas and Power Executive Vice President) and Carlos Alfonsi (Operations and Transformation Executive Vice President).

In addition to the members of our senior management and members of the Disclosure Committee whose outside business interests and experiences were described above, we include the following:

María Luján Bianchi

María Luján Bianchi obtained a law degree from the Pontificia Universidad Católica Argentina. She specialized in Commercial Law at the University of Salamanca and also holds an MBA from the Universidad Torcuato Di Tella. Mrs. Bianchi also completed several programs such as: Industrial Law and Business Development at UADE, Tax Law at the Argentine Association of Fiscal Studies, Corporate Governance and Compliance at the Cámara de Industrias y Comercio Argentina y Alemana, and Anticorruption & New Brazilian Law (San Pablo, Brazil). For more than 15 years she practiced Law in several law firms such as “Carrizo Carricarte, Salgado & Bazán”, “Estudio Moltedo” and “Brons & Salas”. She also practiced Law for 5 years in Sao Paulo, Brazil. She worked for 8 years at General Mills Inc., where she served as Business Legal Leader for Argentina, and as Legal and Compliance Director for Latin America during the past six years. She has been our Chief Compliance Officer since September 2018.

ITEM 16C. Principal Accountant Fees and Services

The following table provides information on the aggregate fees billed by our principal accountants (in thousands of pesos), Deloitte & Co. S.A. and affiliates by type of service rendered for the periods indicated.

<i>Services Rendered</i>	2019		2018		2017	
	<i>Fees</i>	<i>Expenses</i>	<i>Fees</i>	<i>Expenses</i>	<i>Fees</i>	<i>Expenses</i>
Audit Fees	109,377	861	71,944	710	61,318	668
Audit-Related Fees ⁽¹⁾	2,524	—	3,502	—	3,666	—
Tax Fees	3,056	—	827	—	1,011	—
All Other Fees	53,600	—	35,038	—	7,156	—
	168,557	861	111,311	710	73,151	668

⁽¹⁾ Includes mainly accounting certifications, special purpose reports, agreed upon procedures (including due diligence reports) and other assurance reports provided by auditors to be presented to regulatory agencies and bodies, financial institutions and others

The annual shareholders' meeting of YPF appoints the external auditor of YPF, along with the Audit Committee's non-binding opinion, which is submitted for consideration to the annual shareholders' meeting.

The Audit Committee of YPF has a pre-approval policy regarding the contracting of YPF's external auditor, or any affiliate of the external auditor, for professional services. The professional services covered by such policy include audit and non-audit services provided to YPF or any of its subsidiaries.

The pre-approval policy is as follows:

1. The Audit Committee must pre-approve all audit and non-audit services to be provided to YPF or any of its subsidiaries by the external auditor (or any of its affiliates) of YPF.
2. The Chairman of the Audit Committee has been delegated the authority to approve the hiring of YPF's external auditor (or any of its affiliates) without first obtaining the approval of the Audit Committee for any of the services which require pre-approval as described in (1) above.

Services approved by the Chairman of the Audit Committee as set forth above must be ratified at the next plenary meeting of the Audit Committee.

All services described in the table above were approved by the Audit Committee of YPF.

With respect to “Tax Fees”, the amounts correspond mainly to services related to tax compliance and advice for certain subsidiaries.

In relation to the amount of “All Other Fees”: (i) years 2018 through 2019 includes services related mainly to methodological assistance and best practices recommendations on the Company’s cybersecurity transformation process and, to a lesser extent, services related to information security compliance with PCI requirements and the Company’s sustainability report; and (ii) for 2017 includes quality assurance services for a subsidiary system implementation, and to a lesser extent, fees related to methodological assistance with the Company’s sustainability report and with SAP GRC Tool.

ITEM 16D. Exemptions from the Listing Standards for Audit Committees

None

ITEM 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Average Prices Paid per Share (Ps. per share) (b)</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Maximum Approximate Ps. Value of Shares that May Yet Be Purchased Under the Plans or Programs (a)</u>
January 2019	—	—	—	—
February 2019	—	—	—	—
March 2019	—	—	—	—
April 2019	—	—	—	—
May 2019	—	—	—	280,000,000
May 2019 (from 5/14 to 5/17)	411,623	680.23	411,623	496.41
June 2019	—	—	—	—
July 2019	—	—	—	—
August 2019	—	—	—	—
September 2019	—	—	—	—
October 2019	—	—	—	—
November 2019	—	—	—	—
December 2019	—	—	—	—

(a) On April 26, 2019, the General and Extraordinary Shareholders' Meeting was held, approving the amount of Ps. 280 million to establish a reserve to purchase Company shares, in order to make it possible for the Board of Directors to acquire Company shares when they consider it opportune, and to fulfill commitments under the bonus and incentive plans, both currently existing and those that may arise in the future. The Board of Directors, at its meeting held on May 9, 2019, approved a Stock Compensation Plan for employees, which allows YPF to repurchase its shares on the BASE and NYSE for an aggregate amount of up to Ps. 280 million.

(b) The average prices paid per share include commissions.

See Note 2.b.10.iii to the Audited Consolidated Financial Statements.

ITEM 16F. Change in Registrant's Certifying Accountant

During the years ended December 31, 2019, 2018 and 2017 and through the date of this annual report, the principal independent accountant engaged to audit our financial statements, Deloitte & Co S.A., has not resigned, indicated that it has declined to stand for re-election after the completion of its current audit or been dismissed.

ITEM 16G. Corporate Governance

See "Item 6. Directors, Senior Management and Employees—Compliance with New York Stock Exchange Listing Standards on Corporate Governance."

ITEM 16H. Mine Safety Disclosure

None

PART III**ITEM 17. Financial Statements**

The registrant has responded to Item 18 in lieu of responding to this Item.

ITEM 18. Financial Statements

The following financial statements are filed as part of this annual report:

Reports of Independent Registered Public Accounting Firm	
Consolidated Statement of Financial Position of YPF as of December 31, 2019, 2018 and 2017	F-3
Consolidated Statements of Comprehensive Income of YPF for the years ended December 31, 2019, 2018 and 2017	F-4
Consolidated Statements of Changes in Shareholders' Equity of YPF for the years ended December 31, 2019, 2018 and 2017	F-5
Consolidated Statements of Cash Flow of YPF for the years ended December 31, 2019, 2018 and 2017	F-8
Notes to the Audited Consolidated Financial Statements of YPF for the years ended December 31, 2019, 2018 and 2017	F-9

ITEM 19. Exhibits

1.1	By-laws (Estatutos) of YPF S.A. as amended (Spanish Version) *
1.2	By-laws (Estatutos) of YPF S.A. as amended (English Version) *
2(d)	Description of Securities Other than Equity Securities
11.1	Code of Ethics
12.1	Section 302 Certification by Chief Executive Officer
12.2	Section 302 Certification by Controller (Principal Financial Officer)
13	Section 906 Certification
15.1	Consent of DeGolyer and MacNaughton
15.2	Reserves Audit Report of DeGolyer and MacNaughton for YPF S.A. as of December 31, 2019, dated February 11, 2020.
101. INS	XBRL Instance Document.
101. SCH	XBRL Taxonomy Extension Schema Document.
101. CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101. LAB	XBRL Taxonomy Extension Label Linkbase Document.
101. PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
101. DEF	XBRL Taxonomy Extension Definition Document.

* Incorporated by reference to YPF's 2016 annual report on Form 20-F filed on April 7, 2017.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

YPF SOCIEDAD ANÓNIMA

By: /s/ Diego Pando

Name: Diego Pando

Title: Controller (Principal Financial Officer)

Dated: April 24, 2020



YPF SOCIEDAD ANONIMA

**CONSOLIDATED FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2019, 2018 AND 2017**

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and shareholders of YPF SOCIEDAD ANONIMA

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of YPF SOCIEDAD ANONIMA (an Argentine Corporation) and its controlled companies (the “Company”) as of December 31, 2019, 2018, and 2017, the related consolidated statements of comprehensive income, changes in shareholders’ equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the “financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”). Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

Adoption of new accounting principle

As discussed in Note 2.b.26) to the consolidated financial statements, the Company adopted IFRS 16 “Leases” for the year beginning January 1, 2019 using the cumulative catch-up approach under which rights of used assets were recognized by amounts equal to the corresponding lease liabilities as of such date and, therefore, comparative information was not restated.

Emphasis of a Matter

As more fully discussed in Note 38 to the consolidated financial statements, subsequent to year end the Company has been negatively impacted by the outbreak of COVID-19 and has described the uncertainties related to the negative impact this pandemic will have in its results of operations, cash flows and financial position.

Basis for Opinions

The Company’s management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting (Item 15). Our responsibility is to express an opinion on these financial statements and an opinion on the Company’s internal control over

financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Property, Plant and Equipment (PP&E) — Gas Neuquina Basin cash generating unit (CGU) — Refer to Notes 2.b.8), 2.b.9) and 2.c) to the financial statements

Critical Audit Matter Description

The Company's evaluation of PP&E for impairment involved the comparison of the recoverable amount of each CGU to its carrying value. The Company determined the recoverable amount based on the CGUs value in use. Value in use was based on a discounted cash flow model, which required management to make significant estimates and assumptions related to crude oil and natural gas reserve estimates, forecasts of future revenues, operating and capital expenditures, and discount rate. Changes in these assumptions could have a significant impact on the recoverable amount of the CGU, and either the amount of any impairment charge or reversal of prior impairment charges.

For the year ended December 31, 2019, YPF recognized an impairment charge of property, plant and equipment, mainly for the CGU Gas – Neuquina Basin of 40,561 million (30,421 million net of income tax effect), generated among others by the fall in natural gas prices (and liquids) due to the situation that the market is going through both globally and, by specific dynamics, at the local level. The aforementioned affects the investments and activity, generating the impairment of the related assets by the charge recorded.

The discount rate after taxes used as of December 31, 2019 was 12.14% for years 2020 and 2021 and 12.39% for years 2022 and thereafter, being the recoverable value after income tax of the CGU Gas – Neuquina Basin of 139,361 million as of such date.

Given the significant judgments made by management to estimate the recoverable amounts of the Natural Gas – Neuquina Basin CGU, performing audit procedures to evaluate the reasonableness of management's estimates and assumptions related to natural gas and crude oil reserve estimates, and forecasts of future revenues, operating costs and capital expenditures, and selection of the discount rate, required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to natural gas and crude oil reserve estimates, and forecasts of future revenues, operating and capital expenditures, and selection of the discount rate included, among others:

- We tested the effectiveness of controls over the estimates of natural gas and crude oil reserves.
- We tested the effectiveness of controls over the evaluation of PP&E for impairment, including those over indicators of impairment and forecasts of future revenues, operating costs and capital expenditures, and selection of discount rate.
- We read the reports of independent reserves auditors.
- We tested the mathematical accuracy and completeness of the calculation of the underlying cash flows used to determine the recoverable amount of the CGU.
- We assessed the reasonableness of management's crude oil and natural gas reserve estimates, by testing for a selection of fields (1) the source financial information underlying the estimates and (2) comparing management's estimates with the independent reserves auditor estimates.
- We assessed the reasonableness of management's forecast of future revenues, and operating costs and capital expenditures, by testing for a selection of fields (1) the source financial information underlying the estimates, (2) future production profiles with management's crude oil and natural gas reserve estimates, (3) costs and expenditures with historical information and other evidence obtained during the audit, and (4) evaluating management's ability to accurately forecast certain key assumptions, such as crude oil and natural gas prices and macroeconomic assumptions by comparing those to management's historical forecasts.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation methodology, projections of certain key assumptions underlying the estimates of the recoverable amount, such as macroeconomic assumptions and crude oil and natural gas prices, and the discount rate by testing (1) the source information underlying those certain key assumptions and the discount rate, (2) the mathematical accuracy of the discount rate calculation, and (3) developing a range of independent estimates and comparing those to what management selected.
- We read and tested the accuracy and completeness of the disclosures within the consolidated financial statements.

/s/ Deloitte & Co. S.A.
Buenos Aires City, Argentina

April 24, 2020

We have served as the Company's auditor since 2002.



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GLOSSARY OF TERMS

Term	Definition
ADR	American Depositary Receipt
ADS	American Depositary Share
AESA	Subsidiary A-Evangelista S.A.
AFIP	Argentine Tax Authority
ASC	Accounting Standards Codification
Associate	Company over which YPF has significant influence as provided for in IAS 28
BNA	Banco de la Nación Argentina
BO	Official Gazette of the Argentine Republic
BONAR	Argentine Treasury Bonds
CAMMESA	Compañía Administradora del Mercado Mayorista Eléctrico S.A.
CDS	Associate Central Dock Sud S.A.
CFO	Chief Financial Officer
CGU	Cash-Generating Units
CIMSA	Subsidiary Compañía de Inversiones Mineras S.A.
CNDC	Argentine Antitrust Authority
CNV	Argentine Securities Commission
CPI	Consumer price index
CSJN	Argentine Supreme Court of Justice
CT Barragán	Joint Venture CT Barragán S.A.
DOP	Deliver or pay
Eleran	Subsidiary Eleran Inversiones 2011 S.A.U.
ENARGAS	Argentine Gas Regulator
FACPECE	Argentine Federation of Professional Councils in Economic Sciences
FASB	Financial Accounting Standards Board
FOB	Free on Board
Group	YPF and its subsidiaries
GPA	Associate Gasoducto del Pacífico (Argentina) S.A.
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IDS	Associate Inversora Dock Sud S.A.
IEASA (former ENARSA)	Integración Energética Argentina S.A. (former Energía Argentina S.A.)
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standard
IIBB	Turnover tax
INDEC	National Institute of Statistics and Census
IWPI	Internal Wholesale Price Index
Joint venture	Company jointly owned by YPF as provided for in IFRS 11
JO	Joint operation
LGS	Argentine General Corporations Law No. 19,550 (T.O. 1984), as amended
LNG	Liquefied natural gas
LPG	Liquefied Petroleum Gas
MEGA	Joint Venture Company Mega S.A.
Metroenergía	Subsidiary Metroenergía S.A.
Metrogas	Subsidiary Metrogas S.A.
MINEM	Former Ministry of Energy and Mining
MMBtu	Million British thermal units
NO	Negotiable Obligations
Oiltanking	Associate Oiltanking Ebytem S.A.
Oldelval	Associate Oleoductos del Valle S.A.
OLCLP	Joint Venture Oleoducto Loma Campana – Lago Pellegrini S.A.
OPESSA	Subsidiary Operadora de Estaciones de Servicios S.A.
OTA	Associate OleoductoTrasandino (Argentina) S.A.
OTC	Associate OleoductoTrasandino (Chile) S.A.
PEN	National Executive Power
Peso	Argentine Peso
Profertil	Joint Venture Profertil S.A.
Refinor	Joint Venture Refinería del Norte S.A.
ROD	Record of Decision
RTI	Integral Tariff Review

SE	Secretariat of Energy
SEC	U.S. Securities and Exchange Commission
SEE	Secretariat of Electric Energy
SGE	Government Secretariat of Energy
SRH	Secretariat of Hydrocarbons Resources
Subsidiary	Company controlled by YPF in accordance with the provisions of IFRS 10.
TCF	Trillion Cubic Feet
Termap	Associate Terminales Marítimas Patagónicas S.A.
TFN	National Fiscal Tribunal
TSEP	Transportation system entry point
UHaf	Under-Secretariat of Hydrocarbons and Fuels
UNG	Unaccounted Natural Gas
US\$	U.S. dollar
US\$/Bbl	U.S. dollar per barrel
VAT	Value Added Tax
Y-GEN I	Joint venture Y-GEN Eléctrica S.A.U.
Y-GEN II	Joint venture Y-GEN Eléctrica II S.A.U.
YPF Brasil	Subsidiary YPF Brasil Comercio Derivado de Petróleo Ltda.
YPF Chile	Subsidiary YPF Chile S.A.
YPF EE	Joint venture YPF Energía Eléctrica S.A.
YPF Gas	Associate YPF Gas S.A.
YPF Holdings	Subsidiary YPF Holdings, Inc.
YPF International	Subsidiary YPF International S.A.
YPF or the Company	YPF Sociedad Anónima
YPF Ventures	Subsidiary YPF Ventures S.A.U.
YTEC	Subsidiary YPF Tecnología S.A.
WEM	Wholesale Electricity Market



LEGAL INFORMATION

Legal address

Macacha Güemes 515 – Ciudad Autónoma de Buenos Aires, Argentina

Fiscal year number 43

Beginning on January 1, 2019

Principal business of the Company

The Company's purpose shall be to perform, on its own, through third parties or in association with third parties, the study, exploration, development and production of oil, natural gas and other minerals and refining, marketing and distribution of oil and petroleum products and direct and indirect petroleum derivatives, including petrochemicals, chemicals, including those derived from hydrocarbons and non-fossil fuels, biofuels and their components, as well as production of electric power from hydrocarbons, through which it may manufacture, use, purchase, sell, exchange, import or export them. It shall also be the Company's purpose to render, directly, through a subsidiary, or in association with third parties, telecommunications services in all forms and modalities authorized by the legislation in force after applying for the relevant licenses, as required by the regulatory framework, as well as the production, industrialization, processing, commercialization, conditioning, transportation and stockpiling of grains and products derived from grains, as well as any other activity complementary to its industrial and commercial business or any activity which may be necessary to attain its objective. In order to fulfill these objectives, the Company may set up, become associated with or have an interest in any public or private entity domiciled in Argentina or abroad, within the limits set forth in the Bylaws.

Filing with the Public Registry

Bylaws filed on February 5, 1991 under No. 404, Book 108, Volume "A", Sociedades Anónimas, with the Public Registry of Buenos Aires City, in charge of the Argentine Registrar of Companies (Inspección General de Justicia); and Bylaws in substitution of previous Bylaws, filed on June 15, 1993, under No. 5109, Book 113, Volume "A", Sociedades Anónimas, with the above mentioned Registry.

Duration of the Company

Through June 15, 2093.

Last amendment to the Bylaws

April 29, 2016 registered with the Argentine Registrar of Companies (Inspección General de Justicia) on December 21, 2016 under No. 25,244, Book 82 of Corporations.

Capital structure

393,312,793 shares of common stock, Pesos 10 par value and 1 vote per share.

Subscribed, paid-in and authorized for stock exchange listing (in Pesos)

3,933,127,930

GUILLERMO EMILIO NIELSEN
President

YPF SOCIEDAD ANONIMA
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
AS OF DECEMBER 31, 2019, 2018 AND 2017
(Amounts expressed in millions of Argentine Pesos)



	Notes	2019	2018	2017
ASSETS				
Noncurrent Assets				
Intangible assets	7	37,179	20,402	9,976
Property, plant and equipment	8	1,069,011	699,087	354,443
Right-of-use assets	9	61,391	—	—
Investments in associates and joint ventures	10	67,590	32,686	6,045
Assets held for disposal	3	—	—	8,823
Deferred income tax assets, net	16	1,583	301	588
Other receivables	12	11,789	9,617	1,335
Trade receivables	13	15,325	23,508	2,210
Total noncurrent assets		<u>1,263,868</u>	<u>785,601</u>	<u>383,420</u>
Current Assets				
Assets held for disposal	3	—	3,189	—
Inventories	11	80,479	53,324	27,149
Contract assets	23	203	420	142
Other receivables	12	36,192	21,867	12,684
Trade receivables	13	118,077	72,646	40,649
Investment in financial assets	6	8,370	10,941	12,936
Cash and cash equivalents	14	66,100	46,028	28,738
Total current assets		<u>309,421</u>	<u>208,415</u>	<u>122,298</u>
TOTAL ASSETS		<u>1,573,289</u>	<u>994,016</u>	<u>505,718</u>
SHAREHOLDERS' EQUITY				
Shareholders' contributions		10,572	10,518	10,402
Reserves, other comprehensive income and retained earnings		531,977	348,682	141,893
Shareholders' equity attributable to shareholders of the parent company		<u>542,549</u>	<u>359,200</u>	<u>152,295</u>
Non-controlling interest		5,550	3,157	238
TOTAL SHAREHOLDERS' EQUITY		<u>548,099</u>	<u>362,357</u>	<u>152,533</u>
LIABILITIES				
Noncurrent Liabilities				
Liabilities associated with assets held for disposal	3	—	—	4,193
Provisions	15	144,768	83,388	54,734
Deferred income tax liabilities, net	16	97,231	91,125	37,645
Contract liabilities	23	294	1,828	1,470
Income tax liability	16	3,387	—	—
Taxes payable	17	1,428	2,175	220
Lease liabilities	19	40,391	—	—
Loans	20	419,651	270,252	151,727
Other liabilities	21	703	549	277
Accounts payable	22	2,465	3,373	185
Total noncurrent liabilities		<u>710,318</u>	<u>452,690</u>	<u>250,451</u>
Current Liabilities				
Liabilities associated with assets held for disposal	3	—	3,133	—
Provisions	15	5,460	4,529	2,442
Contract liabilities	23	7,404	4,996	1,460
Income tax liability	16	1,964	357	191
Taxes payable	17	11,437	10,027	6,879
Salaries and social security	18	10,204	6,154	4,132
Lease liabilities	19	21,389	—	—
Loans	20	107,109	64,826	39,336
Other liabilities	21	1,310	722	2,383
Accounts payable	22	148,595	84,225	45,911
Total current liabilities		<u>314,872</u>	<u>178,969</u>	<u>102,734</u>
TOTAL LIABILITIES		<u>1,025,190</u>	<u>631,659</u>	<u>353,185</u>
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		<u>1,573,289</u>	<u>994,016</u>	<u>505,718</u>

Accompanying notes are an integral part of consolidated financial statements

GUILLERMO EMILIO NIELSEN
President

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YPF SOCIEDAD ANONIMA
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017



(Amounts expressed in millions of Argentine Pesos except per share information, expressed in Argentine Pesos)

	Notes	2019	2018	2017
Net income				
Revenues	23	678,595	435,820	252,813
Costs	24	(575,608)	(359,570)	(211,812)
Gross profit		102,987	76,250	41,001
Selling expenses	25	(49,898)	(27,927)	(17,954)
Administrative expenses	25	(24,701)	(13,922)	(8,736)
Exploration expenses	25	(6,841)	(5,466)	(2,456)
(Impairment) / Recovery of property, plant and equipment	2.c and 8	(41,429)	2,900	5,032
Other net operating results	26	(1,130)	11,945	(814)
Operating (loss) / profit		(21,012)	43,780	16,073
Income from equity interests in associates and joint ventures	10	7,968	4,839	1,428
Financial income	27	93,405	100,083	17,623
Financial loss	27	(91,533)	(63,681)	(28,629)
Other financial results	27	4,162	5,123	2,208
Net financial results	27	6,034	41,525	(8,798)
Net (loss) / profit before income tax		(7,010)	90,144	8,703
Income tax	16	(26,369)	(51,538)	3,969
Net (loss) / profit for the year		(33,379)	38,606	12,672
Other comprehensive income				
<i>Items that may be reclassified subsequently to profit or loss:</i>				
Translation differences from subsidiaries, associates and joint ventures		(8,011)	(18,307)	(641)
Result from net monetary position in subsidiaries, associates and joint ventures ⁽¹⁾		8,953	14,006	—
Exchange differences reversed to profit for the period ⁽²⁾		—	1,572	—
Translation differences from Assets held for disposal		—	—	(499)
<i>Items that may not be reclassified subsequently to profit or loss:</i>				
Translation differences from YPF		220,425	175,329	23,057
Other comprehensive income for the year		221,367	172,600	21,917
Total comprehensive income for the year		187,988	211,206	34,589
Net (loss) / profit for the year attributable to:				
Shareholders of the parent company		(34,071)	38,613	12,340
Non-controlling interest		692	(7)	332
Other comprehensive income for the year attributable to:				
Shareholders of the parent company		219,666	169,674	21,917
Non-controlling interest		1,701	2,926	—
Total comprehensive income for the year attributable to:				
Shareholders of the parent company		185,595	208,287	34,257
Non-controlling interest		2,393	2,919	332
Earnings per share attributable to shareholders of the parent company				
Basic and Diluted	30	(86.85)	98.43	31.43

(1) Result associated to subsidiaries, associates and joint ventures with the Peso as functional currency. See accounting policy in Note 2.b.1.

(2) Corresponds to reversal to net profit for the year, for the partial disposal of the investment in YPF EE. See Note 3.

Accompanying notes are an integral part of consolidated financial statements

GUILLERMO EMILIO NIELSEN
President

YPF SOCIEDAD ANONIMA
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(Amounts expressed in millions of Argentine Pesos)

	Shareholders' contributions										Total
	Subscribed capital	Adjustment to contributions	Treasury shares	Adjustment to treasury shares	Share-based benefit plans	Acquisition cost of treasury shares	Share trading premium	Issuance premiums	Equity attributable to		
									Shareholders of the parent company	Non-controlling interest	
Balance at the beginning of the fiscal year	3,923	6,084	10	17	115	11	(282)	640	359,200	3,157	362,357
Accrual of share-based benefit plans ⁽⁴⁾	—	—	—	—	493	—	—	—	493	—	493
Repurchase of treasury shares	(4)	(6)	4	6	—	(280)	—	—	(280)	—	(280)
Settlement of share-based benefit plans ⁽²⁾	5	7	(5)	(7)	(491)	446	(114)	—	(159)	—	(159)
As decided by the Shareholders' Meeting on April 26, 2019 ⁽³⁾	—	—	—	—	—	—	—	—	—	—	—
As decided by the Board of Directors on June 27, 2019 ⁽³⁾	—	—	—	—	—	—	—	—	—	—	—
Other comprehensive income	—	—	—	—	—	—	—	—	—	—	—
Net (loss) profit	—	—	—	—	—	—	—	—	—	—	—
Balance at the end of the fiscal year	<u>3,924</u>	<u>6,085</u>	<u>9</u>	<u>16</u>	<u>117</u>	<u>177</u>	<u>(396)</u>	<u>640</u>	<u>359,200</u>	<u>3,157</u>	<u>362,357</u>
2019											
	Reserves										
	Legal dividends	Investments	Purchase of treasury shares	Initial IFRS adjustment	Other comprehensive income	Retained earnings	Shareholders of the parent company		Non-controlling interest	Total shareholders' equity	
Balance at the beginning of the fiscal year	2,007	11,020	220	—	297,120	38,315	359,200		3,157	362,357	
Accrual of share-based benefit plans ⁽⁴⁾	—	—	—	—	—	—	493		—	493	
Repurchase of treasury shares	—	—	—	—	—	—	(280)		—	(280)	
Settlement of share-based benefit plans ⁽²⁾	—	—	—	—	—	—	(159)		—	(159)	
As decided by the Shareholders' Meeting on April 26, 2019 ⁽³⁾	—	4,800	33,235	280	—	(38,315)	—		—	—	
As decided by the Board of Directors on June 27, 2019 ⁽³⁾	—	(2,300)	—	—	—	—	(2,300)		—	(2,300)	
Other comprehensive income	—	—	—	—	219,666	—	219,666		1,701	221,367	
Net (loss) profit	—	—	—	—	—	(34,071)	(34,071)		692	(33,379)	
Balance at the end of the fiscal year	<u>2,007</u>	<u>2,500</u>	<u>44,255</u>	<u>500</u>	<u>516,786(1)</u>	<u>(34,071)</u>	<u>542,549</u>		<u>5,550</u>	<u>548,099</u>	

(1) Includes 528,145 corresponding to the effect of the translation of the financial statements of YPF, (29,691) corresponding to the effect of the translation of the financial statements of investments in subsidiaries, associates and joint ventures with functional currencies other than the U.S. dollar and 18,332 corresponding to the recognition of the result for the net monetary position of subsidiaries, associates and joint ventures with the Peso as functional currency, as detailed in Note 2.b.1.

- (2) Net of employees' income tax withholdings related to the share-based benefit plans.
- (3) See Note 29.
- (4) See Note 36.

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GUILLELMO EMILIO NIELSEN
President

YPF SOCIEDAD ANONIMA
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017 (Cont.)
(Amounts expressed in millions of Argentine Pesos)

	Shareholders' contributions										Total
	Subscribed capital	Adjustment to contributions	Treasury shares	Adjustment to treasury shares	Share-based benefit plans	Acquisition cost of treasury shares	Share trading premium	Issuance premiums	Non-controlling interest	Total shareholders' equity	
Balance at the beginning of the fiscal year	3,924	6,085	9	16	36	(91)	(217)	640	—	10,402	
Modification to the balance at the beginning of the fiscal year ⁽⁴⁾	—	—	—	—	—	—	—	—	—	—	
Balance at the beginning of the fiscal year modified	3,924	6,085	9	16	36	(91)	(217)	640	—	10,402	
Accrual of share-based benefit plans ⁽³⁾	—	—	—	—	308	—	—	—	—	308	
Repurchase of treasury shares	(3)	(4)	3	4	(229)	(120)	—	—	—	(120)	
Settlement of share-based benefit plans ⁽²⁾	2	3	(2)	(3)	(229)	222	(65)	—	—	(72)	
As decided by the Shareholders' Meeting on April 27, 2018	—	—	—	—	—	—	—	—	—	—	
As decided by the Board of Directors on December 12, 2018	—	—	—	—	—	—	—	—	—	—	
Other comprehensive income	—	—	—	—	—	—	—	—	—	—	
Net profit (loss)	—	—	—	—	—	—	—	—	—	—	
Balance at the end of the fiscal year	3,923	6,084	10	17	115	11	(282)	640	—	10,518	
2018											
	Reserves				Equity attributable to						
		Future dividends	Investments	Purchase of treasury shares	Other comprehensive income	Retained earnings	Shareholders of the parent company	Non-controlling interest	Total shareholders' equity		
Balance at the beginning of the fiscal year	2,007	—	—	100	127,446	12,340	152,295	238	152,533		
Modification to the balance at the beginning of the fiscal year ⁽⁴⁾	—	—	—	—	—	(298)	(298)	—	(298)		
Balance at the beginning of the fiscal year modified	2,007	—	—	100	127,446	12,042	151,997	238	152,235		
Accrual of share-based benefit plans ⁽³⁾	—	—	—	—	—	—	308	—	308		
Repurchase of treasury shares	—	—	—	—	—	—	(120)	—	(120)		
Settlement of share-based benefit plans ⁽²⁾	—	—	—	—	—	—	(72)	—	(72)		
As decided by the Shareholders' Meeting on April 27, 2018	—	1,200	11,020	120	—	(12,340)	—	—	—		

As decided by the Board of Directors on December 12, 2018

Other comprehensive income	—	(1,200)	—	—	—	—	—	(1,200)	—	—	172,600
Net profit (loss)	—	—	—	—	—	—	—	—	169,674	38,613	38,606
Balance at the end of the fiscal year	2,007	—	11,020	220	—	—	297,120⁽¹⁾	38,315	359,200	3,157	362,357

- (1) Includes 307,720 corresponding to the effect of the translation of the financial statements of YPF, (21,680) corresponding to the effect of the translation of the financial statements of investments in subsidiaries, associates and joint ventures with functional currencies other than the U.S. dollar and 11,080 corresponding to the recognition of the result for the net monetary position of subsidiaries, associates and joint ventures with the Peso as functional currency, as detailed in Note 2.b.1.
- (2) Net of employees' income tax withholdings related to the share-based benefit plans.
- (3) See Note 36.
- (4) Corresponds to the change in the accounting policy described in Note 2.b.18.

GUILLELMO EMILIO NIELSEN
President

YPF SOCIEDAD ANONIMA
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017 (Cont.)
(Amounts expressed in millions of Argentine Pesos)

	2017											
	Shareholders' contributions											
	Subscribed capital	Adjustment to contributions	Treasury shares	Adjustment to treasury shares	Share-based benefit plans	Acquisition cost of treasury shares	Share trading premium	Issuance premiums	Total	Equity attributable to Shareholders of the parent company	Non-controlling interest	Total Shareholders' equity
Balance at the beginning of the fiscal year	3,923	6,085	10	16	61	(152)	(180)	640	10,403	118,755	(94)	118,661
Actual of share-based benefit plans ⁽³⁾	—	—	—	—	162	—	—	—	162	—	—	162
Repurchase of treasury shares	(3)	(4)	3	4	—	(100)	—	—	(100)	—	—	(100)
Settlement of share-based benefit plans ⁽²⁾	4	4	(4)	(4)	(187)	161	(37)	—	(63)	—	—	(63)
As decided by the Shareholders' Meeting on April 28, 2017	—	—	—	—	—	—	—	—	—	—	—	—
As decided by the Board of Directors on June 8, 2017, July 9, 2017 and December 14, 2017	—	—	—	—	—	—	—	—	—	—	—	—
Other comprehensive income	—	—	—	—	—	—	—	—	—	—	—	—
Net income	3,924	6,085	9	16	36	(91)	(217)	640	10,402	—	—	10,402
Balance at the end of the fiscal year	<u>3,924</u>	<u>6,085</u>	<u>9</u>	<u>16</u>	<u>36</u>	<u>(91)</u>	<u>(217)</u>	<u>640</u>	<u>10,402</u>	<u>(217)</u>	<u>(94)</u>	<u>10,185</u>
2017												
	Reserves											
	Legal	Future dividends	Investments	Purchase of treasury shares	Initial IFRS adjustment	Other comprehensive income	Retained earnings	Shareholders of the parent company	Non-controlling interest	Total Shareholders' equity	Shareholders' equity	Total Shareholders' equity
Balance at the beginning of the fiscal year	2,007	5	24,904	490	3,648	105,529	(28,231)	118,755	(94)	118,661	—	118,661
Actual of share-based benefit plans ⁽³⁾	—	—	—	—	—	—	—	162	—	162	—	162
Repurchase of treasury shares	—	—	—	—	—	—	—	(100)	—	(100)	—	(100)
Settlement of share-based benefit plans ⁽²⁾	—	—	—	—	—	—	—	(63)	—	(63)	—	(63)
As decided by the Shareholders' Meeting on April 28, 2017	—	711	(24,904)	(390)	(3,648)	—	28,231	—	—	—	—	—
As decided by the Board of Directors on June 8, 2017, July 9, 2017 and December 14, 2017	—	(716)	—	—	—	—	—	(716)	—	(716)	—	(716)
Other comprehensive income	—	—	—	—	—	21,917	—	21,917	—	21,917	—	21,917
Net income	—	—	—	—	—	—	12,340	12,340	—	12,340	—	12,672
Balance at the end of the fiscal year	<u>2,007</u>	<u>—</u>	<u>—</u>	<u>100</u>	<u>—</u>	<u>127,446⁽¹⁾</u>	<u>12,340</u>	<u>152,295</u>	<u>238</u>	<u>152,533</u>	<u>—</u>	<u>152,533</u>

(1) Includes 132,391 corresponding to the effect of the translation of the financial statements of YPF S.A. and (4,945) corresponding to the effect of the translation of the financial statements of investments in subsidiaries, associates and joint ventures with functional currencies other than the U.S. dollar, as detailed in Note 2.b.1.

(2) Net of employees' income tax withholdings related to the share-based benefit plans.

(3) See Note 36.

Accompanying notes are an integral part of consolidated financial statements

GUILLELMO EMILIO NIELSEN
President

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YPF SOCIEDAD ANONIMA
CONSOLIDATED STATEMENTS OF CASH FLOW
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017



(Amounts expressed in millions of Argentine Pesos)

	2019	2018	2017
Cash flows from operating activities			
Net (loss) / income	(33,379)	38,606	12,672
<i>Adjustments to reconcile net (loss) / income to cash flows provided by operating activities:</i>			
Income from equity interests in associates and joint ventures	(7,968)	(4,839)	(1,428)
Depreciation of property, plant and equipment	145,894	87,569	53,512
Depreciation of right-of-use assets	10,509	—	—
Amortization of intangible assets	2,374	1,749	838
Retirement of property, plant and equipment and intangible assets and consumption of materials	19,124	12,101	4,592
Charge on income tax	26,369	51,538	(3,969)
Net increase in provisions	13,090	(3,422)	4,924
Impairment / (Recovery) of property, plant and equipment	41,429	(2,900)	(5,032)
Exchange differences, interest and other	(5,939)	(28,611)	7,611
Share-based benefit plans	493	308	162
Accrued insurance	(498)	(417)	(206)
Result of companies' revaluation	—	(11,980)	—
Result from the sale of areas	(778)	—	—
<i>Changes in assets and liabilities:</i>			
Trade receivables	(11,833)	(25,912)	(8,073)
Other receivables	(13,076)	(9,873)	895
Inventories	6,726	951	(1,556)
Accounts payable	29,435	18,769	3,747
Taxes payables	(1,145)	2,615	2,550
Salaries and social security	4,534	1,904	1,065
Other liabilities	803	(1,178)	(717)
Decrease in provisions included in liabilities due to payment/use	(4,862)	(2,652)	(1,388)
Contract assets	445	(278)	(130)
Contract liabilities	776	2,179	2,661
Dividends received	811	583	328
Proceeds from collection of lost profit insurance	758	496	—
Income tax payments	(6,955)	(2,248)	(1,084)
Net cash flows from operating activities⁽¹⁾⁽²⁾	217,137	125,058	71,974
Investing activities:⁽³⁾			
Acquisition of property, plant and equipment and intangible assets	(161,455)	(88,293)	(59,618)
Contributions and acquisitions of interests in associates and joint ventures	(4,826)	(280)	(891)
Proceeds from sales of financial assets	957	7,879	4,287
Interests received from financial assets	1,063	750	980
Payments from business combinations	—	(2,307)	—
Proceeds from the sale of areas	382	—	—
Net cash flows used in investing activities	(163,879)	(82,251)	(55,242)
Financing activities:⁽³⁾			
Payment of loans	(93,456)	(55,734)	(36,346)
Payments of interests	(41,606)	(26,275)	(17,912)
Proceeds from loans	97,351	39,673	54,719
Repurchase of treasury shares	(280)	(120)	(100)
Payments of leases	(15,208)	—	—
Payment of interests in relation to income tax	(583)	—	—
Dividends paid	(2,300)	(1,200)	(716)
Net cash flows used in financing activities	(56,082)	(43,656)	(355)
Translation differences provided by cash and cash equivalents	22,896	18,139	1,665
Reclassification to assets held for disposal	—	—	(61)
Net increase in cash and cash equivalents	20,072	17,290	17,981
Cash and cash equivalents at the beginning of the fiscal year	46,028	28,738	10,757
Cash and cash equivalents at the end of the fiscal year	66,100	46,028	28,738
Net increase in cash and cash equivalents	20,072	17,290	17,981

(1) Does not include exchange differences generated by cash and cash equivalents, which is exposed separately in the statement.

(2) Includes 11,184 for payment of short-term leases and payments of the variable charge of leases related to the underlying asset return/use.

(3) The main investing and financing transactions that have not affected cash and cash equivalents correspond to:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Unpaid acquisitions of property, plant and equipment and concession extension liabilities	24,909	11,561	6,019
Hydrocarbon wells abandonment obligation costs' recalculation	1,172	(11,710)	(4,913)
Contributions in joint ventures	—	—	19
Additions of right-of-use assets	39,779	—	—
Capitalization of amortization of right-of-use assets	2,021	—	—
Capitalization of financial accretion for lease liabilities	311	—	—
Capitalization in joint ventures	738	—	—

Accompanying notes are an integral part of consolidated financial statements.

GUILLERMO EMILIO NIELSEN
President



(Amounts expressed in millions of Argentine Pesos, except shares and per shares amounts expressed in Argentine Pesos, and as otherwise indicated)

1. GENERAL INFORMATION, STRUCTURE AND ORGANIZATION OF THE BUSINESS OF THE GROUP

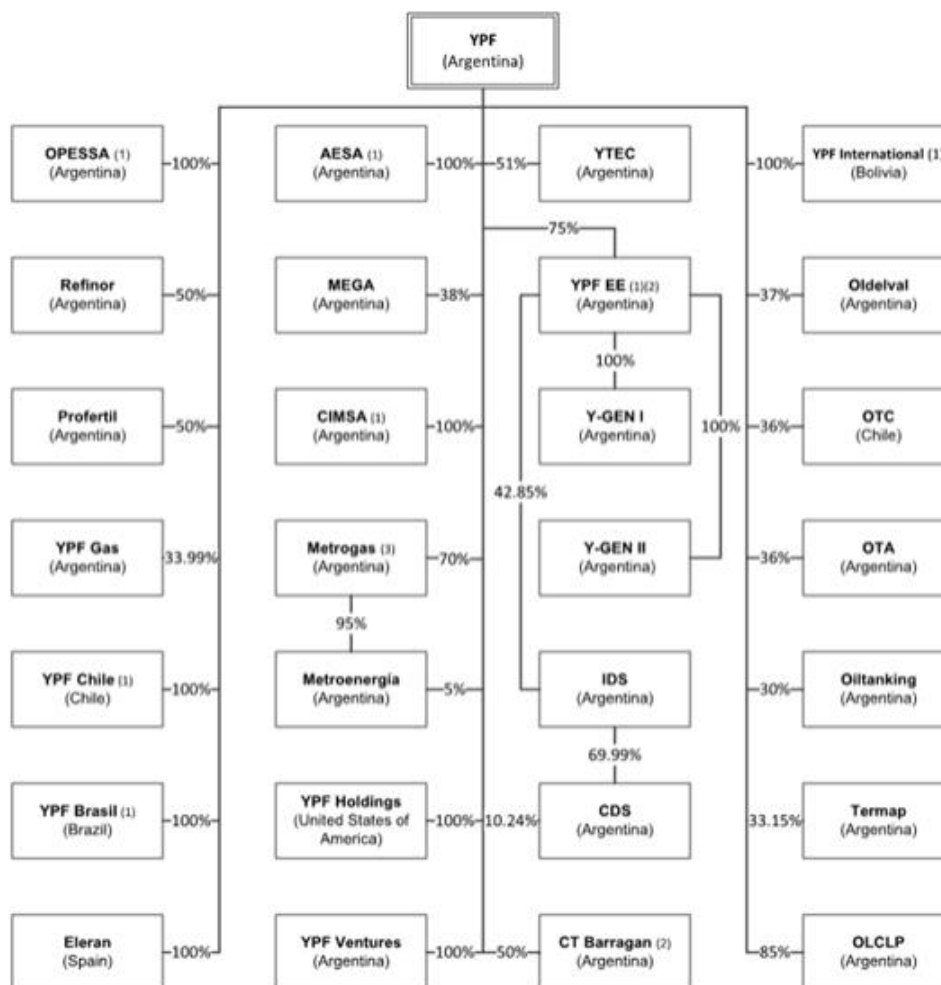
General information

YPF Sociedad Anónima is a stock corporation (*sociedad anónima*) incorporated under the laws of the Argentine Republic, with a registered office at Macacha Güemes 515, in the City of Buenos Aires.

YPF and its subsidiaries form the leading energy group in Argentina, which operates a fully integrated oil and gas chain with leading market positions across the domestic Upstream and Downstream segments.

Structure and organization of the economic Group

The following table shows the organizational structure, including the main companies of the Group, as of December 31, 2019:



- (1) Held directly and indirectly.
- (2) See Note 3
- (3) See Note 34.h.



1. GENERAL INFORMATION, STRUCTURE AND ORGANIZATION OF THE BUSINESS OF THE GROUP (Cont.)

Organization of the business

As of December 31, 2019, the Group carries out its operations in accordance with the following structure:

- Upstream;
- Gas and Power;
- Downstream;
- Central administration and others, which covers the remaining activities not included in the previous categories.

Activities covered by each business segment are detailed in Note 5.

Almost all operations, properties and clients are located in Argentina. However, the Group also holds participating interests in exploratory areas in Bolivia and production areas in Chile. The Group also sells lubricants and derivatives in Brazil and Chile.

2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

2.a) Basis of preparation

Application of IFRS

The consolidated financial statements of the Group for the fiscal year ended December 31, 2019 are presented in accordance with IFRS as issued by IASB and interpretations issued by the IFRIC.

Moreover, some additional issues required by the LGS and/or CNV's regulations have been included.

The amounts and other information corresponding to the years ended on December 31, 2018 and 2017 are an integral part of the consolidated financial statements mentioned above and are intended to be read only in relation to these financial statements.

These consolidated financial statements were approved by the Board of Directors' meeting and authorized to be issued on March 5, 2020.

Current and Noncurrent classification

The presentation in the statement of financial position makes a distinction between current and noncurrent assets and liabilities, according to the activities operating cycle. Current assets and liabilities include assets and liabilities, which are realized or settled within the 12-month period from the end of the fiscal year.

All other assets and liabilities are classified as noncurrent. Current and deferred tax assets and liabilities (payable income tax) are presented separately from each other and from other assets and liabilities, as current and noncurrent, as applicable.

Fiscal year-end

The Company's fiscal year begins on January 1 and ends on December 31, each year.

Accounting criteria

The consolidated financial statements have been prepared under historical cost criteria, except for financial assets measured at fair value through profit or loss.

Non-monetary assets and liabilities of subsidiaries having the Peso as functional currency, were adjusted for inflation. See Note 2.b.1.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Use of estimates

The preparation of financial statements at a certain date requires the Management to make estimates and assessments affecting the amount of assets and liabilities recorded, contingent assets and liabilities disclosed at such date, as well as income and expenses recorded during the fiscal year. Future results might differ from the estimates and assessments made on the date of preparation of these consolidated financial statements.

The description of any significant estimates and accounting judgments made by Management in applying the accounting policies, as well as the key estimates and areas with greater degree of complexity which require more critical judgments, are disclosed in Note 2.c.

Consolidation policies

For purposes of presenting the consolidated financial statements, the full consolidation method was used with respect to all subsidiaries, which are those companies which the Group controls. The Group controls an entity when it is exposed, or is entitled to the variable results arising from its equity interest in the entity, and has the ability to affect those results through its power over the entity. This capacity is, in general but not solely, obtained by the direct or indirect ownership of more than 50% of the voting shares of a company.

Interest in JO and other agreements which gives the Group a contractually-established percentage over the rights of the assets and obligations that emerge from the contract, have been consolidated line by line on the basis of the mentioned participation over the assets, liabilities, income and expenses related to each contract. Assets, liabilities, income and expenses of JO are presented in the consolidated statement financial position and in the consolidated statement of comprehensive income, in accordance with their respective nature.

Note 10 details the fully consolidated controlled subsidiaries. Furthermore, Note 28 details the main JO, proportionally consolidated.

In the consolidation process, balances, transactions, profits and losses between consolidated companies and JO have been eliminated.

The Company's consolidated financial statements are based on the most recent available financial statements of the companies which YPF controls, taking into consideration, where applicable, significant subsequent events and transactions, information available to the Company's management and transactions between YPF and such subsidiaries, which could have produced changes to their shareholders' equity. The date of the financial statements of such subsidiaries used in the consolidation process may differ from the date of YPF's financial statements due to administrative reasons. The accounting principles and procedures used by subsidiaries have been homogenized, where appropriate, with those used by YPF in order to present the consolidated financial statements based on uniform accounting and presentation policies. The financial statements of subsidiaries whose functional currency is different from the presentation currency are translated using the procedure set out in Note 2.b.1.

The Group holds 100% of capital of the consolidated companies, with the exception of the holdings in Metrogas and YTEC. The Group takes into account quantitative and qualitative aspects to determine which subsidiaries have significant non-controlling interests. In accordance with the previously mentioned, the Group concluded that there are no material non-controlling interests to be disclosed, as required by IFRS 12 "Disclosure of Interests in Other Entities".

Financial information of subsidiaries, associates and joint ventures in hyperinflationary economies

Under IAS 29 "Financial Reporting in Hyperinflationary Economies" the financial statements of an entity whose functional currency is the currency of a hyperinflationary economy shall be stated in terms of the measuring unit current at the end of the reporting period or fiscal year. The standard sets forth quantitative and qualitative factors to be contemplated in order to determine whether or not an economy is hyperinflationary.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

In recent years, inflation in Argentina has been high, with an accumulated inflation rate exceeding 100% over the last three years. In addition, certain recent qualitative and quantitative factors, such as the significant devaluation of the Peso, led to the conclusion that the restatement by inflation of annual or interim financial statements corresponding to annual or interim periods ending after July 1, 2018, should be applied.

Companies could not present their restated financial statements because Decree No. 664/2003 of the PEN prohibited regulatory agencies (including the CNV) from receiving financial statements adjusted for inflation.

Law No. 27,468, published on December 4, 2018 in the BO repealed Decree No. 1,269/2002 of the PEN as amended (including the aforementioned Decree No. 664/2003 of the PEN). The provisions of the aforementioned law became in full force and effect as of December 28, 2018, the date of the publication of the CNV General Resolution No. 777/2018, which established that annual financial statements, interim and special periods closing from December 31, 2018 inclusive, must be submitted adjusted for inflation, as established by IAS 29. The FACPCE's guidelines will be applied to those issues not specifically addressed in the aforementioned regulations.

Although the application of IAS 29 does not directly affect YPF because its functional currency is the U.S. dollar as mentioned in section b) of this Note, it does affect the investments that the Company has in its subsidiaries, associates and joint ventures whose functional currency is the Peso, all of which have restated their financial statements.

In compliance with IAS 29 guidelines, the adjustment was based on the last date on which subsidiaries, associates and joint ventures whose functional currency is the Peso restated their financial statements to reflect the effects of inflation. For this purpose, in general terms, the inflation from the date of acquisition or addition, or from the date of asset revaluation, as applicable, was computed in balances of non-monetary assets and liabilities. As a result of the adjustment for inflation in such financial statements, the value of non-monetary items increased, with the cap of their recoverable value, and with the consequent effect on deferred tax. Regarding income statement, in addition to the restatement of revenues, costs, expenses and other items, the net monetary position effect was included in a separate item in the Other financial results.

In accordance with the above, the initial application of IAS 29 as of December 31, 2018, generated an increase in equity, net income and other comprehensive income for the fiscal year of the Company.

2.b) Significant Accounting Policies

2.b.1) Functional and reporting currency and tax effect on Other comprehensive income

Functional currency

YPF, based on parameters set out in IAS 21 "The effects of change in foreign exchange rates", has defined the U.S. dollar as its functional currency. Consequently, non-monetary cost-based measured assets and liabilities, as well as income or loss, are remeasured into functional currency by applying the exchange rate prevailing at the date of the transaction.

Transactions in currencies other than the functional currency of the Company are deemed to be "foreign currency transactions" and are remeasured into functional currency by applying the exchange rate prevailing at the date of the transaction (or, for practical reasons and when exchange rates do not fluctuate significantly, the average exchange rate for each month). At the end of each fiscal year or at the time of payment, the balances of monetary assets and liabilities in currencies other than the functional currency are measured at the exchange rate prevailing at such date and the exchange differences arising from such measurement are recognized as "Net financial results" in the consolidated statement of comprehensive income for the fiscal year in which they arise.

Assets, liabilities and results of subsidiaries, associates and joint ventures are shown in their respective functional currencies. The effects of the conversion into U.S. dollars of the financial information of those companies whose functional currency is other than the U.S. dollar are recorded as "Other comprehensive income" in the Consolidated Statement of Comprehensive Income.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Presentation currency

According to CNV Resolution No. 562, the Company must present its financial statements in pesos. Therefore, the financial statements prepared in the Company's functional currency are translated into the presentation currency, as per the following procedures:

- Assets and liabilities of each of the balance sheets presented are translated using the exchange rate on the balance sheet closing date;
- Items of the consolidated statement of comprehensive income are translated using the exchange rate at the time the transactions were generated (or, for practical reasons, and provided the exchange rate has not changed significantly, using each month's average exchange rate);
- All translation differences resulting from the foregoing are recognized under "Other Comprehensive Income" in the statement of comprehensive income.

Effects of the translation of investments in subsidiaries, associates and joint ventures with functional currency corresponding to a hyperinflationary economy

Under IAS 21, the financial statements of a subsidiary with the functional currency of a hyperinflationary economy have to be restated according to IAS 29 before they are included in the consolidated financial statements of its parent company with a functional currency of a non-hyperinflationary economy, except for their comparative figures.

Following the aforementioned guidelines, the results and financial position of subsidiaries with the Peso as functional currency were translated into U.S. dollars by the following procedures: all amounts (i.e., assets, liabilities, stockholders' equity items, expenditures and revenues) were translated at the exchange rate effective at the closing date of the financial statements, except for comparative amounts, which were presented as current amounts in the financial statements of the previous fiscal year (i.e., these amounts were not be adjusted to reflect subsequent variations in price levels or exchange rates). Thus, the effect of the restatement of comparative amounts was recognized in other comprehensive income.

These criteria were also implemented by the Group for its investments in associates and joint ventures.

When an economy ceases to be hyperinflationary and an entity ceases to restate its financial statements in accordance with IAS 29, it will use the amounts restated according to the price level of the date on which the entity ceased to make such restatement as historical costs, in order to translate them into the presentation currency.

Tax effect on Other Comprehensive Income

Results included in Other Comprehensive Income in connection with translation differences and result from net monetary position generated by investments in subsidiaries, associates and joint ventures whose functional currency is other than U.S. dollar as well as conversion differences arising from the translation of YPF's financial statements into its presentation currency (Pesos), have no effect on the income tax or in the deferred tax since at the time they were generated, the relevant transactions did not make any impact on net accounting result nor in taxable result.

2.b.2) Financial Assets

Classification

In accordance with IFRS 9 "Financial instruments", the Group classifies its financial assets into two categories:

- Financial assets at amortized cost

Financial assets are measured at amortized cost if both of the following criteria are met: (i) the objective of the Group's business model is to hold the assets to collect the contractual cash flow, and (ii) the contractual terms only require specific dates for payments of principal and interest.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

In addition, and for assets that meet the aforementioned conditions, IFRS 9 contemplates the option of designating, at the time of the initial recognition, an asset as measured at its fair value, if doing so would eliminate or significantly reduce the valuation or recognition inconsistency that could arise in the event that the valuation of the assets and liabilities or the recognition of profit or losses resulting therefrom be carried out on different bases. The Group has not designated a financial asset at fair value by using this option.

As of the closing date of these consolidated financial statements, the Group's financial assets at amortized cost include certain elements of cash and cash equivalents, trade receivables and other receivables.

- Financial assets at fair value through profit or loss

If either of the two criteria above are not met, the financial asset is classified as an asset measured "at fair value through profit or loss".

As of the closing date of these consolidated financial statements, the Group's financial assets at fair value through profit or loss include mutual funds and public securities.

Recognition and measurement

Purchases and sales of financial assets are recognized on the date on which the Group commits to purchase or sell the assets. Financial assets are recognized when the rights to receive cash flows from the investments and the risks and rewards of ownership have expired or have been transferred.

Financial assets at amortized cost are initially recognized at fair value plus transaction costs. These assets accrue interest based on the effective interest rate method.

Financial assets at their fair value through profit or loss are initially recognized at fair value and transaction costs are recognized as an expense in the statement of comprehensive income. They are subsequently valued at fair value. Changes in fair values and results from sales of financial assets at fair value through profit or loss are recorded in "Net financial results" in the statement of comprehensive income.

In general, the Group uses the transaction price to ascertain the fair value of a financial instrument on initial recognition. In other cases, the Group records a profit or loss on initial recognition only if the fair value of the financial instrument can be supported by other comparable and observable market transactions for the same type of instrument or if it is based in a technical valuation that only inputs observable market information. Unrecognized profits or losses on initial recognition of a financial asset are recognized later on, only to the extent they arise from a change in the factors (including time) that market participants would consider upon setting the price.

Profit or loss on debt instruments measured at amortized cost and not included for hedging purposes are charged to income when the financial assets are derecognized or an impairment loss is recognized and during the amortization process using the effective interest rate method. The Group reclassifies all investments on debt instruments only when its business model for managing those assets changes.

Impairment of financial assets

The Group assesses the impairment of its financial assets according to the expected credit losses model. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade receivables, the Group applies the simplified approach allowed by IFRS 9, which requires expected lifetime losses to be recognized from initial recognition of the receivables. See Note 2.b.18.

Offsetting financial instruments

Financial assets and liabilities are offset when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.3) Inventories

Inventories are valued at the lower value between their cost and their net realizable value. Cost includes acquisition costs (less trade discount, rebates and other similar items), transformation and other costs, which have been incurred when bringing the inventory to its present location and condition. The net realizable value is the estimated selling price in the ordinary course of business less selling expenses.

In the case of refined products, costs are allocated in proportion to the selling price of the related products (isomargen method) due to the difficulty for distributing the production costs to each product. Raw materials, packaging and other inventory are valued at their acquisition cost.

The Group assesses the net realizable value of the inventories at the end of each fiscal year and recognizes in profit or loss in the consolidated statement of comprehensive income the appropriate valuation adjustment if the inventories exceed their net realizable value. When the circumstances that previously caused impairment no longer exist or when there is clear evidence of an increase in the inventories' net realizable value because of changes in economic circumstances, the amount of a write-down is reversed.

2.b.4) Intangible assets

The Group initially recognizes intangible assets at their acquisition or development cost. This cost is amortized on a straight-line basis over the useful lives of these assets. At the end of each year, such assets are measured at their acquisition or development cost, considering the criteria adopted by the Group in the transition to IFRS, less its respective accumulated amortization and, if applicable, impairment losses.

The main intangible assets of the Group are as follows:

i. Service concessions arrangements

Includes transportation and storage concessions. These assets are valued at their acquisition cost, considering the criteria adopted by the Group in the transition to IFRS, net of accumulated amortization. They are depreciated using the straight-line method during the course of the concession period.

The Argentine Hydrocarbons Law allows the PEN to award 35-year concessions for the transportation of oil, gas and petroleum products following submission of competitive bids. The term of a transportation concession may be extended for an additional ten-year term. Pursuant to Law No. 26,197, provincial governments have the same powers. Holders of production concessions are entitled to receive a transportation concession for the oil, gas and petroleum products that they produce. The holder of a transportation concession has the right to:

- Transport oil, gas and petroleum products;
- Build and operate pipelines for oil, gas and their derivatives, storage facilities, pump stations, compressor plants, roads, railways and other facilities and equipment necessary for the efficient operation of a pipeline system.

In addition, a transportation concession holder is under an obligation to transport hydrocarbons to third parties, without discrimination, in exchange for a tariff. This obligation, however, is applicable to oil or gas producers only to the extent the concession holder has available additional capacity, and is expressly subject to the transportation requirements of the concession holder. Transportation tariffs are subject to approval by the SE for oil and petroleum derivatives pipelines, and by ENARGAS, for gas pipelines. Upon expiration of a transportation concession, oil pipelines and related facilities revert to the Argentine Government, without any payment to the concession holder.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

In connection with the foregoing, the Privatization Law granted the Company 35-year transportation concessions for the transportation facilities operated by Yacimientos Petrolíferos Fiscales S.E. as of such date. The main pipelines related to said transportation concessions are the following:

- La Plata / Dock Sud
- Puerto Rosales / La Plata
- Monte Cristo / San Lorenzo
- Puesto Hernández / Luján de Cuyo
- Luján de Cuyo / Villa Mercedes

Thus, assets meeting certain requirements set forth by the IFRIC 12, which the Company Management's judgment are met in the facilities mentioned in the preceding paragraphs, are recognized as intangible assets.

ii. Exploration rights

The Group classifies exploration rights as intangible assets, which are valued at their cost, considering the deemed cost criteria adopted by the Group in the transition to IFRS, net of the related impairment, if applicable.

Investments related to unproved oil reserves or fields under evaluation are not depreciated. These investments are reviewed for impairment at least once a year, or whenever there are indicators that the assets may have become impaired. Any impairment loss or reversal is recognized in the consolidated statement of comprehensive income. Exploration costs (geological and geophysical expenditures, expenditures associated with the maintenance of unproved reserves and other expenditures relating to exploration activities), excluding exploratory well drilling costs, are charged to expense in the consolidated statement of comprehensive income as incurred.

iii. Other intangible assets

This section mainly includes costs relating to computer software development expenditures, as well as assets that represent the rights to use technology and knowledge ("know how") for the manufacture and commercial exploitation of equipment related to oil extraction. These items are valued at their acquisition cost, considering the deemed cost criteria adopted by the Group in the transition to IFRS, net of the related depreciation and impairment, if applicable.

These assets are amortized on a straight-line basis over their useful lives, which range between 3 and 14 years. The Group reviews annually the mentioned estimated useful life.

The Group has no intangible assets with indefinite useful lives as of December 31, 2019, 2018 and 2017.

2.b.5) Investments in associates and joint ventures

Investments in associates and joint ventures are valued using the equity method.

According to this method, the investment is initially recognized at cost under "Investments in associates and joint ventures" in the statement of financial position, and the book value increases or decreases to recognize the investor's interest in the income of the associate or joint venture after the acquisition date, which is reflected in the statement of comprehensive income under "Income from equity interests in associates and joint ventures". The investment includes, if applicable, the goodwill identified in the acquisition.

Associates are considered those in respect of which the Group has significant influence, understood as the power to participate in the financial and operating policy decisions of the investee but does not have control or joint control over those policies. Significant influence is presumed in companies in which a company has an interest of 20% or more and less than 50%.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Joint arrangements are contractual agreements through which the Group and the other party or parties have joint control. Under the provisions of IFRS 11, “Joint arrangements”, and IAS 28, “Investments in Associates and Joint Ventures”, investments in which two or more parties have joint control (defined as a “joint arrangement”) will be classified as either a joint operation (when the parties that have joint control have rights to the assets and obligations for the liabilities relating to the joint arrangement) or a joint venture (when the parties that have joint control have rights to the net assets of the joint arrangement). Considering such classification, joint operations will be proportionally consolidated and joint ventures will be accounted for under the equity method.

Associates and joint ventures have been valued based upon the latest available financial statements of these companies as of the end of each year, taking into consideration, if applicable, significant subsequent events and transactions, available management information and transactions between the Group and the related company, which have produced changes on the latter’s shareholders’ equity. The dates of the financial statements of such related companies used in the consolidation process may differ from the date of the Company’s financial statements due to administrative reasons. The accounting principles and procedures used by associates and joint ventures have been homogenized, where appropriate, with those used by the Group in order to present the consolidated financial statements based on uniform accounting and presentation policies. The financial statements of associates and joint ventures whose functional currency is the currency of a hyperinflationary economy and/or different from the presentation currency are translated using the procedure set out in Note 2.b.1.

Investments in companies in which the Group has no significant influence or joint control, are valued at cost.

Investments in companies with negative shareholders’ equity are disclosed in the “Other Liabilities” account.

On each closing date or upon the existence of signs of impairment, it is determined whether there is any objective evidence of impairment in the value of the investment in associates and joint ventures. If this is the case, the Group calculates the amount of the impairment as the difference between the recoverable value of associates and joint ventures and their book value, and recognizes the difference under “Income from equity interests in associates and joint ventures” in the statement of comprehensive income. The recorded value of investments in associates and joint ventures does not exceed their recoverable value.

Note 10 details the investments in associates and joint ventures.

2.b.6) Property, plant and equipment

General criteria

Property, plant and equipment are valued at their acquisition cost, plus all the costs directly related to the location of such assets for their intended use, considering the deemed cost criteria adopted by the Group in the transition to IFRS.

Borrowing costs of assets that require a substantial period of time to be ready for their intended use are capitalized as part of the cost of these assets until they are ready for their intended use or sale.

Major inspections, necessary to restore the service capacity of the related asset are capitalized and depreciated on a straight-line basis over the period until the next overhaul is scheduled.

The costs of renewals, betterments and enhancements that extend the useful life of properties and/or improve their service capacity are capitalized. As property, plant and equipment are retired, the related cost and accumulated depreciation are derecognized.

Repair, conservation and ordinary maintenance expenses are recognized in the statement of comprehensive income as incurred.

These assets are reviewed for impairment at least once a year, or whenever there are indicators that the assets may have become impaired, as detailed in Note 2.b.8.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Depreciation

Property, plant and equipment, other than those related to oil and gas production activities, are depreciated using the straight-line method, over the years of estimated useful life of the assets, as follows:

	Years of Estimated Useful Life
Buildings and other constructions	50
Refinery equipment and petrochemical plants	20-25
Infrastructure for natural gas distribution	20-50
Transportation equipment	5-25
Furniture, fixtures and installations	10
Selling equipment	10
Other property	10

Land is classified separately from the buildings or facilities that may be located on it and is deemed to have an indefinite useful life. Therefore, it is not depreciated.

The Group reviews annually the estimated useful life of each class of assets.

Oil and gas production activities

The Group recognizes oil and gas exploration and production transactions using the “successful-efforts” method. The costs incurred in the acquisition of new interests in areas with proved and unproved reserves are capitalized as incurred under Mining properties, wells and related equipment. Costs related to exploration permits are classified as intangible assets.

Exploration costs, excluding the costs associated with exploratory wells, are charged to expense as incurred. Costs of drilling exploratory wells, including stratigraphic test wells, are capitalized pending determination as to whether the wells have found proved reserves that justify commercial development. If such reserves are not found, the mentioned costs are charged to expense. Occasionally, an exploratory well may be determined to have found oil and gas reserves, but classification of those reserves as proved cannot be made. In those cases, the cost of drilling the exploratory well will continue to be capitalized if the well has found a sufficient quantity of reserves to justify its completion as a producing well, and the Group is making sufficient progress assessing the reserves as well as the economic and operating viability of the project. If any of the mentioned conditions are not met, the cost of drilling exploratory wells is charged to expense. In addition, the exploratory activity involves, in many cases, the drilling of multiple wells throughout several years in order to completely evaluate a project. As a consequence, some exploratory wells may be kept in evaluation for long periods, pending the completion of additional wells and exploratory activities needed to evaluate and quantify the reserves related to each project. The detail of the exploratory well costs in evaluation stage is described in Note 8.

Drilling costs applicable to productive wells and to developmental dry holes, as well as tangible equipment costs related to the development of oil and gas reserves, have been capitalized.

The capitalized costs described above are depreciated as follows:

- a) The capitalized costs related to productive activities have been depreciated by field on a unit-of-production basis by applying the ratio of produced oil and gas to estimate proved developed oil, and gas reserves estimated to recover.
- b) The capitalized costs related to the acquisition of property and the extension of concessions with proved reserves have been depreciated by field on a unit-of-production basis by applying the ratio of produced oil and gas to the proved oil and gas reserves.

Revisions in estimates of crude oil and gas proved reserves are considered prospectively in the calculation of depreciation. Revisions in estimates of reserves are performed at least once a year. Additionally, estimates of reserves are audited by external independent petroleum and gas engineers on a three-year rotation plan.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Costs related to hydrocarbon well abandonment obligations

Costs related to hydrocarbon well abandonment obligations are capitalized at their discounted value along with the related assets, and are depreciated using the unit-of-production method. As compensation, a liability is recognized for this concept at the estimated value of the discounted payable amounts. Revisions of the payable amounts are performed upon the current costs incurred in abandonment obligations considering internal and external available information. Due to the number of wells in operation and/or not abandoned and as well as the complexity with respect to different geographic areas where the wells are located, current costs incurred in plugging activities, weighted by the complexity level of the wells, are used for estimating the plugging activities costs of the wells pending abandonment. Current costs incurred are the best source of information in order to make the best estimate of asset retirement obligations. Future changes in the costs mentioned above, the discount rate, the useful lifespan of the wells and their estimate of abandonment, as well as changes in regulations related to abandonment, which are not possible to be predicted at the date of issuance of these consolidated financial statements, could affect the value of the abandonment obligations and, consequently, the related asset, affecting the results of future operations. Such changes are recognized pursuant to IFRIC 1, which indicates that changes in liabilities will be added to or deducted from the asset cost corresponding to the current period, taking into account that if the decrease in liabilities exceeds the carrying amount of assets, the excess will be immediately recognized in the results of the fiscal year.

Environmental property, plant and equipment

The Group capitalizes the costs incurred in limiting, neutralizing or preventing environmental pollution only in those cases where at least one of the following conditions is met: (a) the expenditure improves the safety or efficiency of an operating plant (or other productive assets); (b) the expenditure prevents or limits environmental pollution at operating facilities; or (c) the expenditure is incurred to prepare assets for sale and does not raise the assets' carrying value above their estimated recoverable value.

The environmental related property, plant and equipment and the corresponding accumulated depreciation are disclosed in the consolidated financial statements together with the other elements that are part of the corresponding property, plant and equipment which are classified according to their accounting nature.

2.b.7) Provisions and contingent liabilities

The Group makes a distinction between:

i. Provisions

Represent legal or assumed obligations arising from past events, the settlement of which is expected to give rise to an outflow of resources and whose amount and timing are uncertain. Provisions are recognized when the liability or obligation-giving rise to an indemnity or payment arises, to the extent that its amount can be reliably estimated and that the obligation to settle is probable or certain. Provisions include both obligations whose occurrence does not depend on future events (such as provisions for environmental liabilities and provision for hydrocarbon wells abandonment obligations); as well as obligations that are probable and can be reasonably estimated whose realization depends on the occurrence of future events that are out of the control of the Group (such as provisions for contingencies). The amount recorded as provision corresponds to the best estimate of expenditures required to settle the obligation, taking into consideration the relevant risks and uncertainties. See Note 15.

ii. Contingent liabilities

Represent possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group, or present obligations arising from past events, the amount of which cannot be estimated reliably or whose settlement is not likely to give rise to an outflow of resources embodying future economic benefits. Contingent liabilities are not recognized in the consolidated financial statements, but rather are disclosed to the extent they are significant, as required by IAS 37, "Provisions, contingent liabilities and contingent assets". See Note 32.

When a contract qualifies as onerous, the related unavoidable liabilities are recognized in the consolidated financial statements as provisions, net of the expected benefits.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Except for provisions for hydrocarbon wells abandonment obligations, where the timing of settlement is estimated on the basis of the work plan of the Group, and considering the estimated production of each field (and therefore its abandonment), in relation to other noncurrent provisions, it is not possible to reasonably estimate a specific schedule of settlement of the provisions considering the characteristics of the concepts included.

In relation to certain provisions and contingent liabilities, the Group, in accordance with the established exemption contemplated in IAS 37, has decided not to set forth certain critical information that could seriously impair it in the claims made by third parties.

2.b.8) Impairment of property, plant and equipment and intangible assets

To evaluate the impairment of property, plant and equipment and intangible assets, the Group compares their carrying value with their recoverable amount at the end of each year, or more frequently, if there are indicators that the carrying value of an asset may not be recoverable.

In order to assess impairment, assets are grouped into CGU, whereas the assets do not generate cash flows that are independent of those generated by other assets or CGU, considering regulatory, economic, operational and commercial conditions.

The main CGUs into which assets have been grouped are indicated below:

i. Upstream Segment

The assets included in this segment have been grouped into CGU Oil, which groups the assets of YPF fields with crude oil reserves, and CGU Gas — Neuquina Basin; CGU Gas — Noroeste Basin and CGU Gas — Austral Basin which group the assets of fields with natural gas reserves, according to Argentina's basins.

ii. Gas and Power Segment

The assets of this segment have been grouped into CGU Gas and Power YPF, which mainly includes the commercialization and regasification of natural gas; and CGU Metrogas, which includes assets related to natural gas distribution activities.

Likewise, until March 31, 2018, there was the CGU YPF EE, which included the assets related to the generation and commercialization of electric energy. See Notes 3 and 5.

iii. Downstream Segment

The assets of this segment have been grouped in the CGU Downstream YPF, which mainly comprises the assets involved in crude oil refining (or supplementing that activity), the petrochemical industry and the marketing of such products.

iv. Central Administration and Others

It includes the CGU AESA, which primarily comprises the assets used for construction purposes related to the activities of the subsidiary.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

This aggregation is the best reflection of how the Group currently makes its assets management decisions for the generation of independent cash flows.

The recoverable amount is the higher of the fair value less costs of disposal and the value in use. In assessing the value in use, the estimated future cash flows are discounted to their present value using a rate that reflects the weighted average cost of capital employed for each CGU.

If the recoverable amount of a CGU is estimated to be less than its carrying amount, the carrying amount of the CGU is reduced to its recoverable amount, and an impairment loss is recognized in the consolidated statement of comprehensive income.

Any impairment loss is allocated to the assets comprising the CGU on a pro-rata basis based on their carrying amount. Consequently, the basis for future amortization will take into account the reduction in the value of the asset as a result of any accumulated impairment losses.

Upon the occurrence of new events or changes in existing circumstances, which prove that an impairment loss previously recognized could have disappeared or decreased, a new estimate of the recoverable amount of the corresponding asset is calculated to determine whether a reversal of the impairment losses recognized in previous fiscal years needs to be made. See Note 2.c.

In the event of a reversal, the carrying amount of the asset (or the CGU) is increased to the revised estimate of its recoverable amount so that the increased carrying amount does not exceed the carrying amount that would have been determined in case no impairment loss had been recognized for the asset (or the CGU) in the past.

2.b.9) Methodology used in the estimation of recoverable amounts

The methodology used to estimate the recoverable amount of property, plant and equipment and intangible assets consists of using the higher of: i) the calculation of the value in use, based on expected future cash flows from the use of such assets, discounted at a rate that reflects the weighted average cost of capital, and, if available, ii) the price that would be received in a regular transaction between market participants to sell the asset as of the date of these consolidated financial statements, less the disposal costs of such assets.

In the assessment of the value in use, cash flow forecasts based on the best estimate of income and expense available for each CGU using sector inputs, past results and future expectations of business evolution and market development are utilized. The most sensitive aspects included in the cash flows used in all the CGU are the purchase and sale prices of hydrocarbons (including applicable gas distribution fees), outstanding regulations, estimates of cost increases, personnel costs and investments.

The cash flows from Upstream assets are generally projected for a period that covers the economically productive useful lives of the oil and gas fields and is limited by the contractual expiration of the concession permits, agreements or exploitation contracts. The estimated cash flows are based on production levels, commodity prices and estimates of the future investments that will be necessary in relation to undeveloped oil and gas reserves, production costs, field decline rates, market supply and demand, contractual conditions and other factors. The unproved reserves are weighted with risk factors, based on the type of each one of the Upstream assets.

Downstream and Gas and Power cash flows are estimated on the basis of projected sales trends, contribution margins by unit, fixed costs and investment flows, in line with the expectations regarding the specific strategic plans of each business. However, cash inflows and outflows relating to planned restructurings or productivity enhancements are not considered. The projections' evaluation horizon is 10 years, considering annual rent for the last period, based on the long useful life of these CGU assets.

The reference prices considered are based on a combination of projected prices available in those markets where the Group operates, also taking into consideration specific circumstances that could affect different products the Group commercializes and management's estimations and judgments.

2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.10) Employee benefit plans and share-based payments

i. Retirement plan

Effective March 1, 1995, the Group has established a defined contribution retirement plan that provides benefits for each employee who elects to join the plan. Each plan member will pay an amount between 3% and 10% of his monthly compensation, and the Group will pay an amount equal to that contributed by each member.

The plan members will receive from the Group the contributed funds before retirement only in the case of voluntary termination under certain circumstances or dismissal without cause and, additionally, in case of death or incapacity. The Group has the right to discontinue this plan at any time, without incurring termination costs.

ii. Objective performance bonus programs and performance evaluation programs

These programs cover certain of the Group's personnel. These bonuses are based on compliance with corporate objectives, business unit objectives and individual performance. They are calculated considering the annual compensation of each employee, certain key factors related to the fulfillment of these objectives and the performance evaluation of each employee, and are paid in cash.

iii. Share-based benefit plan

From the fiscal year 2013, YPF has decided to implement a share-based benefit plan. This plan, organized in annual programs, covers certain executive and management positions and key personnel or personnel with critical technical knowledge. The above-mentioned plan is aimed at aligning the performance of these personnel with the objectives of the strategic plan of the Company.

This plan consists in giving participation, through shares of the Company, to each selected employee with the condition of remaining in it for the previously defined period (up to three years from the grant date, hereinafter "service period"), being this the only necessary condition to access the agreed final retribution.

For accounting purposes, YPF recognizes the effects of the plans in accordance with the guidelines of IFRS 2, "Share-based Payment". In this order, the total cost of the plans granted is measured at the grant date, using the fair value or market price of the Company's share in the United States market. The above-mentioned cost is accrued in the Company's net income for the year, over the vesting period, with the corresponding increase in Shareholders' equity in the "Share-based Benefit Plans" account.

2.b.11) Revenue recognition

Revenue from ordinary activities arising from contracts entered into with customers

In compliance with IFRS 15, the Group has classified the main contracts with customers, as follows:

- Contracts for the sale of fuel in consignment;
- Contracts for the direct sale of fuel;
- Contracts for the sale of natural gas;
- Contracts and agreements for the sale of other refined products;
- Construction contracts.

In the first four types of contracts, related to the sale of goods, income is recognized when the control of the goods is transferred to the customer. Even in the case of consignment contracts, revenue is not recognized until the good is sold to the intermediary's customer. It is emphasized that in these contracts there are no performance obligations that are separate or different from the delivery of goods.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

In the case of the construction contracts, revenue is recognized considering the estimated final margin for each project that arises from technical studies on sales and the estimated total costs of each of them, as well as their physical progress. In this type of contracts, performance obligations are satisfied over time.

As IFRS 15 became effective, the Group has adopted the full retrospective approach for the implementation of this standard, which had not affected the accounting policies related to the recognition of revenues from contracts with customers for the fiscal year 2017.

The Group has adopted the standard's terminology, identifying "Contract Assets" and "Contract Liabilities". Thus, certain reclassifications have been made in the comparative amounts of the statements of financial position for the fiscal year ended December 31, 2017, as shown below:

	Amounts as of December 31,		Reclassifications IFRS 15		Amounts restated as of	
	2017				December 31, 2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Assets						
Inventories	—	27,291	—	(142)	—	27,149
Contract Assets	—	—	—	142	—	142
Liabilities						
Accounts Payable	1,655	47,371	(1,470)	(1,460)	185	45,911
Contract Liabilities	—	—	1,470	1,460	1,470	1,460

In accordance with the requirements of IFRS 15, Note 23 has been broken down by (i) type of good or service; (ii) sales channels, and (iii) target market, according to the reported business segments.

Revenue recognition related to Government incentive programs

The following are the main revenues that fall within the scope of the IAS 20 "Accounting for Government grants and disclosure of government assistance":

- Benefits from Stimulus Programs for the Additional Injection of Natural Gas and Stimulus Program for Investments in the Natural Gas Production Development from Unconventional Reservoirs.
They consist of economic compensation for the companies committed to increase their respective production. These incentives have been included in "Revenues" in the consolidated statement of comprehensive income.
- Compensation for providing diesel to public transport of passengers at a differential price.
They consist of economic compensations to hydrocarbon producing and refining companies committed to ensuring the supply of diesel in the necessary volumes to meet domestic needs. These incentives have been included in "Revenues" in the consolidated statement of comprehensive income.
- Benefits for the recognition of the financial cost generated by payment deferral by providers of the distribution service of natural and undiluted propane gas through networks.
They consist of financial compensations to distributors, sub-distributors, transporters and producers by recognizing the interest generated by the payment deferral granted to residential users of natural gas and undiluted propane gas through networks of 22% of the invoices issued from July 1, 2019 to October 31, 2019, which will be recovered from regular invoices issued from December 1, 2019 and for 5 monthly, equal and consecutive periods. These incentives have been included under "Net Financial Results" in the statement of comprehensive income.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

- Procedure to compensate for the lower income that Natural Gas Piping Distribution Service Licensed Companies receive from their users
Compensations received as a result of the application of benefits and/or discounts to users under the regulations in force regarding social tariffs of the natural gas distribution service through networks.
- Payment of the daily differences accumulated on a monthly basis between the price of gas purchased by Distributors and the natural gas price included in the tariff schemes effective from April 1, 2018 to March 31, 2019
Argentine Government assumed the payment of the differences exclusively arising from exchange rate variations and corresponding to natural gas volumes delivered in such term. These incentives recognized by Metrogas have been included as reversals in "Costs" in the consolidated statement of comprehensive income.
- Incentive for investment in capital goods, computers and telecommunications for domestic manufacturers
It takes place through a fiscal bond, provided that manufacturers have industrial establishments located in Argentina, a requirement that is satisfied by the controlled company AESA. The bond received may be computed as a tax credit for the payment of national taxes (i.e., income tax, tax on minimum presumed income, VAT and domestic taxes) and may be transferred to third parties only one time. The incentives have been included in the item "Other net operating results" in the consolidated statement of comprehensive income.

Recognition of these incomes are made at their fair value when there is a reasonable certainty that incentives will be received and that regulatory requirements related therewith have been fulfilled.

2.b.12) Leases

As of fiscal year 2019 and in accordance with IFRS 16, the Group registers its leases in accordance with the following detail:

The Group as lessee

Once the lease has been identified, the Group recognizes the following items:

- Right-of-use assets, whose cost includes:
 - (a) the amount of the initial measurement of the lease liability;
 - (b) any rent paid to the lessor prior to the commencement date or on the same date, after discounting any incentive received for the lease;
 - (c) the initial direct costs incurred by the lessee; and
 - (d) an estimate of the costs to be incurred by the lessee in dismantling and eliminating the underlying asset, restoring the place where the underlying asset is located or restoring the underlying asset to the condition required by the terms and conditions of the lease, unless such costs are incurred at the time of making of the inventories. The Group could incur in certain liabilities because of such costs either on the date of commencement of the term of the lease, or because of having used the underlying asset during a specified period.

Subsequently, the valuation of right-of-use of assets will be based on the cost model under IAS 16 "Property, Plant and Equipment" (recognizing therefore the depreciation in a straight-line during the extension of the lease, unless another systematic basis is more representative). Depreciation is estimated by the straight-line method based on the term of each lease contract, except where the useful life of the underlying asset is shorter.

2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

In order to assess the impairment of right-of-use assets, the Group compares their carrying value with their recoverable amount at fiscal year end, or more frequently, if there are indicators that the amount of any given asset could have suffered an impairment, grouping assets into CGU and applying the guidelines under IAS 36, which are described in Notes 2.b.8 and 2.b.9 to the annual consolidated financial statements.

Lease contracts in which the Group is the lessee mainly correspond to the lease of:

- Exploitation equipment and facilities, which include equipment for installations and production equipment in reservoirs, such as drilling equipment, work-over and lifting pumps. The average term of these contracts is from three to five years, establishing minimum guaranteed payments based on the availability of these assets, and also variable payments estimated based on a rate per unit of use (Pesos per hour/day of use).
- Machinery and equipment, which include:
 - i. equipment for natural gas compression and generation of energy. The average term of these contracts is six years, featuring minimum payments based on the available power. Variable payments are calculated on the basis of a rate per generation unit;
 - ii. regasification and gas liquefaction equipment. The average term of these contracts is from eight to ten years, establishing a minimum guaranteed payment on the basis of the availability of these assets.
- Transportation equipment, including:
 - i. vessels and crafts for hydrocarbon transportation, whose average contract term is five years, establishing monthly guaranteed payments associated to the Group's availability over such assets;
 - ii. truck fleets with average contract terms of three years, for which variable payments are estimated based on a rate per unit of use (Pesos per kilometer travelled), featuring in some cases minimum payments associated to the availability of such assets.
- Gas station lands and facilities, whose contracts include the lease of land and associated installations with average contract terms of 20 years and for which payments are determined based on a given quantity of fuel.
- Land and buildings which include mainly:
 - i. An underground reservoir and the land necessary to mount the surface installations necessary for the underground storage of natural gas, whose contract lasts for four years, for which there are minimum guaranteed quotas;
 - ii. permits for the use of ports and land, for which there are minimum guaranteed quotas.

With regard to short-term leases and leases of low-value underlying assets, the Group continues recognizing them as expense for the fiscal year, in accordance with the option specified in the standard, except those that are capitalized. The Group did not identify any low-value leases other than those whose underlying asset corresponds to printers, cell phones, computers, photocopiers, among others, which are not material. Variable payments of leases related to the return/use of the underlying asset are subject to the same accounting treatment. The total charges recorded in comprehensive income for the fiscal year and total capitalizations for short-term leases and variable lease payments related to the underlying asset return and/or use, amounts to 13,886.

Payments of short-term leases, low-value leases and the variable charge related to the return/use of the underlying assets are classified in the statement of cash flows in operating activities, except for those which are capitalized, which are classified as cash used in investing activities. Additionally, cash payments of principal and interest are disclosed as payments in cash flows used in financing activities.

2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

- Lease liabilities measured as the discounted aggregate amount of future lease payments. Considering the complexity of determining the implicit interest rate in the lease, the lessee's incremental borrowing rate to the lease liabilities of the initial date of each contract is applied.

Lease liabilities include:

- (a) fixed payments (including in substance fixed payments), less any lease incentive receivable;
- (b) variable payments, which depend on an index or a rate, initially measured by using the index or rate on the effective date of the contract;
- (c) amounts that the lessee expects to pay as residual value guarantees;
- (d) the price for the exercise of a purchase option if the Group is reasonably certain to exercise that option; and
- (e) payment of penalties for terminating the lease, if the lease period reflects that the Group will exercise an option to terminate it (i.e., because there is a reasonable certainty thereon).

Subsequently, the Group increases the lease liability to reflect the accrued interest (and recognized in the comprehensive income statement), deducts the installments that are being paid from such liability and recalculates the book value to reflect any review, amendment to the lease or review of the so-called "in-substance" fix payments, by applying a revised discount rate, if applicable.

The Group revises the lease liability in the following cases:

- (a) when there is a change in the amount expected to be paid under a residual value guarantee;
- (b) when there is a change in future rental payments to reflect the variation of an index or an interest rate used to determine such rental payments (including, for example, a market rent review);
- (c) when there is a change in the term of duration of the lease as a result of a change in the non-cancellable period of the lease (for example, if the lessee does not exercise an option previously included in the determination of the lease period); or
- (d) when there is a change in the evaluation of the purchase option of the underlying asset.

During the fiscal years 2018 and 2017, the Group applied the guidelines of IAS 17. The leases were classified as operating or financial leases, taking into account the economic substance of the contracts.

- Operating leases

A lease was classified as an operating lease when the lessor did not transfer substantially to the lessee the entire risks and rewards incidental to ownership of the asset.

Costs related to operating leases were recognized on a straight-line basis in "Rental of real estate and equipment" and "Operation services and other service contracts" of the consolidated statement of comprehensive income for the fiscal year in which they arise.

- Financial Leases

Leases were classified as financial when the lessor transferred to the lessee substantially all the risks and benefits inherent in the leased property.

The Group had no significant financial leases as they were defined by IAS 17.

The Group as lessor

The Group does not have any significant assets leased to third parties.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.13) Net income per share

Net income per share is calculated by dividing the net income for the fiscal year attributable to YPF's shareholders by the weighted average of shares of YPF outstanding during the fiscal year net of repurchased shares as mentioned in Note 29.

Diluted net income per share is calculated by dividing the net income for the fiscal year by the weighted average of shares outstanding, and when dilutive, adjusted for the effect of all potentially dilutive shares, including share options, on an as if they had been converted.

In computing diluted net income per share, income available to ordinary shareholders, used in the basic earnings per share calculation, is adjusted by those results that would result of the potential conversion into ordinary stock. The weighted average number of ordinary shares outstanding is adjusted to include the number of additional ordinary shares that would have been outstanding if the dilutive potential ordinary shares had been issued. Diluted net income per share is based on the most advantageous conversion rate or exercise price over the entire term of the instrument from the standpoint of the security holder. The calculation of diluted net income per share excludes potential ordinary shares if their effect is anti-dilutive.

As of the date of the issuance of these consolidated financial statements, there are no YPF instruments outstanding that imply the existence of potential ordinary shares (taking into account the Company's intent to cancel the share-based benefit plans through their repurchase in the market), thus the basic net income per share matches the diluted net income per share. See Note 30.

2.b.14) Financial liabilities

Financial liabilities are initially recognized at their fair value, net of the transaction costs incurred. Because the Group does not have financial liabilities whose characteristics require the recognition at their fair value, according to IFRS, after their initial recognition, financial liabilities are measured at amortized cost. Any difference between the financing received (net of transaction costs) and the repayment value is recognized in the consolidated statement of comprehensive income over the life of the related debt instrument, using the effective interest rate method.

The Group eliminates a financial liability (or a part thereof) from its statement of financial position when it has been extinguished, i.e., when the obligation specified in the corresponding contract has been paid or canceled, or has expired.

The Group will account for a swap of financial instruments with substantially different conditions by eliminating the original financial liability and registering a new financial liability. Similarly, the Group will account for a substantial change in the current conditions of an existing financial liability or part of it as a cancellation of the original financial liability and the recognition of a new financial liability.

At the closing of these consolidated financial statements, the Group's financial liabilities at amortized cost include accounts payable, other liabilities, loans and lease liabilities.

2.b.15) Taxes, withholdings and royalties

Income tax and tax on minimum presumed income

The Group recognizes accounting charges for income tax by applying the deferred tax method, which considers the effect of temporary differences between the carrying amount of an asset or a liability and its tax base and the tax loss carryforwards and other tax credits, which may be used to offset future taxable income, at the statutory rate then in force, at the time of its use or reversion.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Tax expense for the fiscal year includes current and deferred income tax. Income tax is recognized in the consolidated statement of net income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

Tax expense is calculated on the basis of the tax laws enacted or substantially enacted at the date of the fiscal year end, in the countries where the Company and its subsidiaries operate and generate taxable income. The Group periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. The Group establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

According to the amendments introduced by the Argentine Tax Reform Law No. 27,430 published in the BO on December 29, 2017 (see Note 34.j), the general tax rate is reduced from 35% for fiscal year 2017 to 30% for fiscal years 2018 and 2019 and to 25% from fiscal year 2020. On December 23, 2019, Law No. 27,541 on Social Solidarity and Production Reactivation was published in the BO (see Note 34.j) which suspended the reduction in the income tax rate from 30% to 25% until fiscal years beginning on January 1, 2021, included. Accordingly, although the gradual changes of the income tax rate were not applicable to the measurement of the current tax, the main accounting impact of the new regulations occurred in the measurement of deferred assets and tax liabilities. See Note 16.

Additionally, determining of taxable profit on minimum presumed income was calculated by applying the current 1% tax rate to taxable assets as of the end of each year. This tax supplemented income tax. The tax liability coincided with the higher of the determination of tax on minimum presumed income and the Group's tax liability related to income tax, calculated applying the current income tax rate to taxable income for the year. However, if the tax on minimum presumed income exceeded income tax during one tax year, such excess could be computed as prepayment of any income tax excess over the tax on minimum presumed income that could be generated in the next ten years. It is worth mentioning that it was overruled for the years beginning on January 1, 2019, as established by Law No. 27,260.

Personal assets tax – Substitute responsible

Individuals and foreign entities, as well as their undistributed estates, regardless of whether they are domiciled or located in Argentina or abroad, are subject to personal assets tax of 0.50% of the value of any shares or ADSs issued by Argentine entities, held as of December 31, 2019. The tax is levied on the Argentine issuers of such shares or ADSs, such as YPF, which must pay this tax in substitution of the relevant shareholders, and is based on the equity value (following the equity method), or the book value of the shares derived from the latest financial statements at December 31 of each year. Pursuant to the Personal Assets Tax Law, the Group is entitled to seek reimbursement of such paid tax from the applicable shareholders, using the method the Group considers appropriate.

Royalties and withholding systems for hydrocarbon exports

A 12% (or 15%, if applicable) royalty is payable on the value at the wellhead of crude oil production and the commercialized natural gas volumes, on the wellhead value of such products, which is similar to the final sales price less transportation and storage costs.

Pursuant to the extension of the original terms of exploitation concessions, the Group has agreed to pay an extraordinary production royalty and in some cases a royalty of 10% is payable over the production of unconventional hydrocarbons.

Royalty expense and extraordinary production royalties are accounted for as a production cost.

Additionally, the Group is subject to the withholding regimes for hydrocarbon exports outlined in Note 34.d.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.16) Shareholders' equity accounts

Shareholders' equity accounts have been valued in accordance with accounting principles in effect as of the transition date. The accounting transactions that affect shareholders' equity accounts were accounted for in accordance with the decisions adopted in the Shareholders' meetings and legal standards or regulations.

Subscribed capital stock and adjustments to contributions

Consists of the shareholders' contributions represented by shares and includes the outstanding shares at face value net of treasury shares mentioned in the following paragraph "Treasury shares and adjustment to treasury shares". The subscribed capital account has remained at its historical value and the adjustment required previous Argentine GAAP (Generally Accepted Accounting Principles) to state this account in constant Pesos is disclosed in the "Adjustments to contributions" account.

The adjustment to contributions cannot be distributed in cash or in kind, but is allowed its capitalization by issuing shares. In addition, this item may be used to compensate for accumulated losses.

Treasury shares and adjustments to treasury shares

Corresponds to the reclassification of the nominal value and the corresponding adjustment for inflation (Adjustment to Contributions) of shares issued and repurchased by YPF in market transactions, as is required by the CNV regulations in force.

Share-based benefit plans

Corresponds to the balance related to the share-based benefit plans as mentioned in Note 2.b.10.iii.

Acquisition cost of treasury shares

Corresponds to the cost incurred in the acquisition of the shares that YPF holds as treasury shares. Additionally, see Note 29. Considering CNV regulations RG 562, the balance of this account restricts the distribution of retained earnings.

Share trading premium

Corresponds to the difference between accrued amount in relation to the share-based benefit plans and acquisition cost of the shares settled during the fiscal year in relation with the mentioned plans.

Considering the debit balance of the premium, distribution of retained earnings is restricted by the balance of this premium.

Issuance premiums

Corresponds to the difference between the amount of subscription of the capital increase and the corresponding face value of the shares issued.

Legal reserve

In accordance with the provisions of LGS, YPF has to appropriate to the legal reserve no less than 5% of the algebraic sum of net income, prior year adjustments, and transfers from other comprehensive income to retained earnings and accumulated losses from previous years, until such reserve reaches 20% of the subscribed capital plus adjustment to contributions. As of December 31, 2019, the legal reserve has been fully integrated, amounting to 2,007.

Reserve for future dividends

Corresponds to the allocation made by the YPF's Shareholders' meeting, whereby a specific amount is transferred to the reserve for future dividends.

Reserve for investments and reserve for purchase of treasury shares

Corresponds to the allocation made by the YPF's Shareholders' meeting, whereby a specific amount is being assigned to be used in future investments and in the purchase of YPF's shares to meet the obligations arising from share-based benefit plan described in Note 2.b.10.iii.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Initial IFRS adjustment reserve

Corresponds to the initial adjustment in the transition to IFRS application, which was approved by the Shareholders' meeting of April 30, 2013, in accordance with the General Resolution No. 609 of the CNV. Such reserve was disaffected for absorption of negative balance on the "Retained earnings" in the fiscal year ended December 31, 2017, according the aforementioned Resolution.

Other comprehensive income

Includes income and expenses recognized directly in equity accounts and the transfer of such items from equity accounts to the income statement of the fiscal year or to retained earnings, as defined by IFRS.

Retained earnings

Includes accumulated profits or losses without a specific appropriation that being positive can be distributed upon the decision of the Shareholders' meeting, while not subject to legal restrictions. Additionally, it includes the net income of previous years that was not distributed, the amounts transferred from other comprehensive income and adjustments to income of previous years produced by the application of accounting standards.

Additionally, pursuant to the regulations of the CNV, when the net balance of other comprehensive income account is positive, it will not be distributed or capitalized nor used to compensate accumulated losses, but will be computed as part of retained earnings in order to make comparisons to determine the situation of the Company in relation to sections 31, 32 and 206 of the LGS, or other legal or regulatory rules making reference to limits or ratios with capital and reserves, not specifically and expressly provided for under CNV Rules. When the net balance of these results at the end of a fiscal year is negative, a restriction on the distribution of retained earnings for the same amount will be imposed.

Non-controlling interest

Corresponds to the interest in the net assets of Metrogas (30%) and YTEC (49%), representing the rights on shares that are not owned by YPF.

2.b.17) Derivative financial instruments and hedge transactions

Derivative financial instruments are recognized at fair value. The method of recognizing the resulting profit or loss depends on whether the derivative is designated as a hedge instrument, and, if so, the nature of the item being hedged.

The Group manages exposures to several risks using different financial instruments. The Group does not use derivative financial instruments for speculative purposes.

The Group's policy is to apply hedge accounting to hedging relationships where it is both permissible and practical under IFRS 9, and its application reduces volatility. Transactions that may be effective hedges in economic terms may not always qualify for hedge accounting under IFRS 9.

- During the fiscal year ended December 31, 2019, the Group conducted operations with forward U.S. dollars – Swiss francs contracts and entered into term purchase transactions for U.S. dollars and has not applied hedge accounting.
- During the fiscal year ended December 31, 2018, the Group entered into term purchase transactions for U.S. dollars and has not applied hedge accounting.
- During the fiscal year ended as of December 31, 2017, the Group did not use derivative financial instruments.

Profit or losses from these derivative financial instruments are classified as "Other financial results", in the statement of comprehensive income.

Fair values of derivative financial instruments that are traded in active markets are computed by reference to market prices. The fair value of derivative financial instruments that are not traded in an active market is determined using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each fiscal year.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.18) Trade receivables and other receivables

Trade receivables are initially recognized at fair value and subsequently measured at amortized cost using the effective interest rate method.

Under IFRS 9, a provision for bad debt is created by preparing a matrix per category and grouping the assets based on the type of customer: i) related parties, ii) public sector and iii) private sector. These groups were subsequently divided into sub-groups based on special characteristics indicative of the repayment capacity, such as i) payment arrears, ii) existence of guarantees and iii) existence of a legal proceeding already initiated or in process of initiation for collection purposes, among others. Once each group was defined, an expected bad-debt rate is assigned based on historical default rates adjusted to future economic conditions.

The carrying amount of the assets is reduced through the use of the provision account, and the amount of the loss is recognized in the statement of comprehensive income within "Selling expenses", as well as subsequent recoveries.

As IFRS 9 became effective, the Group has retroactively applied the changes in the standard, without restating the comparative amounts. Therefore, the difference between the previous accounting amounts and the new initial amounts resulting from the initial application of the standard were recognized as an adjustment in the "Retained Earnings" as of January 1, 2018. The implementation of the impairment method introduced by the standard generated a loss of 425 with the consequent effect on the deferred tax of 127. The net effect shown in the statement of changes in shareholders' equity was 298, not being significant for the financial position and/or performance of the Group.

The information disclosed for 2017 reflects the requirements set forth in IAS 39, and not those of IFRS 9 in relation to impairment of financial assets. In compliance with IAS 39, in the fiscal year 2017, the impairment of a financial asset was recorded only when there was an objective evidence of the impairment of the asset, based on the difference between the book value of the asset and the current value of the estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate.

2.b.19) Cash and cash equivalents

In the statement of cash flow, cash and cash equivalents include cash in hand, deposits held at call with banks and other short-term highly liquidity investments with original maturities of three months or less. They do not include bank overdrafts.

2.b.20) Dividends distribution

Dividends payable by the Group are recognized as liabilities in the fiscal year in which they are approved.

2.b.21) Business combinations

Business combinations are accounted for by applying the acquisition method when the Group takes effective control over the acquired company.

The Group recognizes in its financial statements the identifiable assets acquired, the liabilities assumed, any non-controlling interest and goodwill, if any, in accordance with IFRS 3.

The acquisition cost is measured as the sum of the consideration transferred, measured at fair value at its acquisition date and the amount of any non-controlling interest in the acquired entity. The Group will measure the non-controlling interest in the acquired entity at fair value or at the non-controlling interest's proportionate share of the acquired entity's identifiable net assets.

If the business combination is achieved in stages, the Group will remeasure its previously held equity interest in the acquired entity at its acquisition date fair value and recognize a profit or loss in the statement of comprehensive income.

The goodwill cost is measured as the excess of the consideration transferred over the identifiable assets acquired and liabilities assumed net by the Group. If this consideration is lower than the fair value of the assets identifiable and liabilities assumed, the difference is recognized in the statement of comprehensive income.

IFRS 3 authorizes a term of 12 months from the acquisition date to complete the measurement process of a business combination. When this is not recorded at the closing of the fiscal year in which the business combination takes place, the Group reports provisional amounts.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.22) Total or partial disposal of foreign operation whose functional currency is other than the U.S. dollar

On the disposal of a foreign operation (a disposal of the Group's entire interest, or a partial disposal involving loss of control over a subsidiary), all of the translation differences accumulated in equity in respect of that operation attributable to the equity holders of the Company are reclassified to profit or loss of that fiscal year.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated translation differences is reclassified to non-controlling interest and are not recognized in profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated using the closing rate. Translation differences arising are recognized in other comprehensive income.

2.b.23) Segment Information

Operating segments are reported in a manner consistent with the internal reporting provided to the top authority decision-maker, who is the person responsible for allocating resources and assessing the performance of the operating segments. Operating segments are described in Note 5.

2.b.24) Assets held for disposal and related liabilities

An asset (or group of assets) is classified as held for disposal together with its related liabilities when the Group is expected to recover their value by means of a sale transaction (rather than through use) and where such sale is highly probable. In the event that the Group is engaged in a disposal plan, which involves the loss of control of a subsidiary, it will classify the assets and liabilities of such subsidiary as held for disposal provided that they comply with the criteria required by the IFRS 5 and its interpretations, regardless of whether the Group withholds a non-controlling interest in its former subsidiary after the transaction.

In order to apply the above classification, the asset (or group of assets) must be available for its immediate disposal or dilution in its current conditions, exclusively subject to the usual and habitual terms for the disposal or dilution of this asset (or group of assets).

For the transaction to be highly probable the appropriate level of Management or Board of Directors of the Company must be committed to a plan and an active program must have been actively initiated. In addition, the disposal of the asset (or groups of assets) must be actively negotiated at a reasonable price in relation to its or their current fair value. Moreover, the transaction must also be expected to meet the conditions for recognition as a completed disposal within one fiscal year after the classification date, with the exceptions permitted by IFRS 5, and the activities required to complete the plan should indicate that it is unlikely that significant changes are made to the plan or that it will be canceled.

Assets classified as held for disposal will be measured at the lower of their carrying amount or fair value less sale-related costs.

As of December 31, 2019, there were no assets held for disposal.

As of December 31, 2018, the Group classified certain areas as assets held for disposal. See Note 3.

As of December 31, 2017, the Group classified the investment in YPF EE as an asset held for disposal. See Note 3.

2.b.25) Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of suitable assets for which a prolonged period is required in order to place them in the conditions required for their use or sale, are capitalized as part of the cost of those assets until the assets are substantially ready for use or sale. Interests are capitalized according to the average debt rate of the Group. Foreign exchange differences for loans in foreign currency are capitalized if they are considered an adjustment to interest costs. The rest of the borrowing costs are recognized as expenses in the period in which they are incurred.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.b.26) New standards issued

As required by IAS 8 “Accounting policies, changes in accounting estimates and errors”, below is a brief summary of the standards or interpretations issued by the IASB, whose application is mandatory as of the closing date of these consolidated financial statements, as well as of those whose application has not been mandatory as of the closing date of these consolidated financial statements and have, therefore, not been adopted by the Group.

Those standards or interpretations issued by the IASB, the application of which is mandatory as of the closing date of these consolidated financial statements, have been adopted by the Group, if applicable

- **IFRS 16 – Leases**

The model introduced by this standard is based on the definition of lease, which is mainly related to the concept of control. IFRS 16 distinguishes between lease contracts and service contracts on the basis of whether an identified asset is under the customer’s control, which exists if the customer has the right to: i) obtain substantially all of the economic benefits from the use the asset; and ii) direct the use of the asset. The definition of Lease under IFRS 16 did not significantly change the scope of Group contracts, which were already considered as leases under IAS 17 and IFRIC 4.

The Group recognized right-of-use assets and lease liabilities for 23,059 on January 1, 2019 in the statement of financial position, measured at the present value of future payments. For fiscal year ended December 31, 2018, future payments were estimated for operating lease contracts in a total amount of 29,922. The difference with the recognized lease liability mainly corresponds to financial discount and to short-term contracts.

The implementation of this standard had no effect on retained earnings as the Group applied the simplified model without restating any comparative figures, recognizing a right-of-use asset equal to the lease liability on the initial transition date (January 1, 2019). There were no adjustments to be made due to the impairment arising from the provision for onerous contracts related to these right-of-use assets.

The Group applied a practical solution to the standard whereby leases expiring within the term of twelve months from the date of the initial application, regardless of the original date of the lease, and which comply with the conditions to be classified as short-term leases, were recognized as a loss in the statement of financial position, except those that are capitalized. The total charges recorded in comprehensive income for the fiscal year and of capitalization from these leases amounts to 2,533. Within the new agreed contracts, some of these leases generated right-of-use-assets and lease liabilities, as disclosed in the statement of financial position.

The discount rate that the Group applied to lease liabilities, recognized in the statement of financial position as of January 1, 2019, is the incremental borrowing rate for lessee’s loans as of such date.

No transition adjustments were made for leases in which the Group acted as lessor as it did not have significant assets leased to third parties.

The accounting policies related to the Group leases are detailed in Note 2.b.12.

- **IFRS 9 – Prepayment with negative compensation**

In October 2017, an amendment was introduced in connection with the feature of prepayment with negative compensation, whereby the lender (i.e., the holder) might be forced to accept in payment a prepayment amount that is substantially lower than the unpaid amounts of principal and interest. In these cases, the amendment proposes that financial assets with this feature should be measured at amortized cost or fair value with changes in other comprehensive income.

The adoption of this amendment has had no effect on its financial statements of the Group.

2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

- **IFRIC 23 – Uncertainty about income tax treatment**

The Interpretation issued in June 2017 clarifies how to apply the recognition and measurement requirements of IAS 12 when there is uncertainty regarding income tax treatment.

For such purpose, the entity must evaluate whether the tax authority will accept an uncertain tax treatment used, or proposed to be used, or which is intended to be used in its income tax filing.

If an entity concludes that the tax authority is likely to accept an uncertain tax treatment, the entity will determine the tax position consistent with the tax treatment used or intended to be used on its income tax filing. If an entity concludes that such acceptance is improbable, the entity will reflect the effect of the uncertainty in determining the fiscal result, the tax bases, unused tax losses, unused tax credits and tax rates. An entity will reflect the effect of the uncertainty for each uncertain tax treatment by using one of the following methods, depending on which method the entity expects to better predict the resolution of the uncertainty:

- The most probable amount – the only most probable amount in a range of possible outcomes. The most probable amount may better predict the resolution of the uncertainty if the possible outcomes are dual or are concentrated in a value.
- The expected value – the addition of the amounts weighted by their probability in a range of possible outcomes. The expected value may better predict the resolution of the uncertainty if there is a range of possible outcomes that are not dual or are concentrated in a value.

The adoption of the aforementioned interpretation has had no effect on the financial statements of the Group.

- **Amendments to IAS 28 – Long-term Investments in associates and joint ventures**

In October 2017, the IASB issued amendments to IAS 28, which are applicable to the fiscal years beginning on or after January 1, 2019, allowing early application.

The amendment defines that the long-term investments in associates and joint ventures, which are not accounted for using the equity method, will be accounted for in accordance with IFRS 9.

The adoption of the aforementioned interpretation has had no effect on its financial statements of the Group.

- **Amendments to IAS 19 – Employee benefits**

In February 2018, the IASB issued amendments to this standards' guidance, in relation to the accounting for Plans amendments, curtailments and settlements.

An entity shall determine the cost of services for the current period and the net interest for the remainder of the annual period, using actuarial assumptions determined at the beginning of the annual reporting period. However, if an entity remeasures the liability (asset) for net defined benefits, it will determine the current cost of the service and the net interest for the remainder of the annual period, using actuarial assumptions updated after the plan change.

Another modification consists in recognizing in results any reduction in the surplus, even if that surplus was not previously recognized due to the impact of the asset ceiling.

The adoption of this amendment has had no effect on its financial statements of the Group.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

- **Annual improvements to IFRS – 2015-2017 Cycle**

In December 2017, the IASB issued the 2015-2017 cycle of annual improvements that are applicable for the years beginning on or after January 1, 2019, allowing early application.

A summary of the main modified standards and their purpose follows:

<u>Standard</u>	<u>Amended Subject</u>	<u>Detail</u>
IFRS 3 “Business Combinations” and IFRS 11 “Joint arrangements”	Holdings previously held in a joint operation	The amendment to IFRS 3 establishes that when obtaining control of a business that was a joint operation, the acquirer will apply the requirements for a business combination carried out in stages, including the re-measurement of its previously held share in the joint operation at the fair value on the acquisition date. On the other hand, the amendment to IFRS 11 establishes that when obtaining joint control of a business that was a joint operation, it does not measure again its previously held shares.
IAS 12 “Income Tax”	Exposure of the effect of dividends on Income Tax	The amendment clarifies that the entity will recognize the consequences of the dividends on the income tax where it has recognized the transactions or events that gave rise to those distributable profits.
IAS 23 “Borrowing Costs”	Capitalization of generic loans	The amendment to this standard clarifies that, for the capitalization of costs from generic loans, it must necessarily consider all outstanding loans when determining the capitalization rate, except those taken specifically to finance an eligible asset that is not yet ready for its intended use or sale; i.e., if any specific loan remains unpaid after the related eligible asset is ready for its intended use or for sale, that loan becomes part of the funds that the entity took as generic loans.

The adoption of the aforementioned interpretation has had no effect on its financial statements of the Group.

Standards or interpretations issued by the IASB, the application of which is not mandatory as of the closing date of these consolidated financial statements and which, therefore, have not been adopted by the Group

- **IFRS 17 – Insurance contracts**

The IFRS 17 issued in May 2017 is applicable to those fiscal years beginning on or after January 1, 2021, allowing its early application and replacing IFRS 4.

The Group anticipates that this standard will have no effects on its financial statements because it does not provide this type of services.

- **Amendments to IFRS 10 and IAS 28 – Sale or contribution of assets between an investor and its associate or joint venture**

In September 2014, the IASB amended IFRS 10 and IAS 28 to clarify that in transactions involving a controlled company, the extent of the profit or loss to be recognized in the financial statements depends on whether the sold or contributed controlled company is considered a business in accordance with IFRS 3.

On August 10, 2015, the IASB issued a proposal to postpone the effective date of these changes indefinitely depending on the outcome of its research project on accounting by the equity method, which was approved on December 17, 2015.

2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

• Amendments to IFRS 3 – Business combinations

In October 2018, the IASB has issued Definition of a Business (Amendments to IFRS 3), aimed at resolving the difficulties that arise when an entity determines whether it has acquired a business or a group of assets. The amendments are effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after 1 January 2020. Early application is allowed.

• The amendments:

- clarify that to be considered a business, an acquired set of activities and assets must include, at least, an input and a substantive process that together significantly contribute to the ability to create outputs;
- remove the assessment of whether market participants are capable of replacing any missing inputs or processes and continuing to produce outputs;
- add guidance and illustrative examples to help entities assess whether a substantive process has been acquired;
- narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs; and
- add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business.

The Group does not estimate that the application of these amendments will have significant effects on its financial statements.

• Amendments to IAS 1 “Presentation of financial statements” and IAS 8 “Accounting policies, changes in accounting estimates and errors” – Definition of material

In October 2018, the IASB issued amendments that are applicable to fiscal years beginning on or from January 1, 2020, allowing for its anticipated application.

The amendments to the definitions of “material” or “with relative importance” seek to unify the definition of such concepts to the definitions of Conceptual Framework, also amended in 2018.

The Group estimates that the implementation of these amendments will not affect its financial statements.

• Amendments to References to the Conceptual Framework for Financial Reporting

In March 2018, the IASB issued the revised Conceptual Framework applicable to annual periods beginning on or after January 1, 2020. This revision process did not imply a substantial change in the set of definitions, concepts and guidelines used as a basis for preparing financial information, therefore, no effects on the Group’s financial statements are anticipated.

• Amendments to IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform

In September 2019, the IASB issued amendments that are applicable to fiscal years beginning on or from January 1, 2020, allowing for its early application.

Given the uncertainty caused by the “Interest Rate Benchmark reform”, which suggests replacing interbank offer rates with alternative benchmark free-risk rates, the IASB considered the effects this may have on the specific hedging accounting requirements under IFRS 9 and IAS 39 which require an analysis with a forward-looking approach.

Thus, the amendments modify these requirements by applying hedge accounting, for entities to apply them assuming that the interest rate benchmark is not modified as a result of the aforementioned interest rate reform.

The Group estimates that the implementation of these amendments will not affect its financial statements, as this type of hedging is not carried out.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

2.c) Accounting Estimates and Judgments

The items in the financial statements and areas which require the highest degree of judgment and estimates in the preparation of these financial statements are:

Crude oil and natural gas reserves

Estimating crude oil and gas reserves is an integral part of the Group's decision-making process. The volume of crude oil and gas reserves is used to calculate depreciation using the unit of production ratio and to assess the impairment of the capitalized costs related to the Upstream assets (see Notes 2.b.8, 2.b.9 and the last paragraph of this Note).

The Group prepares its estimates of crude oil and gas reserves in accordance with the rules and regulations established for the crude oil and natural gas industry by Rule 4-10 (a) of Regulation S-X of the SEC.

Provision for litigation and other contingencies

The final costs arising from litigation and other contingencies, and the perspective given to each issue by the Management of the Company may vary from their estimates due to different interpretations of laws, contracts, opinions and final assessments of the amount of the claims. Changes in the facts or circumstances related to these types of contingencies and the strategy defined in each case can have, consequently, a significant effect on the amount of the provisions for litigation and other contingencies recorded or the perspective given by the Management of the Company.

Provision for environmental costs and obligations for the abandonment of hydrocarbon wells

Given the nature of its operations, the Group is subject to various laws and regulations relating to the protection of the environment. These laws and regulations may, among other things, impose liability on companies for the cost of pollution cleanup and environmental damages resulting from operations. YPF management believes that the Group's operations are in substantial compliance with laws and regulations of Argentina and the countries where the Group operates, relating to the protection of the environment as such laws have historically been interpreted and enforced.

The Group periodically conducts new studies to increase its knowledge of the environmental situation in certain geographic areas where it operates in order to establish the status, cause and necessary remediation of a given environmental issue and, depending on its years of existence, analyze the Argentine Government's possible responsibility for any environmental liabilities existing prior to December 31, 1990. The Group cannot estimate what additional costs, if any, will be required until such studies are completed and evaluated; however, provisional remedial actions or other measures may be required.

In addition to the hydrocarbon wells abandonment legal obligation, provisions have been made for environmental liabilities whose evaluations and/or remediations are probable and can be reasonably estimated, based on the Group's existing remediation program. Legislative changes, on individual costs and/or technologies may cause a re-evaluation of the estimates. The Group cannot predict what environmental legislation or regulation will be enacted in the future or how future laws or regulations will be administered. In the long-term, these potential changes and ongoing studies could materially affect the Group's future results of operations.

The main guidelines on the provision for the obligations for the abandonment of hydrocarbon wells are set forth in detail in Note 2.b.6.

Income tax and deferred income tax

The proper assessment of income tax expenses depends on several factors, including interpretations related to tax treatment for transactions and/or events that are not expressly provided for by current tax law, options established by the law or its regulations, as well as estimates of the timing and realization of deferred income taxes. Also, the Group evaluates if the tax authority will accept an uncertain tax treatment. Additionally, the current collection and payment of income tax expenses may differ from these estimates due to, among others, changes in applicable tax regulations and/or their interpretations, as well as unanticipated future transactions affecting the Group's tax balances.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

Provision for impairment of property, plant and equipment

The methodology used in estimating the recoverable amount of property, plant and equipment is detailed in Note 2.b.8 and 2.b.9.

The determination of whether an asset is impaired, and by how much, involves management's estimates of highly uncertain matters such as the effects of inflation and deflation on operating expenses, discount rates, production profiles, reserves and future prices of the products, including the prospects of supply and demand conditions of the world or regional market for crude oil, natural gas and refined products, all of which affects the prices taken into account in the projection. Consequently, for oil and natural gas assets, the expected future cash flows are determined using management's best estimate of future oil and natural gas prices and production volumes and reserves. The foregoing implies the use of assumptions about future commodity prices, production and development costs, field decline rates, current tax regimes and other factors. These assumptions and the management judgment on which the estimates of expected cash flows are based are subject to changes as new information becomes available. Changes in economic conditions may also affect the rate used to discount future cash flow estimates.

In general, the Group does not consider temporarily low (or high) prices or margins as an impairment indicator (or reversal of an impairment charge). The impairment assessment mainly reflects long-term oil and natural gas prices that are consistent with intermediate points between the maximum and minimum ranges observed in the market and that are in the range of price forecasts published by third-party experts of the industry and government agencies, within which are the long and short term projections of the "US Energy Information Administration" and the Brent crude forward curve. The assumptions of future prices used by the Management of the Company tend to be stable because it does not consider short-term increases or decreases in prices to be indicative of long-term levels, but they are subject to change. Additionally, oil prices do not rise above the historical oil prices observed in the past, applied to projected future production volumes. Gas prices correspond to the average weighted price per basin and channel, determined according to the market's supply and demand.

With regard to the oil market, in prior periods, the applicable domestic prices of petroleum products were established for the short term mainly based on negotiations between Producers and Refiners of the country, without keeping a direct or specific reference with respect to the international quotations of such products. In 2016, due to the continued fall in international average prices for Brent crude oil, it was agreed to reduce in about 10% the domestic crude oil price per barrel with respect to effective price as of December 31, 2015. Additionally, in August 2016, a new agreement between producers, refiners and the MINEM allowed for a new gradual reduction in the domestic crude oil price per barrel in a monthly 2% in August, September and October, reaching an accumulated 6% drop by November 2016.

As detailed on Note 34.e, in January 2017, Producers and Refiners reached a new agreement in which a path of prices was established for the sale of oil in the domestic market for the purpose of achieving parity with the international markets during 2017, which took place during the last quarter of 2017.

In relation with the gas market, incentive schemes were established in recent years in order to increase the total injection of natural gas (see Note 34.g). In particular, in 2018 and 2019, an excess in the supply from the increased production on unconventional fields with respect to the domestic demand was observed at specific times of the year, an unusual situation in the past, which affected natural gas production due to the temporary shutdown of wells, as well as to the reinjection of the hydrocarbon. This situation generated a reduction in natural gas sales price in the domestic market.



2. BASIS OF PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

For the fiscal year ended December 31, 2017, the Group recognized a reversal in the charge for impairment of the value of its assets for the CGU Oil of 5,032, which arises from the combination of multiple factors, such as the variation in production and associated investments considered in the cash flow, the effect of variations in operating and abandonment costs, the variation in the discount rate and, to a lesser extent, the variation in oil prices, taking into account also the book value of the assets as of December 31, 2017 affected by depreciation charges for the fiscal year and investments made, among others.

The discount rate after taxes used as of December 31, 2017 was 8.28% for 2018 and 2019 and 8.42% for 2020 and thereafter, the recoverable value after taxes as of such date of the CGU Oil was 82,802.

For the fiscal year ended December 31, 2018, the Group recognized a reversal in the charge for impairment of the value of its assets for the CGU Oil of 39,837 and an impairment charge of property, plant and equipment, mainly for the CGU Gas – Neuquina Basin of 28,326 and CGU Gas – Austral Basin of 8,246.

The reversal of impairment charge of the CGU Oil assets is mainly due to the increase in oil reserves coupled with estimated cost improvements, all of which is mainly set off by: (i) the rise in the discount rate as a result of the higher country risk and cost of debt and (ii) larger investments associated to higher reserves contemplated in cash flow. All the foregoing taking into account the book value of assets as of December 31, 2018, affected by the depreciation charges for the fiscal year and the investments made, among others.

The impairment of the CGU Gas – Neuquina Basin and CGU Gas – Austral Basin assets arises from a combination of multiple factors, mainly from the anticipated reduction in gas market prices due to the lower sales price to distributors and power plants (see Note 34 in sections “Terms and conditions for the distribution of natural gas through networks” and “Natural gas sales for electricity generation”) and the higher discount rate due to higher country risk and cost of debt, all of which is partially set off by a reduction in costs.

The discount rate after taxes used as of December 31, 2018 was 10.94% for 2019 and 11.19% for 2020 and thereafter, the recoverable value after taxes as of such date of the CGU Oil, CGU Gas – Neuquina Basin and CGU Gas – Austral Basin are 254,549, 108,509 and 8,606, respectively.

For the fiscal year ended December 31, 2019, the Group recognized an impairment charge of property, plant and equipment, mainly for the CGU Gas – Neuquina Basin of 40,561 (30,421 net of the effect of income tax), generated among others by the fall in gas prices (and liquids) due to the situation that the market is going through both globally and, by specific dynamics, at the local level. The aforementioned affects the investments and activity, generating the impairment of the related assets by the recorded charge.

The discount rate after taxes used as of December 31, 2019 was 12.14% for 2020 and 2021 and 12.39% for 2022 and thereafter, being the recoverable value after taxes of the CGU Gas – Neuquina Basin of 139,361 as of such date.

2.d) Comparative Information

Balance items as of December 31, 2018 and 2017 presented in these financial statements for comparison purposes arise from the consolidated financial statements then ended.

Additionally, certain amounts in the statement of financial position have been reclassified and new disclosures have been made due to the accounting policy changes mentioned in Note 2.b.11.

3. ACQUISITIONS AND DISPOSITIONS

- **Assignment agreement of the Bajo del Piche, Barranca de Los Loros, El Medanito and El Santiaguense areas**

On June 11, 2018, YPF and Petróleos Sudamericanos S.A. (“PS”) entered into an agreement for the assignment of 100% of the exploitation concessions over the areas known as Bajo del Piche, Barranca de Los Loros, El Medanito and El Santiaguense, located in the provinces of Neuquén and Río Negro for an amount of US\$ 22.3 million.

On December 2, 2018, by Decree No. 1,677/2018, the Province of Río Negro approved the assignment. Also, on December 20, 2018, YPF and PS signed the documents required to execute the assignment.

On January 2, 2019, YPF and PS signed a memorandum whereby from such date PS takes possession of the facilities located in such areas, taking responsibility for the same and releasing YPF from its role as operator of those exploitation concessions.

On February 11, 2019, the Executive Branch of the Province of Río Negro published Decree No. 1,677/2018 authorizing the sale of 100% of the exploitation concession.

In consideration of the above, the Group recorded as of December 31, 2019, a profit of 1,523 included in “Other net operating results”.

- **Assignment agreement of the Al Sur de la Dorsal, Anticlinal Campamento, Dos Hermanas and Ojo de Agua areas**

On December 20, 2018, YPF and Oilstone Energía S.A. (“OESA”) have entered into an agreement for the assignment by YPF to OESA of 100% of the exploitation concessions in respect of the Al Sur del Dorsal, Anticlinal Campamento, Dos Hermanas and Ojo de Agua areas, located in the province of Neuquén. The agreement sets forth the assignment of the concession for a consideration of US\$ 12 million.

On July 24, 2019, by means of Decree No. 1,346/2019, the Province of Neuquén approved the assignment of the areas. Additionally, on July 31, 2019 YPF and Oilstone Energía S.A. subscribed the documents required to formally execute the assignment.

In consideration of the above, the Group recorded as of December 31, 2019, a loss of 558 included in “Other net operating results”.

- **Assignment agreement of Río Mayo and Sarmiento areas**

On August 2, 2019, YPF and Capetrol Argentina S.A. (“Capetrol”) entered into an assignment agreement whereby YPF assigns to Capetrol 100% of the exploitation concessions over the Río Mayo and Sarmiento areas, located in the Province of Chubut. The agreement contemplates the assignment of the concession for a consideration of US\$ 1.1 million.

On October 25, 2019, by means of Decree No. 1,185/2019, the Province of Chubut approved the assignment. Additionally, on October 28, 2019 YPF and Capetrol subscribed the documents required to formally execute the assignment.

In consideration of the above, the Group recorded as of December 31, 2019, a loss of 187 included in “Other net operating results”.

- **Acquisition of Aguada del Chañar area**

On June 25, 2019, YPF received a notice from IEASA informing YPF that it was awarded the National and International Public Tender No. ADCH 01/2019, related to the assignment by IEASA of 100% of the conventional and unconventional exploitation, and transportation concession granted on the Aguada del Chañar area, located in the Province of Neuquén, together with all its assets and facilities. YPF won said Public Tender with a US\$ 96 million bid.

On June 28, 2019, Decree No. 1,096/2019 was published in the BO of the Province of Neuquén, authorizing such assignment. On the same date, IEASA and YPF signed the final agreements and perfected the assignment.

In consideration of the above, the Group as of December 31, 2019, has recorded the exploratory mining property for 4,055 in “Intangible Assets”.



3. ACQUISITIONS AND DISPOSITIONS (Cont.)

• Acquisition of Ensenada de Barragán Thermal Power Plant

On May 29, 2019, the Company received a notice from IEASA informing that YPF and Pampa Cogeneración S.A., a company controlled by Pampa Energía S.A. (“Pampa”), were awarded of the National and International Public Tender No. CTEB 02/2019, pursuant to their joint offer, which was called by Resolution No. 160/2019 issued by the SGE (the “Tender Process”), in relation to the sale and transfer by IEASA of the goodwill of Ensenada de Barragán Thermal Power Plant (“CTEB”). The awarded companies decided to jointly acquire CTEB, through a company co-owned by them, each with a 50% share in the capital stock and votes, called CT Barragán.

CTEB is located in the petrochemical complex of Ensenada, Province of Buenos Aires, with an installed capacity of 560 MW as of today. As part of the transaction, the acquiring companies will have a term of 30 months to complete the works required for CTEB to operate on a combined cycle basis, which will increase its installed capacity to 840 MW.

Energy supply agreements with CAMMESA in respect of both the open and closed cycles have been entered into, pursuant to Resolution SE N° 220/2007. The first agreement was executed on March 26, 2009 (expiring in April 27, 2022), and the second on March 26, 2013 for a term of 10 years from the commercial operation of the combined cycle.

The joint investment for the acquisition of CTEB amounts to US\$ 282 million, which includes the final amount offered (cash) in the Tender Process, and the purchase price of certain amount of debt securities (“VRDs”) issued under the supplemental agreement to the global financial and administration trust program for the execution of energy infrastructure projects – Series 1 – ENARSA (Barragán) “*Contrato suplementario del programa global de fideicomisos financieros y de administración para la ejecución de obras de infraestructura energética -Serie 1- ENARSA (Barragán)*” (the “Trust Agreement”). The price is subject to certain adjustments provided for in the terms and conditions of the Tender Process.

The acquisition of the goodwill of CTEB also includes the assignment of the Trust Agreement to CT Barragán, as trustor under the trust. The VDR debt under the Trust Agreement (excluding the VRDs to be acquired by the CT Barragán) amounts to approximately US\$ 229 million, which is expected to be repaid with cash flows from CTEB.

On June 26, 2019 the sale and transfer by IEASA of the goodwill of CTEB to CT Barragán was formally executed. Each shareholder made a capital contribution of US\$ 100 million to CT Barragán, which also received a loan for US\$ 170 million from a bank syndicate and a new schedule of payments and conditions of the CTEB existing trust. In both cases, without recourse to shareholders, except in the event of default of certain conditions.

CT Barragán entered into an agreement with Pampa and YPF EE for the provision of administration and management services to CTEB, which will be provided alternately by Pampa and YPF EE for 4-year terms. CT Barragán also entered into an agreement with YPF EE for the provision of monitoring services of the works for CTEB’s cycle closing.

The following table shows in detail the transferred consideration and the fair values of the acquired assets and the liabilities assumed by CT Barragán as of June 26, 2019, after considering the price adjustment for US\$10 million:

	Fair value as of the acquisition date
Fair value of identifiable assets and assumed liabilities:	
Financial assets at fair value	682
Property, plant and equipment	20,330
Inventories	341
VRDs	<u>(9,760)</u>
Total identifiable net assets / Consideration	<u>11,593</u>

The fair value of property, plant and equipment and inventories was calculated mainly based on the depreciated replacement cost approach corresponding to the acquired assets. To such end, CT Barragán had the assistance of an external appraiser. Additionally, CT Barragán has estimated the value in use that expects to obtain from the assets to ascertain that the fair value is not higher than its recoverable value.

As a result of the process described above, CT Barragán has not identified separate intangible assets that must be recognized in relation to the business acquisition.



3. ACQUISITIONS AND DISPOSITIONS (Cont.)

• **Agreement for YPF EE's capitalization**

On December 14, 2017, the Board of Directors of the Company approved the terms of a memorandum of understanding signed with GE Energy Financial Services, Inc. ("GE EFS") which established the framework conditions under which the parties would agree to the capitalization of YPF EE. This Agreement, the framework conditions of which were approved by the Board of Directors of the Company, established that GE EFS intended to contribute capital through a vehicle company and subscribe for shares of YPF EE in order to have a shareholding of 25% of its capital stock.

As of December 31, 2017, the Group had classified its investment in YPF EE as assets and liabilities held for disposal in separate lines from the rest of the assets and liabilities, given that as of that date they had met all the requirements for this classification (see Note 2.b.24). Given that, at the time of classification, the fair value excluding costs of the transaction was higher, the investment in YPF EE has been valued at its book value, therefore, no impairment has been recorded at the time of reclassification. Although YPF EE represented a component within YPF because it was an individual CGU within the Gas and Power segment, it did not qualify as a discontinued operation since it did not represent a significant line of business nor a geographical area.

On February 6, 2018, YPF entered into a definitive and binding agreement with EFS Global Energy B.V. ("GE") and GE Capital Global Energy Investments B.V., companies indirectly controlled by GE EFS, which establishes the conditions for the capitalization of YPF EE (the "Share Subscription Agreement"). The Share Subscription Agreement establishes that, subject to compliance with certain conditions precedent, GE will subscribe for shares of YPF EE in order to achieve a participation equal to 24.99% of its capital stock and jointly control this company with YPF.

On March 20, 2018, GE EFS Power Investments B.V., a subsidiary of EFS Global Energy B.V (both companies indirectly controlled by GE Energy Financial Services, Inc.; jointly "GE"), subscribed YPF EE shares representing 24.99% of its capital stock. Since then, GE EFS Power Investments and YPF jointly control YPF EE, undertaking to contribute as follows:

- Subscription price of US\$ 275 million:
 - US\$ 135 million on the closing date of the transaction; and
 - US\$ 140 million 12 months after the closing date of the transaction.
- Contingent price of up to the maximum sum of US\$ 35 million subject to the evolution of the electric market prices (33.33% as of 24 months from the closing date of the transaction and 16.67% each subsequent year).

In this way, the capital structure of YPF EE after the issuance of shares is as follows:

Shareholder	Number of Shares	Interest holding in the capital stock	Class of Shares
YPF	2,723,826,879	72.69218%	A
OPESSA	86,476,112	2.30783%	A
Group	2,810,302,991	75.00001%	A
GE	936,767,364	24.99999%	B
Total	3,747,070,355	100.00000%	

3. ACQUISITIONS AND DISPOSITIONS (Cont.)

The following table shows the main assets and liabilities held for disposal as of December 31, 2017:

- Group of assets held for disposal:

	December 31, 2017
Property, plant and equipment	4,982
Investments in associates and joint ventures	2,117
Inventories	1
Other receivables	914
Trade receivables	713
Investments in financial assets	78
Cash and cash equivalents	61
Subtotal	<u>8,866</u>
Eliminations	<u>(43)</u>
Total	<u><u>8,823</u></u>

- Liabilities associated to the group of assets held for disposal:

	December 31, 2017
Provisions	96
Deferred tax liabilities	282
Salaries and social security	47
Other liabilities	1
Loans	4,072
Accounts payable	938
Subtotal	<u>5,436</u>
Eliminations	<u>(1,243)</u>
Total	<u><u>4,193</u></u>

As a result of the implementation of IFRS 10 and the aforementioned capitalization process of YPF EE, the Group recorded as of December 31, 2018, a profit of 11,980 (11,879 through YPF and 101 through OPESSA) included in the item “Other net operating results”, which includes a profit of 13,552 (13,451 through YPF and 101 through OPESSA) due to the dilution of its interest in YPF EE with the consequent loss of control over it and the subsequent revaluation of its residual interest (3,438 y 10,114, respectively) and a loss of 1,572 (fully corresponding to YPF) for the reversal to net profit for the period of the accrued translation corresponding to the investment in this Company.

In order to determine the fair value of the investment in YPF EE, the Group has considered all the elements available as of the date of these financial statements, including the best estimation of the occurrence of the contingent payments provided in the operation. However, for the measurement of this fair value the Group has a term of one fiscal year to evaluate all the facts and circumstances existing as of the transaction date that might modify such measurement.

Regarding the participation held after the aforementioned transaction, the Group has followed the guidelines of IFRS 10 “Consolidated financial statements” and has concluded that from the entry of GE in YPF EE, GE and YPF jointly control YPF EE. Consequently, the Group applied IFRS 11 “Joint Arrangements” defining such company as a joint venture, and measured it according to the equity method under the IAS 28 “Investments in associates and joint ventures”.

Some of the main evaluated assumptions are described below:

- Any decisions about the relevant activities of YPF EE thereof are to be taken jointly, there being no power of one shareholder over the other in relation to such activities, regardless of the different percentages of equity interests held in YPF EE by each of them. Although the Group owns a 75.00001% stake in YPF EE, according to the shareholders’ agreement, the following is required for decision-making purposes regarding the relevant activities: the approval of at least one Director appointed by each class of shares at the meeting of the Board of Directors and the approval of each class of shares for the adoption of such decisions at the Shareholders’ meeting;
- No shareholder has any power, as defined in IFRS 10, to the detriment of any other, independently of the number of Directors or personnel (key or not) appointed by each class of shares, in the management of the Company for its own benefit or to unilaterally modify the variable investment returns or ultimately, to unilaterally direct any of the decisions associated with the relevant activities.



3. ACQUISITIONS AND DISPOSITIONS (Cont.)

• Acquisition of strategic assets of Oil Combustibles S.A. (“Oil”)

On May 11, 2018, Oil’s bankruptcy was determined and, by means of a resolution dated June 1, 2018, the intervening judge decided to grant YPF and Destilería Argentina de Petróleo S.A. (“DAPSA”) the management of Oil in accordance with the terms of the offer presented by both companies, pursuant to which YPF and DAPSA were entitled for a two-month period to use the logistic assets (docks and fuel storage tanks located in the Oil River Terminal on the Paraná River), to exclusively and directly supply fuel to the entire network of Oil gas stations by DAPSA, and to match the best purchase offer made by any third party, whether for the whole or a part of Oil’s facilities, and for the exclusive supply of Oil’s commercial network as part of the liquidation process of Oil’s assets.

On July 27, 2018, YPF and DAPSA filed a brief stating that they were able to continue the management for two additional months under certain conditions, which was accepted by the bankruptcy trustee and the judge.

The hearing for the opening of bids for the parties interested in acquiring Oil’s industrial assets, originally scheduled for September 14, 2018, was held on October 1, 2018.

On October 2, 2018, YPF received notice of the decision adopted by the judge in charge of Oil Combustibles S.A.’s bankruptcy proceedings, which awarded the industrial assets of the bankrupt company to YPF and DAPSA, pursuant to the local and international bidding process carried out in connection with the sale of Oil Combustibles S.A.’s assets.

The total price of the transaction amounted to US\$ 85 million, which was paid on November 2, 2018. From such amount, US\$ 63 million correspond to net assets acquired by YPF. These, especially the docks and fuel storage tanks located in the Paraná River fluvial terminal, will allow the expansion of YPF’s logistics capacity for actual and future business.

YPF requested the unavailability of the funds, which will remain deposited in the judicial account at the order of the court until the conveyance of title and registration of the real estate acquired in favor of YPF. The real property composing the River Terminal was registered with the General Register of Rosario of the Ministry of Justice of the Province of Santa Fe.

Additionally, on November 6, 2018, Division D of the Argentine Court of Appeals rejected the appeal filed by some of the former Oil shareholders which challenged the award in favor of YPF and DAPSA under the bidding process described herein.

The acquisition of these assets qualified as a business combination under IFRS 3.

The following table resumes consideration and fair value of the acquired assets and the liabilities assumed on the acquisition date:

	<u>Fair value at the acquisition date</u>
Fair value of identifiable assets and assumed liabilities:	
Property, plant and equipment	2,327
Inventories	445
Provisions	(465)
Total net identifiable assets / Consideration	<u>2,307</u>

• Agreement for the exploitation of the Aguada Pichana and Aguada de Castro Areas

After the exchange on the interest mentioned on Note 33 b, the Group has recorded as of December 31, 2018, a profit of 1,167 included in the item “Other net operating results”.



3. ACQUISITIONS AND DISPOSITIONS (Cont.)

- **Assignment of interest in Bajo del Toro area**

After fulfilling the precedent conditions mentioned on Note 33.b, the Group has recorded as of December 31, 2018, a profit of 871 included in the item "Other net operating results".

- **Assignment of interest in the Aguada de la Arena and Río Neuquén areas**

As part of the acquisition by Pampa Energía S.A. ("PEPASA") of the total shares of Petrobras Participaciones S.L., which held 67.2% of the capital and voting rights of Petrobras Argentina S.A. ("PESA"), YPF and PEPASA entered into an agreement subject to certain conditions precedent under which, once the acquisition by PEPASA of shareholding control of PESA had been completed, PESA transferred to YPF its interest in the operating concessions of two areas located in the Neuquén basin with production and high potential for gas development (of the tight and shale type), to be operated by YPF, in the percentages detailed below: (i) 33.33% participation in the Río Neuquén area, located in the Province of Neuquén and in the Province of Río Negro; and (ii) 80% participation in the Aguada de la Arena area, located in the Province of Neuquén.

In order to implement this agreement, PEPASA and YPF signed a Framework Agreement for the Financing and Acquisition of Units and a Loan Agreement under which YPF, on July 25, 2016, granted PEPASA a guaranteed loan for the Indirect acquisition of the aforementioned areas in the amount of US\$ 140 million, equivalent to the acquisition price of the aforementioned units, which does not differ from the fair value of the participation in said areas.

On October 14, 2016, the assignment of the interest in the operating concessions between YPF and PESA was consummated, as follows: (i) an interest of 33.33% in the Río Neuquén area for the sum of US\$ 72 million; and (ii) an interest of 80% in the Aguada de la Arena area, for the sum of US\$ 68 million.

On February 23, 2017, YPF and Petrouuguay S.A. subscribed the definitive agreement for the assignment in favor of YPF of 20% of the interest in the Aguada de la Arena area for US\$ 18 million. Thus, YPF increased its participation to 100% in the aforementioned area.

On March 31, 2017, YPF cancelled, 33.33% of its participation in the Río Neuquén area and 80% of its participation in the Aguada de la Arena area through a payment in kind pursuant to an assignment in favor of PESA of its contractual position under the loan contract with PEPASA.

On September 5, 2018 the Province of Neuquén issued Decree No. 1,401/2018 which authorized the assignment of 33.33% of the Río Neuquén area in favor of YPF. Additionally, on December 17, 2018, by Decree No. 2,314/2018, the Province of Neuquén approved the assignment of 100% interest in the Aguada de la Arena area to YPF (together with the assignment to YPF of the 20% of the transportation concession of the area).

- **Assignment agreement of the Cerro Bandera area**

YPF and Oilstone Energía S.A. ("OESA") entered into an agreement for the assignment of 100% of the exploitation concession of the Cerro Bandera area in the province of Neuquén (the "Concession") on November 22, 2017. It should be noted that OESA operates the block since 2011 under the respective operating Agreement subscribed with YPF.

The agreement considers the assignment of the Concession for US\$14 million. Moreover, the agreement sets forth that YPF maintains rights, under certain terms and conditions, to (i) the Vaca Muerta and Molles formations, in which it may continue to carry out exploration and potential exploitation works; and (ii) an exploratory project in the northern region of the Concession, and its potential exploitation.

On April 27, 2018, the Executive Power of the Province of Neuquén issued Decree No. 525/2018 which authorized the assignment of 100% of the exploitation concession in respect of Cerro Bandera provided for in the assignment agreement.

Based on the above, the Group has recorded as of December 31, 2018, a profit of 284 included in the item "Other net operating results".



4. FINANCIAL RISK MANAGEMENT

The Group’s activities expose it to a variety of financial risks: market risk (including foreign currency risk, interest rate risk, and price risks), credit risk and liquidity risk. Within the Group, risk management functions are conducted in relation to financial risks associated to financial instruments to which the Group is exposed during a certain period or as of a specific date.

This section provides a description of the principal risks that could have a material adverse effect on the Group’s strategy in each operations center, performance, results of operations and financial condition. The risks facing the businesses, set out below, do not appear in any particular order of potential materiality or probability of occurrence.

The sensitivity analysis of market risks included below are based on a change in one factor while holding all other factors constant. In practice this is unlikely to occur, and changes in some of the factors may be correlated, for example, changes in interest rate and changes in foreign currency rates.

This sensitivity analysis provides only a limited, point-in-time view. The actual impact on the Group’s financial instruments may differ significantly from the impact shown in the sensitivity analysis.

- **Market Risk management**

The market risk to which the Group is exposed is the possibility that the valuation of the Group’s financial assets or financial liabilities as well as certain expected cash flows may be adversely affected by changes in interest rates, exchange rates or certain other price variables.

The following is a description of these risks as well as a detail of the extent to which the Group is exposed and a sensitivity analysis of possible changes in each of the relevant market variables.

Exchange Rate Risk

The value of financial assets and liabilities denominated in a currency different from the Company’s functional currency is subject to variations resulting from fluctuations in exchange rates. Since YPF’s functional currency is the U.S. dollar, the currency that generates the greatest exposure is the Peso (the Argentine legal currency).

The Group does not use derivatives as a hedge against exchange rate fluctuations.

The following table provides a breakdown of the effect a variation of 10% in the prevailing exchange rates on the Group’s net income, taking into consideration the exposure of financial assets and liabilities denominated in Pesos as of December 31, 2019:

	<u>Appreciation (+) / depreciation (-) of exchange rate of Peso against U.S. dollar</u>	<u>Income (loss) for fiscal year ended December 31, 2019</u>
Impact on net income before		
income tax corresponding to	+10%	2,855
financial assets and liabilities	-10%	(2,855)

4. FINANCIAL RISK MANAGEMENT (Cont.)

Interest Rate Risk

The Group is exposed to risks associated with fluctuations in interest rates on loans and investments. Changes in interest rates may affect the interest income or loss derived from financial assets and liabilities tied to a variable interest rate. Additionally, the fair value of financial assets and liabilities that accrue interests based on fixed interest rates may also be affected.

The table below provides information about the financial assets and liabilities as of December 31, 2019 that accrue interest considering the applicable rate:

	<u>Financial Assets⁽¹⁾</u>	<u>Financial Liabilities⁽²⁾</u>
Fixed interest rate	59,912	435,882
Variable interest rate	7,668	90,878
Total ⁽³⁾	<u>67,580</u>	<u>526,760</u>

- (1) Includes temporary investments, loans with related parties and trade receivables with interest-bearing payment agreements. It does not include the rest of the trade receivables that are mostly non-interest bearing.
- (2) Includes only financial loans. Does not include accounts payable, which mostly do not accrue interest, nor the leases liabilities.
- (3) Includes principal and interest.

The variable rate financial loans represent 17% of the total loans as of December 31, 2019, and include NO, pre-financing of exports, financing of imports and financial loans with local and international entities. The portion of the loan, which accrues variable interest, is mainly subject to the fluctuations in LIBOR and BADLAR. Approximately 30,896 accrues variable interest of BADLAR plus a spread between 0% and 10% and 55,596 accrues variable interest of LIBOR plus a spread between 1.50% and 6.25%.

Approximately 92% (484,631) of the total of the financial loans of the Group is denominated in U.S. dollars and the remainder is mainly in Pesos, as of December 31, 2019.

Financial assets mainly include, in addition to trade receivables, which have low exposure to interest rate risk, bank deposits, fixed-interest deposits and investments in mutual funds such as money market or short-term fixed interest rate instruments.

The Group's strategy to hedge interest rate risk is based on investing funds at a variable interest rate, which partially offset financial loans at a variable interest rate, as well as based on maintaining relatively low percentages of debt at a variable interest rate.

The Group does not usually use derivative financial instruments to hedge the risks associated with interest rates.

The table below shows the estimated impact on consolidated statement of comprehensive income that an increase or decrease of 100 basis points in the interest rate would have.

	<u>Increase (+) / decrease (-) in the interest rates (basis points)</u>	<u>Income (loss) for fiscal year ended December 31, 2019</u>
Impact on net income after income tax	+100 -100	(534) 534



4. FINANCIAL RISK MANAGEMENT (Cont.)

Price Risks

The Group is exposed to the own price risk for investments in financial instruments (public securities and mutual funds), which were classified in the statement of financial position as “at fair value through profit or loss”. The Group continuously monitors the change in these investments for significant movements.

As of December 31, 2019, the aggregate value of financial assets at fair value through profit or loss amounts to 15,408.

The following table shows the effect that a 10% variation in the prices of investments in financial instruments would have on the Group’s results as of December 31, 2019:

	Increase (+) / decrease (-) in the prices of investments in financial instruments	Income (loss) for the fiscal year ended December 31, 2019
Impact on net income before income tax	+10% -10%	1,541 (1,541)

The Group does not use derivative financial instruments to hedge the risks associated with the fluctuation of the price of commodities as well as the risk inherent to investments in public securities and mutual funds.

Likewise, although not considered a financial risk, until recently, the Group was not significantly exposed to commodity price risks, as a result, among other reasons, of the existing regulatory, economic and government policies in force that determined that local prices charged for gasoline, diesel and other fuels were not affected in the short-term by fluctuations in the price of such products in international and regional markets. That is, there was a gap between domestic market prices and international market prices, which was evident in certain periods with price variations in directions (or values) substantially different from those observed in the international market.

However, since the second semester of 2016 a local process was initiated to achieve an orderly transition towards international prices, through different agreements between producers, refiners and MINEM. After the finalization of the last agreement in 2017, according to MINEM, the hydrocarbons market in Argentina had become a fully free market and oil and fuel prices should be established in the free market and fluctuate.

Based on the above, the Group’s pricing policy regarding the sale of fuels contemplates several factors such as international crude oil prices, refining differentials, processing and processing and distribution costs, the prices of biofuels, the exchange rate, local demand and supply, competition, inventories, export duties, local taxes and domestic margins for their products, among others.

Consequently, beyond the Group’s expectation of substantially maintaining domestic prices with reference to those in international markets, exposure to price risk will depend on other factors (including, but not limited to, abrupt changes in the exchange rate, or in international prices or potential legal or regulatory limitations) that are also considered in the Group’s pricing policy, and which may therefore lead the Group to not fully reflect international parity prices in domestic prices in the short term, situation that was evidenced during the year 2018 and 2019, as established, for example, according to Decree No. 566/2019. Also, see Note 2.c and 34.e.



4. FINANCIAL RISK MANAGEMENT (Cont.)

- **Liquidity Risk management**

Liquidity risk is associated with the possibility of a mismatch between the need of funds to meet short, medium or long-term obligations.

As mentioned in previous paragraphs, the Group intends to align the maturity profile of its financial debt to be related to its ability to generate enough cash to finance the projected expenditures for each year. As of December 31, 2019, the availability of liquidity reached 66,100, considering cash of 6,983 and other liquid financial assets of 59,117. Uncommitted bank credit lines together with the capital market constitute an important source of funding. Likewise, YPF has the ability to issue additional debt under the negotiable obligations global program and under the Frequent Issuer Program.

In this regard, the Group used derivative financial instruments (forward U.S. dollars—Swiss francs contracts) as a tool to manage the exposure to liquidity risk, which as of December 31, 2019 were fully liquidated. Likewise, the Group entered into term purchase transactions for U.S. dollars.

The following table sets forth the maturity dates of the Group's financial liabilities as of December 2019:

	December 31, 2019						Total
	Maturity date						
	0 - 1 year	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	More than 5 years	
Financial liabilities							
Lease liabilities	21,389	14,849	9,474	5,710	3,010	7,348	61,780
Loans	107,109	85,882	42,520	28,954	37,390	224,905	526,760
Other liabilities	1,310	74	71	68	54	436	2,013
Accounts payable ⁽¹⁾	147,480	1,256	—	—	—	1,144	149,880
	<u>277,288</u>	<u>102,061</u>	<u>52,065</u>	<u>34,732</u>	<u>40,454</u>	<u>233,833</u>	<u>740,433</u>

(1) The amounts disclosed are the contractual, undiscounted cash flows associated to the financial liabilities given that they do not differ significantly from their face values.

Most of the Group's loans contain usual covenants for contracts of this nature, which include financial covenants in respect of the Group's leverage ratio and debt service coverage ratio, and events of defaults triggered by materially adverse judgements, among others. Additionally, see Notes 15, 31 and 32.

Under the terms of the loan agreements and NO, if the Group breached a covenant or if it could not remedy it within the stipulated period, it would default, a situation that would limit its liquidity and, given that the majority of its loans contain cross default provisions, it could result in an early enforceability of its obligations.

- **Credit Risk management**

Credit risk is defined as the possibility of a third party not complying with its contractual obligations, thus negatively affecting results of operations of the Group.

Credit risk in the Group is measured and controlled on an individual customer basis. The Group has its own systems to conduct a permanent evaluation of credit performance of all of its debtors, and the determination of risk limits with respect to third parties, in line with best practices using for such end internal customer records and external data sources.

Financial instruments that potentially expose the Group to a credit concentration risk consist primarily of cash and cash equivalents, investment in financial assets, trade receivables and other receivables. The Group invests excess cash primarily in high liquid investments with financial institutions with a strong credit rating both in Argentina and abroad. In the normal course of business and based on ongoing credit evaluations to its customers, the Group provides credit to its customers and certain related parties.



4. FINANCIAL RISK MANAGEMENT (Cont.)

Likewise, the Group accounts for doubtful trade losses in the statement of comprehensive income, based on specific information regarding its clients.

Provisions for doubtful accounts are measured by the criteria mentioned in Note 2.b.18.

The maximum exposure to credit risk of the Group of December 31, 2019 based on the type of its financial instruments and without excluding the amounts covered by guarantees and other arrangements mentioned below is set forth below:

	Maximum exposure as of December 31, 2019
Cash and cash equivalents	66,100
Other financial assets	167,430

Considering the maximum exposure to the risk of the Other financial assets based on the concentration of the counterparties, credit with the National Government, direct agencies and companies with government participation, accounts for approximately 29% (48,167), while the Group's remaining debtors are diversified.

Following is the breakdown of the financial assets past due as of December 31, 2019:

	Current trade receivable	Other current receivables
Less than three months past due	23,060	1,855
Between three and six months past due	5,948	616
More than six months past due	4,774	1,192
	<u>33,782</u>	<u>3,663</u>

At such date, the provision for doubtful trade receivables amounted to 6,580 and the provisions for other doubtful receivables amounted to 874. These provisions are the Group's best estimate of the losses incurred in relation with accounts receivables.

Guarantee Policy

As collateral of the credit limits granted to customers, the Group receives several types of guarantees from its customers. In the gas stations and distributors market, where generally long-term relationships with customers are established, mortgages prevail. For foreign customers, joint and several bonds from their parent companies prevail. In the industrial and transport market, bank guarantees prevail. To a lesser extent, the Group has also obtained other guarantees such as credit insurances, surety bonds, guarantee customer – supplier, and car pledges, among others.

The Group has effective guarantees granted by third parties for a total amount of 42,026, 24,377 and 10,789 as of December 31, 2019, 2018 and 2017, respectively.

During the fiscal years ended December 31, 2019 and December 31, 2018, the Group did not execute guarantees. During the fiscal year ended December 31, 2017, the Group executed guarantees received for an amount of 2.

5. SEGMENT INFORMATION

The different segments in which the Group is organized take into consideration the different activities from which the Group obtains income and incurs expenses. The aforementioned organizational structure is based on the way in which the highest decision-making authority analyzes the main financial and operating magnitudes for making decisions about resource allocation and performance assessment also considering the Group's business strategy.

- **Upstream**

The Upstream segment carries out all activities relating to the exploration, development and production of oil and natural gas.

Revenue is generated from (i) the sale of produced crude oil to the Downstream segment and, marginally, from its sale to third parties; (ii) the sale of produced gas to the Gas and Power segment.

- **Gas and Power**

The Gas and Power segment generates its revenue from the development of activities relating to: (i) the natural gas commercialization to third parties and the Downstream segment, (ii) the commercial and technical operation of LNG regasification terminals in Bahía Blanca (until October 31, 2018) and Escobar, by hiring two regasification vessels, and (iii) the natural gas distribution.

Additionally, for the years ended December 31, 2017 and for the three months period as of March 31, 2018, it included revenues derived from the generation of conventional and renewable electricity corresponding to YPF EE. See Note 3.

In addition to the proceeds derived from the sale of natural gas to third parties and the intersegment, which is then recognized as a "purchase" to the Upstream segment, and including Stimulus Plan for Natural Gas production in force (see Note 34.g), Gas and Power accrues a fee in its favor with the Upstream segment to carry out such commercialization.

- **Downstream**

The Downstream segment develops activities relating to: (i) crude oil refining and petrochemical production, (ii) commercialization of refined and petrochemical products obtained from such processes, (iii) logistics related to the transportation of crude oil and gas to refineries and the transportation and distribution of refined and petrochemical products to be marketed in the different sales channels.

It obtains its income from the marketing mentioned in item (ii) above, which is developed through the Retail, Industry, Aviation, Agro, LPG, Chemicals and Lubricants and Specialties businesses.

It incurs in all expenses relating to the aforementioned activities, including the purchase of crude oil from the Upstream segment and third parties and the natural gas to be consumed in the refinery and petrochemical industrial complexes from the Gas and Power segment.

- **Central Administration and Others**

It covers other activities, not falling into the aforementioned categories, mainly including corporate administrative expenses and assets and construction activities.

Sales between business segments were made at internal transfer prices established by the Group, which generally seek to approximate market prices.

Operating profit and assets for each segment have been determined after consolidation adjustments.

YPF SOCIEDAD ANONIMA
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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5. SEGMENT INFORMATION (Cont.)

	Upstream	Gas and Power	Downstream	Central Administration and Others	Consolidation Adjustments ⁽¹⁾	Total
For the year ended December 31, 2019						
Revenues from sales	2,046	131,055	531,724	19,743	(5,973)	678,595
Revenues from intersegment sales	286,585	8,697	3,447	27,502	(326,231)	—
Revenues	288,631	139,752	535,171	47,245	(332,204)	678,595
Operating profit / (loss)	(49,194)	2,944	40,653	(15,866)	451	(21,012)
Income from equity interests in associates and joint ventures	—	5,339	2,629	—	—	7,968
Depreciation of property, plant and equipment	119,821 ⁽³⁾	1,378	20,805	3,890	—	145,894
Impairment of property, plant and equipment ⁽²⁾	40,561	868	—	—	—	41,429
Acquisition of property, plant and equipment	136,589	6,170	22,455	7,630	—	172,844
Assets	742,850	199,357	508,026	129,331	(6,275)	1,573,289
For the year ended December 31, 2018						
Revenues from sales	3,108	91,176	338,042	8,363	(4,869)	435,820
Revenues from intersegment sales	207,480	7,862	1,688	13,186	(230,216)	—
Revenues	210,588	99,038	339,730	21,549	(235,085)	435,820
Operating profit / (loss)	22,483	16,786 ⁽⁴⁾	7,818	(6,055)	2,748	43,780
Income from equity interests in associates and joint ventures	—	4,435	404	—	—	4,839
Depreciation of property, plant and equipment	72,052 ⁽³⁾	928	12,285	2,304	—	87,569
Recovery of property, plant and equipment ⁽²⁾	2,900	—	—	—	—	2,900
Acquisition of property, plant and equipment	63,171	1,968	15,632	2,877	—	83,648
Assets	480,263	129,885	307,312	82,762	(6,206)	994,016
For the year ended December 31, 2017						
Revenues from sales	739	56,805	195,321	2,534	(2,586)	252,813
Revenues from intersegment sales	115,955	4,075	988	7,133	(128,151)	—
Revenues	116,694	60,880	196,309	9,667	(130,737)	252,813
Operating profit / (loss)	3,877	3,259	15,813	(4,400)	(2,476)	16,073
Income from equity interests in associates and joint ventures	—	634	794	—	—	1,428
Depreciation of property, plant and equipment	45,279 ⁽³⁾	290	6,926	1,017	—	53,512
Recovery of property, plant and equipment ⁽²⁾	5,032	—	—	—	—	5,032
Acquisition of property, plant and equipment	39,411	3,867	8,179	1,639	—	53,096
Assets	251,525	45,395	158,800	53,934	(3,936)	505,718

(1) Corresponds to the elimination among segments of the YPF Group.

(2) See Notes 2.c. and 8.

(3) Includes depreciation of charges for impairment of property, plant and equipment.

(4) Includes the result for revaluation of the interest in YPF EE. See Note 3.

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5. SEGMENT INFORMATION (Cont.)

The distribution of revenues by geographic area, according to the markets for which they are intended, for the years ended on December 31, 2019, 2018 and 2017, and property, plant and equipment by geographic area as of December 31, 2019, 2018 and 2017 are as follows:

	Revenues			Property, plant and equipment		
	2019	2018	2017	2019	2018	2017
Argentina	589,653	390,892	230,728	1,068,832	698,222	353,868
Mercosur and associated countries	36,154	20,056	8,694	179	865	575
Rest of the world	35,836	15,711	8,785	—	—	—
Europe	16,952	9,161	4,606	—	—	—
	<u>678,595</u>	<u>435,820</u>	<u>252,813</u>	<u>1,069,011</u>	<u>699,087</u>	<u>354,443</u>

Intangible assets are geographically located in Argentina.

As of December 31, 2019, no foreign client represents 10% or more of the Group's revenue from its ordinary activities.

6. FINANCIAL INSTRUMENTS BY CATEGORY

The following tables show the financial assets and liabilities by category of financial instrument and a reconciliation to the corresponding line item in the statements of financial position, as appropriate. Since the line items "Other receivables" and "Accounts payable" contain both financial instruments and non-financial assets and liabilities (such as tax receivables, and receivables and payables in kind, among other) reconciliation is presented in the columns headed "Non-financial assets" and "Non-financial Liabilities".

Financial Assets

	2019				
	Financial Assets at amortized cost	Financial Assets at fair value through profit or loss	Subtotal Financial Assets	Non-financial Assets	Total
Other receivables ⁽¹⁾	19,078	—	19,078	29,892	48,970
Trade receivables ⁽²⁾	139,982	—	139,982	—	139,982
Investment in financial assets	—	8,370	8,370	—	8,370
Cash and cash equivalents	59,062	7,038	66,100	—	66,100
	<u>218,122</u>	<u>15,408</u>	<u>233,530</u>	<u>29,892</u>	<u>263,422</u>

	2018				
	Financial Assets at amortized cost	Financial Assets at fair value through profit or loss	Subtotal Financial Assets	Non-financial Assets	Total
Other receivables ⁽¹⁾	14,860	—	14,860	17,250	32,110
Trade receivables ⁽²⁾	98,930	—	98,930	—	98,930
Investment in financial assets	—	10,941	10,941	—	10,941
Cash and cash equivalents	38,236	7,792	46,028	—	46,028
	<u>152,026</u>	<u>18,733</u>	<u>170,759</u>	<u>17,250</u>	<u>188,009</u>

	2017				
	Financial Assets at amortized cost	Financial Assets at fair value through profit or loss	Subtotal Financial Assets	Non-financial Assets	Total
Other receivables ⁽¹⁾	6,793	—	6,793	7,541	14,334
Trade receivables ⁽²⁾	44,182	—	44,182	—	44,182
Investment in financial assets	—	12,936	12,936	—	12,936
Cash and cash equivalents	9,687	19,051	28,738	—	28,738
	<u>60,662</u>	<u>31,987</u>	<u>92,649</u>	<u>7,541</u>	<u>100,190</u>

(1) Does not include the provision for other doubtful receivables.

(2) Does not include the provision for doubtful trade receivables.

6. FINANCIAL INSTRUMENTS BY CATEGORY (Cont.)

Financial Liabilities

	2019				
	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Subtotal financial liabilities	Non-financial liabilities	Total
Lease liabilities	61,780	—	61,780	—	61,780
Loans	526,760	—	526,760	—	526,760
Other liabilities	2,013	—	2,013	—	2,013
Accounts payable	149,880	—	149,880	1,180	151,060
	<u>740,433</u>	<u>—</u>	<u>740,433</u>	<u>1,180</u>	<u>741,613</u>

	2018				
	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Subtotal financial liabilities	Non-financial liabilities	Total
Lease liabilities	—	—	—	—	—
Loans	335,078	—	335,078	—	335,078
Other liabilities	1,271	—	1,271	—	1,271
Accounts payable	87,087	—	87,087	511	87,598
	<u>423,436</u>	<u>—</u>	<u>423,436</u>	<u>511</u>	<u>423,947</u>

	2017				
	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Subtotal financial liabilities	Non-financial liabilities	Total
Lease liabilities	—	—	—	—	—
Loans	191,063	—	191,063	—	191,063
Other liabilities	2,660	—	2,660	—	2,660
Accounts payable	45,638	—	45,638	458	46,096
	<u>239,361</u>	<u>—</u>	<u>239,361</u>	<u>458</u>	<u>239,819</u>

Gains and losses on financial and non-financial instruments are allocated to the following categories:

	2019		
	Financial and non-financial Assets / Liabilities at amortized cost	Financial Assets / Liabilities at fair value through profit or loss	Total
Interest income	7,665	—	7,665
Interest loss	(48,136)	—	(48,136)
Net financial accretion	(5,592)	—	(5,592)
Net exchange differences	47,935	—	47,935
Fair value loss on financial assets at fair value through profit or loss	—	(1,449)	(1,449)
Result from derivative financial instruments	—	(293)	(293)
Result from net monetary position	5,904	—	5,904
	<u>7,776</u>	<u>(1,742)</u>	<u>6,034</u>

	2018		
	Financial and non-financial Assets / Liabilities at amortized cost	Financial Assets / Liabilities at fair value through profit or loss	Total
Interest income	3,033	—	3,033
Interest loss	(28,717)	—	(28,717)
Net financial accretion	7,627	—	7,627

Net exchange differences	54,459	—	54,459
Fair value gains on financial assets at fair value through profit or loss	—	2,596	2,596
Result from derivative financial instruments	—	933	933
Result from net monetary position	1,594	—	1,594
	<u>37,996</u>	<u>3,529</u>	<u>41,525</u>



6. FINANCIAL INSTRUMENTS BY CATEGORY (Cont.)

	2017		
	Financial and non-financial Assets / Liabilities at amortized cost	Financial Assets / Liabilities at fair value through profit or loss	Total
Interest income	1,598	—	1,598
Interest loss	(18,385)	—	(18,385)
Net financial accretion	(3,169)	—	(3,169)
Net exchange differences	8,950	—	8,950
Fair value gains on financial assets at fair value through profit or loss	—	2,208	2,208
Result from derivative financial instruments	—	—	—
Result from net monetary position	—	—	—
	<u>(11,006)</u>	<u>2,208</u>	<u>(8,798)</u>

Fair value measurements

IFRS 9 defines the fair value of a financial instrument as the amount for which an asset could be exchanged, or a financial liability settled, between knowledgeable, independent parties in an arm's length transaction. All financial instruments recognized at fair value are allocated to one of the valuation hierarchy levels of IFRS 7. This valuation hierarchy provides for three levels.

In the case of Level 1, valuation is based on unadjusted quoted prices in active markets for identical financial assets or liabilities that the Group can refer to at the end of the period. A market is deemed active if transactions take place with sufficient frequency and in sufficient quantity for price information to be available on an ongoing basis. Since a quoted price in an active market is the most reliable indicator of fair value, this should always be used if available. Financial instruments assigned by the Group to this level comprise investments in listed mutual funds and public securities.

In the case of Level 2, fair value is determined by using valuation methods based on inputs directly or indirectly observable in the market. If the financial instrument concerned has a fixed contract period, the inputs used for valuation must be observable for the whole of this period. The Group has not valued financial instruments under this category.

In the case of Level 3, the Group uses valuation techniques not based on inputs observable in the market. This is only permissible insofar as no market data is available. The inputs used reflect the Group's assumptions regarding the factors, which market players would consider in their pricing. The Group uses the best available information for this, including internal company data. The Group has not valued financial instruments under this category.

YPF's Corporate Finance Division has a team in place in charge of the valuation of financial instruments required to be reported in the financial statements, including the fair value of Level 3 instruments. The team directly reports to the CFO. The CFO and the valuation team discuss the valuation methods and results upon the acquisition of a financial instrument and, if necessary, on a quarterly basis, in line with the Group's quarterly reports.

6. FINANCIAL INSTRUMENTS BY CATEGORY (Cont.)

The tables below show the Group's financial assets measured at fair value as of December 31, 2019, 2018 and 2017 and their allocation to their fair value levels.

Financial Assets	2019			
	Level 1	Level 2	Level 3	Total
Investment in financial assets:				
- Public securities	8,370	—	—	8,370
	<u>8,370</u>	<u>—</u>	<u>—</u>	<u>8,370</u>
Cash and cash equivalents:				
- Mutual funds	7,038	—	—	7,038
	<u>7,038</u>	<u>—</u>	<u>—</u>	<u>7,038</u>
	<u>15,408</u>	<u>—</u>	<u>—</u>	<u>15,408</u>

Financial Assets	2018			
	Level 1	Level 2	Level 3	Total
Investment in financial assets:				
- Public securities	10,941	—	—	10,941
	<u>10,941</u>	<u>—</u>	<u>—</u>	<u>10,941</u>
Cash and cash equivalents:				
- Mutual funds	7,792	—	—	7,792
	<u>7,792</u>	<u>—</u>	<u>—</u>	<u>7,792</u>
	<u>18,733</u>	<u>—</u>	<u>—</u>	<u>18,733</u>

Financial Assets	2017			
	Level 1	Level 2	Level 3	Total
Investments in financial assets:				
- Public securities	12,936	—	—	12,936
	<u>12,936</u>	<u>—</u>	<u>—</u>	<u>12,936</u>
Cash and cash equivalents:				
- Mutual funds	19,051	—	—	19,051
	<u>19,051</u>	<u>—</u>	<u>—</u>	<u>19,051</u>
	<u>31,987</u>	<u>—</u>	<u>—</u>	<u>31,987</u>

The Group has no financial liabilities measured at fair value through profit or loss.

The Group's policy is to acknowledge transfers among the several categories of valuation hierarchies when occurred, or when there are changes in the prevailing circumstances requiring such transfer. During the years ended December 31, 2019, 2018 and 2017, there were no transfers between the different hierarchies used to determine the fair value of the Group's financial instruments.

Fair value of financial assets and financial liabilities measured at amortized cost

The estimated fair value of loans, considering unadjusted listed prices (Level 1) for NO and interest rates offered to the Group (Level 3) for the other financial loans remaining, amounted to 476,750, 293,972 and 200,264 as of December 31, 2019, 2018 and 2017, respectively.

The fair value of other receivables, trade receivables, cash and cash equivalents, other liabilities and accounts payable do not differ significantly from their book value.

7. INTANGIBLE ASSETS

	2019	2018	2017
Net book value of intangible assets	37,608	20,402	9,976
Provision for impairment of intangible assets	(429)	—	—
	<u>37,179</u>	<u>20,402</u>	<u>9,976</u>

7. INTANGIBLE ASSETS

The evolution of the Group's intangible assets for the years ended December 31, 2019, 2018 and 2017 is as follows:

	Service concession	Exploration rights	Other intangibles	Total
Cost	11,749	3,093	5,494	20,336
Accumulated amortization	7,235	149	4,838	12,222
Balance as of December 31, 2016	4,514	2,944	656	8,114
<u>Cost</u>				
Increases	947	8	198	1,153
Translation effect	2,141	513	953	3,607
Decreases and reclassifications	(13)	(149)	185	23
<u>Accumulated amortization</u>				
Increases	615	—	223	838
Translation effect	1,330	—	885	2,215
Decreases and reclassifications	—	(149)	17	(132)
Cost	14,824	3,465	6,830	25,119
Accumulated amortization	9,180	—	5,963	15,143
Balance as of December 31, 2017	5,644	3,465	867	9,976
<u>Cost</u>				
Increases	1,303	276	765	2,344
Translation effect	15,544	3,414	6,636	25,594
Adjustment for inflation ⁽¹⁾	—	—	591	591
Decreases and reclassifications	31	(248)	(100)	(317)
<u>Accumulated amortization</u>				
Increases	1,190	—	559	1,749
Translation effect	9,740	—	6,243	15,983
Adjustment for inflation ⁽¹⁾	—	—	58	58
Decreases and reclassifications	—	—	(4)	(4)
Cost	31,702	6,907	14,722	53,331
Accumulated amortization	20,110	—	12,819	32,929
Balance as of December 31, 2018	11,592	6,907	1,903	20,402
<u>Cost</u>				
Increases	1,271	4,171 ⁽²⁾	705	6,147
Translation effect	18,969	5,680	7,862	32,511
Adjustment for inflation ⁽¹⁾	—	—	833	833
Decreases and reclassifications	(6)	(103)	181	72
<u>Accumulated amortization</u>				
Increases	1,848	—	526	2,374
Translation effect	12,332	—	7,475	19,807
Adjustment for inflation ⁽¹⁾	—	—	199	199
Decreases and reclassifications	—	—	(23)	(23)
Cost	51,936	16,655	24,303	92,894
Accumulated amortization	34,290	—	20,996	55,286
Balance as of December 31, 2019	17,646	16,655	3,307	37,608

(1) Corresponds to adjustment for inflation of opening balances of intangible assets in subsidiaries with the Peso as functional currency which was charged to other comprehensive income.

(2) See Note 3.

8. PROPERTY, PLANT AND EQUIPMENT

	2019	2018	2017
Net book value of property, plant and equipment	1,156,950	740,103	382,630
Provision for obsolescence of materials and equipment	(6,610)	(3,955)	(1,652)
Provision for impairment of property, plant and equipment	(81,329)	(37,061)	(26,535)
	<u>1,069,011</u>	<u>699,087</u>	<u>354,443</u>

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8. PROPERTY, PLANT AND EQUIPMENT (Cont.)

Changes in Group's property, plant and equipment for the years ended December 31, 2019, 2018 and 2017 are as follows:

	Land and buildings	Mining property, wells and related equipment	Refinery and petrochemical plants	Transportation equipment	Materials and equipment in warehouse	Drilling and work in progress	Exploratory drilling in progress	Furniture, fixtures and installations	Selling equipment	Infrastructure for natural gas distribution	Electric power generation facilities	Other property	Total
Cost													
Accumulated depreciation	18,429	625,628	112,560	5,551	14,239	52,673	1,978	8,089	14,346	3,191	1,762	9,965	868,411
Balance as of December 31, 2016	7,497	432,002	54,735	3,285	—	—	—	6,401	9,119	1,301	1,394	6,998	522,732
Cost													
Increases	49	(4,370) ⁽⁴⁾	103	66	7,394	47,453	2,207	20	—	—	—	174	53,096
Translation effect	3,028	113,481	19,728	1,032	2,101	8,568	373	1,466	2,744	—	—	1,651	154,172
Decreases and reclassifications	(112)	40,614	2,284	965	(7,741)	(49,165)	(1,687)	879	1,698	215	(1,762) ⁽⁵⁾	188	(13,624) ⁽⁶⁾
Accumulated depreciation	437	54,980 ⁽⁴⁾	5,395	602	—	—	—	717	854	80	87	315	63,467
Translation effect	1,303	81,108	9,983	609	—	—	—	1,196	1,684	—	—	1,151	97,034
Decreases and reclassifications	13	(1,756)	(953)	16	—	—	—	372	(1)	—	(1,481) ⁽⁵⁾	(18)	(3,808)
Cost	21,394	773,553	134,675	7,614	15,993	59,529	2,871	10,454	18,788	3,406	11,978	11,978	1,062,055
Accumulated depreciation	9,250	566,534	69,160	4,512	—	—	—	8,686	11,656	1,381	—	8,446	679,425
Balance as of December 31, 2017	12,144	209,019 ⁽¹⁾	65,515	3,102	15,993	59,529	2,871	1,768	7,132	2,025	—	3,532	382,630
Cost													
Increases	425	(10,216) ⁽⁴⁾	370	38	19,885	67,264	5,438	59	—	—	—	385	83,648 ⁽⁶⁾⁽⁷⁾
Translation effect	20,845	808,772	138,924	7,400	15,332	61,084	3,851	10,935	20,016	—	—	11,468	1,098,627
Adjustment for inflation ⁽⁸⁾	5,096	152	—	797	1,107	792	—	1,371	—	20,519	—	6,968	36,802
Decreases and reclassifications	287	30,807	6,482	313	(17,327)	(64,288)	(4,188)	1,898	2,194	243	—	838	(42,741) ⁽⁸⁾⁽⁹⁾
Accumulated depreciation	758	82,939 ⁽⁴⁾	9,517	960	—	—	—	1,561	1,680	677	—	777	98,869 ⁽⁶⁾
Increases	9,356	609,973	73,643	4,639	—	—	—	9,158	12,396	—	—	8,127	727,292
Translation effect	2,785	141	—	565	—	—	—	1,309	—	10,584	—	5,152	20,536
Adjustment for inflation ⁽⁸⁾	(35)	(27,457)	(25)	(97)	—	—	—	(7)	(35)	(134)	—	(44)	(27,834) ⁽⁹⁾
Cost	48,047	1,604,868	280,451	16,162	34,990	124,381	7,972	24,717	40,998	24,168	—	31,657	2,238,591
Accumulated depreciation	22,114	1,231,930	152,295	10,579	—	—	—	20,707	25,697	12,508	—	22,458	1,498,288
Balance as of December 31, 2018	25,933	372,938 ⁽¹⁾	128,156	5,583	34,990	124,381	7,972	4,010	15,301	11,660	—	9,179	740,103

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8. PROPERTY, PLANT AND EQUIPMENT (Cont.)

	Land and buildings	Mining property, wells and related equipment	Refinery and petrochemical plants	Transportation equipment	Materials and equipment in warehouse	Drilling and work in progress	Exploratory drilling in progress	Furniture, fixtures and installations	Selling equipment	Infrastructure for natural gas distribution	Electric power generation facilities	Other property	Total
Cost	48,047	1,604,868	280,451	16,162	34,990	124,381	7,972	24,717	40,998	24,168	—	31,637	2,338,391
Accumulated depreciation	22,114	1,231,930	132,295	10,579	—	—	—	20,707	25,697	12,508	—	22,458	1,498,288
Balance as of December 31, 2018	25,933	372,938 ⁽¹⁾	128,156	5,583	34,990	124,381	7,972	4,010	15,301	11,660	—	9,179	740,103
Cost	46	1,980 ⁽⁴⁾	4,676	83	43,089	114,878	6,532	106	—	865	—	589	172,844 ⁽¹⁰⁾
Increases	24,838	967,212	171,788	8,723	21,044	70,818	5,014	14,289	25,116	—	—	13,581	1,322,423
Translation effect	3,382	—	—	716	920	1,326	—	828	—	13,010	—	4,793	24,975
Adjustment for inflation ⁽⁸⁾	—	—	—	—	—	—	—	—	—	—	—	—	—
Decreases and reclassifications	880	114,493	15,715	1,358	(37,620)	(116,818)	(8,132)	1,077	4,021	6,600	—	(3,894)	(22,320) ⁽⁹⁾
Accumulated depreciation	1,260	137,017 ⁽⁴⁾	16,092	1,345	—	—	—	2,536	2,765	989	—	1,325	163,329
Increases	11,444	758,928	93,611	5,917	—	—	—	11,935	15,822	—	—	9,862	907,519
Translation effect	1,726	—	—	486	—	—	—	773	—	6,733	—	3,270	12,988
Adjustment for inflation ⁽⁸⁾	—	—	—	—	—	—	—	—	—	—	—	—	—
Decreases and reclassifications	9	(2,287)	(33)	(376)	—	—	—	(834)	(13)	3,647	—	(2,874)	(2,761) ⁽⁹⁾
Cost	77,193	2,688,553	472,630	27,042	62,423	194,585	11,386	41,017	70,135	44,643	—	46,706	3,736,313
Accumulated depreciation	36,553	2,125,588	261,965	17,951	—	—	—	35,117	44,271	23,877	—	34,041	2,579,363
Balance as of December 31, 2019	40,640	562,965 ⁽¹⁾	210,665	9,091	62,423	194,585	11,386 ⁽²⁾	5,900	25,864	20,766	—	12,665	1,156,950

- (1) Includes 22,343, 16,154 and 10,003 of mineral property as of December 31, 2019, 2018 and 2017, respectively.
- (2) As of December 31, 2019, there are 24 exploratory wells in progress. During fiscal year ended on such date, 18 wells were drilled, 29 wells were charged to exploratory expense, 3 wells were derecognized for the assignment of certain areas and 20 wells were transferred to prove properties which are included in the account Mineral property, wells and related equipment.
- (3) Includes 48, 60 and 7 of net book value charged to property, plant and equipment provisions for the years ended December 31, 2019, 2018 and 2017, respectively.
- (4) Includes 1,172, (11,710) and (4,913) corresponding to hydrocarbon wells abandonment costs and 4,664, 5,521 and 2,258 of depreciation recovery for the years ended December 31, 2019, 2018 and 2017, respectively.
- (5) Includes 6,772 and 1,790 of cost and accumulated depreciation, respectively, corresponding to the reclassification of assets of YPF EE as held for disposal. See Note 3.
- (6) Includes 1,470 and 1,092 of cost and accumulated depreciation, respectively, corresponding to additions for the acquisition of a participation in several areas.
- (7) Includes 2,327 corresponding to business combination. See Note 3.
- (8) Corresponds to adjustments for inflation of opening balances of property, plant and equipment of subsidiaries with the Peso as functional currency which was charged to other comprehensive income.
- (9) Includes 31,800 and 28,673 of cost and accumulated depreciation, respectively, corresponding to the reclassification of certain areas that were reclassified as assets held for disposal. See Note 3.
- (10) Includes 2,109 and 1,228 corresponding to short-term leases and the variable charge of leases related to the underlying asset return/use, respectively. Additionally, it includes 2,021 and 311 corresponding to the depreciation capitalization of right-of-use assets (see Note 9) and to capitalization of the financial accretion of the lease liability (see Note 19), respectively.

8. PROPERTY, PLANT AND EQUIPMENT (Cont.)

The Group capitalizes the financial cost as a part of the cost of the assets. For the fiscal year ended December 31, 2019, 2018 and 2017, the rate of capitalization has been 10.33%, 10.50% and 11.63%, respectively, and the amount capitalized amounted to 949, 660 and 707, respectively, for the years mentioned above.

Set forth below is the evolution of the provision for obsolescence of materials and equipment for the years ended December 31, 2019, 2018 and 2017:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Amount at beginning of year	3,955	1,652	1,380
Increase charged to profit or loss	410	629	11
Decreases charged to profit or loss	(22)	—	(45)
Amounts incurred due to utilization	(48)	(60)	(7)
Translation differences	2,315	1,666	248
Transfers and other movements	—	68	65
Amount at end of year	<u>6,610</u>	<u>3,955</u>	<u>1,652</u>

Set forth below is the evolution of the provision for impairment of property, plant and equipment for 2019, 2018 and 2017:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Amount at beginning of year	37,061	26,535	36,285
Increases charged to profit or loss ⁽¹⁾	41,429	36,937	—
Decreases charged to profit or loss ⁽¹⁾	—	(39,837)	(5,032)
Depreciation ⁽²⁾	(17,435)	(10,208)	(9,955)
Translation differences	20,274	23,634	5,237
Amount at end of year	<u>81,329</u>	<u>37,061</u>	<u>26,535</u>

(1) See Note 2.c.

(2) Included in “Depreciation of property, plant and equipment” in Note 25.

Set forth below is the cost evolution for the exploratory wells in evaluation stage as of the years ended on December 31, 2019, 2018 and 2017:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Amount at beginning of year	4,067	1,236	1,475
Additions pending the determination of proved reserves	5,229	2,179	758
Decreases charged to exploration expenses	(1,036)	(382)	(591)
Reclassifications to mineral property, wells and related equipment with proved reserves	(2,716)	(703)	(581)
Translation difference	2,912	1,737	175
Amount at end of year	<u>8,456</u>	<u>4,067</u>	<u>1,236</u>

The following table shows the cost for exploratory wells under assessment for a period greater than a year and the number of projects related as of December 31, 2019.

	<u>Amount</u>	<u>Number of projects</u>	<u>Number of wells</u>
Between 1 and 5 years	1,996	4	5

9. RIGHT-OF-USE ASSETS

The evolution of the Group's right-of-use assets as of December 31, 2019 is as follows:

	Land and buildings	Exploitation facilities and equipment	Machinery and equipment	Gas stations	Transportation equipment	Total
Balances for initial application of IFRS 16	<u>450</u>	<u>6,732</u>	<u>8,612</u>	<u>3,356</u>	<u>3,909</u>	<u>23,059</u>
Cost						
Increases	266	13,129	19,429	163	6,792	39,779
Translation differences	310	4,587	6,189	1,687	2,545	15,318
Adjustment for inflation ⁽²⁾	—	—	—	275	—	275
Decreases and reclassifications	—	(1,162)	(1,264)	(58)	(64)	(2,548)
Accumulated depreciation						
Increases	208	6,051	3,174	667	2,430	12,530 ⁽¹⁾
Translation differences	45	1,138	850	117	619	2,769
Decreases and reclassifications	—	(507)	(283)	(7)	(10)	(807)
Cost	1,026	23,286	32,966	5,423	13,182	75,883
Accumulated depreciation	253	6,682	3,741	777	3,039	14,492
Balances as of December 31, 2019	<u>773</u>	<u>16,604</u>	<u>29,225</u>	<u>4,646</u>	<u>10,143</u>	<u>61,391</u>

- (1) Includes 10,509 that were charged to "Depreciation of right-of-use assets" in the comprehensive statement of income (see Note 25) and 2,021 that were capitalized in the item "Property, plant and equipment" in the statement of financial position (see Note 8).
- (2) Includes the adjustment for inflation of subsidiaries with the Peso as functional currency for first application of IFRS 16, which was charged to other comprehensive income.

10. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

The following table shows the value of the investments in associates and joint ventures at an aggregate level as of December 31, 2019, 2018 and 2017:

	2019	2018	2017
Amount of investments in associates	6,419	2,374	911
Amount of investments in joint ventures	61,183	30,324	5,146
Provision for impairment of investments in associates and joint ventures	(12)	(12)	(12)
	<u>67,590</u>	<u>32,686</u>	<u>6,045</u>

The main movements during the years ended December 31, 2019, 2018 and 2017, which affected the value of the aforementioned investments, correspond to:

	2019	2018	2017
Amount at the beginning of year	32,686	6,045	5,488
Acquisitions and contributions	4,826	280	910
Income on investments in associates and joint ventures	7,968	4,839	1,428
Translation differences	20,673	3,180	662
Distributed dividends	(811)	(583)	(328)
Interest maintained in YPF EE	—	17,285 ⁽¹⁾	—
Adjustment for inflation ⁽²⁾	1,510	1,640	—
Reclassification of assets held for disposal	—	—	(2,117)
Capitalization in joint ventures	738	—	—
Other movements	—	—	2
Amount at the end of year	<u>67,590</u>	<u>32,686</u>	<u>6,045</u>

- (1) Corresponds to the fair value of the interest maintained in the investment in YPF EE following the loss of control. See Note 3.
- (2) Corresponds to adjustment for inflation of opening balances of associates and joint ventures with the Peso as functional currency, which was charged to other comprehensive income, as detailed in Note 2.b.1.



10. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Cont.)

The following table shows the principal amounts of the results of the investments in associates and joint ventures of the Group, calculated according to the equity method therein, for the years ended December 31, 2019, 2018 and 2017. The Group has adjusted, if applicable, the values reported by these companies to adapt them to the accounting criteria used by the Group for the calculation of the equity method value in the aforementioned dates:

	Associates			Joint ventures		
	2019	2018	2017	2019	2018	2017
Net income	2,032	1,025	543	5,936	3,814	885
Other comprehensive income	1,764	406	34	20,419	4,414	628
Comprehensive income for the year	<u>3,796</u>	<u>1,431</u>	<u>577</u>	<u>26,355</u>	<u>8,228</u>	<u>1,513</u>

The Group does not have investments in subsidiaries with significant non-controlling interests. Likewise, the Group does not have investments in associates and joint ventures that are significant, with the exception of the investment in YPF EE.

The management information corresponding to YPF EE's assets and liabilities as of December 31, 2019 and 2018, as well as the net profit as of such dates are detailed below:

	<u>2019⁽¹⁾</u>	<u>2018⁽¹⁾</u>
Noncurrent assets	96,219	35,682
Current assets	26,622	12,596
Total assets	<u>122,841</u>	<u>48,278</u>
Noncurrent liabilities	57,799	13,348
Current liabilities	19,503	9,776
Total liabilities	<u>77,302</u>	<u>23,124</u>
Total shareholders' equity	<u>45,539</u>	<u>25,154</u>
	<u>2019⁽¹⁾</u>	<u>2018⁽¹⁾</u>
Revenues	16,114	4,181
Costs	(7,706)	(1,655)
Gross profit	<u>8,408</u>	<u>2,526</u>
Operating profit	7,796	4,686
Income from equity interests in associates and joint ventures	778	673
Net financial results	<u>(1,989)</u>	<u>280</u>
Net profit before income tax	<u>6,585</u>	<u>5,639</u>
Income tax	(2,359)	(1,150)
Net profit	<u>4,226</u>	<u>4,489</u>

- (1) On this information, accounting adjustments have been made for the calculation of equity interest and results of YPF EE. The equity and adjusted results do not differ significantly from the YPF EE financial information disclosed here.

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10. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Cont.)

The following table shows information of the subsidiaries:

Name and Issuer Subsidiaries ⁽⁷⁾	Description of the Securities			Main Business	Registered Address	Information of the issuer				
	Class	Face Value	Amount			Date	Last available financial statements		Equity	Holding in Capital Stock
						Capital stock	Net profit / (loss)			
YPF International S.A. ⁽⁶⁾	Common	Bs. 100	66,897	Investment	Calle La Plata 19, Santa Cruz de la Sierra, República de Bolivia	12-31-19	15	5	78	100,00%
YPF Holdings Inc. ⁽⁶⁾	Common	US\$ 0.01	810,614	Investment and finance	10333 Richmond Avenue I, Suite 1050, TX, U.S.A.	12-31-19	48,461	(6)	(12,848)	100,00%
Operadora de Estaciones de Servicios S.A.	Common	\$ 1	163,701,747	Commercial management of YPF's gas stations	Macacha Güemes 515, Buenos Aires, Argentina	12-31-19	164	1,193	4,307	99,99%
A-Evangélistas S.A.	Common	\$ 1	307,095,088	Engineering and construction services	Macacha Güemes 515, Buenos Aires, Argentina	12-31-19	307	(3,446)	(698)	100,00%
Metrogas S.A.	Common	\$ 1	398,419,700	Providing the public service of natural gas distribution	Gregorio Aráoz de Lamadrid 1360, Buenos Aires, Argentina.	12-31-19	569	110	19,500	70,00%
YPF Chile S.A. ⁽⁶⁾	Common	—	50,968,649	Lubricants and aviation fuels trading and hydrocarbons research and exploration	Villarica 322; Módulo B1, O'Higgins, Santiago	12-31-19	2,730	(1,013)	2,196	100,00%
YPF Tecnología S.A.	Common	\$ 1	234,291,000	Investigation, development, production and marketing of technologies, knowledge, goods and services	Macacha Güemes 515, Buenos Aires, Argentina	12-31-19	459	436	2,729	51,00%
Compañía de Inversiones Mineras S.A.	Common	\$ 1	236,474,420	Exploration, exploitation, processing, management, storage and transport of all types of minerals; assembly, construction and operation of facilities and structures and processing of products related to mining	Macacha Güemes 515, Buenos Aires, Argentina	12-31-19	236	(407)	76	100,00%



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10. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Cont.)

The following table shows the investments in associates and joint ventures:

Name and Issuer Joint Ventures ⁽⁵⁾	Description of the Securities					Information of the issuer					Book Value ⁽²⁾		
	Class	Face Value	Amount	Book value ⁽²⁾	Cost ⁽¹⁾	Main Business	Registered Address	Last available financial statements				Holding in Capital Stock	
								Date	Capital stock	Net profit/ (loss)			Equity
YPF Energia Eléctrica S.A. ⁽⁶⁾	Common	\$	1,879,916,921	35,382	1,085	Exploration, exploitation, industrialization and marketing of hydrocarbons and generation, transport and marketing of electric energy	Maeccha Giteemes 515, Buenos Aires, Argentina	12-31-19	3,747	4,227	45,539	75.00%	19,320
Compañía Mega S.A. ⁽⁶⁾	Common	\$	244,246,140	5,211	—	Separation, fractionation and transportation of natural gas liquids	San Martín 344, P. 10 ^o , Buenos Aires, Argentina	09-30-19	643	220	12,612	38.00%	3,405
Profertí S.A. ⁽⁶⁾	Common	\$	391,291,320	10,778	—	Production and marketing of fertilizers	Alicia Moreau de Justo 740, P. 3, Buenos Aires, Argentina	09-30-19	783	335	23,498	50.00%	6,133
Refinería del Norte S.A.	Common	\$	45,803,655	1,881	—	Refining	Maipú I, P. 2 ^o , Buenos Aires, Argentina	09-30-19	92	(298)	3,296	50.00%	1,307
Oleoducto Loma Campana-Lago Pellegrini S.A. ⁽⁶⁾	Common	\$	738,139,164	762	738	Construction and exploitation of a pipeline, oil transport and storage, import, export, purchase and sale of raw materials, industrial equipment and machinery	Maeccha Giteemes 515, Buenos Aires, Argentina	12-31-19	868	(303)	909	85.00%	—
CT Barragán S.A. ⁽⁶⁾	Common	\$	4,279,033,952	6,799	4,348	Production and generation of electric energy	Maipú I, Buenos Aires, Argentina	12-31-19	8,558	2,370	13,619	50.00%	—
Associates:				60,813	6,171								30,165
Oleoductos del Valle S.A.	Common	\$	4,072,749	1,778	—	Oil transportation by pipeline	Florida I, P. 10 ^o , Buenos Aires, Argentina	12-31-19	110	1,707	4,728	37.00%	710
Terminales Marítimas Patagónicas S.A.	Common	\$	476,034	711	—	Oil storage and shipment	Av. Leandro N. Alem 1180, P. 11 ^o , Buenos Aires, Argentina	09-30-19	14	713	2,111	33.15%	226
Oilbanking Ebyren S.A. ⁽⁶⁾	Common	\$	351,167	871	—	Hydrocarbon transportation and storage	Rosales – Provincia de Buenos Aires, Argentina	12-31-19	12	869	2,775	30.00%	424
Central Dock Sud S.A. ⁽⁶⁾	Common	\$	11,869,095,145	1,542	—	Electric power generation and bulk marketing	Pasaje Ingeniero Butry 220, P. 16 ^o , Buenos Aires, Argentina	12-31-19	1,231	3,447	15,284	10.25% ⁽⁴⁾	625
YPF Gas S.A.	Common	\$	59,821,434	965	—	Gas fractionation, bottling, distribution and transport for industrial and/or residential use	Maeccha Giteemes 515, P. 3 ^o , Buenos Aires, Argentina	09-30-19	176	1,388	4,218	33.99%	258
Other companies:				922	611								290
				6,789	611								2,533
				67,602	6,782								32,698

- (1) Corresponds to cost and contributions, net of dividends collected and capital reductions.
- (2) Corresponds to holding in shareholders' equity plus adjustments to conform to YPF accounting principles.
- (3) Incluye Gasoducto del Pacífico (Cayman) Ltd., Gasoducto del Pacífico (Argentina) S.A., A&C Pipeline Holding Company, Oleoducto Transandino (Chile) S.A., Oleoducto Transandino (Argentina) S.A., Bizoy S.A., Civeny S.A., Bioceres S.A., Petrofaro S.A. and Sustentator S.A.
- (4) Additionally, the Group has a 22.49% indirect holding in capital stock through YPF EE.
- (5) As stipulated by shareholders' agreement, joint control is held in this company by shareholders.
- (6) The U.S. dollar has been defined as the functional currency of this company.

(7) Additionally, consolidated YPF Services USA Corp., YPF Europe B.V., YPF Brasil Comércio Derivado de Petróleo Ltda, Wokler Investment S.A., YPF Colombia S.A.S., Miwen S.A., Eleran Inversiones 2011 S.A.U., Lestery S.A., Energía Andina S.A and YPF Ventures S.A.U.

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11. INVENTORIES

	2019	2018	2017
Refined products	50,563	33,583	16,260
Crude oil and natural gas	24,756	14,571	8,474
Products in process	2,259	1,177	640
Raw materials, packaging materials and others	2,901	3,993	1,775
	<u>80,479⁽¹⁾</u>	<u>53,324⁽¹⁾</u>	<u>27,149⁽¹⁾</u>

(1) As of December 31, 2019, 2018 and 2017, the cost of inventories does not exceed their net realizable value.

12. OTHER RECEIVABLES

	2019		2018		2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Trade	455	2,706	150	2,210	74	2,892
Tax credit, export rebates and production incentives	6,896	6,076	3,534	3,315	360	3,131
Loans to third parties and balances with related parties ⁽¹⁾	2,435	3,288	3,565	4,920	185	1,116
Collateral deposits	2	640	1	575	1	315
Prepaid expenses	603	2,370	240	2,207	180	934
Advances and loans to employees	29	596	25	572	17	412
Advances to suppliers and custom agents ⁽²⁾	—	10,896	1	4,212	2	1,700
Receivables with partners in JO	2,248	7,932	2,644	2,379	743	1,165
Insurance receivables	—	498	—	758	—	206
Miscellaneous	45	1,255	32	770	31	870
	<u>12,713</u>	<u>36,257</u>	<u>10,192</u>	<u>21,918</u>	<u>1,593</u>	<u>12,741</u>
Provision for other doubtful receivables	(924)	(65)	(575)	(51)	(258)	(57)
	<u>11,789</u>	<u>36,192</u>	<u>9,617</u>	<u>21,867</u>	<u>1,335</u>	<u>12,684</u>

(1) See Note 35 for information about related parties.

(2) Includes among others, advances to customs agents for the payment of taxes and import rights related to the imports of fuels and goods.

13. TRADE RECEIVABLES

	2019		2018		2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Accounts receivable and related parties ⁽¹⁾⁽²⁾	15,325	124,657	23,508	75,422	2,210	41,972
Provision for doubtful trade receivables	—	(6,580)	—	(2,776)	—	(1,323)
	<u>15,325</u>	<u>118,077</u>	<u>23,508</u>	<u>72,646</u>	<u>2,210</u>	<u>40,649</u>

(1) See Note 35 for information about related parties.

(2) See Note 23 for information about credits for contracts included in trade receivables.

Set forth below is the evolution of the provision for doubtful trade receivables as of December 31, 2019, 2018 and 2017:

	2019	2018	2017
Balance at beginning of year	<u>2,776</u>	<u>1,323</u>	<u>1,084</u>
Modification of balance at beginning of the fiscal year ⁽¹⁾	—	425	—
Balance at beginning of the fiscal year	<u>2,776</u>	<u>1,748</u>	<u>1,084</u>
Increases charged to expenses	3,891	444	222
Decreases charged to income	(707)	(91)	(194)
Amounts incurred due to utilization	(112)	—	—
Translation differences	847	607	92
Result from net monetary position ⁽²⁾	(103)	92	—
Other movements	(12)	(24)	119
Balance at end of year	<u>6,580</u>	<u>2,776</u>	<u>1,323</u>

- (1) Corresponds to the change in the accounting policy described in detail in Note 2.b.18.
 (2) Includes adjustment for inflation of opening balances of the provision for doubtful trade receivables in subsidiaries with the Peso as functional currency which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.

14. CASH AND CASH EQUIVALENTS

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Cash and banks	6,983	6,678	9,672
Short-term investments	52,079 ⁽¹⁾	31,558 ⁽¹⁾	15
Financial assets at fair value through profit or loss ⁽²⁾	<u>7,038</u>	<u>7,792</u>	<u>19,051</u>
	<u>66,100</u>	<u>46,028</u>	<u>28,738</u>

- (1) Includes term deposits and other investments with the BNA for 10,043 and 5,084 as of December 31, 2019 and 2018, respectively.
 (2) See Note 6.

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15. PROVISIONS

Changes in the Group's provisions for the fiscal years ended December 31, 2019, 2018 and 2017 are as follows:

	Provision for lawsuits and contingences		Provision for environmental liabilities		Provision for hydrocarbon wells abandonment obligations		Total	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Amount as of December 31, 2016	9,205	569	530	868	37,623	557	47,358	1,994
Increase charged to expenses	2,394	83	1,483	—	2,946	2	6,823	83
Decreases charged to income	(1,570)	(410)	(6)	(661)	8	—	(1,368)	(408)
Amounts incurred due to payments/utilization	(25)	(187)	—	(661)	6,874	(515)	(25)	(1,365)
Net exchange and translation differences	1,483	75	—	—	(5,580) ⁽¹⁾	121	8,357	196
Reclassifications and other movements	180 ⁽²⁾	558	(811)	811	(6,211)	571 ⁽¹⁾	(6,211)	1,940
Amount as of December 31, 2017	11,667	688	1,196	1,018	41,871	736	54,734	2,442
Increase charged to expenses	3,320	357	3,021	—	3,785	—	10,126	357
Decreases charged to income	(371)	(266)	—	—	(14,250)	—	(14,621)	(266)
Amounts incurred due to payments/utilization	(76)	(129)	—	(933)	43,674	(1,514)	(76)	(2,576)
Net exchange and translation differences	6,826	471	495	80	—	758	50,995	1,309
Increase due to business combination ⁽³⁾	—	—	465	—	—	—	465	—
Result from net monetary position ⁽⁴⁾	(204)	66	—	—	—	—	(204)	66
Reclassifications and other movements	73	(64)	(1,457)	1,457	(16,647) ⁽¹⁾	1,804 ⁽¹⁾	(18,031)	3,197
Amount as of December 31, 2018	21,235	1,123	3,720	1,622	58,433	1,784	83,388	4,529
Increase charged to expenses	18,460 ⁽⁵⁾	9	1,695	—	7,409	—	27,564	9
Decreases charged to income	(2,358)	(744)	(63)	—	(2,950)	—	(5,371)	(744)
Amounts incurred due to payments/utilization	(73)	(194)	—	(1,821)	35,219	(2,774)	(43,103)	(4,789)
Net exchange and translation differences	7,405	443	479	106	—	1,079	43,103	1,628
Result from net monetary position ⁽⁴⁾	(92)	—	—	—	—	—	(92)	—
Reclassifications and other movements	(744)	648	(2,003)	2,003	(1,004) ⁽¹⁾	2,176 ⁽¹⁾	(3,751)	4,827
Amount as of December 31, 2019	43,833	1,285	3,828	1,910	97,107	2,265	144,768	5,469

- (1) Includes 1,172, (11,710) and (4,913) corresponding to the annual recalculation of abandonment of hydrocarbon wells cost for the years ended December 31, 2019, 2018 and 2017, respectively; (3,133) and (96) corresponding to liabilities reclassified as Liabilities associated to assets held for disposal as of December 31, 2018 and 2017, respectively.
- (2) Includes (2,098) corresponding to resolutions for contractual claims that were reclassified to Other liabilities (see Note 15.a.2); and 2,932 of reclassifications of Other liabilities (see Note 31).
- (3) See Note 3.
- (4) Includes adjustment for inflation of opening balances of provisions in subsidiaries with the Peso as functional currency which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.
- (5) Includes 10,572 corresponding to the recognition of the dispute relating to the tax deduction of well abandonment costs for periods 2011-2017 plus the accrual of financial interest since March 31, 2019, date on which the Company decided to adhere to the payment facility plan.



15. PROVISIONS (Cont.)

The Group is part to a number of labor, commercial, civil, tax, criminal, environmental, customs and administrative proceedings that, either alone or in combination with other proceedings, could, if resolved in whole or in part adversely against it, result in the imposition of material costs, judgments, fines or other losses. While the Group believes that such risks have been provisioned appropriately based on the opinions and advice of our legal advisors and in accordance with applicable accounting standards, certain loss contingencies are subject to change as new information develops and results of the presented evidence are obtained, among other factors. It is possible that losses resulting from such risks, if proceedings are decided in whole or in part adversely to the Group, could significantly exceed the recorded provisions.

Additionally, due to its operations, the Group is subject to various laws and regulations relating to the protection of the environment. These laws and regulations may impose, among other things, liability on companies for the cost of pollution cleanup and environmental damages resulting from operations. Management believes that the Group's operations are in substantial compliance with laws and regulations currently in force relating to the protection of the environment as such laws have historically been interpreted and enforced.

However, the Group is periodically conducting new studies to increase its knowledge concerning the environmental situation in certain geographic areas where the Group operates in Argentina, in order to establish their status, causes and necessary remediation and, based on the aging of the environmental issue, to analyze the possible responsibility of the Argentine Government, in accordance with the contingencies assumed by the Argentine Government for which YPF has the right of indemnity for liabilities existing as of December 31, 1990. Until these studies are completed and evaluated, the Group cannot estimate what additional costs, if any, will be required. However, it is possible that other work, including provisional remedial measures, may be required.

15.a) Provision for lawsuits and contingencies

The Group has recognized pending lawsuits, claims and contingencies, which are probable and can be reasonably estimated. The most significant pending lawsuits and contingencies recognized are described in the following paragraphs.

15.a.1) Liabilities and contingencies assumed by the Argentine Government before 1990

Under YPF's Privatization Law, the Argentine Government took over certain obligations of the predecessor company as of December 31, 1990. In certain lawsuits related to events or acts that took place before December 31, 1990, YPF has been required to make advance payments established in certain judicial decisions. YPF has the right to be reimbursed for these payments by the Argentine Government pursuant to the above-mentioned indemnity.

15.a.2) Claims arising from restrictions in the natural gas market

- DOP Claims

Pursuant to Resolution No. 265/2004 of the Secretariat of Energy, the Argentine Government created a program of useful cutbacks of natural gas exports and their associated transportation services. Such program was initially implemented by means of Regulation No. 27/2004 of the Under-Secretariat of Fuels, which was subsequently substituted by the Program of Rationalization of Gas Exports and Use of Transportation Capacity (the "Program") approved by Resolution No. 659/2004 of the Secretariat of Energy. Additionally, Resolution No. 752/2005 provided that industrial users and thermal generators (which according to this resolution will have to request volumes of gas directly from the producers) could also acquire the natural gas from the cutbacks on natural gas exports through the Permanent Additional Injection mechanism created by this resolution. Through the Program and/or the Permanent Additional Injection, the Argentine Government requires natural gas exporting producers to deliver additional volumes to the domestic market in order to satisfy natural gas demand of certain consumers in the Argentine market ("Additional Injection Requirements"). Such additional volumes are not contractually committed by YPF, which is thus forced to affect natural gas exports, which execution has been conditioned. The mechanisms established by the Resolutions No. 659/2004 and 752/2005 have been adapted by Secretariat of Energy Resolution No. 599/2007, which modifies the conditions for the imposition of the requirements, depending on whether the producers have signed the proposed agreement, ratified by such resolution, between the Secretariat of Energy and the producers.



15. PROVISIONS (Cont.)

Resolution No. 1,410/2010 of the ENARGAS also approved the “Procedure for Applications, Confirmations and Gas Control” which sets new rules for natural gas dispatch applicable to all participants in the natural gas industry, imposing new and more severe regulations to the producers’ availability of natural gas. Additionally, the Argentine Government, through instructions made using different procedures, has ordered limitations on natural gas exports (in conjunction with the Program and the Permanent Additional Injection, named the “Export Administration”). On January 5, 2012, the BO published Secretariat of Energy Resolution No. 172, which temporarily extends the rules and criteria established by Resolution No. 599/2007, until new legislation replaces the resolution previously mentioned. This resolution was appealed on February 17, 2012 by filing a motion for reconsideration with the Secretariat of Energy.

Because of the resolutions mentioned before, in several occasions since 2004, YPF was forced to suspend, either totally or partially, its natural gas deliveries to some of its export clients, with whom YPF has undertaken firm commitments to deliver natural gas.

YPF has challenged the Program, the Permanent Additional Injection and the Additional Injection Requirements, established by Secretariat of Energy Resolutions No. 599/2007 and 172/2011 and ENARGAS Resolution No. 1,410/2010, as arbitrary and illegitimate, and has invoked vis-à-vis the relevant clients that the Export Administration constitute a fortuitous case or force majeure event (act of authority) that releases YPF from any liability and/or penalty for the failure to deliver the contractual volumes. These clients have rejected the force majeure argument invoked by YPF, and some of them have demanded the payment of indemnifications and/or penalties for the failure to comply with firm supply commitments, and/or reserved their rights to future claims in such respect. On December 9, 2015, the ENARGAS rejected YPF’s challenge to Resolution No. 1,410/2010. YPF did not appeal the ENARGAS resolution that dismissed the presented challenge. On June 29, 2018 ENARGAS Resolution No. 124/2018 was published, approving the restated text of the internal regulations of dispatch centers applicable as of June 30, 2018 and derogates ENARGAS Resolution No. 1,410/2010.

Costs from contractual penalties arising from the failure to deliver natural gas until December 31, 2019, have been charged to provision to the extent that such costs are probable and can be reasonably estimated.

- **AES Uruguaiana Empreendimentos S.A. (“AESU”) and Transportadora de Gas del Mercosur S.A. (“TGM”)**

On June 25, 2008, AESU claimed damages in a total amount of US\$ 28.1 million for natural gas “deliver or pay” penalties for cutbacks accumulated from September 16, 2007 until June 25, 2008, and also claimed an additional amount of US\$ 2.7 million for natural gas “deliver or pay” penalties for cutbacks accumulated from January 18, 2006 until December 1, 2006. YPF has rejected both claims. On September 15, 2008, AESU notified YPF that it would no longer be complying with its obligations, alleging late payments and non-compliance by YPF. YPF rejected the arguments of this notification. On December 4, 2008, YPF notified AESU that, having ceased the force majeure conditions pursuant to the contract in force; it would suspend its delivery commitments, due to repeated breaches of AESU obligations. AESU has rejected this notification. On December 30, 2008, AESU rejected YPF’s right to suspend its natural gas deliveries. On March 20, 2009, AESU formally notified YPF of the termination of the contract. On April 6, 2009, YPF promoted an arbitration process at the International Chamber of Commerce (“ICC”) against AESU, Companhia do Gas do Estado do Rio Grande do Sul (“SULGAS”) and Transportadora de Gas del Mercosur S.A. (“TGM”). On the same date, YPF was notified by the ICC of an arbitration process initiated by AESU and SULGAS against YPF in which they claimed, among other matters considered inadmissible by YPF, consequential loss, AESU’s plant dismantling costs and the payment of DOP penalties mentioned above, all of which totaled approximately US\$ 1,052 million.

Additionally, YPF was notified of the arbitration process brought by TGM at the ICC, claiming from YPF the payment of approximately US\$ 10 million plus interest up to the date of effective payment, in connection with the payment of invoices related to the Transportation Gas Contract entered into on September 1998 between YPF and TGM, associated with the aforementioned exportation of natural gas contract signed with AESU.



15. PROVISIONS (Cont.)

On April 8, 2009, YPF requested that this claim be rejected and counterclaimed for the termination of the natural gas transportation contract based on its termination rights upon the termination by AESU and SULGAS of the related natural gas export contract. In turn, YPF initiated an arbitration process at the ICC against TGM, among others. YPF received the reply to the complaint from TGM, which requested the full rejection of YPF's claims and filed a counterclaim against YPF asking the Arbitration Tribunal to require YPF to compensate TGM for all present and future damages suffered by TGM due to the termination of the Transportation Gas Contract and the Memorandum of Agreement dated on October 2, 1998, through which YPF undertook to pay irrevocable non-capital contributions to TGM in return for the Uruguayana Project pipeline expansion, and to require AESU and SULGAS (in the case the Arbitration Tribunal finds that the termination of the Gas Contract occurred due to the failure of AESU or SULGAS) to indemnify all damages caused by such termination to TGM jointly and severally. Additionally, on July 10, 2009, TGM increased the amount of its claim to US\$ 17 million and claimed an additional amount of approximately US\$ 366 million for loss of profits, which were considered inadmissible with respect to YPF, based on the foregoing the amendment to the complaint was answered rejecting the grounds alleged by TGM.

On April 6, 2011, the Arbitration Tribunal appointed in the "YPF vs. AESU" arbitration decided to sustain YPF's motion, and determined the consolidation of all the related arbitrations ("AESU vs. YPF", "TGM vs. YPF" and "YPF vs. AESU") in the "YPF vs. AESU" arbitration. Consequently, AESU and TGM desisted from and abandoned their respective arbitrations, and all the matters claimed in the three proceedings are to be resolved in the "YPF vs. AESU" arbitration.

On January 10, 2014, YPF was served with the complaint for damages filed by AESU with the Arbitration Tribunal claiming a total amount of US\$ 815.5 million and also with the complaint for damages filed by TGM with the Arbitration Tribunal claiming a total amount of US\$ 362.6 million, which were rejected by YPF.

As a result of the legal and commercial complexities of the dispute between YPF, AESU and SULGAS, as well as the existence of litigation rights in different jurisdictions around the world (including the Republic of Argentina, the Republic of Uruguay and the United States of America), on December 30, 2016, these companies executed an agreement under which YPF undertook to pay a total of US\$ 60 million for which, without admitting facts or rights, they waived all claims that as of the date they had or could reciprocally have, with the exception, in the case of YPF, of the nullity remedies filed against the arbitral awards that remain in effect. The payment was made on January 10, 2017.

Moreover, on December 4, 2017, YPF entered into a settlement agreement with TGM terminating all existing claims between the parties, under which YPF agreed to pay TGM the sum of US\$ 114 million in compensation as total and final payment of all the arbitration and legal actions of TGM (US\$ 107 million in an initial payment on January 2, 2018 and the balance of US\$ 7 million in 7 annual installments of US\$ 1 million each, the first one maturing on February 1, 2018 and the rest on the same date of the following years). In addition, YPF committed to pay TGM the sum of US\$ 13 million (in 7 annual installments of US\$ 1.86 million each, with the same maturity date as the compensation balance) as payment on account of an interruptible exportation transport contract to be entered into by the parties and effective until 2027. This settlement agreement implied the withdrawal of the proceedings brought by YPF to obtain the declaration of the annulment of the Final Award of Damages and of the resources filed by TGM to obtain the revocation of the ruling of Division IV of the Federal Contentious Administrative Court of Appeals, which ordered the annulment of the Responsibility Award. The initial payment for US\$ 107 million and the installments amounting to US\$ 1 million and US\$ 1.86 million were made timely on February 1, 2018, February 1, 2019 and February 3, 2020, respectively.



15. PROVISIONS (Cont.)

- **Transportadora de Gas del Norte S.A. (“TGN”)**

On April 8, 2009, YPF filed a complaint against TGN with ENARGAS, seeking the termination of the natural gas transportation contract with TGN in connection with the natural gas export contract entered into with AESU and other parties. The termination of the contract with that company is based on: (a) the impossibility of YPF to receive the service and of TGN to render the transportation service, due to (i) the termination of the natural gas contract with SULGAS and AESU and (ii) the legal impossibility of assigning the transportation contract to other shippers because of the regulations in effect, (b) the legal impossibility of TGN to render the transportation service on a firm basis because of certain changes in law in effect since 2004, and (c) the “Teoría de la Imprevisión” available under Argentine law, when extraordinary events render a party’s obligations excessively burdensome. As of the date of these financial statements, this complaint has not been resolved.

In the complaint, TGN claimed the compliance with the contract and payment of unpaid invoices from February 20, 2007 until March 20, 2009 for a total of US\$ 30 million. TGN then amended the complaint and claimed the payment of unpaid invoices (i) from April 20, 2009 until June 20, 2010 for a total of US\$ 31 million, (ii) from July 20, 2010 until November 20, 2010 for a total of US\$ 10 million, and (iii) from December 6, 2010 until January 4, 2011 for a total of US\$ 3 million.

Additionally, TGN notified YPF of the termination of its transportation contract because of YPF’s alleged failure to pay its transportation invoices. YPF has responded to these claims, rejecting them based on the legal impossibility of TGN to render the transportation service and in the termination of the transportation contract determined by YPF and formalized with a complaint initiated before ENARGAS.

Regarding the trial for the collection of bills, in September 2011, YPF was notified of the resolution of the Court of Appeals rejecting YPF’s claims and declaring that ENARGAS is not the appropriate forum to decide on the matter and giving jurisdiction to the Civil and Commercial Federal courts to decide on the claim for the payment of unpaid invoices mentioned above.

On September 21, 2016, evidence was submitted and the case was opened. Upon the expiration of the trial period and the submission of the final arguments, the case was set for rendering judgment.

On April 3, 2013, YPF was notified of the complaint for damages brought by TGN, whereby TGN claimed the amount of US\$ 142 million from YPF, plus interest and legal fees for the termination of the transportation contract. On May 31, 2013, YPF responded to the claim, requesting the dismissal thereof. On April 3, 2014, the evidence production period commenced for a 40-day lapse, and the court notified the parties that they would submit a copy of evidence offered by them to create an exhibit binder. YPF submitted its plea on June 21, 2017, after the closing of the evidentiary period.

After both parties’ pleas were submitted, the Lower Court decided it would defer its final judgment until after deciding on the claim brought by TGN to litigate in forma pauperis. TGN appealed through separate complaints, which were dismissed by the Court of Appeals in November 2017. On June 21, 2018, TGN filed for a withdrawal to the waiver it obtained in respect of payment of Court fees and costs, based on the improvement in its financial situation during 2018, and paid the Court fees. The Court requested TGN to express the taxable basis on which payment of the Court fees was assessed and ordered to notify YPF of this waiver. YPF opposed TGN’s request that each party bears its own legal costs and on November 28, 2018 the court decided to dismiss the request for the benefit of litigation without costs and charged TGN with legal costs. Without prejudice to this, the main file went on to pass sentencing.

On April 5, 2019, the Second Chamber of the National Court of Appeals in Federal Civil and Commercial matters revoked the decision of the Lower Court and ordered that each party should bear its own costs, as it considered that YPF does not sustain any damages, since that benefit granted was only limited to the payment of the Court’s fees.



15. PROVISIONS (Cont.)

- **Nación Fideicomisos S.A. (“NAFISA”)**

NAFISA initiated a claim against YPF in relation to payments of applicable fees to Fideicomiso Gas I and Fideicomiso Gas II, respectively, for natural gas transportation services to Uruguiana corresponding to the transportation invoices claimed by TGN. A mediation hearing finished without resulting in an agreement, concluding the pre-trial stage. Additionally, on January 12, 2012 and following a mediation process that ended without any agreement, NAFISA filed a complaint against YPF, under article 66 of Law No. 24,076, before ENARGAS, claiming the payment of certain transportation charges in an approximate amount of 339.

On February 8, 2012, YPF answered the claim, highlighting ENARGAS’ lack of competence on this matter, referring to the connection with the “TGN vs. YPF” trial, the consolidation in the “TGN vs. YPF” trial and rejecting the claim based on the theory of legal impossibility of TGN to provide the transportation services. On the same date, a similar order of consolidation was also submitted in the “TGN vs. YPF” trial. On April 12, 2012, ENARGAS resolved in favor of NAFISA. On May 12, 2012, YPF filed an appeal against such resolution to the National Court of Appeals in the Federal Contentious Administrative. On November 11, 2013, the court dismissed the direct appeal filed by YPF. In turn, on November 19, 2013, YPF submitted an ordinary appeal before the CSJN and on November 27, an extraordinary appeal was lodged before the CSJN. The ordinary appeal was granted and YPF timely filed the grounds for such an appeal. On September 29, 2015, the CSJN upheld YPF’s appeal and reversed the resolution issued by the Federal Contentious Administrative Court – Division IV – because ENARGAS lacks legal capacity to participate in these proceedings, as the parties are not subject to the Gas Law. The administrative instance for this case has been concluded, following the exhaustion of the administrative proceedings before ENARGAS. NAFISA has failed to file a complaint in court to date.

15.a.3) Claims within the jurisdiction of the CNDC

The Users and Consumers Association claimed (originally against Repsol YPF S.A. before extending its claim to YPF) the reimbursement of the overprice allegedly charged to bottled LPG consumers between 1993 and 1997 and 1997 to 2001. In the response to the claim, YPF requested for the first period claimed, the application of the statute of limitations since at the date of the extension of the claim, the two-year limit had already elapsed.

On December 28, 2015, the lower court rendered judgment admitting the claim seeking compensation for the term between 1993 and 1997 filed by the Users and Consumers Association against YPF and ordered the Company to transfer the amount of 98 plus interest (to be estimated by the expert witness in the settlement period) to the Secretariat of Energy, to be allocated to the trust fund created by Law No. 26,020.

The ruling rejects the claim for the items corresponding to the period between 1997 and 2001, considering that YPF’s position in the domestic bulk LPG market had not been sufficiently proved. Furthermore, the ruling dismissed the complaint against Repsol S.A., as Repsol YPF S.A. had no equity interest in YPF, nor any other kind of relation with YPF from 1993 to 1997, the period in which the plaintiffs claim YPF abused its dominant position.

The Company appealed the decision, which was admitted with suspensory effect. The Users and Consumers Association also appealed the judgment and both parties filed their respective appellate briefs.

On December 7, 2017, the Company was served with notice of the judgment of the Court of Appeals whereby: (i) confirming the claims for compensation for the 1993 to 1997 period; (ii) extending the claim of Users and Consumers Association for the period 1997 to December 1999 for the item “equity transfer of consumers to producers for the higher cost of LPG”, postponing the liquidation of the item for the execution stage of the judgment (the Court of Appeals did not set this amount); and (iii) partially granting the appeal filed by the defendant with respect to the item “damage caused by lower or different energy consumption due to the higher cost of LPG”.



15. PROVISIONS (Cont.)

It should be noted that the ruling confirmed by the Court of Appeals does not order YPF to pay the claimant the ultimately settled amount, but rather to transfer such funds to the National Secretariat of Energy for the funds to be allocated to a trust fund created by Law No. 26,020, for purposes of the expansion of the natural gas network in areas with lower resources according to the criteria established by the enforcement authority. The enforcement authority, within six months from the settlement of the judgment amount, must present the corresponding feasibility studies (Dec. 470/2015) together with a work plan, which must begin within six months from the presentation of the feasibility studies.

Finally, the Company filed an extraordinary appeal against the judgment of the Court of Appeals, which has been sustained and the court file has been submitted to the CSJN.

15.a.4) Environmental claims:

- **La Plata**

In relation with the operation of the refinery that YPF has in La Plata, there are certain claims for compensation of individual damages purportedly caused by the operation of the La Plata refinery and the environmental remediation of the channels adjacent to the mentioned refinery. During 2006, YPF submitted a presentation before the Environmental Secretariat of the Province of Buenos Aires, which put forward for consideration the performance of a study for the characterization of environmental associated risks. As previously mentioned, YPF has the right to indemnity for events and claims prior to January 1, 1991, according to Law No. 24,145 and Decree No. 546/1993. Additionally, there are certain claims that could result in the requirement to make additional investments connected with the operations of La Plata refinery.

On January 25, 2011, YPF entered into an agreement with the environmental agency of the Government of the Province of Buenos Aires (*Organismo Provincial para el Desarrollo Sostenible*, or "OPDS"), within the scope of the Remediation, Liability and Environmental Risk Control Program, created by Resolution No. 88/2010 of the OPDS. Pursuant to the agreement, the parties agreed to jointly perform an eight-year work program in the channels adjacent to the La Plata refinery, including characterization and risk assessment studies of the sediments. The agreement provides that, in the case that a required remediation action is identified because of the risk assessment studies, the different alternatives and available techniques will be considered, as well as the steps needed for the implementation. Dating studies will also be performed pursuant to the agreement, in order to determine responsibilities of the Argentine Government in accordance with its obligation to hold YPF harmless in accordance with the article 9 of Law No. 24,145 of the Privatization of YPF. In this context, YPF, with the agreement of OPDS, has carried out several studies and characterizations through specialized consultants whose progress has been notified to the provincial body.

In addition to the above, there are other similar claims made by neighbors of the same locale, alleging environmental and other associated damages.

- **Quilmes**

The plaintiffs who allege to be residents of Quilmes, Province of Buenos Aires, have filed a lawsuit in which they have requested remediation of environmental damages and also the payment as compensation for alleged personal damages. They base their claim mainly on a fuel leak in the pipeline running from La Plata to Dock Sud, currently operated by YPF, which occurred in 1988 as a result of an unlawful act that caused the rupture of the polyduct, when YPF was a state-owned company. Fuel would have emerged and become perceptible on November 2002, which resulted in remediation works that are being performed by the Company in the affected area, supervised by the environmental authority of the Province of Buenos Aires. The Argentine Government has denied any responsibility to indemnify YPF for this matter, and the Company has sued the Argentine Government to obtain a declaration of invalidity of such decision. The suit is still pending.

In addition to the above, YPF was notified of a similar environmental claim for damages made by residents of the same locale. Such complaint has been answered in due course. At present, the case is undergoing the evidentiary stage.



15. PROVISIONS (Cont.)

- **Other environmental claims**

In addition to claims discussed above, the Group has other legal claims against it based on similar arguments. In addition, non-judicial claims have been initiated against YPF based on similar arguments. In all these cases, considering the information available to date, the estimated time remaining until the end of the proceedings, and the results of the additional evidence presented during the continuation of the litigation, the Group has charged to provision its best estimate for the objective value of the claims.

15.a.5) Tax claims

- **Dispute over the cost deduction for well abandonment**

The Company has consistently recorded the cost of abandoning wells in accordance with the criteria detailed in Note 2.b.6 and, in the absence of a specific treatment of that subject in the Income Tax Law and its Regulatory Decree, has deducted the charge for well plugging costs in the calculation of this tax, based on the general criteria of the standard for deduction of expenses (accrual criteria). Nevertheless, this interpretation has been objected to by the AFIP, which would allow for deductions once the expense has been done.

Although both consider it a deductible expense, the disagreement between YPF and the AFIP stems from the criteria that each of them uses to decide when the obligation to plug up the wells arises, which, in turn, is the one that determines when the deduction from the income tax should be taken.

The AFIP understands that the deduction of costs due to the abandonment of wells should be deferred until the taxpayer has the opportunity to proceed with plugging the well, once the wells have been exhausted, considering the abandonment of the well to be the event generating the accruing costs of plugging up the wells.

On the other hand, the Company, as well as other companies in the oil industry, understand that the event that generates the well-plugging costs in connection with the abandonment of wells is the act of drilling, as the drilling constitutes environmental impact and, consequently, the obligation to repair such impact through well plugging arises from that moment. This obligation is not subject to any condition since there is no uncertainty as to whether well depletion will inevitably occur. The Company has learned that similar disputes have been raised by the AFIP with other companies in the oil industry.

In June 2016, the SRH of MINEM, the competent body to clarify the origin of the legal obligation in the matter, and in response to a consultation of the Chamber of Oil Exploration and Production, ruled in favor of the position of the oil companies and concluded that the substantial event generating the charge for the abandonment of wells is the drilling.

This response of the Chamber has been reported to the AFIP by both the SRH and by YPF but, with respect to different questions the AFIP disregarded this position and, on December 29, 2016, notified the Company of two resolutions, adjusting the income tax for the fiscal periods 2005 to 2009 and questioning the criteria followed by the Company. On February 20, 2017, YPF filed the corresponding appeal to the TFN for such unilateral determinations.

The disputed amount for the years claimed by AFIP amounted to a total of 4,354 considering principal and interest.

On June 15, 2018, the Company was notified of the AFIP's final decision, whereby the income tax for fiscal year 2010 was adjusted by 1,175. On July 10, 2018 the Company filed the corresponding appeal to the TFN.

On November 7, 2018, the Company was notified of the commencement of a determination procedure with respect to the projected adjustment for fiscal years 2011 to 2016. The Company filed its defense on December 21, 2018.



15. PROVISIONS (Cont.)

On March 1, 2019, AFIP's General Resolution No. 4,434/2019, was published in the BO, establishing a payment facility plan in relation to the tax liabilities being heard at the TFN. This facility plan, which expired on June 30, 2019, contemplated a variable rate with payment terms of up to 5 years. The acceptance of the Tax Authority's requirements, and the waiver of any action or right, including the right of recourse, by the taxpayer was a necessary condition to adhere to the plan, in relation to the obligations to cancel through the facility plan.

Additionally, AFIP's General Resolution No. 4,477/2019, published in the BO on May 6, 2019, established a new payment facility plan, whose availability for adherence expired on August 31, 2019, with the option of adhering from May 15 to June 25 in more favorable conditions.

The Company's Management, based on the opinion of its external advisors, and notwithstanding the technical merits for defending its position, evaluated the aforementioned payment facility plans and finally, on June 19, 2019, adhered to the Plan established by General Resolution AFIP No. 4,477/2019 for an amount of 5,734, thus finally settling the dispute corresponding to periods 2005 to 2010 which was being heard at the TFN. Regarding the dispute corresponding to periods 2011 to 2017, the Group has recorded a provision of 10,572.

On the other hand, on February 3, 2019, the Company was given notice of the commencement of an inspection procedure regarding fiscal year 2017.

With respect to the periods beginning in or after 2018, the Tax Reform enacted in December 2017 (see Note 34.j) allows for the deduction of well abandonment expenses as they are considered as an integral part of the computable cost of the investments in wells, regardless of the fiscal year in which the effective disbursement is made.

15.a.6) Other pending litigation

During the normal course of its business dealings, the Group has been sued in numerous legal proceedings in labor, civil and commercial courts. The management of the Company, in consultation with its outside counsel, has established a provision considering the best estimate for these purposes, based on the information available as of the date of issuance of these consolidated financial statements, including legal fees and expenses.

15.b) Provision for environmental expenses and obligations for the abandonment of hydrocarbon wells

Based on the Group's current remediation plan, the Group has accrued environmental remediation costs where assessments and/or remedy actions are probable and can reasonably be estimated.

16. INCOME TAX

The calculation of the income tax expense accrued for the years ended December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Current income tax	(1,938)	(943)	(605)
Deferred income tax	(3,588) ⁽¹⁾	(50,595)	4,574
Subtotal	(5,526)	(51,538)	3,969
Income tax – Well abandonment	(16,239) ⁽²⁾	—	—
Special tax – Tax revaluation, Law No. 27,430	(4,604) ⁽³⁾	—	—
	<u>(26,369)</u>	<u>(51,538)</u>	<u>3,969</u>

- (1) Includes (5,175) corresponding to the reversal of tax loss carryforwards related to the dispute relating to cost deduction for wells abandonment.
 (2) Includes (10,610) corresponding to interest related to the dispute relating to cost deduction for wells abandonment determined on the date the Company decided to adhere to the payment facility plan. See Note 15.
 (3) Includes (4,562) corresponding to YPF (See Note 34.j.) and (42) corresponding to YTEC.

The reconciliation between the charge to net income for income tax for the years ended December 31, 2019, 2018 and 2017 and the one that would result from applying the prevailing tax rate on net income before income tax arising from the consolidated statements of comprehensive income for each fiscal year is as follows:

	2019	2018	2017
Net income before income tax	(7,010)	90,144	8,703
Statutory tax rate	30%	30%	35%
Statutory tax rate applied to net income before income tax	2,103	(27,043)	(3,046)
Effect of the valuation of property, plant and equipment and intangible assets measured in functional currency	(20,189)	(100,760)	(18,185)
Exchange differences	22,553 ⁽¹⁾	67,767	12,318
Effect of the valuation of inventories	(11,553)	(8,666)	(1,558)
Income on investments in associates and joint ventures	2,390	1,452	500
Effect of tax rate change ⁽²⁾	1,956	12,795	13,892
Dispute associated to cost deduction for wells abandonment	(5,175)	—	—
Interest related to the payment facility plan for cost deduction for wells abandonment	1,333	—	—
Result of companies' revaluation	—	3,594	—
Miscellaneous	1,056	(677)	48
Income tax	<u>(5,526)</u>	<u>(51,538)</u>	<u>3,969</u>

- (1) Includes the effect of tax inflation.
 (2) Corresponds to the remediation of deferred income tax at the current rate See Notes 2.b.15 and 34.j.

The Group has classified 1,964 as current income tax payable, which mainly include 917 corresponding to the 12 installments related to the payment facility plan (see Note 15). Also, the Group has classified 3,387 as non-current income tax payable, which mainly include 3,364 corresponding to the 44 installments related to mentioned plan.

Breakdown of deferred tax as of December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Deferred tax assets			
Provisions and other non-deductible liabilities	5,344	2,920	1,861
Tax losses carryforward and other tax credits	52,443	21,575	6,484
Miscellaneous	937	270	99
Total deferred tax assets	<u>58,724</u>	<u>24,765</u>	<u>8,444</u>
Deferred tax liabilities			
Property, plant and equipment	(110,704)	(113,821)	(43,931)
Adjustment for tax inflation	(38,177)	—	—
Miscellaneous	(5,491)	(1,768)	(1,570)
Total deferred tax liabilities	<u>(154,372)</u>	<u>(115,589)</u>	<u>(45,501)</u>
Total Net deferred tax	<u>(95,648)⁽²⁾</u>	<u>(90,824)⁽¹⁾⁽²⁾</u>	<u>(37,057)</u>

- (1) Includes 127 as a result of the implementation of the impairment method in the calculation of the impairment of financial assets pursuant to IFRS 9, having an impact in "Retained earnings". See Note 2.b.18.
- (2) Includes (1,523) and (3,432) as of December 31, 2019 and 2018, respectively, corresponding to adjustment for inflation of the opening deferred liability of subsidiaries with the Peso as functional currency with effect in other comprehensive income.

16. INCOME TAX (Cont.)

For fiscal year ended December 31, 2019, the Group estimated a tax loss carryforward of 89,156. Deferred income tax assets are recognized for tax loss carryforwards to the extent their setoff through future taxable profits is probable. Tax loss carryforwards in Argentina expire within 5 years.

In order to fully realize the deferred income tax asset, the Group will need to generate taxable income. Based upon the level of historical taxable income and future projections for the years in which the deferred income tax assets are deductible, Management of the Company believes that as of December 31, 2019 it is probable that the Group will realize all of the deferred income tax assets.

As of December 31, 2019, Group's tax loss carryforwards at the expected recovery rate were as follows:

Date of generation	Date of expiration	Jurisdiction	Amount
2016	2021	Argentina	573
2017	2022	Argentina	495
2018	2023	Argentina	24,825
2019	2024	Argentina	26,550
			<u>52,443</u>

As of December 31, 2019, 2018 and 2017, there are no significant deferred tax assets which are not recognized.

As of December 31, 2019, 2018 and 2017, the Group has classified as deferred tax assets for 1,583, 301, and 588, respectively, and as deferred tax liability 97,231, 91,125, and 37,645, respectively, all of which arise from the net deferred tax balances of each of the separate companies included in these consolidated financial statements.

As of December 31, 2019, 2018 and 2017, the causes that generate charges to other comprehensive income, did not create temporary differences for income tax.

Law No. 27,468, published in the BO on December 4, 2018, established that the inflation adjustment procedure for taxation purposes will be applicable for fiscal years beginning January 1, 2018. In the first, second and third fiscal year since it became effective, this procedure shall be applicable if the variation in the CPI, estimated from the beginning to the end of each of those years exceeds 55%, 30% and 15%, for the first, second and third year of application, respectively. Considering CPI projections for December 31, 2019, the Group has applied the inflation adjustment procedure for taxation purposes.

17. TAXES PAYABLE

	2019		2018		2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
VAT	—	3,532	—	2,274	—	1,304
Withholdings and perceptions	—	2,070	—	1,631	—	946
Royalties	—	1,268	—	1,464	—	1,269
Tax on Fuels	—	635	—	1,290	—	452
IIBB	—	512	—	547	—	126
Miscellaneous	1,428	3,420	2,175	2,821	220	2,782
	<u>1,428</u>	<u>11,437</u>	<u>2,175</u>	<u>10,027</u>	<u>220</u>	<u>6,879</u>

18. SALARIES AND SOCIAL SECURITY

	2019	2018	2017
Salaries and social security	2,976	1,950	1,305
Bonuses and incentives provision	3,468	1,921	1,409
Vacation provision	3,610	2,215	1,386
Miscellaneous	150	68	32
	<u>10,204</u>	<u>6,154</u>	<u>4,132</u>

19. LEASE LIABILITIES

As of December 31, 2019, the Group recorded non-current and current lease liabilities in the amount of 40,391 and 21,389, respectively. These liabilities are discounted at the following rates:

<u>Lease term</u>	<u>Balance as of December 31, 2019</u>	<u>Effective average monthly rate used</u>
0 to 1 year	3,778	0.56%
1 to 2 years	7,634	0.73%
2 to 3 years	11,813	0.72%
3 to 4 years	5,404	0.70%
4 to 5 years	10,732	0.70%
5 to 9 years	2,498	0.78%
More than 9 years	19,921	0.98%
	<u>61,780</u>	

Financial expenses accrued as of year ended December 31, 2019, resulting from lease contracts, amount to 2,885, of which 2,574 were included in the “Financial Accretion” line in financial loss of the “Net Financial Results” item of the comprehensive statement of income and 311 were capitalized in “Property, Plant and Equipment”.

As of December 31, 2019, maturities of liabilities related to lease contracts are exposed on Note 4.

The evolution of the Group’s leases liabilities for the fiscal year ended December 31, 2019 is as follows:

	<u>Lease liabilities</u>
Balances for initial application of IFRS 16	23,059
Leases increase	39,779
Financial accretion	2,885
Leases decrease	(1,741)
Payments	(15,208)
Exchange and translation differences, net	12,999
Result from net monetary position ⁽¹⁾	7
Balance at the end of the year	<u>61,780</u>

- (1) Includes the adjustment for inflation of subsidiaries with the Peso as functional currency for first application of IFRS 16, which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.

20. LOANS

Pesos	Interest rate ⁽¹⁾	Maturity	2019		2018		2017		
			Noncurrent	Current	Noncurrent	Current	Noncurrent	Current	
Negotiable obligations ⁽⁶⁾	16.50% – 63.35%	2020-2024	8,619	27,481	26,118	6,999	29,640	5,753	
Loans	58.26% – 68.80%	2020	—	3,687	40	789 ⁽³⁾	728	2,794 ⁽³⁾	
Account overdraft	89.00% – 92.00%	2020	—	2,103	—	—	—	10	
			<u>8,619</u>	<u>33,271</u>	<u>26,158</u>	<u>7,788</u>	<u>30,368</u>	<u>8,557</u>	
Currencies other than the Peso									
Negotiable obligations ⁽²⁾⁽⁴⁾	3.50% – 10.00%	2020-2047	375,560	13,279	219,510	17,417	114,686	15,075 ⁽⁵⁾	
Export pre-financing ⁽⁷⁾	4.05% – 9.75%	2020-2022	10,762	33,100	—	20,724	383	6,521	
Imports financing	3.62% – 7.91%	2020	—	17,876	968	13,176	—	4,595	
Loans	3.42% – 7.50%	2020-2026	24,710	9,583	23,616	5,721	6,290	4,588 ⁽⁵⁾	
			<u>411,032</u>	<u>73,838</u>	<u>244,094</u>	<u>57,038</u>	<u>121,359</u>	<u>30,779</u>	
			<u>419,651</u>	<u>107,109</u>	<u>270,252</u>	<u>64,826</u>	<u>151,727</u>	<u>39,336</u>	

- (1) Nominal annual interest rate as of December 31, 2019.
- (2) Disclosed net of 326, 410 and 309 corresponding to YPF's own negotiable obligations repurchased through open market transactions, as of December 31, 2019, 2018, and 2017, respectively.
- (3) Includes loans granted by BNA. As of December 31, 2018, it includes 500, which accrues variable interest at a BADLAR plus a margin of 3.5 points. As of December 31, 2017, it includes 2,500, 1,500 of which accrues variable interest at a BADLAR plus a margin of 3.5 points and 1,000 at a fixed rate of 20%. See Note 35.
- (4) Includes 4,643, 2,634 and 1,528 as of December 31, 2019, 2018 and 2017, respectively, of nominal value of negotiable obligations that will be canceled in Pesos at the applicable exchange rate in accordance with the terms of the series issued.
- (5) Includes 492 corresponding to financial loans and NO secured by cash flows as of December 31, 2017.
- (6) Includes 15,850 as of December 31, 2019, 2018 and 2017, of nominal value of NO that will be canceled in U.S. dollars at the applicable exchange rate according to the conditions of the issued series.
- (7) Includes pre-financing of exports granted by BNA. As of December 31, 2019, it includes 4,933, which accrue a 6.89% weighted average rate. As of December 31, 2018, it includes 5,264, which accrue a 3.93% weighted average rate. As of December 31, 2017, it includes 1,116 accruing a 2% fixed interest rate.

The breakdown of the Group's borrowings as of the fiscal year ended on December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
Balance at beginning of the year	<u>335,078</u>	<u>191,063</u>	<u>154,345</u>
Proceed from loans	97,351	39,673	54,719
Payments of loans	(93,456)	(55,734)	(36,346)
Payments of interest	(41,606)	(26,275)	(17,912)
Accrued interest ⁽¹⁾	44,570	27,998	17,995
Net exchange differences and translation	185,420	160,016	21,465
Result from net monetary position ⁽²⁾	(597)	(1,663)	—
Reclassifications and other movements	—	—	(3,203) ⁽³⁾
Balance at the end of the year	<u>526,760</u>	<u>335,078</u>	<u>191,063</u>

- (1) Includes capitalized financial costs.
- (2) Includes adjustment for inflation of opening balances of loans in subsidiaries with the Peso as functional currency which was charged to other comprehensive income and the adjustment for inflation of the fiscal year, which was charged to results.
- (3) Includes 3,130 of loans reclassified to the item "Liabilities associated with assets held for disposal". See Note 3.

On April 28, 2017, the General and Extraordinary Shareholders' Meeting approved an extension in the effective term of the Global Medium Term Notes Program of the Company for a term of 5 years.

The maximum nominal amount at any time outstanding of the Program of US\$ 10,000 million or its equivalent in other currencies.

Additionally, YPF is registered as a Frequent Issuer with the CNV under No.4 since December 2018. In 2019, the Company's Board of Directors resolved to authorize an issuance amount of up to US\$ 2,000 million or its equivalent in Pesos under the Frequent Issuer regime.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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20. LOANS (Cont.)

Details regarding the NO of the Group are as follows:

Month	Year	Principal value	Ref.	Class	Interest rate ⁽³⁾	Principal Maturity	2019			2018			2017		
							Noncurrent	Current	Noncurrent	Current	Noncurrent	Current			
YPF	1998	US\$ 15	(1) (6)	—	Fixed	10,00%	2028	886	15	557	9	276	5	—	
December and March	2012/3	\$ 2,828	(2) (4) (6) (7)	Class XIII	—	—	—	—	—	—	—	—	—	1,427	
April	2013	\$ 2,250	(2) (4) (6) (7)	Class XVII	BADLAR plus 2.25%	48.01%	2020	—	1,217	1,125	1,330	2,250	96	—	
June	2013	\$ 1,265	(2) (4) (6)	Class XX	BADLAR plus 2.25%	43.66%	2020	—	643	633	657	1,265	12	—	
July	2013	US\$ 92	(2) (5) (6)	Class XXII	Fixed	3.50%	2020	—	729	456	461	451	230	—	
October	2013	US\$ 150	(2) (6)	Class XXIV	—	—	—	—	—	—	—	—	—	498	
February, April, December and	2013/4/5	US\$ 862	(2) (6)	Class XXVI	—	—	—	—	—	—	—	—	—	8,422	
April, February and October	2014/5/6	US\$ 1,522	(2) (4) (6)	Class XXVIII	Fixed	8.75%	2024	91,010	1,925	57,233	1,210	28,311	599	—	
March	2014	\$ 500	(2) (6) (7)	Class XXIX	BADLAR	42.28%	2020	—	206	200	162	350	158	—	
September	2014	\$ 1,000	(2) (6) (7)	Class XXXIV	BADLAR plus 0.1%	50.25%	2024	667	279	833	299	1,000	54	—	
September	2014	\$ 750	(2) (4) (6)	Class XXXV	—	—	—	—	—	—	571	500	298	—	
February	2015	\$ 950	(2) (6) (7)	Class XXXVI	BADLAR plus 4.74%	56.74%	2020	—	1,161	950	187	950	92	—	
April	2015	\$ 935	(2) (4) (6)	Class XXXVIII	BADLAR plus 4.75%	53.17%	2020	—	349	312	390	626	362	—	
April	2015	US\$ 1,500	(2) (6)	Class XXXIX	Fixed	8.50%	2025	89,416	3,230	56,062	2,025	27,731	1,002	—	
September	2015	\$ 1,900	(2) (6) (7)	Class XLI	BADLAR	50.15%	2020	—	719	633	801	1,267	736	—	
September and October	2015/9	\$ 5,196	(2) (4) (6)	Class XLII	BADLAR plus 4%	54.15%	2020	—	5,952	1,697	243	1,697	110	—	
December	2015	\$ 2,000	(2) (6) (7)	Class XLIII	BADLAR	47.08%	2023	2,000	183	2,000	196	2,000	80	—	
December	2015	\$ 1,400	(2) (6)	Class XLIV	—	—	—	—	—	—	—	—	—	1,422	
March	2016	\$ 1,350	(2) (4) (6)	Class XLVI	BADLAR plus 6%	57.63%	2021	1,350	251	1,350	234	1,350	114	—	
March	2016	US\$ 1,000	(2) (6)	Class XLVII	Fixed	8.50%	2021	59,790	1,383	37,600	870	18,599	430	—	
April	2016	US\$ 46	(2) (5) (6)	Class XLVIII	Fixed	8.25%	2020	—	2,785	1,723	29	852	14	—	
April	2016	\$ 535	(2) (6)	Class XLIX	BADLAR plus 6%	53.27%	2020	—	593	535	62	535	31	—	
July	2016	\$ 11,248	(2) (6) (8)	Class L	BADLAR plus 4%	63.35%	2020	—	12,902	11,248	1,238	11,248	651	—	
September	2016	CHF 300	(2) (6)	Class LI	—	—	—	—	—	—	11,563	5,731	54	—	
May	2017	\$ 4,602	(2) (6) (8)	Class LII	Fixed	16.50%	2022	4,602	108	4,602	110	4,602	110	—	
July and December	2017	US\$ 1,000	(2) (6)	Class LIII	Fixed	6.95%	2027	60,399	1,890	38,024	1,180	18,889	445	—	
December	2017	US\$ 750	(2) (6)	Class LIV	Fixed	7.00%	2047	44,311	126	27,855	70	13,846	44	—	
June	2019	US\$ 500	(6) (9)	Class I	Fixed	8.50%	2029	29,748	17	—	—	—	—	—	
December	2019	\$ 1,683	(6) (9)	Class II	BADLAR plus 3.75%	46.17%	2020	—	1,729	—	—	—	—	—	
December	2019	\$ 1,157	(6) (9)	Class III	BADLAR plus 6%	48.42%	2020	—	1,189	—	—	—	—	—	
December	2019	US\$ 19	(6) (9)	Class IV	Fixed	7.00%	2020	—	1,179	—	—	—	—	—	
Metrogas	2013	US\$ 177	—	Series A-L	—	—	—	—	—	—	—	—	—	3,076	
January	2013	US\$ 18	—	Series A-U	—	—	—	—	—	—	—	—	—	256	
December	2018	\$ 513	—	Class II	—	—	—	—	—	—	519	—	—	—	
								<u>384,179</u>	<u>40,760</u>	<u>245,628</u>	<u>24,416</u>	<u>144,326</u>	<u>20,828</u>	<u>—</u>	

(1) Corresponds to the 1997 M.T.N. Program for US\$1,000 million.
(2) Corresponds to the 2008 M.T.N. Program for US\$ 10,000 million.

- (3) Nominal annual Interest rate as of December 31, 2019.
- (4) The ANSES and/or the "Fondo Argentino de Hidrocarburos" have participated in the primary subscription of these NO, which may at the discretion of the respective holders, be subsequently traded on the securities market where these negotiable obligations are authorized to be traded.
- (5) The payment currency of these Negotiable Obligations is the Peso at the Exchange rate applicable under the terms of the series issued.
- (6) As of the date of issuance of these financial statements, the Group has fully complied with the use of proceeds disclosed in the corresponding pricing supplements.
- (7) NO classified as productive investments computable as such for the purposes of section 35.8.1, paragraph K of the General Regulations applicable to Insurance Activities issued by the Argentine Insurance Supervisory Bureau.
- (8) The payment currency of this issue is the U.S. dollar at the exchange rate applicable in accordance with the conditions of the relevant issued series.
- (9) Corresponds to the Frequent Issuer program.

21. OTHER LIABILITIES

	2019		2018		2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Extension of concessions	529	593	348	436	179	342
Liabilities for contractual claims ⁽¹⁾	170	59	175	41	90	2,008
Miscellaneous	4	658	26	245	8	33
	<u>703</u>	<u>1,310</u>	<u>549</u>	<u>722</u>	<u>277</u>	<u>2,383</u>

(1) See Note 15.

22. ACCOUNTS PAYABLE

	2019		2018		2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Trade payable and related parties ⁽¹⁾	1,869	145,942	2,227	81,450	168	44,520
Guarantee deposits	21	704	19	492	17	441
Payables with partners of JO	575	851	1,127	324	—	122
Miscellaneous	—	1,098	—	1,959	—	828
	<u>2,465</u>	<u>148,595</u>	<u>3,373</u>	<u>84,225</u>	<u>185</u>	<u>45,911</u>

(1) For more information about related parties, see Note 35.

23. REVENUES

	2019	2018	2017
Sales of goods and services	686,644	435,558	243,230
Government incentives ⁽¹⁾	13,266	14,469	18,552
Turnover tax	<u>(21,315)</u>	<u>(14,207)</u>	<u>(8,969)</u>
	<u>678,595</u>	<u>435,820</u>	<u>252,813</u>

(1) See Note 35.

The Group's transactions and the main revenues are described in Note 5. The Group's revenues are derived from contracts with customers, except for Government incentives.

- **Breakdown of revenues**
- Type of good or service

	2019				Total
	Upstream	Downstream	Gas and Power	Corporation and others	
Diesel	—	222,472	—	—	222,472
Gasolines	—	141,511	—	—	141,511
Natural Gas ⁽¹⁾	—	1,521	112,501	—	114,022
Crude Oil	—	14,703	—	—	14,703
Jet fuel	—	44,075	—	—	44,075
Lubricants and by-products	—	14,525	—	—	14,525
Liquefied Petroleum Gas	—	14,643	—	—	14,643
Fuel oil	—	7,040	—	—	7,040
Petrochemicals	—	21,742	—	—	21,742
Fertilizers	—	7,877	—	—	7,877
Flours, oils and grains	—	19,612	—	—	19,612
Asphalts	—	4,429	—	—	4,429
Goods for resale at gas stations	—	4,819	—	—	4,819
Income from services	—	—	—	3,555	3,555
Income from construction contracts	—	—	—	13,695	13,695

Virgin naphtha	—	5,625	—	—	5,625
Petroleum coke	—	6,013	—	—	6,013
LNG Regasification	—	—	2,731	—	2,731
Other goods and services	<u>2,087</u>	<u>7,184</u>	<u>10,621</u>	<u>3,663</u>	<u>23,555</u>
	<u>2,087</u>	<u>537,791</u>	<u>125,853</u>	<u>20,913</u>	<u>686,644</u>

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23. REVENUES (Cont.)

	2018				Total
	Upstream	Downstream	Gas and Power	Corporation and others	
Diesel	—	132,073	—	—	132,073
Gasolines	—	97,093	—	—	97,093
Natural Gas ⁽¹⁾	—	1,000	79,433	—	80,433
Crude Oil	—	3,477	—	—	3,477
Jet fuel	—	25,999	—	—	25,999
Lubricants and by-products	—	8,928	—	—	8,928
Liquefied Petroleum Gas	—	12,542	—	—	12,542
Fuel oil	—	3,354	—	—	3,354
Petrochemicals	—	16,239	—	—	16,239
Fertilizers	—	4,231	—	—	4,231
Flours, oils and grains	—	7,917	—	—	7,917
Asphalts	—	4,129	—	—	4,129
Goods for resale at gas stations	—	3,381	—	—	3,381
Income from services	—	—	—	1,344	1,344
Income from construction contracts	—	—	—	5,551	5,551
Virgin naphtha	—	3,999	—	—	3,999
Petroleum coke	—	6,139	—	—	6,139
LNG Regasification	—	—	3,359	—	3,359
Other goods and services	3,181	6,068	4,091	2,030	15,370
	<u>3,181</u>	<u>336,569</u>	<u>86,883</u>	<u>8,925</u>	<u>435,558</u>

	2017				Total
	Upstream	Downstream	Gas and Power	Corporation and others	
Diesel	—	76,082	—	—	76,082
Gasolines	—	59,230	—	—	59,230
Natural Gas ⁽¹⁾	—	655	39,415	—	40,070
Crude Oil	—	1,190	—	—	1,190
Jet fuel	—	11,233	—	—	11,233
Lubricants and by-products	—	5,956	—	—	5,956
Liquefied Petroleum Gas	—	6,287	—	—	6,287
Fuel oil	—	5,717	—	—	5,717
Petrochemicals	—	8,437	—	—	8,437
Fertilizers	—	2,011	—	—	2,011
Flours, oils and grains	—	6,542	—	—	6,542
Asphalts	—	3,014	—	—	3,014
Goods for resale at gas stations	—	2,362	—	—	2,362
Income from services	—	—	—	1,007	1,007
Income from construction contracts	—	—	—	879	879
Virgin naphtha	—	1,148	—	—	1,148
Petroleum coke	—	1,697	—	—	1,697
LNG Regasification	—	—	2,731	—	2,731
Other goods and services	774	3,674	2,262	927	7,637
	<u>774</u>	<u>195,235</u>	<u>44,408</u>	<u>2,813</u>	<u>243,230</u>

(1) Includes 71,491, 55,882 and 28,341 corresponding to sales of natural gas produced by the Company for the years ended December 31, 2019, 2018 and 2017, respectively.

- Sales Channels

	2019				Total
	Upstream	Downstream	Gas and Power	Corporation and others	
Gas Stations	—	257,648	—	—	257,648
Power Plants	—	709	15,705	—	16,414
Distribution Companies	—	—	19,506	—	19,506
Retail distribution of natural gas	—	—	49,699	—	49,699
Industries, transport and aviation	—	116,742	27,591	—	144,333
Agriculture	—	64,344	—	—	64,344
Petrochemical industry	—	24,475	—	—	24,475
Trading	—	39,341	—	—	39,341
Oil Companies	—	20,066	—	—	20,066
Commercialization of liquefied petroleum gas	—	6,087	—	—	6,087
Other sales channels	2,087	8,379	13,352	20,913	44,731
	<u>2,087</u>	<u>537,791</u>	<u>125,853</u>	<u>20,913</u>	<u>686,644</u>

23. REVENUES (Cont.)

	2018				Total
	Upstream	Downstream	Gas and Power	Corporation and others	
Gas Stations	—	168,665	—	—	168,665
Power Plants	—	260	20,083	—	20,343
Distribution Companies	—	—	14,180	—	14,180
Retail distribution of natural gas	—	—	25,420	—	25,420
Industries, transport and aviation	—	71,746	19,750	—	91,496
Agriculture	—	35,868	—	—	35,868
Petrochemical industry	—	19,590	—	—	19,590
Trading	—	18,342	—	—	18,342
Oil Companies	—	12,760	—	—	12,760
Commercialization of liquefied petroleum gas	—	4,961	—	—	4,961
Other sales channels	3,181	4,377	7,450	8,925	23,933
	<u>3,181</u>	<u>336,569</u>	<u>86,883</u>	<u>8,925</u>	<u>435,558</u>

	2017				Total
	Upstream	Downstream	Gas and Power	Corporation and others	
Gas Stations	—	104,077	—	—	104,077
Power Plants	—	4,067	13,072	—	17,139
Distribution Companies	—	—	3,313	—	3,313
Retail distribution of natural gas	—	—	11,071	—	11,071
Industries, transport and aviation	—	36,810	11,558	—	48,368
Agriculture	—	22,030	—	—	22,030
Petrochemical industry	—	10,334	—	—	10,334
Trading	—	7,703	—	—	7,703
Oil Companies	—	4,207	—	—	4,207
Commercialization of liquefied petroleum gas	—	2,979	—	—	2,979
Other sales channels	774	3,028	5,394	2,813	12,009
	<u>774</u>	<u>195,235</u>	<u>44,408</u>	<u>2,813</u>	<u>243,230</u>

- Target Market

Sales contracts in the domestic market resulted in 597,702, 390,630 and 221,145 for the years ended December 31, 2019, 2018 and 2017, respectively.

Sales contracts in the international market resulted in 88,942, 44,928 and 22,085 for the years ended December 31, 2019, 2018 and 2017, respectively.

- **Contract balances**

The following table reflects information regarding credits, contract assets and contract liabilities:

	2019		2018		2017	
	Noncurrent	Current	Noncurrent	Current	Noncurrent	Current
Credits for contracts included in Trade Receivables	6,785	100,706	7,804	59,419	2,210	27,363
Contract assets	—	203	—	420	—	142
Contract liabilities	294	7,404	1,828	4,996	1,470	1,460

Contract assets are mainly related to the work carried out by the Group under the construction contracts.

Contract liabilities are mainly related to advances received from customers under the contracts for the sale of commodities, fuels, crude oil, methanol, lubricants and by-products, diesel and natural gas, among others.

During the years ended on December 31, 2019 and 2018, the Group has recognized 4,721 and 1,564, respectively, in revenues from ordinary activities arising from contracts entered into with customers in the statement of comprehensive income, which have been included in the balance for contract liabilities at the beginning of the year.

24. COSTS

	2019	2018	2017
Inventories at beginning of year	53,324	27,149	21,808 ⁽²⁾
Purchases	190,601	124,279	65,945
Production costs ⁽¹⁾	378,281	234,340	147,423
Translation effect	33,385	26,514	3,877
Inventories incorporated by business combination ⁽³⁾	—	445	—
Adjustment for inflation ⁽⁴⁾	496	167	—
Reclassifications and other movements	—	—	(92)
Inventories at end of the year	<u>(80,479)</u>	<u>(53,324)</u>	<u>(27,149)⁽²⁾</u>
	<u>575,608</u>	<u>359,570</u>	<u>211,812</u>

- (1) See Note 25.
(2) Reclassifications of 12 have been made in inventories at beginning of fiscal year and 142 have been made in inventories at the fiscal years ended December 31, 2017, in accordance with the change in the accounting policy described in detail in Note 2.b.11.
(3) See Note 3.
(4) Corresponds to adjustment for inflation of inventories' opening balances of subsidiaries with the Peso as functional currency, which was charged to other comprehensive income.

25. EXPENSES BY NATURE

The Group presents the statement of comprehensive income by classifying expenses according to their function as part of the "Costs", "Administrative expenses", "Selling expenses" and "Exploration expenses" lines. The following additional information is disclosed as required, on the nature of the expenses and their relation to the function within the Group for the fiscal years ended December 31, 2019, 2018 and 2017:

	2019				Total
	Production costs ⁽³⁾	Administrative expenses	Selling expenses	Exploration expenses	
Salaries and social security taxes	33,991	8,075	4,226	666	46,958
Fees and compensation for services	2,491	6,389 ⁽²⁾	1,265	172	10,317
Other personnel expenses	8,941	962	513	66	10,482
Taxes, charges and contributions	7,370	312	10,627 ⁽¹⁾	48	18,357
Royalties, easements and canons	42,135	—	122	283	42,540
Insurance	2,692	181	118	—	2,991
Rental of real estate and equipment	11,079	38	861	—	11,978 ⁽⁴⁾
Survey expenses	—	—	—	1,212	1,212
Depreciation of property, plant and equipment	139,345	2,839	3,710	—	145,894
Amortization of intangible assets	2,020	323	31	—	2,374
Depreciation of right-of-use assets	9,835	—	674	—	10,509
Industrial inputs, consumable materials and supplies	22,095	183	201	51	22,530
Operation services and other service contracts	18,512	744	2,249	287	21,792 ⁽⁴⁾
Preservation, repair and maintenance	48,762	1,021	1,081	125	50,989 ⁽⁴⁾
Unproductive exploratory drillings	—	—	—	3,832	3,832
Transportation, products and charges	23,137	15	16,222	—	39,374 ⁽⁴⁾
Provision for doubtful trade receivables	—	—	3,184	—	3,184
Publicity and advertising expenses	—	2,551	1,065	—	3,616
Fuel, gas, energy and miscellaneous	5,876	1,068	3,749	99	10,792 ⁽⁴⁾
	<u>378,281</u>	<u>24,701</u>	<u>49,898</u>	<u>6,841</u>	<u>459,721</u>

- (1) Includes 6,541 corresponding to export withholdings.
(2) Includes 80 corresponding to fees and remunerations of the Directors and Statutory Auditors of YPF's Board of Directors. On April 26, 2019, the General and Extraordinary Shareholders' Meeting of YPF resolved to ratify the fees corresponding to fiscal year 2018 of 65 and to approve as fees on account of such fees and remunerations for the fiscal year 2019, the sum of 87.
(3) The expense recognized in the consolidated statement of comprehensive income corresponding to research and development activities amounted to 1,261.
(4) Includes 7,223 and 3,326 corresponding to short-term leases and to the lease charge related to the underlying asset return and/or use, respectively.

25. EXPENSES BY NATURE (Cont.)

	2018				Total
	Production costs ⁽³⁾	Administrative expenses	Selling expenses	Exploration expenses	
Salaries and social security taxes	18,908	4,867	2,592	480	26,847
Fees and compensation for services	1,772	3,534 ⁽²⁾	883	21	6,210
Other personnel expenses	5,313	571	278	50	6,212
Taxes, charges and contributions	3,634	275	5,626 ⁽¹⁾	28	9,563
Royalties, easements and canons	31,677	—	64	72	31,813
Insurance	1,335	130	118	—	1,583
Rental of real estate and equipment	8,983	24	766	28	9,801
Survey expenses	—	—	—	848	848
Depreciation of property, plant and equipment	83,700	1,758	2,111	—	87,569
Amortization of intangible assets	1,497	222	30	—	1,749
Industrial inputs, consumable materials and supplies	11,126	59	172	22	11,379
Operation services and other service contracts	14,973	372	1,302	29	16,676
Preservation, repair and maintenance	31,141	620	886	48	32,695
Unproductive exploratory drillings	—	—	—	3,331	3,331
Transportation, products and charges	12,714	4	9,615	—	22,333
Provision for doubtful trade receivables	—	—	353	—	353
Publicity and advertising expenses	—	951	978	—	1,929
Fuel, gas, energy and miscellaneous	7,567	535	2,153	509	10,764
	<u>234,340</u>	<u>13,922</u>	<u>27,927</u>	<u>5,466</u>	<u>281,655</u>

(1) Includes 2,297 corresponding to export withholdings.

(2) Includes 65 corresponding to fees and remunerations of the Directors and Statutory Auditors of YPF's Board of Directors. On April 27, 2018, the General and Extraordinary Shareholders' Meeting of YPF resolved to ratify the fees corresponding to fiscal year 2017 of 48.8 and to approve as fees on account of such fees and remunerations for the fiscal year 2018, the sum of 62.

(3) The expense recognized in the consolidated statement of comprehensive income corresponding to research and development activities amounted to 700.

	2017				Total
	Production costs ⁽³⁾	Administrative expenses	Selling expenses	Exploration expenses	
Salaries and social security taxes	12,548	3,537	1,988	330	18,403
Fees and compensation for services	1,159	2,118 ⁽²⁾	544	18	3,839
Other personnel expenses	3,493	374	194	49	4,110
Taxes, charges and contributions	2,215	255	4,172 ⁽¹⁾	—	6,642
Royalties, easements and canons	17,630	—	31	31	17,692
Insurance	840	49	85	—	974
Rental of real estate and equipment	5,710	15	518	—	6,243
Survey expenses	—	—	—	214	214
Depreciation of property, plant and equipment	51,607	771	1,134	—	53,512
Amortization of intangible assets	688	125	25	—	838
Industrial inputs, consumable materials and supplies	5,813	35	83	25	5,956
Operation services and other service contracts	12,033	268	905	243	13,449
Preservation, repair and maintenance	20,204	382	458	82	21,126
Unproductive exploratory drillings	—	—	—	1,400	1,400
Transportation, products and charges	8,724	17	5,961	—	14,702
Provision for doubtful trade receivables	—	—	28	—	28
Publicity and advertising expenses	—	545	609	—	1,154
Fuel, gas, energy and miscellaneous	4,759	245	1,219	64	6,287
	<u>147,423</u>	<u>8,736</u>	<u>17,954</u>	<u>2,456</u>	<u>176,569</u>

(1) Includes 1,612 corresponding to export withholdings.

(2) Includes 48.8 corresponding to fees and remunerations of the Directors and Statutory Auditors of YPF's Board of Directors. On April 28, 2017, the General and Extraordinary Shareholders' Meeting of YPF resolved to ratify the fees corresponding to fiscal year 2016 of 127 and to approve as fees on account of such fees and remunerations for the fiscal year 2017, the sum of 48.3.

(3) The expense recognized in the consolidated statement of comprehensive income corresponding to research and development activities amounted to 449.

26. OTHER NET OPERATING RESULTS

	2019	2018	2017
Result of Companies' revaluation ⁽¹⁾	—	11,980	—
Result for sale of participation in areas ⁽¹⁾	778	2,322	—
Lawsuits	(2,732)	(2,365)	(1,240)
Insurance	498	417	206
Construction incentive ⁽²⁾	688	—	188
Unrecoverable credit - Resolution MINEM No. 508/E-2017 ⁽³⁾	(622)	—	—
Miscellaneous	260	(409)	32
	<u>(1,130)</u>	<u>11,945</u>	<u>(814)</u>

- (1) See Note 3.
 (2) See Note 35.
 (3) See Note 34.h.

27. NET FINANCIAL RESULTS

	2019	2018	2017
Financial income			
Interest income	7,665	3,033	1,598
Exchange differences	80,490	81,869	16,025
Financial accretion	5,250	15,181	—
Total financial income	<u>93,405</u>	<u>100,083</u>	<u>17,623</u>
Financial loss			
Interest loss	(48,136)	(28,717)	(18,385)
Exchange differences	(32,555)	(27,410)	(7,075)
Financial accretion	(10,842)	(7,554)	(3,169)
Total financial costs	<u>(91,533)</u>	<u>(63,681)</u>	<u>(28,629)</u>
Other financial results			
Fair value gains on financial assets at fair value through profit or loss	(1,449)	2,596	2,208
Result from derivative financial instruments	(293)	933	—
Result from net monetary position	5,904	1,594	—
Total other financial results	<u>4,162</u>	<u>5,123</u>	<u>2,208</u>
Total net financial results	<u>6,034</u>	<u>41,525</u>	<u>(8,798)</u>

28. INVESTMENTS IN JOINT OPERATIONS

The Group participates in JO and other agreements that give to the Group a contractually established percentage over the rights of the assets and obligations that emerge from the contracts. Interest in such JO and other agreements have been consolidated line by line on the basis of the mentioned interest over the assets, liabilities, income and expenses related to each contract. Interest in JO and other agreements have been calculated based upon the latest available financial statements as of the end of each year, taking into consideration significant subsequent events and transactions as well as management information available.

The exploration and production JO and other agreements in which the Group participates allocate the hydrocarbon production to each partner based on the ownership interest; consequently, such hydrocarbons are commercialized directly by the partners recognizing each of them the corresponding economic effects.

28. INVESTMENTS IN JOINT OPERATIONS (Cont.)

The assets and liabilities as of December 31, 2019, 2018 and 2017, and main expenses for these fiscal years of the JO and other agreements in which the Group participates are as follows:

	2019	2018	2017
Noncurrent assets ⁽¹⁾	221,219	130,272	66,887
Current assets	8,723	4,024	2,417
Total assets	229,942	134,296	69,304
Noncurrent liabilities	17,754	11,484	5,876
Current liabilities	27,641	9,695	5,524
Total liabilities	45,395	21,179	11,400
	2019	2018	2017
Production cost	70,552	39,713	24,471
Exploration expenses	123	242	767

(1) It does not include charges for impairment of property, plant and equipment because they are recorded by the partners participating in the JO.

As of December 31, 2019, the main exploration and production JO in which the Group participates are the following:

Name	Location	Participation	Operator
Acambuco	Salta	22.50%	Pan American Energy LLC
Aguada Pichana - Area Vaca Muerta	Neuquén	22.50%	Total Austral S.A.
Aguada Pichana - Residual	Neuquén	27.27%	Total Austral S.A.
Aguaragüe	Salta	53.00%	Tecpetrol S.A.
CAM-2/A SUR	Tierra del Fuego	50.00%	Enap Sipetrol Argentina S.A.
Campamento Central / Cañadón Perdido	Chubut	50.00%	YPF
Consorcio CNQ 7/A	La Pampa and Mendoza	50.00%	Pluspetrol Energy S.A.
El Tordillo	Chubut	12.20%	Tecpetrol S.A.
La Tapera and Puesto Quiroga	Chubut	12.20%	Tecpetrol S.A.
Lindero Atravesado	Neuquén	37.50%	Pan American Energy LLC
Llancanelo	Mendoza	61.00% ⁽¹⁾	YPF
Magallanes	Santa Cruz, Tierra del Fuego and Plataforma Continental Nacional	50.00%	Enap Sipetrol Argentina S.A.
Loma Campana	Neuquén and Mendoza	50.00%	YPF
Ramos	Salta	42.00%	Pluspetrol Energy S.A.
Rincón del Mangrullo	Neuquén	50.00%	YPF
San Roque	Neuquén	34.11%	Total Austral S.A.
Yacimiento La Ventana – Río Tunuyán	Mendoza	70.00%	YPF
Zampal Oeste	Mendoza	70.00%	YPF
Narambuena	Neuquén	50.00%	YPF
La Amarga Chica	Neuquén	50.00%	YPF
El Orejano	Neuquén	50.00%	YPF
Bajo del Toro	Neuquén	50.00%	YPF
Bandurria Sur	Neuquén	51.00%	YPF
Aguada de Castro and Aguada Pichana Oeste	Neuquén	30.00%	Pan American Energy LLC

(1) See Note 33.b.



29. SHAREHOLDERS' EQUITY

The Company's subscribed capital as of December 31, 2019, is 3,924 and 9 treasury shares represented by 393,312,793 book-entry shares of common stock and divided into four classes of shares (A, B, C and D), with a par value of Pesos 10 and 1 vote per share. These shares are fully subscribed, paid-in and authorized for stock exchange listing.

As of December 31, 2019, there are 3,764 Class A outstanding shares. As long as any Class A share remains outstanding, the affirmative vote of Argentine Government is required for: 1) mergers, 2) acquisitions of more than 50% of YPF shares in an agreed or hostile bid, 3) transfers of all the YPF's production and exploration rights, 4) the voluntary dissolution of YPF or 5) change of corporate and/or tax address outside the Argentine Republic. Items 3) and 4) will also require prior approval by the Argentine Congress.

Until the enactment of Law No. 26,741 detailed in the next paragraphs, Repsol S.A. had a participation in the Company, directly and indirectly, of approximately 57.43% shareholding while Petersen Energía S.A.U. and its affiliates exercised significant influence through a 25.46% shareholding of YPF's capital stock.

Law No. 26,741 enacted on May 4, 2012, changed YPF's shareholding structure. The mentioned Law declared the class D Shares of YPF owned by Repsol S.A. as national public interest and subject to expropriation, its controlled or controlling entities, representing 51% of YPF's equity. According to Law 26,741, achieving self-sufficiency in the supply of hydrocarbons as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, is thereby declared of national public interest and a priority for Argentina, with the goal of guaranteeing socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the provinces and regions. The shares subject to expropriation were distributed as follows: 51% for the Argentine federal government and 49% for certain Argentine Provinces.

The General Ordinary and Extraordinary Shareholders' Meeting was held on April 26, 2019 and approved the financial statements of YPF for the fiscal year ended December 31, 2018 and additionally, approved the following resolution in relation to the allocation of profits: a) to allocate the sum of 280 to create a Reserve for the purchase of treasury shares in order to give the Board of Directors the possibility of acquiring treasury shares at the time it deems appropriate, and complying, during the execution of the plans, with the commitments assumed and to be assumed by them in the future; b) to allocate the sum of 33,235 to create a reserve for investments under the terms of article 70, third paragraph of the LGS; and c) to allocate the sum of 4,800 to a reserve for future dividends, empowering the Board of Directors, until the date of the next General Ordinary Shareholders' Meeting at which the financial statements ended as of December 31, 2019 will be dealt with, to determine the time and amount for their distribution, taking into account the financial conditions and availability of funds as well as the operating results, investments and other matters that are deemed relevant in the development of the Company's activities, or their allocation in accordance with the provisions set forth in article 224, second paragraph, of the LGS and other applicable regulations.

On June 27, 2019, the Board of Directors approved the payment of a dividend in cash in an amount of Pesos 5.8478 per share, without any share class distinction, making such dividend available to all shareholders on July 11, 2019.

30. EARNINGS PER SHARE

The following table shows the net income and the number of shares that have been used for the calculation of the basic and diluted earnings per share:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Net (loss) / profit	(34,071)	38,613	12,340
Average number of shares outstanding	392,314,842	392,302,437	392,625,259
Basic and diluted earnings per share	(86.85)	98.43	31.43

Basic and diluted earnings per share are calculated as shown in Note 2.b.13.



31. ISSUES RELATED TO MAXUS ENTITIES

31.a) Legal proceedings

31.a.1) Introduction

Laws and regulations relating to health and environmental quality in the United States of America affect the majority of the operations of: (a) Maxus Energy Corporation (“Maxus”) and its subsidiaries Maxus International Energy Company, Maxus (US) Exploration Company and Gateway Coal Company and (b) Tierra Solutions Inc. (“TS”) (collectively, the “Maxus Entities” or “Debtors”). These laws and regulations govern certain aspects of health and environmental quality, provide for penalties and other liabilities for the violation of such standards and establish in certain circumstances remedial obligations. However, upon the Debtors filing voluntary petitions under Chapter 11 (as define in the following section) of the United States Bankruptcy Code (the “Bankruptcy Code”), actions to collect a monetary claim for such liabilities against the Debtors were stayed.

Maxus and TS could have certain potential liabilities associated with operations of Maxus’ former chemical subsidiary with respect to the regulations mentioned in the previous paragraph; the sole shareholder of both companies was YPF Holdings. Nevertheless, this circumstance must be analyzed in the context of the limitations indicated below.

31.a.2) Reorganization Process under Chapter 11 of the Bankruptcy Code of the United States (hereafter, “Chapter 11”)

On June 17, 2016, voluntary petitions under Chapter 11 of the Bankruptcy Code were filed with the United States Bankruptcy Court of the District of Delaware (hereafter, the “Bankruptcy Court”) by the Debtors, subsidiaries of YPF Holdings. Prior to the Debtors’ bankruptcy filing, the Debtors entered into an agreement (the “Agreement”) with YPF, jointly with its subsidiaries YPF Holdings, CLH Holdings Inc., YPF International and YPF Services USA Corp (jointly, the “YPF Entities”), subject to Bankruptcy Court Approval, to settle all of the Debtors’ claims against the YPF Entities, including any alter ego claims which, in the YPF Entities’ opinion, have no merit.

The Agreement provided for: i) the granting of a loan by YPF Holdings for an amount of up to US\$ 63.1 million (the “DIP Loan”) to finance the Debtors’ activities during a year-long bankruptcy case, and ii) a payment of US\$ 130 million to the Maxus Entities (“Settlement Payment”) for a release of all claims that the Debtors might have against the YPF Entities.

The first hearing corresponding to the filing under Chapter 11 (the “Filing”) took place on June 20, 2016. At that hearing, the Bankruptcy Court approved, among other things, the Debtors’ motions under the DIP Loan, regarding their day-to-day operations, including the Debtors’ use of the system for fund management, administration, payment of salaries and benefits to retired employees.

On December 29, 2016, the Debtors filed with the Bankruptcy Court a proposed Chapter 11 Plan of Liquidation (the “Plan”) and a statement revealing information from the Debtors. The Plan foresaw a US\$ 130 million Settlement Payment under the Agreement. The Plan (as filed) provided that if the Agreement was approved, portions of the US\$ 130 million Settlement Payment would be deposited into (i) a liquidating trust for distribution to creditors and (ii) an environmental response trust for use in remediation. Moreover, if the Agreement were approved, the Debtors’ Plan would likely be confirmed and the claims against the YPF Entities, including the alter-ego claims, would be settled and released in exchange for the US\$ 130 million Settlement Payment.

The Plan, however, provided for certain contingencies should the Bankruptcy Court not approve the Agreement. In that scenario, the Debtors’ claims against YPF Entities, including the alter-ego claims or piercing the corporate veil, would be transferred into a liquidating trust, which would likely pursue those claims for the creditors’ benefit.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

Subject to certain exceptions under the Bankruptcy Code, effective as of the date of the Filing of the Chapter 11 petitions with the Bankruptcy Court, most decisions, as well as the issues related to creditors' claims and actions for the collection of their claims that arose prior to the Filing date are automatically stayed (among others, those corresponding to claims against the Maxus Entities at the local court of New Jersey related to the Passaic River litigation, which are explained under 31.a.5.i and 31.a.6 of this note).

On March 28, 2017, the Maxus Entities and the Creditors Committee submitted an alternative restructuring plan (the "Alternative Plan") which did not include the Agreement with the YPF Entities.

Under the Alternative Plan, a Liquidating Trust may submit alter ego claims and any other claim belonging to the insolvent's estate against the Company and the YPF Entities. The liquidating trust would be financed by Occidental Chemical Corporation in its capacity as creditor of the Maxus Entities. As YPF did not approve such Alternative Plan and the Alternative Plan did not contemplate the implementation of the originally submitted Agreements, on April 10, 2017 YPF Holdings, Inc. sent a note giving notice that this situation constituted an event of default under the loan granted under the Agreement with YPF and the YPF Entities (the "DIP Loan"). By the approval of the financing offered by Occidental under the Alternative Plan, the Judge ordered the repayment of the outstanding amounts (approximately US\$ 12.2 million) under the terms of the DIP Loan, which were subsequently received.

On May 22, 2017, the Bankruptcy Court of the Delaware District issued an order confirming the Alternative Plan submitted by the Creditors Committee and the Maxus Entities. The effective date of the Alternative Plan was July 14, 2017, as the conditions set forth in Article XII.B of the Alternative Plan were met. On July 14, 2017, a liquidating trust was also created, which brought the complaint referred to in Note 31.a.3.

31.a.3) Maxus Energy Corporation Liquidating Trust ("Liquidating Trust") Claim

On June 14, 2018, the Liquidating Trust filed a lawsuit against the Company, YPF Holdings, CLH Holdings, Inc., YPF International and other companies non-related to YPF, claiming alleged damages in an amount up to US\$ 14,000 million, principally in connection with alleged claims purportedly related to corporate restructuring transactions the Company engaged in several years ago (the "Claim"). The lawsuit was filed before the United States Bankruptcy Court for the District of Delaware.

On October 19, 2018, the Company, together with the other companies of the Group that are part of the Claim, filed a motion requesting dismissal of the Claim ("Motion to Dismiss").

On November 21, 2018, the Liquidating Trust filed its objection to the Motion to Dismiss filed by the Company together with the other companies of the Group that are part of the Claim, and to the one filed by the companies not related to YPF and which are part of the Claim.

On December 10, 2018, the Company, together with the other companies of the Group that are part of the Claim, exercised their right of reply regarding the presentation made by the Liquidating Trust.

On January 22, 2019, the hearing regarding the Motion to Dismiss was held in the Bankruptcy Court.

On February 15, 2019, the Bankruptcy Court ordered the dismissal of the Motions to Dismiss filed by the Company, together with the other Group companies and the other defendant companies not related to YPF.

On March 1, 2019, the Company, together with the other companies of the Group that are part of the Claim, filed an appeal to the resolution dated February 15, 2019.

On April 1, 2019, the Company, together with the other companies of the Group that are part of the Claim, answered the complaint initiated by the Liquidating Trust, and on April 24, 2019, they filed the "Initial Disclosures" brief.

On May 3, 2019, the Liquidating Trust filed a request for the YPF Entities to deliver, under the Discovery process, a copy of certain documents that might be in their possession. On the same day, the Liquidating Trust filed an objection to the motion submitted by the YPF Entities so that the testimonies produced in the New Jersey lawsuit are allowed to be used.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

On May 21, 2019, the Company, together with the other companies of the Group that are part of the Claim, filed a motion, under the Discovery process, requesting the Liquidating Trust to deliver a copy of certain documents that might be in its possession.

On June 3, 2019, the Company, together with the other companies of the Group that are part of the Claim, filed a brief objecting to the delivery of the documents requested by the Liquidating Trust.

On June 7, 2019, Repsol and its related companies filed a “Motion to Withdraw the reference”.

On June 11, 2019, the Company, together with the other Companies of the Group that are part of the Claim, filed a “Motion to Withdraw the reference”.

On June 24, 2019, the Liquidating Trust, under the Discovery process, filed its petitions to YPF together with the other companies of the Group that are part of the Claim and to Repsol.

In addition, on June 24, 2019, the court hearing the case rejected the use of the testimonies produced in the Passaic River trial mentioned in Note 31.a.6.

On July 22, 2019, the Liquidating Trust filed a brief objecting to the “Motion to Withdraw the reference” filed on June 11, 2019 by YPF together with the other companies of the Group that are part of the Claim.

Additionally, on July 22, 2019, the Court hearing the case issued an order requesting the Liquidating Trust to present also an updated report on the lawsuit status, which was submitted on July 29, 2019.

On July 23, 2019, YPF together with the other companies of the Group that are part of the Claim, filed a motion requesting Occidental Chemical Corporation and its subsidiaries to submit certain documentation that might be of interest for the resolution of the case.

On August 5, 2019, the Company, together with the other companies of the Group that are part of the Claim answered the motion submitted on July 22, 2019 by the Liquidating Trust in which the latter objected to the “Motion to Withdraw the reference”.

On August 13, 2019, YPF together with the other companies of the Group that are part of the Claim filed a brief requesting that the arguments supporting the “Motion to Withdraw the reference” be orally presented.

On August 23, 2019, YPF together with the other companies of the Group that are part of the Claim submitted their answers to the interrogatories proposed by the Liquidating Trust.

Moreover, on August 23, 2019, Repsol and its related companies submitted their answers to the interrogatories proposed by the Liquidating Trust, and the Liquidating Trust submitted its answers to the interrogatories proposed by YPF together with the other companies of the Group which are part of the Claim and the interrogatories proposed by Repsol and its related companies.

On August 26, 2019, Occidental Chemical Corporation and its subsidiaries answered the summons submitted by YPF together with the other companies of the Group that are part of the Claim dated July 23, 2019.

On August 29, 2019, the parties to the proceedings began to define the search terms and deadlines within which the Discovery process should take place, which is ongoing.

On September 12, 2019, the District Court denied the appeal to the rejection of the Motion to Dismiss filed on October 19, 2018 by YPF together with the other companies of the Group that are part of the Claim.

As of the date of these consolidated financial statements, the parties to the process are producing evidence in support of their arguments.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

Considering the ongoing status of the lawsuit, the complexity of the complaint and the evidence that both parties should submit, the Company will continuously reassess any changes in the aforementioned circumstances and their impact on the results and financial position of the Group as such changes occur.

The Company, YPF Holdings, CLH Holdings, Inc. and YPF International will defend themselves, file the necessary legal remedies and exercise defensive measures in accordance with the applicable legal procedure to defend their rights.

31.a.4) Background of Maxus and TS

In connection with the sale of Diamond Shamrock Chemicals Company (“Chemicals”) to Occidental Petroleum Corporation (“Occidental”) in 1986, Maxus agreed to indemnify Chemicals and Occidental from and against certain liabilities relating to the business or activities of Chemicals prior to September 4, 1986 (the “selling date”), including environmental liabilities relating to chemical plants and waste disposal sites used by Chemicals prior to the selling date. The indemnity obligation and other liabilities described under 31.a.6 determined that Maxus, TS and other related companies submit a reorganization petition under the Bankruptcy Law mentioned above.

31.a.5) Maxus and TS Matters

The following are the alleged liabilities borne by the Debtors in their reorganization petition, updated up to the date of filing, the date on which YPF Holdings ceased to have control over the relevant activities of the Debtors (see point b) of the present Note. Given that YPF Holdings has ceased to have control of the Debtors, YPF is not aware of the evolution of the claims described or of the existence of additional claims to those detailed in this Note.

31.a.5.i) Environmental administrative issues relating to the lower 8 miles of the “Passaic River”

- **Newark, New Jersey**

A consent decree, previously agreed upon by the U.S. Environmental Protection Agency (“EPA”), the New Jersey Department of Environmental Protection and Energy (“DEP”) and Occidental, as successor to Chemicals, was entered in 1990 by the United States District Court of New Jersey and requires implementation of a remedial action plan at Chemical’s former Newark, New Jersey agricultural chemicals plant.

- **Passaic River, New Jersey**

Maxus, complying with its contractual obligation to act on behalf of Occidental, negotiated an agreement with the EPA (the “1994 AOC”) under which TS has conducted testing and studies near the Newark plant site, adjacent to the Passaic River.

In 2003, the DEP issued Directive No. 1 seeking to identify those responsible for the damages to natural resources resulting from almost 200 years of industrial and commercial development along a portion of the Passaic River and a part of its basin. Directive No. 1 asserts that the notified companies, including Maxus and Occidental, are jointly and severally liable for the mentioned environmental damage, despite all evidence to the contrary. Directive No.1 demanded compensation for the restoration, identification, and quantification of the damage and determination of its value. Despite negotiations between said entities, no agreement was reached and the DEP assumed jurisdiction in this matter.

In 2004, the EPA and Occidental entered into an administrative order on consent (the “2004 AOC”) pursuant to which TS (on behalf of Occidental) has agreed to conduct testing and studies to identify contaminated sediment and flora and fauna and evaluate remedial alternatives in the Newark Bay and a portion of the Hackensack, the Arthur Kill and Kill van Kull rivers. The initial fieldwork on this study was substantially completed. Discussions with the EPA regarding additional work that might be required are underway. The EPA issued General Notice Letters to other companies concerning the contamination of Newark Bay and the works that were performed by TS under the 2004 AOC.

31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

In December 2005, the DEP issued a directive to TS, Maxus and Occidental directing said parties to pay the State of New Jersey's cost of developing a Source Control Dredge Plan in the lower six-mile portion of the Passaic River. The development of this plan was estimated by the DEP to cost approximately US\$ 2 million.

While some remedial works are underway, the works under the 1994 AOC was substantially subsumed by reason of an administrative arrangement dated 2007 (the "2007 AOC") with about 70 companies (including Occidental and TS) in the lower portion of the Passaic River due to an administrative agreement of 2007 ("the 2007 AOC").

Under the 2007 AOC, the lower 17 miles of the Passaic River, from the mouth at Newark Bay to Dundee Dam, should have been subjected to a Remedial Investigation / Feasibility Study ("RI/FS"). The AOC 2007 participants discussed the possibility of carrying out additional remediation work with the EPA. The companies that agreed to fund the RI/FS have negotiated an interim allocation of RI/FS costs among themselves based on a number of considerations. This group is called the Cooperative Parties Group (the "CPG"). The AOC 2007 was coordinated in a federal, state, local and private sector cooperative effort called the Restoration Project for the lower reaches of the Passaic River ("PRRP").

EPA's conclusions regarding the 2007 AOC indicated that the discharges of the underwater sewage pipe are an active source of hazardous substances in the lower sections of the Passaic River under study. During the first semester of 2011, Maxus and TS, acting on behalf of Occidental, entered into an administrative agreement with the EPA (the "CSO AOC"), which establishes the implementation of studies of the underwater sewage pipe on the Passaic River, and confirms that there are no pending obligations under the AOC 1994. In the last semester of 2014, TS filed its report with the EPA (thus completing phase 1). TS estimated, as of December 31, 2015, that the total cost to implement the CSO AOC is approximately US\$ 5 million and will take approximately 2 years to be completed once EPA authorizes phase 2 (the work schedule).

On May 29, 2012, Occidental, Maxus and TS withdrew from the CPG under protest and reserving all their rights. However, Occidental continues to be a member of the 2007 AOC and its withdrawal from the CPG has not changed its obligations under the 2007 AOC.

In addition, in August 2007, the National Oceanic Atmospheric Administration ("NOAA") sent a letter to a number of entities it alleged to have a liability for natural resources damages, including TS and Occidental, requesting that the group enter into an agreement to conduct a cooperative assessment of natural resources damages in the Passaic River and Newark Bay. In November 2008, TS and Occidental entered into an agreement with the NOAA to fund a portion of the costs it has incurred and to conduct certain assessment activities during 2009. Approximately 20 other PRRP members have also entered into similar agreements. In November 2009, TS declined to extend this agreement.

• **Feasibility Study for the environmental remediation of the lower 8.3 miles of the Passaic River– Record of Decision ("ROD")**

On June 2007, the EPA released a draft Focused Feasibility Study (the "FFS 2007"). The FFS 2007 outlines several alternatives for remedial action in approximately the lower 8.3 miles of the Passaic River. On April 11, 2014, the EPA published a new FFS draft ("FFS 2014"). The FFS 2014 contains four remediation alternatives analyzed by the EPA, as well as the estimate of the cost of each alternative, which consist of: (i) no action; (ii) deep dredging with 9.7 million cubic yards of filling material; (iii) filling and dredging of 4.3 million cubic yards and the placement of a physical barrier mainly built of sand and stone (tapa de ingeniería); and (iv) focused dredging with 1 million cubic yard of filling material. On March 4, 2016, the EPA issued the ROD choosing Alternative 3 as a remedy to remove the contaminated sediments. The estimated cost is US\$ 1,382 million (estimated present value at a rate of 7%).

The ROD requires the removal of 3.5 million cubic yards of sediment from the lower 8.3 miles of the Passaic River by bank-to-bank dredging, to a depth of approximately 5 to 30 feet in the federal navigation channel from mile 0 to mile 1.7, and approximately 2.5 feet in the remaining areas of the lower 8.3 miles of the Passaic River. A two-foot thick cap will be installed over the dredged areas. Contaminated segments would be transported to disposal sites outside the state. The EPA estimates the whole project will take approximately 11 years, including one year for negotiations among potentially responsible parties, three to four years for project design and six years for its implementation.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

On March 31, 2016, the EPA notified more than one hundred potentially responsible parties, including Occidental, of the liabilities relating to the 8.3 mile area of the Passaic River relating to the ROD. In the same notice the EPA stated that it expected Occidental (against whom Maxus is litigating a dispute over indemnity) to prepare the remediation plan design and that it would send a second letter with an administrative proposal to this end, which was received by counsel to Occidental, Maxus and TS on April 26, 2016.

As of the date of the Maxus Entities' bankruptcy filing, Occidental under Chapter 11, Maxus and TS were holding discussions with EPA to define their participation in a potential negotiation aimed at taking part in the design of the EPA's proposed remediation plan, taking into account that the ROD has identified over one hundred potentially responsible parties and eight contaminants of concern, many of which have not been generated at the Lister Site. As of such date, Maxus was evaluating the situation resulting from the issuance of the ROD by the EPA, as well as its subsequent associated letters.

- **Removal Action Next to Lister Avenue Site**

During June 2008, the EPA, Occidental, and TS entered into an Administrative Order of Consent, pursuant to which TS, on behalf of Occidental, will undertake a removal action of sediment from the Passaic River in the vicinity of the former Diamond Alkali facility. This action results in the removal of approximately 200,000 cubic yards of sediment, which will be carried out in two different phases. The first phase, which commenced in July 2011 and was substantially completed in the fourth quarter of 2012. The EPA conducted a site inspection in January 2013, and TS received written confirmation of completion in March 2013.

The term for compliance with the second phase began after the agreement entered into with EPA regarding certain aspects related to the development of the same. The Focused Feasibility Study ("FFS") published on April 11, 2014 provides that Phase II of the removal action was consistently implemented with the FFS. On September 18, 2014, the EPA requested that Tierra Solutions, Inc. ("TS") conducted an additional sampling of the Phase II area. The sampling was completed in the first quarter of 2015 and TS is expected to present the validated results to the EPA during 2016.

31.a.5.ii) Environmental administrative issues relating to the lower 17 miles of the "Passaic River" – feasibility study

- **Feasibility study for the lower 17 miles of the Passaic River**

Notwithstanding what is discussed above, the lower 17-mile section of the Passaic River, (the area contemplated in AOC 2007), was subject to a RIF/FS study expected to be completed by 2015, after which EPA would choose a remediation action that will be made public in order to receive comments.

The CGP ("Cooperation Group Parties") submitted in the first semester of 2015, the draft of the RI/FS in which offers potential remediation alternatives, (which comprises the lower 8 miles of the Passaic River) of the EPA. The EPA may or may not consider this report.

31.a.5.iii) Other environmental proceedings

Other matters relating to the eventual liability of Maxus and TS include liabilities arising from: (a) a ferrous chromate processing plant in Kearny, New Jersey; (b) the Standard Chlorine Chemical Company Superfund Site; (c) a ferrous chromate processing plant in Painesville, Ohio; (d) certain removals of contaminants located in Greens Bayou; (e) the Milwaukee Solvay Coke & Gas site located in Milwaukee, Wisconsin; (f) the Black Leaf Chemical Site, Tuscaloosa Site, Malone Services Site and Central Chemical Company Superfund Site (Hagerstown, Maryland); (g) the remediation action in Mile 10.9.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

31.a.6) Trial for the Passaic River

In relation to the alleged contamination related to dioxin and other hazardous substances in the lower stretch of the Passaic River, Newark Bay, other nearby waterways and surrounding areas, the DEP sued YPF Holdings, TS, Maxus and several companies, including Occidental. The DEP sought remediation of natural resources damages and punitive damages and other matters.

The defendants made responsive pleadings and filings.

In March 2008, the Court denied motions to dismiss by Occidental, TS and Maxus. The DEP filed its Second Amended Complaint in April 2008. YPF filed a motion to dismiss for lack of jurisdiction of the New Jersey Court over YPF because it was a foreign company lacking the requirements to become a party to a lawsuit in such Courts. The previously mentioned motion filed by YPF was denied in August 2008, and the denial was confirmed by the Court of Appeal.

Without prejudice to the foregoing, the Court denied the plaintiffs' motion to bar third party practice and allowed defendants to file third-party complaints. Consequently, third party claims against approximately 300 companies and governmental entities (including certain municipalities) which could have responsibility in connection with the claim were filed in February 2009. DEP filed its Third Amended Complaint in August 2010, adding Maxus International Energy Company and YPF International as additional named defendants. During the course of the litigation, the third parties filed motions to sever and stay and motions to dismiss. The motions were rejected by the judge. Some of the entities appealed the court decision, but such appeals were dismissed in March 2011.

In May 2011, the judge issued Case Management Order No. XVII (CMO XVII), which contained the Trial Plan for the case. This Trial Plan divides the case into two phases, each with its own mini-trials ("Tracks" or "procedural stages") which totaled nine Tracks considered individual trials. Phase one would determine liability and phase two would determine damages. Regarding the sub-stages: (a) sub-stages I to III (Tracks I to III) correspond to damages claimed by Occidental and the State of New Jersey; (b) sub-stages IV to VII (Tracks IV to VII) correspond to liability for alter ego and fraudulent conveyance with respect to YPF, Maxus and Repsol and to the liability of third parties to Maxus; (c) sub-stage VIII (Track VIII) corresponds to damages claimed by the State of New Jersey; (d) sub-stage IX (Track IX) is the percentage of liability that would correspond to Maxus for the cleanup and remediation costs.

Specifically, sub-stage III (Track III) will determine the extent of Maxus' liability for the operation of the Lister Site; sub-stage IV (Track IV) will determine the possible scope of YPF and Repsol's liability for damages to the Lister Site (alter ego and fraudulent conveyance).

Following the issuance of CMO XVII, the State of New Jersey and Occidental filed motions for partial summary judgment. The State filed two motions: the first one against Occidental and Maxus on liability under the Spill Act, and against TS on liability under the Spill Act. In addition, Occidental filed a motion for partial summary judgment that Maxus owes a duty of contractual indemnity to Occidental for liabilities under the Spill Act. In July and August 2011, the judge ruled that, although the discharge of hazardous substances by Chemicals was proven, a liability allegation could not be made if the causal relationship between any discharge and the alleged damage is not established. Additionally, the Court ruled that TS has Spill Act liability to the State based on (1) its current ownership of the site where the discharges were made (Lister Avenue); and (2) that Maxus has the obligation to indemnify Occidental (previously mentioned).

In November 2011, the Special Master called for and held a settlement conference between the State of New Jersey, on the one hand, and Repsol S.A., YPF and Maxus, on the other hand to discuss the parties' respective positions, but no agreement was reached.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

In February 2012, the plaintiffs and Occidental filed motions for partial summary judgment, seeking summary adjudication that Maxus has liability under the Spill Act of New Jersey. The Judge held that Maxus and TS have direct liability for the contamination generated into the Passaic River. Volume, toxicity and cost of the contamination have not been verified yet.

On September 11, 2012, the Court issued the Track VIII order. The Track VIII order governs the process by which the Court would conduct the discovery and trial of the claim for damages of the State of New Jersey (the "Administration") against Occidental, Maxus and TS (caused by the Diamond Alkali Lister Avenue plant).

On September 27, 2012, Occidental filed its Amended Cross-Claims and the following day, the State of New Jersey (the "Administration") filed its fourth Amended Complaint. The principal changes to the Administration's pleading concern the State's allegations against YPF and Repsol, which were included in its cross-claim. In particular, based on the Mosconi Report of the Argentine State, three new allegations against Repsol were included involving asset stripping from Maxus and YPF.

During the fourth quarter of 2012 and the first quarter of 2013, YPF, YPF Holdings, Maxus and TS together with certain other direct defendants in the litigation, have engaged in on-going mediation and negotiation seeking to settle Track VIII with the State of New Jersey. During this time, the Court has stayed the litigation. On March 26, 2013, the State advised the Court that a proposed settlement between the State and certain third-party defendants had been approved by the requisite threshold number of private and public third-party defendants. The respective Boards of Directors of YPF, YPF Holdings, Maxus and TS approved at their Board meetings the settlement agreement (the "Agreement"). The proposal of the Agreement, which did not imply endorsement of facts or rights and presented only for conciliatory purposes, was subject to an approval process, publication, comment period and court approval. According to the terms of the Agreement, the state of New Jersey would agree to release certain claims related with environmental liabilities within a geographic area of the Passaic River, New Jersey initiated against YPF and certain subsidiaries, naming YPF and other participants in the litigation, a limited liability of up to US\$ 400 million, if they are found responsible. In return, Maxus would make cash payment of US\$ 65 million at the time of approval of the Agreement.

In September 2013, the Court published its Case Management Order XVIII ("CMO No. XVIII"), which provides a schedule for approval of the Agreement. Pursuant to the CMO XVIII, the Court rejected Occidental's claims and approved the Agreement. Occidental appealed the approval of the Agreement, which was dismissed. Notwithstanding the foregoing, on February 10, 2014, in compliance with the settlement agreement, Maxus made a deposit of US\$ 65 million in an escrow account. On April 11, 2014, Occidental notified the parties that it would not seek an additional revision of the approval of the Agreement.

On August 20, 2014, the lawyers of the State of New Jersey reported that Occidental and the State of New Jersey had entered into an agreement on the general terms and conditions of a settlement agreement that would end the Track VIII proceedings. On December 16, 2014, the Court approved the Settlement Agreement whereby the State of New Jersey agreed to settle all claims against Occidental related to the environmental liabilities within a specific geographical area of the Passaic River, New Jersey, in consideration for the payment of US\$ 190 million in three installments, the last payable on June 15, 2015; and a sum amounting up to US\$ 400 million if the State of New Jersey had to pay its percentage for future remedial actions.

On January 5, 2015, Maxus received a letter from Occidental requesting Maxus, pursuant to the purported contractual obligation to indemnify Occidental, to compensate Occidental for all the payments that Occidental agreed to pay to the Administration. Maxus holds that both the existence and the amount of such obligation to indemnify under the settlement agreement are pending issues that must wait for the Court decision on the Passaic River case.

In addition, on July 31, 2014 Occidental submitted its third amendment to the complaint YPF, Repsol and Maxus filed motions to limit Occidental's third amended complaint arguing that such claims were not included in the second. Occidental answered that the third amendment incorporated new facts, but not new claims. The Court rejected Occidental's arguments and dismissed the third amendment to the complaint.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

Moreover, Repsol countersued Occidental alleging that the US\$ 65 million paid by Repsol as per the agreement between Repsol, YPF, YPF Holdings, Maxus and Tierra Solutions with the State of New Jersey was paid for damages caused by (a) Chemicals, for which Occidental is liable under the share purchase/sale agreement of 1986 or (b) Occidental's independent conduct.

On April 15, 2015, Occidental sent Maxus a letter claiming indemnity protection under the share purchase agreement with respect to the counterclaim filed by Repsol against Occidental. On April 28, 2015, Maxus replied contesting the claims reserving all arguments and defenses regarding the SPA's indemnification provisions.

Furthermore, the scheduled dates were changed through Case Management Order XXVI Depositions of witnesses residing in both the U.S. and abroad began in December 2014. Nearly forty witnesses deposed in the case, including the corporate representatives of all the parties. The issues being addressed include Track IV (the alter ego and fraudulent transfers of assets) and Track III (indemnity claims filed by Occidental against Maxus). Depositions of witnesses were completed in mid-October 2015.

Notwithstanding the above, the Special Master authorized the parties to file briefs specifying any issue in respect of which each party believed that the court should authorize early summary judgment motions. The motions filed by the parties and the non-binding opinions as issued by the Special Master on January 14, 2016, are summarized below:

- (a) YPF filed for early summary judgment against Occidental on four issues: i) dismissal of the portion of Occidental's claims for alter ego liability, based on the financing of YPF's acquisition of Maxus shares in 1995; ii) dismissal of the portion of Occidental's claims for alter ego liability, based on the transfer of Maxus' assets from 1995 through 1999; iii) dismissal of the portion of Occidental's liability claims based on the alleged "control" by YPF of Maxus's Board of Directors' decision, in 1996, to sell its subsidiaries in Bolivia and Venezuela to YPF International; and iv) dismissal of the portion of Occidental's claims for alter ego liability, based on the transfer of Maxus' environmental liabilities to Tierra in 1996.

The Special Master's Recommendation on YPF's motion recommended to deny the motion on the grounds that i) the statute of repose for fraudulent transfers is not applicable to the remedy of alter ego for breach of contract and ii) a finder of fact should be permitted to consider all portions of YPF's actions when determining if there is alter ego liability so dismissal of portions of these claims is inappropriate.

- (b) Occidental filed a motion for early summary judgment against Maxus in relation to Occidental's claim to recover the amount of US\$ 190 million (plus expenses) under the settlement agreement.

The Special Master sought to establish that Maxus is liable for all obligations at the Lister Site, regardless of any actions taken by Occidental (including the period of time that the Occidental operated Lister Site). Therefore, the Special Master's Recommendation on Occidental's motion against Maxus recommended to grant the motion on the grounds that (i) the language of the SPA was not ambiguous and required Maxus to indemnify Occidental for its own conduct at the Lister Site and (ii) Occidental was not estopped from seeking indemnity from Maxus for its own conduct at the Lister Site because it did not take inconsistent legal positions in prior litigations. Notwithstanding the foregoing, Occidental will have to prove the reasonableness of the US\$ 190 million amount settled with the State of New Jersey, for which Maxus may eventually be liable.

In addition, Occidental filed for early summary judgment dismissing the cross-claims of Repsol against Occidental, which seek to recover from Occidental the US\$ 65 million payment made by Repsol to New Jersey State under the settlement agreement.

The Special Master's Recommendation on Occidental's motion against Repsol recommended to deny the motion in part as to Repsol's contribution claim and to grant the motion in part as to Repsol's unjust enrichment claim, on the grounds that i) Repsol's contribution claims are permissible under the New Jersey Spill Act even if a settlement did not fully discharge liability to the State; ii) demonstrating Repsol's liability under the Spill Act is not a prerequisite for Repsol to receive contribution from Occidental; iii) Repsol is not liable to Occidental for indemnification as an alter ego of Maxus, and iv) Occidental was not unjustly enriched when Repsol settled with the State of New Jersey.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

- (c) Repsol filed for early summary judgment against Occidental to dismiss Occidental's cross-claims: i) to the extent that Occidental's claims are based on prescribed claims for fraudulent transfers; ii) on the grounds that Occidental cannot prove that it has suffered damages due to a failure to perform an agreement; iii) on the grounds that Occidental cannot prove that Repsol has caused any damage even if a non-performance occurred, because Occidental has alleged that Maxus became insolvent before Repsol acquired YPF in 1999; and iv) on the grounds that Occidental has failed to pierce the corporate veil between YPF and Repsol.

The Special Master's Recommendation on Repsol's motion against Occidental recommended granting the motion because the Occidental failed to set out any basis to pierce the corporate veil between YPF and Repsol, which the Special Master held Occidental was required to do, and because Occidental did not allege that YPF was insolvent.

- (d) Maxus filed for early summary judgment against Occidental to dismiss the claims for damages filed by Occidental regarding costs not yet incurred by Occidental (future remediation costs). YPF joined in this motion.

The Special Master's Recommendation on Maxus's motion against Occidental was to grant the motion on the grounds that Occidental's request for declaratory judgment has no basis due to the uncertainty regarding future costs.

- (e) Finally, related to the claims that Occidental sought to add against YPF and Repsol for alleged interference with Occidental's contractual rights under the Stock Purchase Agreement of 1986 (between Maxus and Occidental), the Special Master recommended that the motion be denied on the grounds that Occidental improperly delayed in seeking to supplement its claims despite having multiple earlier opportunities to do so.

The parties appealed the respective Special Master's recommendations on February 16, 2016. On February 18, 2016, the parties sought leave from the Special Master to file additional motions for summary judgment. On March 7, 2016, the Special Master denied each of the parties' requests to file additional motions, while ruling that the parties could raise the factual issues raised in the motions at the time of trial as motions in limine. On April 5, 2016, the judge denied the motions and adopted the Special Master's Recommendations in their entirety.

On April 25, 2016, the parties moved to request permission to file interlocutory appeals and a stay of the litigation during the appellate proceedings. Maxus filed a motion requesting permission to appeal the ruling granting summary judgment to Occidental against Maxus, which held that Maxus is liable under the stock purchase and sale agreement for all obligations under, or arising from, the Lister Site, even if attributable to Occidental's own acts. YPF filed a motion requesting permission to appeal the ruling denying its motion for summary judgment and Occidental filed a motion, appealing the ruling that granted Repsol its motion for summary judgment. On May 24, 2016, the Superior Court of New Jersey—Appellate Division denied all interlocutory appeals.

On April 5, 2016, the Superior Court issued Case Management Order XXVIII establishing the trial date as June 20, 2016. However, all litigation against Maxus and YPF has been stayed upon Maxus' filing under Chapter 11 of the Bankruptcy Code.

On June 20, 2016, Occidental filed a Notice of Removal of Claims and a motion to transfer venue of the remaining claims in the Passaic River Litigation from the New Jersey Bankruptcy Court to the Delaware Bankruptcy Court. On June 28, 2016, the New Jersey Bankruptcy Court granted Occidental's motion to transfer venue.

On July 20, 2016, Repsol filed a motion with the Delaware Bankruptcy Court to have its cross-claims seeking environmental contribution from Occidental under the Spill Act to be remanded to the New Jersey Superior Court. On November 15, 2016, the Bankruptcy Court granted Repsol's motion to remand. On November 29, 2016, Occidental filed a motion for clarification or, in the alternative, for reconsideration of the Bankruptcy Court's Order granting Repsol's motion to remand. At a hearing on January 25, 2017, the Delaware Bankruptcy Court denied Occidental's motion and allowed Repsol's cross-claims to go forward in the New Jersey Superior Court. At present, a series of appeals filed by Repsol and OCC are pending resolution.



31. ISSUES RELATED TO MAXUS ENTITIES (Cont.)

31.b) Accounting matters

In connection with the petition that the Maxus Entities filed with the Bankruptcy Court on June 17, 2016, as described in detail in part a) of this Note, the Management of the Company considered this an event that required reconsideration of whether the consolidation of such entities remained appropriate. In order to carry out this analysis, the Company followed the guidelines established in IFRS 10 "Consolidated Financial Statements" to reassess whether it maintained control over the activities of the Maxus Entities. This analysis, in accordance with IAS 8, was complemented by the criteria set forth in the United States Standard ASC 810 published by the FASB, the principles of which are consistent with IFRS 10, but addresses in more detail the issues related to the consolidation of entities that file a reorganization proceeding under Chapter 11.

Generally, when an entity files a petition under Chapter 11, shareholders do not generally maintain the ability to exercise the power to make decisions that have a significant impact on the economic performance of the business of entities because that power is usually subject to Bankruptcy Court approval.

The petition filed by the Maxus Entities under Chapter 11 had relevant effects on the rights of YPF Holdings as a shareholder of these entities, because creditors replaced the shareholders in their legal capacity to file derivative suits against the directors on behalf of the entities for breach of the Debtors' fiduciary obligations, since the creditors would be the main beneficiaries in any increase in value of these entities. However, at the time of the filing under Chapter 11, it should be noted that YPF Holdings retained its right to designate directors of the Debtors through Shareholders' Meetings, unless the Bankruptcy Court orders otherwise. In addition, the bankruptcy cases also affected the responsibilities and functions of the board of directors and management of each of the respective Maxus Entities. Each of the Maxus Entities had become a "Debtor in Possession" and, in accordance with the Bankruptcy Code, remained in possession of its property and, subject to certain limitations, was authorized to carry out its normal operations, unless the Bankruptcy Court ordered otherwise. Nevertheless, during the Chapter 11 cases, the directors of the Debtors do not have absolute discretion, since any transaction "outside the ordinary course of business" of the Debtors, such as the sale of a significant asset, the expansion of a line of business involving the use of significant funds (or the commitment to do so), or the provision of loans or other types of financing, will be subject to the approval of the Bankruptcy Court.

Likewise, on November 8, 2016, the Maxus Entities amended their by-laws in order to give greater discretion to the independent Directors.

As a result, due to the Chapter 11 filing, YPF Holdings is not empowered to make decisions unilaterally, which could significantly affect the Debtors' businesses, both operationally and economically. Likewise, the Debtors are required to seek the approval of the Bankruptcy Court for typical commercial activities, if such activities could have a significant effect on their operations or on any of their stakeholders.

In view of the foregoing, the Management of the Company understands that it is no longer able to exercise its power over such entities to significantly influence on the Maxus Entities' operations and results, a necessary condition established by IFRS 10 to establish the existence of an effective financial control and therefore, it proceeded to deconsolidate the investments in the Maxus Entities from June 17, 2016.



32. CONTINGENT ASSETS AND LIABILITIES

32.a) Contingent assets

The Group does not have any significant contingent assets.

32.b) Contingent liabilities

The Group has the following contingencies and claims, individually significant, that the Management of the Company, in consultation with its external counsels, believes have possible outcome. Based on the information available to the Group, including the amount of time remaining before trial among others, the results of discovery and the judgment of internal and external counsel, the Group is unable to estimate the reasonably possible loss or range of loss on certain matters referred to below:

32.b.1) Environmental claims

- **Asociación Superficiaarios de la Patagonia (“ASSUPA”)**

In August 2003, ASSUPA sued the companies operating exploitation concessions and exploration permits in the Neuquén Basin, YPF being one of them, claiming the remediation of the general environmental damage purportedly caused in the execution of such activities, in addition to the establishment of an environmental restoration fund, and the implementation of measures to prevent environmental damages in the future. The plaintiff requested that the Argentine Government, the Federal Environmental Council (*Consejo Federal de Medio Ambiente*), the Provinces of Buenos Aires, La Pampa, Neuquén, Río Negro and Mendoza and the Ombudsman of the Nation be summoned. It requested, as a preliminary injunction, that the defendants refrain from carrying out activities affecting the environment. Both the Ombudsman’s summons as well as the requested preliminary injunction were rejected by the CSJN.

YPF responded to the suit requesting its rejection, opposing failure of the plaintiff and requiring the summons of the Argentine Government, due to its obligation to indemnify YPF for events and claims before January 1, 1991, according to Law No. 24,145 and Decree No. 546/1993. The CSJN gave the plaintiffs a time frame to correct the defects in the complaint. On August 26, 2008, the CSJN decided that such defects had already been corrected and on February 23, 2009, ordered that certain provinces, the Argentine Government and the Federal Environmental Council be summoned. Therefore, pending issues were deferred until all third parties impleaded appear before the court. As of the date of issuance of these consolidated financial statements, the provinces of Río Negro, Buenos Aires, Neuquén, Mendoza, and the Argentine government have made their presentations, which are not available to the Company yet. The Provinces of Neuquén and La Pampa claimed lack of jurisdiction, which was answered by the plaintiff.

On December 30, 2014, the CSJN issued two interlocutory judgments. The first judgment supported the claim of the Provinces of Neuquén and La Pampa, and declared that all environmental damages related to local and provincial situations were outside the scope of his original competence, and that only “inter-jurisdictional situations” (such as the Colorado River basin) would fall under his venue.

In the second judgment, the Court rejected the petition filed by ASSUPA to incorporate Repsol and the directors who served in YPF until April 2012 as a necessary third party. The Court also rejected precautionary measures and other proceedings related to such request.

The complaint filed on March 7, 2007 was considered answered by the CSJN, which decided to serve notice of the motion to dismiss for the plaintiff’s lack of capacity to sue and the statute of limitations filed by YPF and of the attached documentation.

Regarding the Neuquina Basin, a preventive action has been filed by an individual to prevent future damages and reduce presumed damages, an action for repair of damages consisting of the comprehensive remediation of collective damages allegedly caused by the hydrocarbon activity, in the Province of Neuquén. YPF answered the complaint and requested that the National Government, the Provincial Government and other oil companies in the area be summoned to appear.

32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

In addition, it should be highlighted that YPF learned about other three court complaints filed by ASSUPA against:

i. Concessionary companies in the San Jorge Gulf basin areas

On December 28, 2016, YPF received notice of the court resolution. The deadline set for preliminary defenses was May 31, 2017, and the deadline to respond to the complaint was June 30, 2017. YPF has timely filed a legal defect exception and the court ordered the suspension of the terms to answer the complaint. The terms will continue to be suspended until a final decision is made and submitted by the company.

ii. Concessionary companies in the Austral basin areas

A highly summarized action has been ordered. In addition, an interim relief has been issued by the Lower Court to notify several companies of the existence of the suit, and for the defendants to contribute certain information. YPF appealed this decision, and the Court of Appeals partially upheld the appeal, reversing the lower court's ruling ordering various entities to provide notification of this claim. In the same decision, the Court of Appeals confirmed that the defendants had an obligation to provide certain information but stated that YPF and the other defendants had already complied with such obligation. On November 2, 2015, YPF was notified of the lawsuit. Following YPF's request, the court ordered on November 4, 2015 to suspend the procedural time limits.

On November 23, 2017, the plaintiff requested the Court to decide on its motion requesting the National Government and the Provinces of Santa Cruz and Tierra del Fuego to be summoned to appear as third parties in compliance with the ruling dated December 6, 2017 whereby the court ordered the issuance of such summons, so that the National Government—and the provinces mentioned above—enter an appearance in the case within the term of 60 days. The court ordered the suspension of deadlines until their appearance or expiration of the deadline.

On June 4, 2018, the Argentine Government answered as the third-party summons sought by the plaintiff, and requested dismissal thereof. On August 13, 2018 the province of Tierra del Fuego answered a summons as a third party stating its intention not to voluntarily appear in the case and requested its exclusion thereof. On September 11, 2018, the Province of Santa Cruz answered the summons as a third party, stating that it has no interest in participating in the case and adhered to what was stated by the Province of Tierra del Fuego.

iii. Concessionary companies in the Northwest basin areas

The action was submitted to ordinary proceedings. On December 1, 2014, the Company was notified of the complaint. The procedural deadlines were suspended at the Company's request. Subsequently, on May 3, 2016, YPF was once again notified of the complaint, and the deadlines were reinstated. Consequently, the Company filed a motion requesting that the deadlines be suspended until the plaintiff clarifies whether or not it will annex certain documentary evidence referred to in the complaint. The Judge sustained the Company's motion and suspended once again the deadlines to answer the complaint. On April 19, 2017, YPF was served with notice of the ruling of the Court ordering to resume the procedural time limits against which YPF has timely filed a defense for a legal flaw. The court has not decided upon it yet and ordered the suspension of the terms to answer the complaint. The terms will continue to be suspended until a final decision on the legal defect exemption is made by YPF.

32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

- **Dock Sud, Río Matanza, Riachuelo, Quilmes and Refinería Luján de Cuyo**

A group of neighbors of Dock Sud, Province of Buenos Aires, have sued 44 companies, among which YPF is included, the Argentine Government, the Province of Buenos Aires, the City of Buenos Aires and 14 municipalities, before the CSJN, seeking the remediation and the indemnification of the environmental collective damage produced in the basin of the Matanza and Riachuelo rivers. Additionally, another group of neighbors of the Dock Sud area, have filed two other environmental lawsuits, one of them desisted in relation to YPF, claiming several companies located in that area, among which YPF is included, the Province of Buenos Aires and several municipalities, for the remediation and the indemnification of the environmental collective damage of the Dock Sud area and for the individual damage they claim to have suffered. Currently, it is not possible to reasonably estimate the outcome of these claims nor is it possible to estimate the corresponding legal fees and expenses that might result. YPF has the right of indemnity by the Argentine Government for events and claims prior to January 1, 1991, according to Law No. 24,145 and Decree No. 546/1993.

By means of judgment dated July 8, 2008, the CSJN:

- Determined that the Basin Matanza Riachuelo Authority (“ACUMAR”) (Law No. 26,168) should be in charge of the execution of the program of environmental remediation of the basin, being the Argentine Government, the Province of Buenos Aires and the City of Buenos Aires responsible of its development; delegated in the Federal Lower Court of Quilmes the knowledge of all the matters concerning the execution of the remediation and reparation; declared that all the litigations related to the execution of the remediation plan will accumulate and will be processed through this court and that this process produces *lis pendens* relating to the other collective actions that aim for the environmental remediation of the basin, which actions should be archived (“*littispendencia*”). YPF has been notified of certain resolutions issued by ACUMAR, by virtue of which YPF has been requested to present an Industrial Reconversion Program, in connection with certain installations of YPF. The Program has been presented although the resolutions had been appealed by the Company;
- Decided that the proceedings related to the determination of the responsibilities derived from past behaviors for the reparation of the environmental damage will continue before that Court.

In addition to the claims discussed under 15.a.4), which discusses environmental claims in Quilmes, the Company has other legal and non-judicial claims against it, based on similar arguments.

On the other hand, the monitoring tasks carried out routinely by YPF have allowed YPF to warn against degrees of affectation in the subsoil within the vicinity of the Luján de Cuyo refinery, which led to the creation of a program for surveying, evaluating and remedying liabilities that the Company is in the process of implementing with agencies in the Province of Mendoza, the costs which have been charged to provision in the remediation program of environmental issues of the Group.



32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

32.b.2) Contentious claims

- **Petersen Energía Inversora, S.A.U and Petersen Energía, S.A.U. (collectively, “Petersen”)**

On April 8, 2015, Petersen, former YPF Class D shareholder, filed a lawsuit against the Republic of Argentina and YPF in the Federal District Court for the Southern District of New York. The litigation is being conducted by the bankruptcy trustee of the previously mentioned companies due to a liquidation process pending in a Commercial Court in Spain. The complaint contains claims related to the expropriation of the controlling interest of Repsol in YPF by the Argentine Republic in 2012, asserting that the obligation by the Argentine Republic to make a purchase offer to the remaining shareholders would have been triggered. Claims are grounded on allegations that the expropriation breached contract obligations contained in the initial public offering and bylaws of YPF and seeks unspecified compensation. YPF considers that the claim against the Company has no merit and filed a motion to dismiss on September 8, 2015, a date that was set as a result of the extension of the term provided for by the Court. On the other hand, Petersen filed an objection against YPF’s motion to dismiss.

On July 20, 2016, the Court held a hearing during which the parties made their arguments regarding the motion to dismiss, and responded to questions asked by the Judge. On September 9, 2016, the United States District Court for the Southern District of New York issued a decision partially dismissing the complaint filed by Petersen against YPF at this preliminary stage. The Company appealed this decision, requesting a complete dismissal of the complaint at this preliminary stage.

On June 15, 2017, a hearing was held so that the parties could orally present their arguments.

On July 10, 2018, the United States Court of Appeals for the Second Circuit held that the United States District Court has jurisdiction over this judicial matter, but without rendering an opinion as to the merits of the complaint against YPF and the Republic of Argentina. The Company and the Argentine Republic appealed such resolution on July 24, 2018 requesting reconsideration by the Court of Appeals that ruled (“Panel rehearing”) or a review of the resolution by the Court of Appeals as a whole (“Rehearing en banc”).

On August 30, 2018, the Rehearing en banc filed by the Company and the Argentine Republic was rejected. For that reason, the process was suspended until the case was remanded to the United States District Court for the Southern District of New York. However, YPF requested a stay motion (“stay of mandate”), which was granted on October 2, 2018 for a period of thirty days. On October 31, 2018, the Company filed a writ of certiorari with the Supreme Court of Justice of the United States so that the process is stayed until this court finally decides on its merits.

Additionally, the republics of Mexico and Chile appeared in Court as Amicus Curiae.

On January 7, 2019, the Supreme Court of Justice of the United States requested the Solicitor General (advisor to the U.S. Ministry of Justice in charge of all the proceedings pending in the U.S. Supreme Court of Justice) to decide on the admissibility of the writ of certiorari filed by the Company and the Argentine Republic.

On April 17, the Court of Appeals for the Second Circuit returned the complaint to the District Court.

On April 18, 2019, the Company and the Argentine Republic filed a petition for reconsideration or clarification before the Court of Appeals for the Second Circuit in reference to the return of the complaint to the District Court. On the same day, the Company and the Argentine Republic requested the District Court to suspend the proceedings until the Court of Appeals resolved on the petition for reconsideration or clarification filed by the Company and the Republic.



32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

On April 22, 2019, the District Court accepted the petition made by the Company and the Republic to suspend the proceedings until the Court of Appeals resolved on the petition submitted by the Argentine Republic. Also on April 22, Petersen filed an objection to the request for reconsideration or clarification of the Company and the Republic before the Court of Appeals. On the same day, the Company and the Republic replied to Petersen's objection before the Court of Appeals for the Second Circuit.

On April 26, 2019, the Court of Appeals resolved to dismiss the petition submitted by the Argentine Republic.

On April 27, 2019, Petersen filed a motion to the District Court requesting a hearing to define the following steps of the procedure.

On April 28, 2019, the Company and the Argentine Republic filed a motion to the District Court requesting the suspension of the terms until the Supreme Court of the United States rules on the writ of certiorari.

On April 29, 2019, the Company and the Republic answered the request filed by Petersen for a hearing with the District Court. On the same day, Petersen answered the motions filed by the Company and the Republic on April 28 and 29.

On April 30, 2019, the Company and the Republic answered the brief filed by Petersen on April 29.

On May 1, 2019, the District Court resolved (i) to grant the petition for suspension of the litigation terms requested by the Company and the Argentine Republic and (ii) to dismiss the request for a hearing filed by Petersen.

On May 21, 2019, the Attorney General issued his non-binding opinion recommending that the case should continue to be heard and processed in the United States.

On June 3, 2019, the Argentine Republic filed a supplemental motion to the Writ of Certiorari.

On June 24, 2019, the Supreme Court of the United States rejected the Writ of Certiorari filed by the Company and the one filed by the Argentine Republic. On that same date, YPF submitted a letter to the District Court requesting a hearing prior to the filing of a Motion for Judgment on the Pleadings. Likewise, on that same date, Petersen submitted a letter to the District Court requesting it to lift the suspension of procedural terms and to set a date for a hearing prior to the request for the admission of a Summary Judgment.

On June 25, 2019, the District Court ordered the parties to answer the petitions filed on June 24, 2019 by July 3, 2019, and called the parties to a hearing to be held on July 11, 2019.

On July 8, 2019, the Argentine Republic and YPF filed both answers and raised defenses against Petersen's complaint.

On July 11, 2019 the hearing ordered by the Judge was held, in which the parties explained their arguments seeking the approval of their motions filed on June 24, 2019.

On July 23, 2019, Petersen, Eton Park, the Argentine Republic and YPF submitted a petition proposing a schedule for: (i) the Argentine Republic and YPF to file their motions for complaint dismissal based on the principle of "forum non conveniens", before August 30, 2019, (ii) Both Petersen and Eton Park to be able to file their objections to these motions before October 30, 2019 and (iii) the Argentine Republic and YPF reply to the petitions mentioned above in point (ii) before November 29, 2019.

On July 24, 2019, the Judge accepted the schedule proposed by the parties and resolved that the procedural terms were suspended until the motions for complaint dismissal on the grounds of "forum non conveniens" are resolved.

On August 30, 2019, YPF and the Argentine Republic jointly presented their arguments in support of the motion to dismiss based on the grounds of "forum non conveniens".



32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

On September 17, 2019 and on the occasion of the elections in the Argentine Republic, the presiding Judge modified the schedule approved on July 23, 2019: (i) extending until December 7, 2019 the deadline for Eton Park and Petersen to submit the objection to the motion to dismiss based on the grounds of “forum non conveniens”, and (ii) extending until January 7, 2020 the period for YPF to answer the pleadings filed by Eton Park and Petersen in section (i) above.

On September 27, 2019, YPF and the Argentine Republic filed a pleading in the District Court stating that the grounds for the decision dated September 17, 2019 could lead to interpretations contrary to the Argentine public and private law which provides for Institutional continuity of the State –irrespective of the government- as well as that of YPF, irrespective of its directors or its shareholders, and reserving the right to request an extension of terms in order to maintain the equality of the parties to the proceedings.

On October 2, 2019, the District Court resolved that the interpretations referred to in the pleading filed on September 27, 2019 - which were said to be contrary to Argentine public and private law - should not be extracted from the resolution dated September 17, 2019.

On December 6, 2019, both Petersen and Eton Park filed an objection to the motion to dismiss on the grounds of “forum non conveniens”.

On December 16, 2019, the Argentine Republic requested the District Court to extend until March 16, 2020 the term for the defendants to answer the objection to the motion to dismiss based on the principle of “forum non conveniens” filed both by Petersen and Eton Park.

On December 16, 2019, the Company adhered to the statements made by the Argentine Republic and requested the extension of the term to answer the objection to the motion to dismiss on the grounds of “forum non conveniens” filed both by Petersen and Eton Park, until March 16, 2020.

On December 17, 2019, both Petersen and Eton Park objected to the extension of the terms mentioned in the two previous paragraphs.

On December 18, 2019, the Argentine Republic answered the motion filed both by Petersen and Eton Park in which they objected to the extension until March 16, 2020 of the term for the defendants to answer to the motion to dismiss based on the principle of “forum non conveniens” filed both by Petersen and Eton Park.

On December 18, 2019, the Company adhered to the statements made by the Argentine Republic and answered the motion filed both by Petersen and Eton Park in which they objected to the extension until March 16, 2020 of the term for the defendants to answer the motion filed by both Petersen and Eton Park in which they objected to the motion to dismiss on the grounds of “forum non conveniens”.

On December 20, 2019, the District Court granted an extension of the term until February 7, 2020, for the defendants to answer the objection to the motion to dismiss on the grounds of “forum non conveniens” filed both by Petersen and Eton Park.

On January 21, 2020, the Company and the Argentine Republic filed in the District Court an order that gives them the possibility to present, both in Eton Park and Petersen’s case, jointly a single and consolidated “reply memorandum of law” in support of its motion for dismissal by “forum non conveniens”.

On January 22, 2020, the presiding Judge ruled in favor of the defendants and granted the order aforementioned in the preceding paragraph.

On February 7, 2020, the Company and the Argentine Republic answered jointly the objection filed both by Petersen and Eton Park to the motion to dismiss based on the principle of “forum non conveniens” (“defendants’ reply memorandum of law in support of their motion to dismiss for forum non conveniens”).

Until the District Court decides on the admissibility of the motion to dismiss on the grounds of “forum non conveniens”, the terms of the lawsuit are suspended in all other respects.



32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

On the other hand, on February 28, 2019, the Company filed a complaint in Spain against Petersen and Prospect Investments LLC (“Burford”) seeking the definition of the legal nature of the agreement that was subscribed by Burford and Petersen’s Trustee in Bankruptcy. Such complaint was notified to Burford, which – upon filing its answer- submitted a motion for the case to be referred to the Court in which Petersen’s liquidation is being heard. As YPF objected to the motion, the case was referred to the District Attorney for him to issue an opinion prior to the Court’s decision. On July 29, 2019, the Court decided that the case must be processed before the Court that intervened in Petersen’s liquidation. Such decision was appealed by the Company on September 26, 2019. On October 30, 2019, Prospect Investments LLC objected to the appeal filed by the Company and on October 31, 2019, Petersen did so. On November 12, 2019, the Company appeared before the Provincial Court of Madrid within the framework of said appeal and on November 18, 2019, Petersen did so.

As of the date of issuance of these consolidated financial statements, there are no elements in YPF’s possession that allow quantifying the possible impact that this claim could have on the Company.

The Company categorically rejects the claims asserted in the complaint and will employ all necessary legal resources and take all defensive measures in accordance with the applicable legal procedure in order to defend its rights.

• **Eton Park Capital Management, L.P., Eton Park Master Fund, LTD. y Eton Park Fund, L.P. (jointly referred to as “Eton Park”)**

On June 2, 2017, Eton Park, a former YPF shareholder, filed a complaint against the Argentine Republic and YPF in the United States District Court for the Southern District of New York, for alleged damages that it would have suffered during the process of expropriation of shares that the Argentine Republic took over the majority stake of Repsol in YPF in 2012. The complaint, which seeks unspecified compensation, states that the alleged obligations assumed in the bylaws and in the initial public offering of YPF shares were violated, which imposed obligations related to a public offering made to the rest of the shareholders.

The claim was temporarily on hold, pending the resolution of the Second Circuit of the United States on the Petersen case; however, after the resolution referred to in the preceding paragraph, Eton Park requested that procedural terms be resumed. Likewise, YPF requested the Court to summon the parties to a hearing in order to agree on how the trial should proceed, proposing the answer to the complaint be filed within 45 days from the final resolution in the Petersen case.

On July 30, 2018, the Court ruled that the suspension of the process will stand for 10 days after the date of the Appeal Court’s resolution on the admissibility of the appeal in the Petersen Case, which was filed on July 24, 2018.

On August 30, 2018, the appeal filed by the Company and the Argentine Republic in the Petersen case was rejected. On October 2, 2018, the stay of mandate requested by YPF was granted for thirty days and on October 31, 2018, the Company filed the writ of certiorari, as mentioned in the Petersen Case.

On September 6, 2018, the Company made a filing so that the Eton Park process remained stayed so long as the stay of mandate in Petersen was still in force. On September 11, 2018, the Court granted the petition to the Company. Thus, as the Second Circuit of the United States has not made the “issuance of the mandate” in the Petersen case, the Eton Park case remains stayed.

In response to the presentations made in April 2019 by the Company and the Argentine Republic in the Petersen Case and the suspension of the process ruled by the Court, the procedural terms of Eton Park case was also on hold until the Supreme Court of Justice issued in relation to the writ of certiorari.

On June 25, 2019, Eton Park submitted a letter to the District Court requesting the Court to lift the suspension of the procedural terms and to set a date for the hearing prior to the motion for the admission of a Summary Judgment.

On June 26, 2019, the Court called Eton Park to a hearing to be held on July 11, 2019 in the Petersen case.



32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

On July 3, 2019, YPF filed a brief opposing Eton Park's motion for the case to be subject to a summary process requesting that the suspension of procedural terms remain in place until the Court hearing Petersen's case resolved the motions filed by the defendants in such case.

On July 11, 2019, the hearing ordered by the Judge in the Petersen case was held, where Eton Park also participated. At the hearing, it was decided in relation to Eton Park's case, that the Court would soon issue an order establishing the schedule for such judicial process.

On July 23, 2019, Petersen, Eton Park, the Argentine Republic and YPF filed a joint petition proposing a schedule for the Argentine Republic and YPF to file their motions for complaint dismissal based on the principle of "forum non conveniens", and for both Petersen and Eton Park to be able to file their objections thereto.

On July 24, 2019, the Judge accepted the schedule proposed by the parties and resolved that the procedural terms were suspended until the motions for complaint dismissal on the grounds of "forum non conveniens" are resolved.

On August 30, 2019, YPF and the Argentine Republic jointly presented their arguments in support of the motion to dismiss based on the grounds of "forum non conveniens".

On September 17, 2019, and on the occasion of the elections in the Argentine Republic, the presiding Judge modified the schedule approved on July 23, 2019: (i) extending until December 7, 2019 the deadline for Eton Park and Petersen to submit the objection to the motion to dismiss based on the grounds of "forum non conveniens", and (ii) extending until January 7, 2020 the period for YPF to answer the pleadings filed by Eton Park and Petersen in section (i) above.

On September 27, 2019, YPF and the Argentine Republic filed a pleading in the District Court stating that the grounds for the decision dated September 17, 2019 could lead to interpretations contrary to the Argentine public and private law, which provides for Institutional continuity of the State – irrespective of the government—as well as that of YPF, irrespective of its directors or its shareholders, and reserving the right to request an extension of terms in order to maintain the equality of the parties to the proceedings.

On October 2, 2019, the District Court resolved that the interpretations referred to in the pleading filed on September 27, 2019—which were said to be contrary to Argentine public and private law—should not be extracted from the resolution dated September 17, 2019.

On December 6, 2019, both Petersen and Eton Park filed an objection to the motion to dismiss on the grounds of "forum non conveniens".

On December 16, 2019, the Argentine Republic requested the District Court to extend until March 16, 2020 the term for the defendants to answer the objection to the motion to dismiss based on the principle of "forum non conveniens" filed both by Petersen and Eton Park.

On December 16, 2019, the Company adhered to the statements made by the Argentine Republic and requested the extension of the term to answer the objection to the motion to dismiss on the grounds of "forum non conveniens" filed both by Petersen and Eton Park, until March 16, 2020.

On December 17, 2019, both Petersen and Eton Park objected to the extension of the terms mentioned in the two previous paragraphs.

On December 18, 2019, the Argentine Republic answered the motion filed both by Petersen and Eton Park in which they objected to the extension until March 16, 2020 of the term for the defendants to answer to the motion to dismiss based on the principle of "forum non conveniens" filed both by Petersen and Eton Park.



32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

On December 18, 2019, the Company adhered to the statements made by the Argentine Republic and answered the motion filed both by Petersen and Eton Park in which they objected to the extension until March 16, 2020 of the term for the defendants to answer the motion filed by both Petersen and Eton Park in which they objected to the motion to dismiss on the grounds of “forum non conveniens”.

On December 20, 2019, the District Court granted an extension of the term until February 7, 2020, for the defendants to answer the objection to the motion to dismiss on the grounds of “forum non conveniens” filed both by Petersen and Eton Park.

On January 21, 2020, the Company and the Argentine Republic filed in the District Court an order that gives them the possibility to present, both in Eton Park and Petersen’s case, jointly a single and consolidated “reply memorandum of law” in support of its motion for dismissal by “forum non conveniens”.

On January 22, 2020, the presiding Judge ruled in favor of the defendants and granted the order aforementioned in the preceding paragraph.

On February 7, 2020, the Company and the Argentine Republic answered jointly the objection filed both by Petersen and Eton Park to the motion to dismiss based on the principle of “forum non conveniens” (“defendants’ reply memorandum of law in support of their motion to dismiss for forum non conveniens”).

Until the District Court decides on the admissibility of the motion to dismiss on the grounds of “forum non conveniens”, the terms of the lawsuit are suspended in all other respects.

As of the date of issuance of these consolidated financial statements, there are no elements in YPF’s possession that allow quantifying the possible impact that this claim could have on the Company.

The Company categorically rejects the claims asserted in the complaint and will employ all necessary legal resources and take all defensive measures in accordance with the applicable legal procedure in order to defend its rights.

32.b.3) Claims before the CNDC

- **Claims for fuel sale prices**

The Group was subject to certain claims before the CNDC, which are related to alleged price discrimination in sale of fuels and which were timely answered by YPF.

32.b.4) Tax claims

- **Dispute over customs duties**

Between 2006 and 2009, the Customs General Administrations in Neuquén, Comodoro Rivadavia and Puerto Deseado brought certain summary proceedings based on alleged formal misstatements on future commitments of crude oil deliveries in the loading permits, for periods prior to and subsequent to the existence of export duties, for which they calculated the difference between the contractual price declared and the price in force at the time of export to determine fines under the terms of the Customs Code.

The Customs General Administration may question whether the contractual price agreed to by the Company and declared in loading permits is an appropriate amount when calculating export duties. However, the Company understands that there is no violation for declaring the contractual price of a transaction.

32. CONTINGENT ASSETS AND LIABILITIES (Cont.)

The summaries ended the administrative reviews before the Customs General Administration and are in full appeal before the TFN. On March 3, 2017, the Company was notified of an adverse judgment handed down by the TFN regarding the criteria employed for crude oil delivery operations after 1998 and for which fines were determined in accordance with Article 954 (c) of the Customs Code for approximately 11 exports that occurred prior to the existence of export duties. The Company appealed before the Court of Appeals with staying effects.

On March 31, 2017, the Company resolved to pay differences in export duties that had been objected to by several Customs, arising from future deliveries of crude oil commitments, by adhering to the anticipated moratorium provided for in Law 27,260. This action allowed the abatement of interest and cancellation of the applied fines underlying the substantial obligation. For this purpose, presentations were filed in all pending administrative and judicial cases evidencing the payment of the export duties and, where appropriate, the request for remission of the fines applied under the provisions set forth in Law 27,260. The summary proceedings and other proceedings in which the application of a fine is the matter at issue when there were no export duties are still pending, applying in that case the fine contemplated in article 954 clause c), which amounts to 400 as of the date of this consolidated financial statements.

On April 18, 2018, the Company was notified of the judgement rendered by the Federal Appeals' Court No. IV which ruled that the fines imposed by the customs authority of Neuquén were condoned, due to the fact that there were no export duties, based on section 56 of Act No. 27,260. The Customs authority filed an extraordinary appeal before CSJN. The same decision was adopted in favor of the condonation by the same Court of Appeals and in other cases, before the Court No. II, III and IV, and where the same fines are dispute, which were also appealed to the CSJN. The Attorney General to the CSJN has issued a report indicating that these fines should be considered as condoned.

The Company, based on its opinion and that of its external advisors, believes the claim has no legal merit and that it has a strong case in defense of the approach adopted in the dispute mentioned above.

32.b.5) Other claims

Additionally, the Group has received other labor, civil and commercial claims and several claims from the AFIP and from provincial and municipal fiscal authorities, not individually significant, which have not been provisioned for, due to the Management of the Company, based on the evidence available as of the date of issuance of these consolidated financial statements, having assessed them to be possible contingencies.

33. CONTRACTUAL COMMITMENTS

33.a) Agreements of extension of concessions

The Group has made agreements with the provinces for the extension of concessions. These agreements include commitments to pay royalties on production and fees, to make certain investments and expenses and to maintain the activity levels, among others. The most relevant agreements and their main features are described below.

- **Neuquén**

Loma La Lata - Sierra Barrosa Areas

On December 28, 2000, through Decree No. 1,252/2000, the PEN extended for an additional term of 10 years (until November 2027) the concession for the exploitation of Loma La Lata – Sierra Barrosa area granted to YPF. The extension was granted under the terms and conditions of the Extension Agreement executed between the Argentine Government, the Province of Neuquén and YPF on December 5, 2000. On July 24, 2013, YPF and the Province of Neuquén signed an Agreement under which the Province of Neuquén agreed to separate a surface area from the Loma La Lata – Sierra Barrosa exploitation concession and incorporate it to the surface area of the Loma Campana exploitation concession and extend the Loma Campana exploitation concession for a term of 22 years starting from the date of its expiration (expiring in November 11, 2048).

33. CONTRACTUAL COMMITMENTS (Cont.)

Rincón del Mangrullo Block

On August 1, 2017, YPF and the Province of Neuquén entered into an Agreement whereby they agreed the terms for obtaining an Unconventional Exploitation Concession in the Rincón del Mangrullo block (the “Block. As of the granting of the concession, on August 11, 2017, through Provincial Decree No. 1,316/2017, YPF may exploit the Block until 2052, with the possibility of re-extending this term.

Loma Amarilla Sur

On November 14, 2019, YPF and the Province of Neuquén entered into an agreement under which the terms to obtain the Concession for the Unconventional Exploitation Concession over the Loma Amarilla Sur area were agreed. Under this agreement, YPF commits to invest US\$ 60 million to carry out a pilot program in a term of two years since the Concession award. On November 29, 2019, by Provincial Decree No. 2,599/2019 the unconventional exploitation concession over this area was awarded.

Other concessions

Additionally, in 2008 and 2009, YPF entered into a series of agreements with the Province of Neuquén, to extend for ten additional years the term of the production concessions on several areas located in that province, which, as result of the aforementioned agreement, will expire between 2026 and 2027.

- **Mendoza**

In April 2011, YPF entered into an agreement with the Province of Mendoza to extend for 10 years the term of certain exploitation concessions (one of which is “La Ventana”), and the transportation concessions located in the province, from the expiration of the original terms of the grant.

- **Santa Cruz**

During November 2012, YPF entered into an agreement with the Province of Santa Cruz to extend for 25 years the term of certain exploitation concessions, from the expiration of their original terms.

Moreover, on September 1, 2017, by Decree No. 773/2017 issued by the Province of Santa Cruz, YPF received the award of the El Turbio area. On September 25, 2017, YPF subscribed the contract for the exploration and potential exploitation of the area.

- **Salta**

On October 23, 2012, YPF entered into an agreement with the Province of Salta (subsequently modified on April 3, 2017) to extend for 10 years the original term of certain exploitation concessions from the expiration of their original terms. The associated signatory companies (including YPF) will recognize for the province an additional payment to the special extraordinary contribution, only when certain conditions are met and commit to make certain investments.

33. CONTRACTUAL COMMITMENTS (Cont.)

- **Chubut**

On October 2, 2013, the Province of Chubut published the law for the approval of the Agreement to Extend the Exploitation Concessions El Tordillo, La Tapera and Puesto Quiroga. The Concessions were extended for a 30-year period, beginning on the year 2017.

Furthermore, on December 26, 2013, YPF and the Province of Chubut signed an Agreement for the extension of the original term of the Concessions for the Exploitation of Restinga Ali, Sarmiento, Campamento Central – Cañadón Perdido, Manantiales Behr and El Trébol. The Extension Agreement was ratified by the Legislature of the Province of Chubut on January 17, 2014, and by the Company's Board of Directors on February 24, 2014; thus complying with the precedent conditions established in the Extension Agreement.

- **Rio Negro**

In December 2014, YPF, YSUR Energía Argentina S.R.L., YSUR Petrolera Argentina S.A. (companies merged with YPF) entered into a Renegotiation Agreement with the Province of Rio Negro to extending for 10 years the original term of certain exploitation concessions from the maturity of their original granting terms until 2025, 2026, 2027 y 2036.

The Renegotiation Agreement was confirmed by the legislature of the Province of Rio Negro by the issuance of Provincial Law No. 5,027 dated December 30, 2014.

- **Tierra del Fuego**

The Company has negotiated with the Executive Office of the Province of Tierra del Fuego the terms in order to extend their concessions in such province until 2026 and 2027, having signed, on December 18, 2013, the Agreement of Extension. On October 10, 2014, laws enacted approving the extension agreements.

On August 25, 2017, YPF signed an Extension Agreement with the Province of Tierra del Fuego (hereinafter the "Memorandum of Agreement") to extend the original term of the concession for the exploitation of hydrocarbons on the Magallanes Area, in the fraction corresponding to the granting jurisdiction of the Province of Tierra del Fuego for a period of ten years until 2027. The Memorandum of Agreement was ratified by Provincial Decree No. 2,406/2017 dated September 5, 2017 and provincial law No. 1,178 enacted on September 19, 2017.

- **National Executive Branch**

The PEN by Administrative Decision No. 1/2016, published on January 8, 2016, extended the term of the exploitation concession in the Magallanes area for the National Government's portion, for a period of 10 years beginning on 2017.

33.b) Project investment agreements

- **Agreements for the development of Loma La Lata Norte and Loma Campana areas**

On July 16, 2013, the Company and subsidiaries of Chevron Corporation ("Chevron") subscribed a Project Investment Agreement (the "LC Agreement") with the objective of the joint exploitation of unconventional hydrocarbons in the province of Neuquén. The LC Agreement contemplates an expenditure, subject to certain conditions, of US\$ 1,240 million by Chevron for the first phase of work in the area dedicated to the project, located in the aforementioned province and includes Loma La Lata Norte and Loma Campana areas.

During September 2013, and upon the fulfillment of certain precedent conditions (which included the granting of an extension of the Loma Campana concession maturity until 2048 and the unitization of that area with the sub-area Loma La Lata Norte), Chevron made the initial payment of US\$ 300 million.



33. CONTRACTUAL COMMITMENTS (Cont.)

On December 10, 2013, the Company, some of its subsidiaries and subsidiaries of Chevron successfully completed the pending documents for the settlement of the Investment Project Agreement, which enables the disbursement by Chevron of the remaining US\$ 940 million. For such purposes, the Company and Chevron made the necessary contracts for the assignment in favor of Compañía de Hidrocarburo No Convencional S.R.L. ("CHNC") of 50% of the exploitation concession Loma Campana, and supplementary agreements including the contract for the organization of the JO and the Joint Operating Agreement for the operation of Loma Campana, where YPF participates as area operator.

The Company indirectly holds 100% of the capital stock of CHNC, but under the existing contractual arrangements, it does not make financial or operative decisions relevant to CHNC and does not fund its activities either. Therefore, the Company is not exposed to any risk or rewards due to its interest in CHNC. Thus, as required by IFRS, the Company has valued its interest in CHNC at cost, which is not significant, and has not recorded any profit or loss for such interest.

Considering the rights that Chevron could exercise in the future over CHNC to access to the 50% of the concession and supplementary rights, and as a guarantee for such rights and other obligations under the LC Agreement, a pledge over the shares of YPF's affiliate, which is an indirect holder of YPF's interest in CHNC, has been made in favor of Chevron.

In this context, and considering that YPF is the Loma Campana area operator, the parties have executed a Project Obligations, Indemnities and Guarantee Agreement, by virtue of which the Company makes certain representations and guarantees in relation to the LC Agreement. This guarantee on the operation and management of the Project does not include the project's performance or return on investment, both at the exclusive risk of Chevron.

Finally, other supplementary agreements and documents related to the LC Agreement have been signed, including: (a) the agreement for the allocation of certain benefits deriving from Decree No. 929/2013 from YPF to CHNC; (b) terms and conditions for YPF's acquisition of natural gas and crude oil pertaining to CHNC for 50% of the interest in the Loma Campana area; and (c) certain agreements for the technical assistance of Chevron to YPF.

During April 2014, YPF and certain of its subsidiaries and subsidiaries of Chevron, successfully completed the second phase of the LC Agreement and Chevron has confirmed its decision to continue with the investment project in unconventional hydrocarbons in the Loma Campana area, thereby commencing the third phase of such project. The duration of this third phase will encompass the life of the project, until the expiration of the Loma Campana concession.

During fiscal years 2019, 2018 and 2017, YPF and CHNC carried out transactions, among others, the purchases of gas and crude oil by YPF for 21,595, 14,295 and 5,672, respectively. These transactions will be consummated in accordance with the general and regulatory conditions of the market. The net balance payable to CHNC as of December 31, 2019, 2018 and 2017 amounts to 2,066, 2,064 and 654, respectively.

- **Agreements for the development of the Chihuido de la Sierra Negra Sudeste– Nambuenaa area**

During April 2014, YPF and Chevron signed a new project investment agreement with the objective of the joint exploration of unconventional hydrocarbons in the Province of Neuquén, within the area Chihuido de la Sierra Negra Sudeste – Nambuenaa. The investment will be undertaken exclusively by, and at the sole risk of, Chevron. The investment will be disbursed in two stages and a possible third stage, to be agreed in the future based on the results obtained from the exploration of the area.

To this end, the Company and Chevron entered into the necessary agreements to implement the assignment to Compañía de Desarrollo No Convencional S.R.L. ("CDNC") of (a) a 50% interest in the Nambuenaa Exploration Project Area and (b) a 7% legal interest in the Exploitation Concession of Chihuido de la Sierra Negra in Neuquén and Mendoza. However, contractual rights of Chevron are limited to Nambuenaa Area, as YPF will hold 100% ownership of the conventional production and reserves outside the Project Area and Desfiladero Bayo field. In 2008, the concession of the area was extended until November 14, 2027.

33. CONTRACTUAL COMMITMENTS (Cont.)

During Phase I and Phase II, CDNC committed to invest US\$ 62.7 million and US\$ 57.7, respectively. In 2018, the activity that was predicted for Phase I was completed and considered to be concluded, with a total contribution from CDNC of US\$ 55.3 million out of the US\$ 62.7 million that were committed. On April 2018, Phase II began, with a total contribution from CDNC of US\$ 10.57 million as of December 31, 2019. The deadline for acceptance of Phase III was established to be December 31, 2020.

The Company indirectly holds a 100% interest in the capital stock of CDNC; however, as pursuant to effective contractual agreements, the Company neither exercises CDNC's relevant financial and operating decision-making rights nor funds its activities, the Company is not exposed to risks and benefits for its interest in CDNC. Therefore, according to IFRS, the Company has valued its interest in CDNC at cost, which is not significant, and has not recorded any income (loss) for the said interest.

- **Agreements for the development of El Orejano area**

On September 23, 2013, the Company, Dow Europe Holding B.V. and PBB Polisar S.A., (hereinafter, collectively, "Dow") signed an agreement (the "Dow Agreement"), which contemplates an expenditure by both parties of up to US\$ 188 million which will be directed towards the joint exploitation of an unconventional gas pilot project in the Province of Neuquén, in El Orejano area. Dow contributed US\$ 120 million out of the US\$ 188 million provided by means of a financing agreement convertible into a participation in the project.

On October 22, 2015, both parties agreed to an addendum to the Dow Agreement which provides, among other things, for an increase in the amount to be disbursed by Dow, by US\$ 60 million, totaling US\$ 180 million, through a convertible financing in an interest in the project, for the same purposes and effects than those of the previous disbursements.

On October 30, 2015, the Company received the additional amounts committed. Likewise, on December 15, 2015, Dow exercised the option provided for in the Dow Agreement, whereby YPF assigned 50% of its interest in the exploitation concession of El Orejano area.

In addition, the parties have formed a JO for the exploration, evaluation, exploitation and development of hydrocarbons in El Orejano area, which became effective on January 1, 2016 and in which Dow and YPF each have a 50% interest.

- **Agreements for the development of Rincón del Mangrullo area**

On November 6, 2013, the Company and Petrolera Pampa S.A. (hereinafter "Petrolera Pampa") signed an investment agreement under which Petrolera Pampa committed to invest US\$ 151.5 million (US\$ 81.5 million for the first phase and US\$ 70 million for the second phase) in exchange for 50% of the interest in the production of hydrocarbons in the area of Rincón del Mangrullo in the Province of Neuquén, pertaining to the formation "Formación Mulichinco" (hereinafter the "Area"), where YPF will be the operator. As of December 31, 2015, the two stages were completed.

On May 26, 2015, a supplementary agreement (the "Amendment") to the investment agreement dated November 6, 2013 was signed, which established an interest of 50% of each of the parties in the entire production, costs and investments for the development of the Area with retroactive effect from January 1, 2015, excluding from the agreement only the formations of Vaca Muerta and Quintuco. It should be noted that on July 14, 2015, the necessary requirements for the effectiveness of the said Amendment were met.

Such investments include surface facilities in the Area of US\$ 150 million, which include the first expansion stage of the treatment facilities, which includes the expansion of the investment commitment of Petrolera Pampa in a third investment phase of US\$ 22.5 million, for the drilling of additional wells targeting the Mulichinco Formation, amount the was completed during 2016 and 2017.

33. CONTRACTUAL COMMITMENTS (Cont.)

As of the date of issuance of these consolidated financial statements, YPF and Petrolera Pampa has already defined the coordinates of the second exploratory well of stage 1 that began to be drilled on December 2018 and whose completion is estimated for the year 2020. According to the results, Pampa may choose to continue with a second investment stage with the same goal.

- **Agreements for the development of La Amarga Chica area**

On August 28, 2014, the Company subscribed a preliminary agreement with Petronas (E&P) Overseas Ventures Sdn. Bhd, (hereinafter, “Petronas”), whereby YPF and Petronas agreed on the main terms and conditions to jointly develop a shale oil pilot project in three annual phases involving a jointly investment of up to US\$ 550 million in the La Amarga Chica area, province of Neuquén. Petronas will invest US\$ 475 million and YPF will invest US\$ 75 million. YPF will be the operator of the area and will assign a 50% interest in the concession to Petronas E&P Argentina S.A. (hereinafter “PEPASA”), a Petronas affiliate. Dated December 10, 2014 the Company and PEPASA, entered into the Investment Project Agreement based on the terms established in the preliminary agreement executed with Petronas.

Likewise, the parties signed the following supplementary agreements to the Investment Project Agreement: (a) Assignment Agreement for the assignment of 50% of the concession of the La Amarga Chica area; (b) JO formation contract; (c) JO Agreement; (d) Assignment Guarantee Agreement; (e) First Option Agreement for trading crude oil; and (f) Assignment of Rights on Hydrocarbon Export Agreement. Additionally, Petronas granted a payment guarantee for certain financial obligations assumed by PEPASA under the Investment Agreement.

On December 2018, after the phases of the Pilot Plan were completed, the Parties decided on the start of the full development of the area. From this stage, the parties will begin making their contributions according to their interest in the JO in accordance with the agreements.

- **Granting of exploitation concession for Lindero Atravesado block – Neuquén**

On July 10, 2015, the Province of Neuquén agreed to award to both partners, Pan American Energy LLC (Sucursal Argentina) and YPF, pro rata in accordance with their respective interests (62.5% and 37.5%, respectively) in the “Lindero Atravesado” joint venture, the right to an Unconventional Hydrocarbons Exploitation Concession for a 35-year term. On July 16, 2015, an agreement in this respect was approved by Decree No. 1,540/2015 of the Province of Neuquén. As a condition to the award of the aforementioned concession rights, concession holders agreed to carry out an Unconventional Tight Gas Pilot program within 4 years, beginning on January 1, 2015, which on December 31, 2019, was finalized, with an investment of US\$ 590 million.

- **Extension of the JO Agreement for the Magallanes Area**

On November 17, 2014, Enap Sipetrol Argentina (“ENAP”) made to YPF, and YPF accepted, an offer whereby ENAP’s rights and obligations under the Magallanes area JO Agreement were extended until November 14, 2027, date of the concession termination, with the possibility of a new extension until 2042, with ENAP keeping 50% interest and continuing as Operator. The area concession includes three jurisdictions: Santa Cruz, National Government and Tierra del Fuego

- **Agreement for the development the Bajada de Añelo Area**

On February 23, 2017, YPF and O&G Developments Ltd. S.A. (hereinafter “O&G”), an affiliate of Shell Compañía Argentina de Petróleo S.A., executed a preliminary agreement through which YPF and O&G agreed on the principal terms and conditions for the joint development of a shale oil and shale gas pilot in two phases, for a joint investment amount of US\$ 305.8 million plus VAT, in the Bajada de Añelo area in the province of Neuquén, of which O&G will contribute 97.6% and YPF will contribute 2.4%. O&G will be the operator of the area.



33. CONTRACTUAL COMMITMENTS (Cont.)

On May 12, 2017, and once the preceding conditions have been fulfilled, YPF and O&G have entered into the Assignment Agreement of 50% of the concession that contemplates the joint development of a work program (the "Work Program") in two phases with the joint investment mentioned above. During the first phase of the Work Program, which will have a maximum duration of 30 months, O&G will contribute a total of US\$ 222.6 million and YPF will contribute US\$ 7.4 million. The remaining US\$ 75.8 million will be contributed by O&G during the second phase of the Work Program.

On August 18, 2017, Provincial Decree No. 1,360/2017 approved the transfer of YPF's interest in favor of O&G and the transfer in escrow to YPF. This guarantee will be valid until O&G fulfills all of its obligations under the Assignment Agreement.

Once the first phase of the Work Program has been completed, O&G will have the option to leave the aforementioned program by returning its participating interest in the concession and the payment of accrued liabilities until the exit date. After the total commitments assumed by the Parties have been met at the stage of the Work Program, each of them will contribute 50% of the budget for the development of the area as provided for in the operation agreement.

- **Agreement for the development of the Bandurria Sur Area**

On July 16, 2015, the Province of Neuquén, pursuant to decrees No. 1,536/2015 and 1,541/2015, approved the subdivision of the Bandurria block and awarded 100% of the area known as "Bandurria Norte" to Wintershall Energía S.A., 100% of the area known as "Bandurria Centro" to Pan American Energy LLC (Sucursal Argentina) and 100% of the area known as "Bandurria Sur" to YPF, awarding to YPF an Unconventional Hydrocarbons Exploitation Concession in Bandurria Sur area, for a 35-year term, with a commitment to develop a pilot plan to be completed in 3 years with a related investment of US\$ 360 million.

On April 12, 2017, YPF entered into a preliminary agreement with Schlumberger Oilfield Eastern Ltd. (hereinafter "SPM"), an affiliate of Schlumberger Argentina S.A., through which YPF and SPM agreed the main terms and conditions for joint development of a shale oil pilot in two phases, with a total investment of US\$ 390 million in the Bandurria Sur area (hereinafter the "Area), of which SPM will provide 100%. On October 11, 2017, YPF entered into the definitive agreements with SPM. YPF continues to be the operator of the Area and SPM acquired the right to a 49% participating interest, with YPF retaining the right to the remaining 51%. On July 18, 2018, the Executive Power of the Province of Neuquén issued Decree No. 1,020/2018 authorizing the assignment of the share anticipated in the final agreements.

On January 2020, YPF was notified of the acquisition by Shell Compañía Argentina de Petróleo S.A. and Equinor Argentina AS (jointly, the "Consortium") of the entire share package of SPM. This assignment required payment by SPM of the pending value that amounted approximately to US\$ 105 million, which has already been received by YPF.

On January 30, 2020, YPF entered into an agreement entered into with the Consortium, through SPM, under which the main terms and conditions for the 11% additional sale of the Area was agreed upon. The agreement predicts an exclusivity period for the negotiation and signing of the final contracts. Once these contracts are signed and certain precedent conditions are met, which include the approval of the corresponding bodies of the companies and the approval of the Province of Neuquén, SPM will acquire an additional 11% share in the Area, through which the indirect interest of the Consortium in the JO will rise to 60%, where YPF will hold remaining 40%.

- **Agreements in relation with the Llançanelo block**

On April 18, 2017, YPF entered into a preliminary agreement of non-binding terms and conditions with Patagonia Oil Corp. ("Patagonia"), an affiliate of PentaNova Energy Corp., whereby Patagonia would acquire an 11% participating interest of YPF in the Llançanelo Block, located in the Province of Mendoza, for the total price of US\$ 40 million, maintaining YPF a 50% participating interest in such Block. Also, both companies agreed on the main terms and conditions for the development of a heavy crude pilot project in the same Block with a total investment of US \$ 54 million during the next 36 months (hereinafter, the "Project"), whereby YPF would be the operator and Patagonia would contribute its expertise in heavy crude oils.



33. CONTRACTUAL COMMITMENTS (Cont.)

On November 22, 2017, YPF and Alianza Petrolera Argentina S.A., an affiliate of Patagonia and PentaNova Energy Corp (“Alianza”), subscribed the assignment agreement in the terms described above (the “Assignment Agreement”). The investment of the Project corresponding to the participation of YPF would be paid by Alianza as part payment of the price.

On February 11, 2019, YPF and Alianza entered into an agreement under which (i) the Assignment Agreement was terminated; and (ii) Alianza accepted the assignment of its 39% interest in the Llancanelo Block to YPF. On February 14, 2019, YPF and Alianza initiated the approval process with the authorities of the Province of Mendoza, requesting authorization to execute the assignment by public deed.

- **Exploration agreement in the Charagua block (Bolivia)**

On July 26, 2017, the agreement with Yacimientos Petrolíferos Fiscales Bolivianos (“YPFB”) to begin the exploration work in Charagua, Bolivia, originally signed in January of 2017, was notarized. Moreover, the plan of exploration and exploitation activities in Bolivian territory was presented.

During the month of October 2017, the terms for the assignment in favor of YPF Chaco S.A. were agreed upon of 40% on the Services Contract subscribed with YPFB for the exploration of the block. On December 20, 2017, YPFB approved the Work Program and Budget for the period 2017-2018 for the Charagua Block. Moreover, the assignment agreement was entered into on January 25, 2018. The formal approval of the Legislative Assembly of the Plurinational State of Bolivia is still pending for it to become effective.

Should the expected commercial discovery be made, a Mixed Economy Company will be created by YPFB, YPF E&P (indirect subsidiary of YPF) and Chaco, with a shareholding of 51%, 29.4% and 19.6%, respectively.

- **Agreement for the exploitation of the Aguada Pichana and Aguada de Castro Areas**

On July 17, 2017, the agreements executed on July 13, 2017 between YPF, Pan American Energy LLC (Argentine Branch), Total Austral S.A. (Argentine Branch), Wintershall Energía S.A. and the Province of Neuquén, entered into force by means of Decree No.1,178/2017 of the Provincial Executive Branch, whereby it was agreed: (i) the division of the Aguada Pichana area into two new areas “Aguada Pichana Este” (“APE”) and “Aguada Pichana Oeste” (“APO”); and the granting of two Concessions of Unconventional Exploitation of Hydrocarbons; the Parties committing to carry out a pilot program for the approximate amount of US\$ 300 million in APE and for the approximate amount of US\$ 150 million in APO; and (ii) the granting of a Concession of Unconventional Exploitation of Hydrocarbons in the Aguada de Castro area (“ACA”); The Parties committed themselves to carry out a pilot program for an approximate amount of US\$ 50 million.

Based on the technical-economic results of the pilot programs and the granting of the benefits of the Stimulus Program provided for by MINEM Resolution No. 46-E/2017, the total estimated amount of the investments under the Agreements, including the investments which were already disbursed and those which have been committed, would reach an approximate sum of US\$ 1,200 million.

The operation in APE is in charge of Total Austral S.A. (Argentine Branch) and the operation in APO and ACA is in charge of Pan American Energy LLC (Argentine Branch).

On November 15, 2017, the JO “Aguada de Castro and Aguada Pichana Oeste” was established, which unified the APO and ACA areas.

The execution of the Agreements implied an exchange of participations in the areas for which YPF received US\$ 52.3 million through investment contributions.

Once the Agreements were in full force and the corresponding conditions were fulfilled, the interest of YPF is as follow:

- (i) In the APE area, the interest of YPF is 22.50% (which implied the sale of a 4.77% interest);
- (ii) In the APO area, the interest of YPF is 30% (which implied the sale of a 2.73% interest);
- (iii) In the ACA area, the interest of YPF is 30% (which implied the sale of a 20% interest).

33. CONTRACTUAL COMMITMENTS (Cont.)

- **Agreement for the exploitation of the Bajo del Toro Area**

On August 25, 2017, YPF entered into a preliminary agreement with Statoil, Holding Netherlands B.V. (“Statoil”), whereby the parties agreed upon the main terms and conditions for exploration and potential joint development in two phases of the Bajo del Toro area (hereinafter the “Area”) located in the Province of Neuquén.

On January 17, 2018, YPF and Statoil entered into the definitive agreements (hereinafter the “Definitive Agreements”) for the exploration and potential joint development of the Area. Such Definitive Agreement implemented the transfer of 50% of the exploration permit on the Area in favor of Statoil. YPF continued to be the operator of the Area and retained the remaining 50% stake in the permit.

The Definitive Agreements contemplate the joint development of a work program in two phases (the “Work Program”). During the first phase, the Parties will drill two horizontal wells and during the second phase, they will drill six horizontal wells and the corresponding infrastructure associated with the wells. Statoil will pay YPF the price of US\$ 30 million at the time of compliance with the precedent conditions established in the Definitive Agreements and then, additionally, it will contribute 100% of the costs and investments required by the Work Program and the potential development of the Area up to the sum of US\$ 270 million.

Upon completion of the activities corresponding to the first phase of the Work Program, Statoil will have the option to withdraw from the project by returning its share in the permit and the payment of the accrued liabilities through its exit date. In the event that Statoil does not exercise such exit right, once the activities corresponding to the second phase of the Work Program have been completed, it will have the option to leave the project again in the same conditions as described above.

On October 12, 2018, the Province of Neuquén issued Decree No. 1,755/2018, which approved the assignment in favor of Statoil Holding Netherlands B.V. (“Statoil”), fulfilling the precedent conditions. On November 23, 2018, YPF received the aforementioned US\$ 30 million.

- **La Calera Area Investment Agreement**

On September 14, 2018, YPF and Pluspetrol S.A. executed an investment agreement with the Province of Neuquén related to La Calera area, whereby the Province of Neuquén agreed to grant to both partners, according to their interests in La Calera joint operations, an unconventional hydrocarbon exploitation concession for a 35-year term. On November 2, 2018, the Province of Neuquén issued Decree No. 1,834/2018, whereby the mentioned concession was awarded. As a condition to the granting of such concession, concession holders undertook to carry out an Unconventional Development Pilot program within a maximum term of 3 years, beginning on April 1, 2017, investing an amount of about US\$ 180 million, which is fulfilled as of December 31, 2019.

- **CAN 100 exploration permit (offshore) – Block E-1 Reconversion**

The PEN, through SGE Resolution No. 196/2019, decided to convert the joint operating agreement for the exploration and eventual exploitation of the “E-1” area, entered into by ENARSA (Nowadays “IESA”), YPF, Petrobras Argentina S.A. (currently Pampa Energía S.A.) and Petrouuguay S.A. in 2006, into a hydrocarbon Exploration Permit in favor of YPF over the “CAN 100” area under the terms of a Memorandum of Agreement entered into by YPF and the SGE, assuming certain investments commitments in exploration activities.

On October 8, 2019, YPF and Equinor Argentina BV Sucursal Argentina (“Equinor”) subscribed an agreement whereby Equinor would acquire a 50% interest in the “CAN 100” area, while YPF would maintain a 50% interest in such area. The agreement will become effective subject to certain conditions precedent, including the approval of the assignment by the SGE.

33. CONTRACTUAL COMMITMENTS (Cont.)

33.c) Contractual commitments

The Group has signed contracts by means of which it has committed to buy certain products and services, and to sell natural gas, liquefied petroleum gas and other products. Some of the mentioned contracts include penalty clauses that stipulate compensations for a breach of the obligation to receive, deliver or transport the product object of the contract. The anticipated estimated losses for contracts in progress, if any, considering the compensations mentioned above, have been charged to the net income for the fiscal year in which they were identified.

In this order, the Group has renegotiated certain natural gas export contracts, and has agreed, between others, to limit compensations only in case of interruptions and/or suspension of deliveries from any cause, except physical force majeure. Also, the Group has agreed to make investments and export gas to temporarily import certain final products. As of the date of issuance of these financial statements, the Group is fulfilling the agreed commitments mentioned above. To the extent that the Group does not comply with such agreements, we could be subject to significant claims, subject to the defenses that the Group might have.

The Group under certain trade agreements has undertaken the obligation with third parties to buy goods and services (such as liquefied petroleum gas, electricity, gas, oil and steam) that as of December 31, 2019 amounted to about 116,239. In addition, it has exploratory, investment and expense commitments until the termination of some of its concessions for 479,073 as of December 31, 2019, including commitments for the extension of concessions mentioned in previous paragraphs.

33.d) Operating lease commitments

The main lease agreements to which the Group is a lessee are described in Note 2.b.12.

As of January 1, 2019, the Group has applied IFRS 16 and has recognized rights of-use-assets and lease liabilities, using certain practical exemptions allowed under this standard. See Note 2.b.12 and Note 2.b.26.

As the Group has implemented the simplified model without restating the comparative figures, the table below shows the information disclosed for fiscal years ended December 31, 2018 and 2017 under IAS 17, the standard currently in force.

Rental expenses related to operating leases for fiscal years ended December 31, 2018 and 2017 are detailed below:

	<u>2018</u>	<u>2017</u>
Minimum payments	4,988	2,306
Contingent installments	7,326	5,361
	<u>12,314</u>	<u>7,667</u>

The minimum payment commitments related to non-cancellable operating leases as of December 31, 2018 and 2017 are detailed below:

	<u>2018</u>	<u>2017</u>
Up to 1 year	12,264	5,480
From 1 to 5 years	15,341	4,265
From 6 th year	<u>2,317</u>	<u>504</u>

33.e) Granted guarantees

As of December 31, 2019, in relation to compliance with obligations of subsidiaries, YPF has issued bank guarantees for an approximate amount of US\$ 19 million and has assumed other commitments for an approximate value of US\$ 314 million.

Additionally, see Note 33.b for a description of the Chevron transaction and see Note 20 for a description of the financial loans.

34. MAIN REGULATIONS AND OTHER

34.a) Hydrocarbon Law

On October 31, 2014, the Argentine Republic BO published the text of Law No. 27,007, amending the Hydrocarbon Law No. 17,319. The most relevant aspects of the law are as follows:

- Regarding exploration permits, it distinguishes between those with conventional and unconventional objectives, and between explorations in the continental shelf and in territorial waters, establishing the respective terms for each type.
- Regarding concessions, three types of concessions are provided, namely, conventional exploitation, unconventional exploitation, and exploitation in the continental shelf and territorial waters, establishing the respective terms for each type.
- The terms for hydrocarbon transportation concessions were adjusted in order to comply with the exploitation concessions terms.
- Regarding royalties, a maximum of 12% is established, which may reach 18% in the case of granted extensions, where the law also establishes the payment of an extension bond for a maximum amount equal to the amount resulting from multiplying the remaining proven reserves at the end of effective term of the concession by 2% of the average basin price applicable to the respective hydrocarbons over the 2 years preceding the time on which the extension was granted.
- The extension of the Investment Promotion Regime for the Exploitation of Hydrocarbons (Decree No. 929/2013) is established for projects representing a direct investment in foreign currency of at least US\$ 250 million, increasing the benefits for other type of projects.
- Reversion and transfer of hydrocarbon exploitation permits and concessions in national offshore areas is established when no association contracts subscribed with ENARSA to the National Secretariat of Energy exist.

34.b) Hydrocarbon Sovereignty Regime – Decree No. 1,277/2012

On July 25, 2012, the executive decree of Law No. 26,741, Decree No. 1,277/2012, was published, creating the “Regulation of the Hydrocarbons Sovereignty Regime in the Argentine Republic”. Among other matters, the mentioned decree established: the creation of the National Plan of Investment in Hydrocarbons; the creation of the Commission for Planning and Coordination of the Strategy for the National Plan of Investment in Hydrocarbons (the “Commission”), which will elaborate on an annual basis, within the framework of the National Hydrocarbon Policy, the National Plan of Investment in Hydrocarbons; the National Registry of Investments in Hydrocarbons in which the companies undertaking activities of exploration, exploitation, refining, transport and commercialization of hydrocarbons and fuels will have to register; and the obligation for the registered companies to provide their Plan of Investments every year before September 30, including a detail of quantitative information in relation to the activities of exploration, exploitation, refining, transport and commercialization of hydrocarbons and fuels according to each company.

Additionally, the mentioned companies will have to provide their plans in relation to the maintenance and increase of hydrocarbons reserves, including: a) an investment in exploration plan; b) an investment plan in primary hydrocarbons reserves recovery techniques; and c) an investment plan in secondary hydrocarbons reserves recovery techniques, which will be analyzed by the Commission; the Commission will adopt the promotion and coordination measures that may consider necessary for the development of new refineries in the National Territory, that may allow the growth in the local processing capacity in accordance with the aims and requirements of the National Plan of Investment in Hydrocarbons; in relation to prices, and accordingly to the Decree, for the purpose of granting reasonable commercial prices, the Commission will determine the criteria that will govern the operations in the domestic market. In addition, the Commission will publish reference prices of each of the components of the costs and the reference prices for the sale of hydrocarbons and fuels, which will allow the production costs attributable to the activity to be covered and a reasonable margin of profit to be attained.

Not complying with the dispositions included in the Decree and supplementary rules may result in the following penalties: fine, admonition, suspension or deregistration from the registry included in section 50 of Law No. 17,319 or the nullity or expiration of the concessions or permits. Moreover, the mentioned decree abrogates the dispositions of the Decrees No. 1,055/1989, 1,212/1989 and 1,589/1989 which established, among other matters, the right to the free disposition of hydrocarbon production.

34. MAIN REGULATIONS AND OTHER (Cont.)

On December 29, 2015, the Executive Branch issued Decree No. 272/2015, resolving for the dissolution of the Commission and its Regulations, and also providing that the powers vested in the Commission were to be exercised by the MINEM.

34.c) Investment Promotion Regime for the Exploitation of Hydrocarbons – Decree No. 929/2013

Decree No. 929/2013 provides for the creation of an Investment Promotion Regime for the Exploitation of Hydrocarbons (the “Promotional Regime”), both conventional and unconventional, which will apply throughout the territory of the Republic of Argentina. Inclusion in the Promotional Regime may be applied for by subjects registered with the Hydrocarbon Investments National Register and holding hydrocarbon exploration permits and/or exploitation concessions and/or any third party associated and together with, such holders, provided they file with the Strategic Planning and Coordination Commission of the Hydrocarbon Investments Nation Plan created by Decree No. 1,277/2012 a “Hydrocarbon Exploitation Investment Project” entailing a direct investment in foreign currency of at least US\$ 1,000 million, computed as of the filing of the Hydrocarbon Exploitation Investment Project to be invested during the first five years of the Project (this amount was amended by the subsequent Law No. 27,007 to US\$ 250 million). Among the benefits to subjects comprised by the Promotional Regime, the following are highlighted: i) they will be entitled, subject to the terms of Law No. 17,319 and from the fifth successive year of actual execution of their respective “Hydrocarbon Exploitation Investment Projects”, to freely sell to foreign markets 20% of their production of liquid and gaseous hydrocarbons produced under the said Projects, with a 0% rate for export duties, should these be otherwise applicable; ii) they will be entitled to free availability of 100% of any foreign currency obtained from export of the hydrocarbons mentioned in the preceding item, provided that the approved “Hydrocarbon Exploitation Investment Project” implies the entry of foreign currency to the Argentine market of at least US\$ 1,000 million and as mentioned hereinabove; iii) it is provided that, during periods where national production is not enough to meet domestic supply needs under the terms of section 6 of Law No. 17,319, subjects included in the Promotional Regime will be entitled, as of the fifth year beginning from the approval and execution of their respective “Hydrocarbon Exploitation Investment Projects”, to obtain, a percentage of liquid and gaseous hydrocarbons produced under such Projects available for export as mentioned herein above, an export price of not less than the reference export price, for whose determination the incidence of export duties otherwise applicable will not be computed.

In addition, the Decree creates the figure of “Unconventional Hydrocarbon Exploitation”, consisting of the extraction of liquid and/or gaseous hydrocarbons through unconventional stimulation techniques applied in fields located in shale gas or shale oil, tight sands, tight gas and tight oil, and coal bed methane geological rock formations and/or characterized, generally, by the presence of low permeability rocks. In connection therewith, it has been provided that subjects holding hydrocarbon exploration permits and/or exploitation concessions included in the Promotional Regime will be entitled to apply for an “Unconventional Hydrocarbon Exploitation Concession”. In addition, holders of “Unconventional Hydrocarbon Exploitation Concessions” who in turn are holders of an adjacent pre-existing exploitation concession, may apply for the merging of both areas into a sole unconventional area, provided that due evidence is given of the geological continuity of the relevant areas.

34.d) Withholding rates of hydrocarbon exports

On September 4, 2018, Decree No. 793/2018 was published in the BO establishing, until December 31, 2020, an export duty of 12% on all goods under the tariff items of the Mercosur Common Nomenclature (“NCM”). This export duty was capped at 4 Pesos per U.S. dollar of the taxable amount or official FOB price, as applicable. For goods other than primary products, the cap was 3 Pesos per U.S. dollar of the taxable amount or official FOB price, as applicable.

On December 23, 2019, Law No. 27,541 on Social Solidarity and Production Reactivation, was published in the BO, which introduced amendments to Decree No. 793/2018. See Note 34.j.



34. MAIN REGULATIONS AND OTHER (Cont.)

34.e) Liquid hydrocarbons regulatory requirements

SE Resolution No. 1,679/2004 reinstalled the registry of diesel and crude oil export transactions created by Executive Decree No. 645/2002, and mandated that producers, sellers, refining companies and any other market agent that wish to export diesel or crude oil register such transaction and demonstrate that domestic demand has been satisfied and that they have offered the product to be exported to the domestic market. In addition, SE Resolution No. 1,338/2006 added other petroleum products to the registration regime created by Executive Decree No. 645/2002, including gasoline, fuel oil and its derivatives, diesel, aviation fuel, asphalts, certain petrochemicals, certain lubricants, coke and petrochemical derivatives. SE Resolution No. 715/2007 empowered the National Refining and Marketing Director to determine the amounts of diesel to be imported by each company, in specific periods of the year, to compensate for exports of products included under the regime of Resolution No. 1,679/2004; the fulfillment of this obligation to import diesel is necessary to obtain authorization to export the products included under Decree No. 645/2002.

In addition, certain regulations establish that exports are subordinate to supplying the domestic market. In this way, Resolution No. 25/2006 of the Secretariat of Domestic Commerce, imposes on each Argentine refining and/or retail company the obligation to supply all reasonable diesel fuel demand, by supplying certain minimum volumes (which at minimum should be volumes supplied the year before plus the positive correlation between diesel demand and GDP accumulated from the month reference). The aforementioned commercialization should be done without altering or affecting the normal operation of the diesel market.

Additionally, Rule No. 168/2004 requires companies intending to export LPG to first obtain an authorization from the Secretariat of Energy by demonstrating that local demand was satisfied or that an offer to sell LPG in the local market has been made and rejected.

In January 2008, the Secretariat of Domestic Commerce issued Resolution No. 14/2008, whereby the refining companies were instructed to optimize their production in order to obtain maximum volumes according to their capacity.

Decree No. 1,189/2012 of the PEN, dated July 17, 2012, established that the jurisdictions and entities of the National public Sector included in section 8, subsection a) of Law No. 24,156 (National Administration, formed by the central administration and the decentralized agencies including the social insurance institutions) must contract with YPF the provision of fuels and lubricants for the fleet of official cars, boats and aircrafts, except in those cases which have the prior authorization of the Chief of the Cabinet of Ministers.

- **Agreements of local crude oil and fuel prices**

In January 2017, oil producers and refiners reached an agreement for the transition to international prices of the Argentine hydrocarbon industry, which established proposed prices for the commercialization of crude oil on the domestic market in order to achieve parity with international markets during the course of 2017. Notwithstanding the foregoing, the agreement provided for the power of either party to abandon the agreement during its term, which was also subject to compliance with certain variables such as the exchange rate or price of Brent crude oil within certain established parameters. During the last quarter of 2017, the price agreement was suspended because it considered this suspension in case the average international price of 10 days exceeds the local price, but it also states that it may be restored if the average price of Brent crude is positioned below the local price for more than 10 days.

Since then, the market players –producers and refiners– began to freely agree on domestic crude oil prices, generally valid on a calendar-month basis and linked to the Brent international benchmark, while maintaining limits on the exchange rate. Peso/US\$ and Brent's own value, depending on the capacity to transfer its price (expressed in US\$/Bbl) to the prices of the products obtained from it –basically fuels (expressed in Peso/unit)– for their market sale.



34. MAIN REGULATIONS AND OTHER (Cont.)

However, and in light of the domestic macroeconomic situation, which presented a the substantial increase in crude oil price and the short-term exchange rate, among other factors in place at the time, on May 8, 2018, the MINEM and the refining companies (among them, YPF) entered into a price stabilization agreement with a compensatory account, whereby the refining companies undertook the commitment not to modify fuel prices (net of taxes) in force as of such date during the months of May and June, in order to benefit the general economic interest, which, in turn, would have potential effects on the Company.

Moreover, the agreement included the creation of a compensatory account which incorporated the distortion in prices in terms of international reference prices accrued as of the date of the agreement, together with the adjustments resulting from additional cost variations (crude oil, exchange rate and biofuel price) which would not be transferred to prices during the months of May and June. The agreement set forth that such compensatory account would be transferred to the market through price increases during the second semester or, otherwise, the MINEM undertook the commitment to find mechanisms so that the refining companies may recover such difference.

On June 1, 2018, the MINEM and the refining companies (among them YPF) entered into a supplementary agreement that considered establishing a Brent reference price for crude oil purchases among refining and producing companies for the months of May (66 US\$/bbl), June (67 US\$/bbl) and July (68 US\$/bbl), 2018, and an increase in final prices of gasolines and diesel of up to 5% and 4.5%, respectively, beginning on June 2, 2018, which included the variation in the liquid fuel tax, the carbon dioxide tax and the prices of biofuel prevailing from that date. Additionally, an increase in an amount of up to 3% in the consumer prices of fuels, net of any variation in taxes, was expected to take place during the month of July.

On June 29, 2018, in face of the volatility and significant change in the variables that were the basis for the agreements above mentioned, YPF informed the MINEM on the decision to implement as of July 1, 2018, the applicable commercial policies according to the changes in the variables stated above, both for determination of sales prices of its products and of those for the purchase of crude oil, in accordance with the evolution of the general business environment and the evolution of customers in particular, consistent with the regulatory framework and current provisions. Consequently, the aforementioned agreements have ceased to be in force for YPF as of June 30, 2018; however, the Company has submitted the resulting amounts in the compensatory account to the relevant authorities, which represent contingent rights.

On December 6, 2018, YPF requested the SGE to set the guidelines for the implementation of the mechanism to recover the costs not transferred to fuel prices for the period contemplated under the Agreement, having received no response to the date of issuance of these consolidated financial statements.

On August 15, 2019, the National Executive Branch passed Decree No. 566/2019, which was later amended by Decree No. 601/2019 issued on August 30, 2019, and subsequently by SGE Resolution No. 557/2019 dated September 18, 2019, which established that: i) until November 13, 2019 deliveries of crude oil made in the domestic market must be billed and paid at the price agreed between producers and refiners as of August 9, 2019, applying for this purpose an exchange rate of \$49.30/US\$, equal to a 5.58% increase over the current reference price and a Brent reference price of US\$ 59/bbl; and ii) until the same date, the maximum price of all kinds of gasoline and diesel sold by refining companies and/or wholesalers and/or retailers, for the supply of fuel through fuel pumps at service stations may be increased by up to 4% compared to the prices in effect as of August 9, 2019.

Also, on November 1, 2019 SGE Resolution No. 688/2019 was published in the BO, modifying Decree No. 601/2019 and SGE Resolution No. 557/2019, and establishing that: i) during the effective term of Decree No. 601/2019, crude oil deliveries made in the domestic market must be billed and paid at the price agreed between producing and refining companies as of August 9, 2019, applying a reference exchange rate of \$51.77/US\$, equal to a 5% increase over the reference price established in SGE Resolution No. 557/2019, and a Brent reference price of US\$ 59/bbl; and (ii) from November 1, 2019 and during the effective term of Decree No. 601/2019, the prices of all kinds of gasolines and diesel sold by refining companies and/or wholesalers and/or retailers, for the supply of fuel through fuel pumps at service stations may be increased by up to 5% compared to the prices in effect as of September 20, 2019.

34. MAIN REGULATIONS AND OTHER (Cont.)

34.f) Regulatory requirements for natural gas

- **Mechanisms for allocating the demand for natural gas**

ENARGAS Resolution No. 1,410/2010

On October 4, 2010, the BO published ENARGAS Resolution No. 1,410/2010 that approved the “Supplementary Procedure for Gas Requests, Confirmations and Control” which set out new rules for natural gas dispatch applicable to all participants in the natural gas industry, imposing regulations to the producers’ availability of natural gas. By virtue of these procedures, distributors were authorized to request all the natural gas necessary to cover the Priority Demand even in the case of natural gas volumes that exceed those that the Secretariat of Energy would have allocated by virtue of the Agreement with the natural gas producers ratified by the Resolution No. 599/2007. The Company’s appeal against Resolution No. 1,410/2010 was rejected.

MINEM Resolution No. 89/2016—ENARGAS Resolution No. 3,833/2016 – ENARGAS Resolution No. 4,502/2017 – ENARGAS Resolution No. 59/2018 – ENARGAS Resolution No. 124/2018 – ENARGAS Resolution No. 302/2018 – ENARGAS Resolution No. 124/2018

On June 1, 2016, the MINEM published Resolution No. 89 whereby:

- ENARGAS was instructed to develop a procedure that modifies and supplements the one established in ENARGAS Resolutions No. 716/1998 and No. 1,410/2010 and establishes daily operation conditions of the Transportation and Distribution Systems.
- The volumes, that may be requested by the Distributors, were made available in order to supply the Priority and Fixed Demand that, in case of contracting with a natural gas producer, will reduce the requirement of natural gas to said producer as set forth in Resolution 1,410/2010 to the extent of the contracted volume.

According to this Resolution, ENARGAS Resolution No. 3,833/2016 was issued on June 5, 2016, which approves the “Supplementary Procedure for Gas Requests, Confirmations and Control”.

The purpose of the Procedure is to establish the transition mechanism and application criteria for the administration of the natural gas dispatch to preserve the operation of the transportation and distribution systems giving priority to the consumption of the Priority Demand in cases of supply crisis and/or emergencies which may put at risk the normal provision of the natural gas public service or which may affect the provision of another public service.

The Procedure establishes that each day the Distribution Service Providers will request in the programming computer systems of the Transport Companies for the operational day $n + 1$, with first priority, the natural gas necessary to supply the Priority Demand, based on their consumption estimate and in accordance with the contracted transport capacity and its supply agreements.

The confirmation of natural gas in the TSEP for Priority Demand will have priority over other segments. The confirmation of gas for segments other than the Priority Demand will maintain the confirmation priority established by the Producer in the respective contracts with direct consumers (or Marketers), which will be informed to Transportation and Distribution Service Providers.

The transportation nomination of each Distribution Service Provider will give priority to the supply of their Priority Demand over any other user of that Provider.

34. MAIN REGULATIONS AND OTHER (Cont.)

The Providers of the Transportation and Distribution Service that verify that the transportation capacity is not sufficient to supply the Priority Demand must summon the Emergency Committee, chaired by the president of ENARGAS, who will procure the means to allocate the volumes in the emergency situation.

On June 6, 2017 ENARGAS Resolution No 4,502/2017 was issued which approved the Procedure for the Administration of the office in the Emergency Executive Committee (“EEC”), modifying the procedure for the delivery request and gas confirmations which were approved by ENARGAS Resolution No. 3,833/2016 and provided for measures and criteria to be adopted in a supply crisis of the Priority Demand for Natural Gas declared by the Transportation Companies, Distribution Companies or the ENARGAS.

Among such measures, it was provided that the EEC or (if the EEC disagrees to it) the ENARGAS, will define the way in which the Priority Demand will be supplied considering the quantities of natural gas available in each basin for each producer and discounting the amounts contracted to supply the Priority Demand.

On May 18, 2018 ENARGAS Resolution No. 59/2018 was published, approving the Temporary Procedure for Shipment Management in the EEC, effective until the end of winter 2018. The EEC will be composed of at least one representative of the Transporters, the Providers and each carrier which, due to their geographical location and their respective demand have or may have incidence to resolve the situation. It will be chaired by a representative of the relevant Transportation Company and the decisions agreed in the EEC will be mandatory for all Active Subjects of the Gas Industry.

On June 29, 2018, ENARGAS Resolution No. 124/2018 was published in the BO which (i) approves the amended and restated internal regulations for dispatch centers beginning on June 30, 2018; (ii) derogates ENARGAS Resolutions No. 1,410/2010, 3,833/2016 and 4,502/2017 to the extent they are contrary to and/or incompatible with the amended and restated text of the aforementioned regulations; (iii) sets forth its presumption that there are no observations by ENARGAS to the proposed rescheduling made by the Transportation companies if there is no communication to the contrary within 1 hour after it has been requested; and (iv) sets forth that the Temporary Procedure for Shipment Management in the EEC shall be applicable during the winter of 2018.

On October 18, 2018 ENARGAS Resolution No. 302/2018 was published, which, considering that not all of the gas supply contracts for the Priority Demand between Producers and Distribution Licensees had been executed, extended the effective term of ENARGAS Resolution No. 59/2018 for 180 calendar days from October 1, 2018.

ENARGAS Resolution No. 215/2019, published on April 16, 2019, extends the effective term of ENARGAS Resolution No. 59/2018 for an additional period of 180 calendar days counted from the expiry of the term set forth in ENARGAS Resolution No. 302/2018 for considering that the reasons that led to the resolution still persist.

On October 21, 2019, ENARGAS Resolution No. 656/2019 was published in the BO, which extended the effective term of ENARGAS Resolution No 59/2018 until April 30, 2020 (included).

Terms and Conditions for the Distribution of Natural Gas through Networks

Under the energy sector normalization process, the MINEM called on natural gas producers (including YPF) and ENARSA to establish the basic conditions that will constitute the framework for the supply agreements to be executed for Natural Gas distribution as of January 1, 2018. In the meeting, MINEM informed that given the expiration of the extension period established in Law No. 27,200 regarding the public emergency that began in 2002, Law No. 24,076 regained effectiveness, which sets forth that the price of natural gas supply agreements will be the price resulting from the free interaction of supply and demand.

In this context, on November 29, 2017, natural gas producers (including YPF) and ENARSA, at the request of the MINEM, subscribed the “Terms and Conditions for the Provision of Natural Gas to Gas Distributors through Networks” (the “Terms and Conditions”).

The Terms and Conditions establish the basic guidelines to assure the adequate supply of natural gas to the Distributors, and consequently to residential and commercial final consumers. Moreover, they establish the continuity of the gradual and progressive path of reduction of subsidies, all within the framework of the process of normalization of the natural gas market, which occurs within the period of validity of such Terms and Conditions until December 31, 2019 considered as the “transition period” until the normalization indicated above.

34. MAIN REGULATIONS AND OTHER (Cont.)

The guidelines established in the Terms and Conditions include, among others, the recognition of the right to transfer to the gas tariff the cost of gas acquisition paid by users and consumers; establishes the available volumes that each producer and each basin must make available daily to the distributors for each month, who may express their lack of interest before a certain date set forth in the Terms and Conditions; establishes penalties for non-compliance for any of the parties regarding their obligation to deliver or take gas; establishes gas prices for each basin for the next two years, in U.S. dollars, the parties being able to set prices lower than those established under the applicable free negotiations; establishes payment guidelines for the purchases made by the Distributors to producers; ENARSA assumes the obligation to supply the demand corresponding to areas reached by the subsidies of residential gas consumption contemplated in article 75 of Law No. 25,565 (corresponding to the areas of lower price of residential gas charged to users and consumers), during the period of transition.

The Terms and Conditions constitute the terms and conditions to consider in the negotiations of their respective individual agreements, without this being construed as an obligation. Additionally, the Terms and Conditions establish guidelines for early termination in the event of non-compliance by the parties.

As a consequence of the exchange rate variation that took place on April 2018, and the decision of distributors to pay the price of gas based on the implicit exchange rate indicated on the tariff scheme approved for the winter period 2018 (lower than the price that had to be applied pursuant to the Terms and Conditions and the individual agreements executed), natural gas producing and distribution companies began a renegotiation process for the special agreements executed pursuant to the Terms and Conditions, with prices denominated in U.S. dollars. The renegotiation process resulted in a reduction in the price of gas to be applied to the period October – December 2018, with no agreement being reached in relation to the exchange rate differences to be contemplated.

On October 5, 2018, Resolution No. 20/2018 was published, establishing that in relation to differences between the price of gas provided in the contracts and the price of gas recognized in the final tariffs of distribution companies, valued for the quantity of gas purchased from April 1 to September 30, 2018, the ENARGAS would instruct distribution companies to recover the credit in favor of producers on a separate line in the invoice to be issued to its users, in 24 installments from January 1, 2019. However, SGE Resolution No. 20/2018 was later repealed by Resolution No. 41/2018 published on October 16, 2018, alleging opportunity issues for such implementation.

On November 16, 2018, by Decree No. 1,053/2018, published in the BO, the Argentine Government decided to assume the payment of the daily differences accumulated on a monthly basis between the price of gas purchased by Distributors and the price of natural gas included in tariff schemes effective from April 1, 2018 to March 31, 2019, exclusively generated due to exchange rate variations and corresponding to the natural gas volumes delivered in that same period. The conditions are as follows:

- 30 monthly consecutive installments beginning on October 1, 2019, which will be determined by using the BNA effective interest rate for 30-day deposits in Argentine currency (“electronic board”).
- The installments will be collected by Distributors, which will immediately pay the Producers.
- Distributors and Producers must adhere to the system and expressly waive any action or complaint.

Additionally, Decree No. 1,053/2018 established that since April 1, 2019, contracts between natural gas producers and distributors shall provide that the higher cost due to exchange rate variations during each seasonal period shall never be transferred to natural gas full-service users.

On February 12, 2019, ENARGAS Resolution No. 72/2019 published in the BO, approved the methodology for transferring the gas price to tariffs and the general procedure to calculate the accumulated daily differences, applicable from April 1, 2019, which established, among other aspects, that for the purpose of transferring the gas price agreed in U.S. dollars to tariffs, the ENARGAS will define the exchange rate to be considered for the conversion into Pesos based on the average selling exchange rate of the BNA (foreign currencies) effective between the 1st and 15th day of the month immediately preceding the beginning of each seasonal period, or the exchange rates established in the contracts should the rates contemplated therein be lower.



34. MAIN REGULATIONS AND OTHER (Cont.)

SGE Resolution No. 32/2019, published on February 11, 2019, approved the price auction mechanism for the provision of natural gas on a firm basis to meet the demand of full service users of the Distribution public utility service for the days of February 14, 2019 (for Neuquina, San Jorge Gulf, Santa Cruz Sur and Tierra del Fuego basins) and February 15, 2019 (for the Noroeste basin). SGE Resolution No. 32/2019 also approved the applicable price bidding model and instructed Mercado Electrónico de Gas Sociedad Anónima ("MEGSA") to issue the supplementary rules required to organize and implement the approved bidding mechanism. Price auctions were carried out at MEGSA on the aforementioned scheduled dates and, based on the results obtained, YPF proceeded to implement the contracts for the volumes awarded in relation to the participating distribution licensees corresponding to fiscal year April 2019-March 2020.

On August 20, 2019, ENARGAS Resolution No. 466/2019 was published, which approved the Methodology for the determination of the net amount of accumulated daily differences referred to in article 7 of Decree No. 1,053/2018, approving the adhesion application model by setting a submission deadline no later than September 15, 2019 and established that simultaneously with the adhesion application, natural gas distributors and their suppliers must present and exhibit to ENARGAS the instruments restructuring their commercial relationship in accordance with the terms of Decree No. 1,053/2018, that partial and/or conditional adhesion applications will not be accepted, and that distributors, once the corresponding monthly payment has been received from the National Government, shall use the total amount received to make payments to natural gas Suppliers adhered to the Regime within a maximum term of 5 days. The Resolution established, as a general rule, that the Methodology of reallocation on tariffs of the price of gas and the General Procedure to calculate the Daily Accumulated Differences approved by ENARGAS Resolution No. 72/2019 will be applied.

On September 10, 2019, YPF filed an administrative appeal against Resolution No. 466/2019 basically challenging the approved volume determination methodology, insofar as it orders the calculation of volumes without considering the total amount actually delivered at the TSEP by natural gas suppliers, but based on the simulation of the optimal dispatch and the discount of the volume of retained gas and UNG.

ENARGAS Resolution No. 554/2019, published on September 16, 2019, extended the deadline to adhere to the regime established in article 7 of Decree 1,053/2018 until October 15, 2019. Subsequently ENARGAS Resolution No. 636/2019 published on October 11, 2019, postponed the deadline to adhere to the regime and established that the failure to submit the instruments in which the parties restructure their commercial relationship in accordance to the provisions set forth in Decree No. 1,053/2018 will not be an impediment to present the adhesion to the aforementioned regime.

On October 25, 2019, YPF submitted the Application to Adhere to the regime established in article 7 of Decree No. 1,053/2018 and regulated by ENARGAS Resolution No. 466/2019, which implies accepting such regime unconditionally and waiving all kind of administrative, arbitration or judicial claims against the National Government, and therefore, the appeal filed by YPF against ENARGAS Resolution No. 466/2019 was automatically withdrawn.

At the same time, YPF notified distributors that it had applied for the accession to the regime and that such application could not be interpreted as a cancellation of the volumes and/or concepts in relation to YPF's natural gas injections, from April 1, 2018 to March 31, 2019, which had not been assumed by the National Government (IVA, volume differences for optimal dispatch, UNG and/or retained gas and exchange rate differences arising from non-payment within the contractual terms).

On November 14, 2019 ENARGAS Resolution No. 735/2019 was published in the BO, which approved the net amount in Pesos corresponding to the daily accumulated differences due to exchange rate variations pursuant to Section 7 of Decree No. 1,053/2018.

In December 2019, after receiving from the SGE the transfer of the first the 30 installments contemplated under the regime, the Distributors paid such installment to YPF, which has maintained the reserves for the items and amounts not assumed by the National Government under the regime.

34. MAIN REGULATIONS AND OTHER (Cont.)

- **New natural gas exports**

The Decree No. 893/2016, dated July 25, 2016, determined that the MINEM is empowered to regulate the awarding of export permits for the following purposes: (i) provide assistance in natural gas emergency cases from foreign countries; and (ii) replace the natural restrictions of local transportation through the use of external transportation infrastructure to facilitate natural gas transportation within the Argentine market and allow an increase in local production.

On January 8, 2017, the export duties on hydrocarbon exports established by Law No. 26,732 ceased to be applicable. Thereafter, there are no export duties on natural gas exports.

On January 13, 2017, MINEM Resolution No. 8/2017 was published, which regulated Decree No. 893/2016, and established a special procedure for granting natural gas export permits subject to re-import commitments. The resolution is applicable for two types of exports; (i) those aimed at providing assistance in emergency cases (“Exports for Assistance”); and (ii) Exports required to make up for internal transport restrictions in order to allow both the use of infrastructure from neighboring countries to facilitate natural gas transportation to Argentine domestic market and the increase of domestic production (“Exports for Transportation Restriction”). The beneficiaries of both types of permits will be liable for the damages that might be caused to the Argentine natural gas supply system in the event of non-compliance with their re-import obligations as and when agreed and the costs of the import that the National Government must make to replace the exported gas which was not re-entered, with a penalty of 50% of such costs. Such permits would be extended for a maximum period of two years and will be subject to a possible termination if the public interest makes it advisable for the domestic market offer in accordance with MINEM criteria.

On November 27, 2017, Decree No. 962/2017 was published which, among other aspects, modifies article 3 of the Regulatory Decree of the Law No. 24,076, establishing the following principles for export authorizations: 1) that the authorizations will be issued by the MINEM once the applications have been evaluated; 2) the export agreements that involve the construction of new facilities and / or new connections to the gas pipelines, or the use of any of the existing systems, or other transportation alternatives, will be approved by the MINEM with the intervention of ENARGAS; 3) the authorizations issued by the MINEM may provide for the export of surplus gas up to the amounts established therein, provided they are subject to interruption when there are internal supply problems. In such case, we would not be required to obtain the approval for each export of surplus amounts; instead, we would only be required to submit to the ENARGAS, for informative purposes only, the respective agreement which allows us to interrupt deliveries without any penalties.

The modifications introduced by Decree No. 962/2017 do not modify the regime of temporary export permits, provided for in Decree No. 893/2016.

On August 22, 2018, MINEM Resolution No. 104/2018, later modified by SGE Resolution No. 9/2018, was published in the BO, which: i) established a new Procedure to Obtain Natural Gas Export Licenses; ii) abrogated Resolution No. 299/1998 issued by the former Secretariat of Energy, as amended, and established that export licenses granted under the repealed regulation would be subject to the Procedure to Obtain Natural Gas Export Licenses; iii) abrogated Resolution No. 131/2001 issued by the former Secretariat of Energy and Mining, and its amendments; iv) abrogated Resolution No. 265/2004 issued by the former Secretariat of Energy and Mining, and its amendments, v) abrogated Resolution No. 883/2005 issued by the former Secretariat of Energy, as amended; vi) abrogated Resolution No. 8/2017 issued by the former MINEM, as amended; and vii) delegated to SRH the tasks related to this new Procedure.

Resolution No. 104/2018 provided that in the case of export requests from a project included in MINEM Resolution No. 46-E/2017 (Unconventional Gas Production Stimulus Program), the quantities of gas would not be computed as part of and/or within the production included under the mentioned Program.

34. MAIN REGULATIONS AND OTHER (Cont.)

On September 4, 2018, Decree No. 793/2018 was published in the BO imposing export duties on various goods, including natural gas. This decree set forth a 12% export duty on natural gas exports, which may not exceed 4 Pesos per each U.S. dollar of the taxable amount or official FOB price, as applicable. See Note 34.d.

On December 4, 2018, Law No. 27,467 of the Budget of the National Administration for the Year 2019 was published. Sections 81 and 82 thereof respectively establish i) that the PEN may fix export duties until December 31, 2020 which rate may not exceed 30% of the taxable value or the official FOB price, with a maximum limit of 12 % for those goods that were not subject to export duties as of September 2, 2018 or that were taxed with a 0% rate as of that date, and ii) that Decree No. 793/2018 continues in full force and effect.

On June 26, 2019, SGE Resolution No. 417/2019 was published, which replaces of the Procedure to Obtain Natural Gas Export Licenses approved by Resolution No. 104/2018, which ordered the UHaF to regulate replacement mechanisms of energy applicable to firm exports and develop an operating procedure in the event that the security of internal supply is at risk, and empowers the UHaF to grant export permits by issuing the relevant certificate. The most substantial modifications are the following: i) the classification of authorizations was modified, establishing the following: firm, interruptible, operational exchanges and assistance agreements; ii) the process to obtain licenses is simplified by enabling digital processes through the platform known as “Trámites a Distancia” (Platform for Remote Processes) and iii) it is expected that the amounts of natural gas from projects included in the “Stimulus Program for Investments in Natural Gas Developments from Non-Conventional Reservoirs” will be deducted from the total production of the respective project prior to the determination of the volumes computed as part of the Included Production.

On August 21, 2019, UHaF Resolution No. 168/2019 was published, which approved the terms and conditions of the regime for natural gas exports on a firm basis applicable to the period between September 15, 2019 and May 15, 2020, sets forth a maximum volume of natural gas that may be exported to Chile on a firm basis of 10,000,000 m3/d (divided into three export zones, Northwest, Central-West and South, each of them with a maximum volume of 1,000,000, 6,500,000 and 2,500,000 m3/d, respectively), established that applications may be submitted until September 6, 2019 and provided that for the allocation of volumes to be exported, a performance index will be set up by area and per applicant and application, consisting of past production performance, past export performance, present performance and the term of the application. It also contemplates that, in the event of a potential need for a greater use of imported natural gas, LNG, coal, fuel oil and/or diesel by MEM, the cost of which were to be borne by the National Government based on the decided energy replacement, the exporting companies shall pay CAMMESA a compensation for the greater costs incurred, the amount of which will be determined by CAMMESA at the end of the application period. By SGE Resolution 506/2019 published on August 30, 2019, 0.1 and 0.2 US\$/MMBTU exported were established as the minimum and the maximum values, respectively, of the cost of energy replacement by exporters.

On October 31, 2019, UHaF Resolution No. 248/2019 was published, which approved the Operating Procedure of Natural Gas Exportation valid until September 30, 2021, with the aim to regulate any need to restrict natural gas exports operatively useful in the event of a lack of supply in the Argentine domestic market.

On December 14, 2019, Decree No. 37/2019 was published in the BO, which eliminated the cap of 4 Pesos per US Dollar established in section 2 of Decree No. 793/2018, as amended. Subsequently, on December 23, 2019, Law No. 27,541 on Social Solidarity and Production Reactivation was published in the BO within the Public Emergency Framework, which in its section 2 established that the rates corresponding to hydrocarbon and mining exports shall not exceed 8% of the taxable amount or the official FOB price. See Note 34.j.



34. MAIN REGULATIONS AND OTHER (Cont.)

- **Exports of LNG**

On December 5, 2019, Regulation No. 329/2019 issued by the Under-Secretariat of Hydrocarbons and Fuels was published in the BO. Under this Regulation, LNG was included in the list of products established in Resolution No. 241/2019, which require the registration of operations prior to their export. In order to obtain the registration and authorization to export, LNG exporters must submit evidence to the Secretariat of Energy that they have offered the opportunity of acquiring such products to potential domestic market agents which might be interested in such transaction.

Likewise, LNG exports are subject to the provisions of Law No. 27,541 on Social Solidarity and Production Reactivation within the Public Emergency Framework, which in its section 52 established the rates for hydrocarbon exports.

- **Trust Fund to finance natural gas imports**

On November 27, 2008 through Decree No. 2,067/2008, a trust fund was created to finance imports of natural gas for injection into the national gas pipeline system when necessary to satisfy the domestic demand. The trust fund is financed through the following mechanisms: (i) various tariff charges paid by users of regular transportation and distribution services, gas consumers receiving gas directly from producers, and companies processing natural gas; (ii) special credit programs that can be agreed upon with national or international organizations; and (iii) the specific contributions assessed by the Secretariat of Energy on participants in the natural gas industry. This Decree has been subject to diverse legal claims, and judges from all over the country have issued precautionary measures to suspend its effects, based on the violation of the principle of legality in tax matters. On November 8, 2009, ENARGAS published Resolution No. 1,982/2011 that adjusted the tariff charges established by Decree No. 2,067/2008 to be paid by users starting on December 1, 2011.

On November 24, 2011, ENARGAS passed Resolution No. 1,991/2011, increasing the number of users obliged to pay tariff charges, including residential services, natural gas processing, industrial complexes and electric power plants, among others, which has impacted the operations of the Company, and has had a significant impact on our joint subsidiary companies, all of which have filed appeals against the aforementioned resolution. For its part, YPF has challenged these resolutions and rejected the billing of charges made by Nación Fideicomiso. On April 13, 2012, YPF obtained a precautionary measure related to the El Portón processing plant, suspending the effects of these resolutions in respect to that plant until a decision on the administrative appeals filed by YPF had been reached.

In November 2012, Law No. 26,784 was passed which granted legal hierarchy, as of that date, to the regulations enacted by the Executive Branch and ENARGAS, in relation to the charge. On December 11, 2014, the CSJN issued the "Alliance" judgment, deciding that the charge created by Decree No. 2,067/2008 a tariff charge and not a tax, and therefore not subject to the principle of tax legality. However, the Court left open the possibility of eventual claims or defenses in cases different from the claims raised in the "Alliance" judgment.

In particular, the application of the aforementioned tariff charge would have had such a significant impact on Mega operations where, if the ruling had not been favorable, could have resulted in serious difficulties for Mega to continue its business going forward. On October 27, 2015, the CSJN issued a resolution on the motion for protection of constitutional rights filed by Mega (for the period until the enactment of the 2013 Budget Enactment Law No. 26,784) providing that the charge under "Decree No. 2,067/2008" was unconstitutional and not applicable to Mega.

On April 1, 2016 the MINEM issued Resolution No. 28/2016, which, among other things, revoked resolutions passed by the former Ministry of Federal Planning, Public Investment and Services under Section 6 of Decree No. 2,067/2008 and Section 7 of Resolution No. 1,451/2008 of the aforementioned Ministry related to the assessment of tariff charges, which instructs the ENARGAS to take the necessary measures to cease the application of these charges on the bills issued to users.



34. MAIN REGULATIONS AND OTHER (Cont.)

In April 2018 and regarding “Decree No. 2,067/2008” on tariff charges, the Federal Administrative Court No 11 passed judgment on the declaratory action of unconstitutionality filed by Mega (for the period after the Budget Act for 2013 No 26,784), which admitted the complaint and declared the unconstitutionality, regarding Mega, of sections 53 and 54 of the aforementioned law. The first instance judgment took effect since it was not appealed by the Argentine Government.

On July 2, 2019, the CSJN issued a new ruling on the charge, this time in the case brought by Refinor, owner of the gas separation plant. On this occasion, the Court understood that the foregoing “Alliance One Tobacco”, case applied by the Federal Court of Appeals of Salta to reject the action for protection of constitutional rights (*amparo*) initiated by Refinor, does not adequately resolve the peculiarities of the case, which, in turn, are in principle substantially similar to the decision rendered in the case entitled “Compañía Mega S.A.”. Based on the above, the Court ordered the Federal Court of Appeals of Salta to render a new judgment taking into account the aforementioned considerations. On November 29, 2019, the Court of Appeals pronounced a judgment declaring the unconstitutionality of ENARGAS Resolutions I/1982/11 and I/1991/11, under which Refinor was included among the subjects obliged to pay the charges of the Trust Fund therein, as well as of all those acts seeking the enforcement of the aforementioned resolutions.

34.g) Natural gas production incentive programs

- **Stimulus Programs for the Additional Injection of Natural Gas**

In December 2012, YPF and other gas producing companies of Argentina agreed with the Planning and Strategic Coordination Commission of the National Plan of Hydrocarbon Investments (the “Commission”) to establish an incentive scheme for the Additional Injection (all gas injected by the companies above certain threshold) of natural gas. On February 14, 2013 Resolution No. 1/2013 of the Commission was published in the BO. This resolution formally created the “Stimulus Programs for the Additional Injection of Natural Gas”.

Under this regulation, gas producing companies were invited to file projects to increase the total injection of natural gas (“the projects”) with the Commission, in order to receive a price of US\$ 7.50/MMBtu for all gas injected in excess (above the base injection level of each company). The Projects would comply with minimum requirements established in Resolution No. 1/2013, and would be subject to approval consideration by the Commission. The Projects had a maximum term of five years, renewable at the request of the beneficiary, and subject to the decision of the Commission. If the beneficiary company, for a certain month, did not reach the committed production increase of its project approved by the Commission, it would have to compensate its failure to achieve the minimum total injection committed to their Project. A similar program provided for Resolution No. 60/2013, regulated by Resolution No. 83/2013, called Natural Gas Additional Injection Stimulus for Companies with Reduced Injection” established a similar program for the companies that failed to comply with the requirements of Resolution No. 1/2013 and those that had failed to register in time under this Resolution. The price to be paid under the program established in Resolution No. 60/2013 varied between US\$ 4.00/MMBtu and US\$ 7.50/MMBtu, according to the highest production curve reached by the beneficiary company under the program.

On September 29, 2015, Resolution No. 185/2015 was published in the BO, which regulated the so-called Natural Gas Injection Stimulus for Companies without Injection in favor of those producers which did not have a previous record of natural gas injection. The beneficiary companies received compensation resulting from the difference between US\$ 7.50/MMBtu and the price received for the sale of the natural gas in the market. The natural gas that received this compensation was only natural gas originating in areas whose production rights had been acquired from companies registered with one of the two previous programs and provided that during the period in which the transferor company had calculated its “base injection”, according to its program, the injection of the area operated by the current beneficiary –transferee– would have been void.

On May 20, 2016, Decree No. 704/2016 was published, whereby the debt converted into pesos under the Stimulus Plan for Surplus Natural Gas Injection, the Stimulus Plan for Natural Gas Injection Program for Companies with Reduced Injection and those derived from the Supply of Propane Gas for Undiluted Propane Gas Distribution Networks Agreement taking into account the exchange rate in force at the end of each period, and BONAR were granted in U.S. dollars at an annual interest rate of 8% maturing in 2020 (“BONAR 2020 US\$”) for the cancellation thereof.



34. MAIN REGULATIONS AND OTHER (Cont.)

The sale of these BONAR 2020 US\$ was restricted according to the letters of accession; therefore, until and including December 2017, the Group could not sell on a monthly basis more than 3% of the aggregate amount of the BONAR 2020 US\$ received. In addition, during the months in which the Group did not exercise its right to sell the BONAR 2020 US\$ up to the above-mentioned percentage, it could accumulate the unused percentage for its sale in subsequent months. In no event could the sale in a single month of the accrued balances exceed 12% of the total BONAR 2020 US\$ received.

In order to request the cancellation of outstanding payments, beneficiaries had to sign letters of accession and submit them to the SRH of the MINEM.

On July 13, 2016, the Group received, under the Stimulus Programs for the Additional Injection of Natural Gas, BONAR 2020 US\$, with a face value of US\$ 630 million. In addition, on September 21, 2016, under the Supply of Propane Gas for Undiluted Propane Gas Distribution Networks Agreement, the Group received BONAR 2020 US\$, with a face value of US\$ 12 million.

These programs had a maximum duration of 5 years, and terminated on December 31, 2017, without having been renewed.

On April 3, 2018, MINEM Resolution No. 97/2018 was published in the BO approving the procedure (the "Procedure") for the cancellation of compensation pending settlement and/or payment under the Natural Gas Surplus Injection Stimulus Program, Natural Gas Surplus Injection Stimulus Program for Companies with Reduced Injection and the Stimulus Program for New Natural Gas Projects, to which the beneficiary companies may adhere.

Each company had the option to choose to receive compensation under the approved procedure stating its adherence within 20 business days from the publication of the resolution. It was required that the company waive any rights, actions, remedies, appeals, and claims, either administrative and/or judicial, based on the Program, except for: i) the objection to the administrative acts that determine the relevant compensation according to the Procedure; and ii) the failure to comply with the payments provided for under the Procedure for a minimum amount of 3 installments, at the option of each beneficiary Company.

The debt amount was determined as follows: 85% of the U.S. dollar amount will be calculated according to the exchange rate at the time of the injection ("Program exchange rate") and 15% of the U.S. dollar amount but devalued (multiplied by the quotient between the Program exchange rate and the exchange rate corresponding to the payment dates of the compensation resolutions already issued or the date of publication of Resolution No. 97/2018, as applicable). The debt began to be canceled as of January 2019 in 30 monthly and consecutive installments, in Pesos, at the monthly average reference rate set forth in the Communication A 3500 of the BCRA (Wholesale) of the month preceding each installment.

On May 3, 2018, the Group adhered to the aforementioned Procedure.

As a consequence of the foregoing, as of December 31, 2018, the Group recorded a profit of 804 included in the item "Net financial results".

On December 4, 2018, Law No. 27,467 of the Budget of the National Administration for the fiscal year 2019 was published. Section 55 thereof authorized the issue of public debt instruments for up to US\$1,600 million, for the cancellation of compensations for the fiscal year 2017 (in accordance with the provisions set forth in Resolution No. 97, dated March 28, 2018 of the former MINEM).

SGE Resolution No. 54/2019, was published on February 21, 2019, which partially amended Resolution No. 97/2018, adjusting it to the payment method defined in article 55 of Law No. 27,467. It established, among other things, that in order to request cancellation under this mechanism, beneficiary companies are required to express their consent within ten days of notification, and that, upon accession to the aforementioned cancellation mechanism, they had to waive any rights, actions or claims in relation to the programs, the administrative compensation acts and the payment orders that were issued.



34. MAIN REGULATIONS AND OTHER (Cont.)

Joint Resolution No. 21/2019 issued by the Secretariats of Finance and Treasury published on February 28, 2019 in the BO, established the issuance of the “Natural Gas Program Bonds” for an amount of up to US\$ 1,600 million, maturing on June 28, 2021. The repayment will be in 29 monthly and consecutive installments, where the first payment will be in an amount equal to 6.66% of the original nominal value, the following 18 installments in an amount equal to 3.33% of the original nominal value and the remaining 10 installments in an amount of 3.34% of the original nominal value. The first installment was paid on February 28, 2019 and as of March 28, 2019, each installment will be paid on the 28th of each month until its expiration.

Also on February 28, 2019, the SGE notified YPF the amount of compensation included, estimated in compliance with Resolution No. 97/2018 for a total amount of US\$ 758.8 million.

On March 1, the Company presented its accession letter to the SGE in compliance with SGE Resolution No. 54/2019.

After the “Natural Gas Programs” Bonds were credited in April 2019 to the escrow account designated by YPF for a total amount of US\$ 758.8 million, as of the date of issuance of these consolidated financial statements, YPF received payment of the thirteen installments for a total amount of US\$ 353.8 million.

- **Stimulus Program for New Natural Gas Projects**

On May 19, 2016, MINEM Resolution No. 74/2016 created the “Natural Gas New Projects Stimulus Program” in order to foster natural gas production for those companies submitting new natural gas projects, provided they were not beneficiaries of the “Stimulus Programs for the Additional Injection of Natural Gas” or the “Natural Gas Injection Stimulus for Companies with Reduced Injection”, created by Resolutions No. 1/2013 and 60/2013, respectively, of the Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan.

The submission of new projects, which had to be approved by the Hydrocarbon Resources Secretariat, might obtain a stimulus price of US\$ 7.50/MMBtu. Moreover, the “Natural Gas Injection Stimulus for Companies without Injection”, created by Resolution No. 185/2015 of the Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan has been abolished, but any projects submitted under such program which were pending approval were evaluated under the “Natural Gas New Projects Program”.

Following this Resolution, new projects could not be submitted under the natural gas production incentive Program known as “Gas Plus”, created by Resolution No. 24/2008 of the former Energy Secretariat of the former Ministry of Federal Planning, Public Investment and Services, as amended. Notwithstanding the foregoing, any projects that had been approved under said Program remained in full force according to the terms of their respective approvals.

The requirements that the gas has to meet in order to be involved in a new natural gas project are the following: a) it must come from an exploitation concession granted as a result of an informed discovery reported after the effective date of Resolution No. 1/2013 of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan; or b) come from an exploitation concession of areas classified as “Tight Gas” or “Shale Gas”; or c) belong to companies without natural gas injection registers which acquire an interest in areas belonging to companies registered in the “Stimulus Programs for the Additional Injection of Natural Gas” or the “Natural Gas Injection Stimulus for Companies with Reduced Injection”, created by Resolutions No. 1/2013 and 60/2013, respectively, of the former Strategic Planning and Coordination Commission of the Hydrocarbon Investments National Plan, but for which the total injection coming from the areas in question, including the acquired areas, would have been zero during the period in which the selling company would have calculated its base injection.

The “Natural Gas New Projects Program” was effective until December 31, 2018.

34. MAIN REGULATIONS AND OTHER (Cont.)

- **Stimulus Program for Investments in Natural Gas Production Developments from Non-Conventional Reservoirs**

On March 6, 2017, MINEM Resolution No. 46-E/2017 was published in the BO, which created the “Investment in Natural Gas Production from Non-Conventional Reservoirs Stimulus Program” (hereinafter the “Program”), established in order to stimulate investments in natural gas from non-conventional reservoirs in the Neuquina basin, and in effect as of its publication until December 31, 2021. The Resolution establishes compensation for the volume of non-conventional gas production from concessions located in the Neuquina Basin included in the Program, for which such concessions must first have a specific investment plan approved by the province’s application authority and the SRH. The compensation will be determined by deducting from the effective sales price obtained from sales to the internal market, including conventional and non-conventional natural gas, the minimum sales prices established by the Resolution each year, multiplied by the volumes of production of non-conventional natural gas. The minimum prices established by the Resolution are US\$ 7.50/MMBtu for 2018, US\$ 7.00/MMBtu for 2019, US\$ 6.50/MMBtu for 2020 and US\$ 6.00/MMBtu for 2021. The compensation from the Program will be distributed, for each concession included in the Program, as follows: 88% to the companies and 12% to the province corresponding to each concession included in the Program.

On November 2, 2017, MINEM Resolution No. 419-E/2017 was published and its Annex replaces the similar Annex of Resolution No. 46-E/2017. The new resolution modifies the previous one in the following aspects:

- a) It defines that the Initial Production to be calculated will be the “monthly mean Non-Conventional Gas production assessed for the period between July 2016 and June 2017”. It also states that the Production Included, to the effect of the compensation, will be i) for the concessions with Initial Production lower than 500,000 m3/day, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting company is entitled, and ii) for the concessions with Initial Production higher than 500,000 m3/day, the total monthly production of Non-Conventional Gas coming from such Included Concession, to which the requesting party is entitled, discounting the Initial Production.
- b) It modifies the definition of Effective Price, previously defined as “the average price weighted by volume of total natural gas sales of each company in the domestic market”, to “the average price weighted by volume of total natural gas sales in the Argentine Republic that will be published by the Secretariat of Hydrocarbon Resources”, regulating the guidelines to be followed for such calculation.
- c) A requirement to qualify for the Program is included, that is, that the investment plan submitted for each concession reaches a yearly mean production, in any consecutive period of twelve months before December 31, 2019, equal to or higher than 500,000 m3/day, and the obligation to reimburse the amounts of the compensation received (updated to reflect interest) corresponding to the concessions that do not reach the above mentioned production level, with the possibility that the SRH may require filing a surety bond to guarantee the eventual reimbursement of the compensation received by the participating companies, and retaining the power to suspend payments if such bond is not submitted.

On November 17, 2017, MINEM Resolution No. 447-E/2017 was published, which extends the application of the “Program to Encourage Investment in Development of Natural Gas Production from Unconventional Reservoirs” (applicable to the Neuquén Basin, created by MINEM Resolution No. 46-E/2017 and amended by MINEM Resolution No. 419-E/2017) to the production of natural gas from unconventional reservoirs located in the Austral Basin.

34. MAIN REGULATIONS AND OTHER (Cont.)

On January 23, 2018 MINEM Resolution No 12-E/2018 was published in the BO modifying Resolution 46-E/2017, which:

- (i) makes incentives applicable to adjacent concessions which are operated in a unified manner and meet the following requirements: having a common investment plan; being operated jointly by using, substantially, the same surface facilities; in case of co-ownership, all concessions having the same share and any share assignment being carried out jointly and simultaneously by all shares.
- (ii) adjusts the payment date of the first compensation under the Program and, correlatively, makes the corresponding reviews related to the initial interim payment, setting forth that, for the requests filed until January 31, 2018, it shall be the one corresponding to January 2018, and for requests filed after January 31, 2018, it shall be the one corresponding to the month in which the request to be included in the Program has been filed.

On December 4, 2018, Law No. 27,467 of the Budget of the National Administration for the fiscal year 2019, established in its section 58 the creation of a guarantee trust for contingent liabilities of the Gas Plan IV (“Stimulus Program for Investments in Natural Gas Production Developments from Non-Conventional Reservoirs” created by Resolution No. 46 dated March 2, 2017 issued by the former MINEM) in order to guarantee up to 30% of the obligations that might arise under the program from January 1, 2019.

YPF obtained the adhesion to the Program for its participation in the concessions known as Aguada Pichana Este, Aguada Pichana Oeste-Aguada de Castro, Estación Fernández Oro and La Ribera I and II.

Regarding the Estación Fernández Oro Concession, on February 6, 2019, the Company filed an appeal for reconsideration against SGE Resolutions No. 356, 369, 370 and 371/2018, which authorized payment to the Company of the final compensation for the first quarter of 2018 and the provisional compensation for the third quarter of 2018, establishing the amount of such compensations based on the volume of the Included Production declared by the Company when it adhered to the Program by reason of the aforementioned concession, without considering the actual volume of Included Production recorded in the first quarter of 2018 and the updated estimate for the Included Production submitted by the Company on October 2018 regarding the third quarter of 2018.

For identical reasons, on December 27, 2019, the Company lodged appeals for reconsideration against SGE Resolutions No. 608 (April 2018), No. 620 (payment adjustment for the months of August and September, 2018) and No. 712/2019 (July 2019), requesting the Court to sustain the appeals and to proceed to estimate the economic compensations to be paid based on the volumes requested by YPF.

In relation to the Aguada Pichana Este Concession, on October 9 and 10, SGE Resolutions No.345 (covering from October 2018 to January 2019, but only challenged for the month of January 2019), 360 (February 2019), 366 (March 2019), 361 (April 2019) and 522/2019 (May 2019) were challenged on the grounds that they established the payment of temporary compensations to YPF considering as a cap the volume of the production included declared at the time of joining the Program.. Also, on December 27, 2019, Resolution No. 722/2019 (July 2019) was also challenged based on the production included initially declared by YPF at the time of joining the Program.

With regard to the Aguada Pichana Oeste - Aguada de Castro Concession, on October 9, 2019, SGE Resolutions No. 342 (November/December, 2018), 351 (January 2019), 352 (February 2019), 350 (March 2019) and 353/2019 (April 2019) were challenged on the grounds that they ordered the payment of temporary compensation to YPF considering as a cap the volume of production included declared at the time of joining the Program.

Regarding La Ribera I and II Concession, on October 10 SGE Resolutions No. 390 (April 2019), 497 (May 2019) and 516/2019 (June 2019) were challenged as they ordered the payment of temporary compensation to YPF considering as a cap the volume of production included declared at the time of joining the Program. Likewise, on December 27, 2019, Resolution No. 711/2019 (July 2019) was challenged, because the compensation was calculated based on the production initially declared by YPF at the time of adhering to the program.

34. MAIN REGULATIONS AND OTHER (Cont.)

Through these appeals, the SGE was requested to recalculate the economic compensation to be paid based on the production volume timely reported by YPF in the submitted sworn statements, consistent with the projection of the updated Production Included. As of the date of these financial statements, the appeals for reconsideration lodged by the Company were not resolved by the SGE.

On August 22, 2019, YPF requested the Under-Secretariat of Energy, Mining and Hydrocarbons of Neuquén the readjustment of the Investment Plan corresponding to La Ribera I and II concession for the second semester of 2018 and the first semester of 2019, requiring that the six-month investment verifications for the second semester of 2018 and the first semester of 2019 should be conducted in compliance with the readjustment of the proposed Investment Plan. YPF justified the readjustment request based on the interruption of activities imposed within the framework of the judicial investigation that of an incident occurred on July 10, 2018, as well as on the change in circumstances faced by the Argentine natural gas market.

Subsequently, by filings made on November 8 and 28, 2019, YPF fulfilled certain reporting requirements notified by the Under-Secretariat of Energy, Mining and Hydrocarbons of Neuquén and requested that the proposed readjustment of the Investment Plan be approved until the month of December, 2019.

On January 14, 2020, the Under-Secretariat of Energy, Mining and Hydrocarbons of Neuquén requested of YPF that, given the current political and economic situation at country level, the readjustment proposal should be submitted on a comprehensive basis for the whole period covered by the Plan (2018-2021). As of the date of these consolidated financial statements, the note has not been answered.

- **Natural gas sales for electricity generation**

On August 1, 2018, MINEM Resolution 46/2018 was published in the BO, which instructed the Under-Secretariat of Electric Energy to take the necessary measures for CAMMESA to implement competitive mechanisms aimed at securing the availability of gas for the production of electric energy, and established new maximum prices (20% lower than the then-current prices) for natural gas at the TSEP, for each basin of origin, to be applied in order to estimate the cost of the natural gas volumes to be used in the production of electricity to be marketed on the WEM, or, generally, to be used in the provision of the electric power public distribution service from August 1, 2018.

On November 7, 2018, SGE Resolution No. 70/2018 was published in the BO, which amended Resolution No. 95/2013 issued by the former Secretariat of Energy, authorized Generators, Co-Generators and Self-Generators of the WEM to contract the supply of their own fuel for the generation of electric energy. In addition, this Resolution establishes that the costs of generation with their own fuel shall be appraised in accordance with the mechanism of recognizing the Variable Production Costs recognized by CAMMESA.

On December 30, 2019, Resolution No. 12/2019 issued by the Ministry of Productive Development was published in the BO, which in its section 1 repealed SGE Resolution No. 70/2018, reinstating the validity of section 8 of Resolution No. 95/2013, as well as section 4 of Resolution No. 529/2014; and therefore, the commercial management and fuel dispatch are again centralized in CAMMESA, with some exceptions, such as the provision of fuels for generators under Energy Plus or the contracts concluded within the framework of the tender made by Resolution No. 287-E/2017 of the former Secretariat of Electric Energy.

On February 27, 2020, SE Resolution No. 31/2020 was published in the BO, by means of which, the National Government set new remunerative values for the sale of energy and non-contractualized power. The values of the aforementioned remunerations, previously nominated in US dollars, are set in Argentine pesos and will be updated on a monthly basis according to the CPI and IWPI published by the INDEC. This resolution shall enter into force and apply to transactions conducted starting in February 2020.



34. MAIN REGULATIONS AND OTHER (Cont.)

34.h) Regulatory requirements applicable to Natural Gas distribution

The Group participates in natural gas distribution through its subsidiary Metrogas.

The natural gas distribution system is regulated by Law No. 24,076 (the "Gas Act") that, together with Decree No. 1,738/1992, issued by the PEN, other regulatory decrees, the specific bidding rules (Pliego), the Transfer Agreement and the License, establishes the Regulatory Framework for Metrogas' business.

The License, the Transfer Agreement and the regulations issued pursuant to the Gas Act establish requirements regarding the quality of service, capital investment, restrictions on transfer and encumbrance on assets, cross-ownership restrictions among producers, transporters and distributors, and Metrogas stock transfer.

The Gas Act and the License created ENARGAS as the regulatory entity to administer and enforce the Gas Act and the applicable regulations. In this order, the tariffs for the gas distribution service were established by the License and are regulated by ENARGAS. ENARGAS' jurisdiction extends to gas transportation, sale, storage and distribution. Its mandate under the Gas Act includes consumer protection, competition protection in gas supply and demand, and the promotion of long-term investments in the gas industry.

Gas distribution tariffs have been established in the License and are regulated by ENARGAS.

- **Distribution License**

The License authorizes Metrogas to provide the public distribution service for a term of 35 years. The Gas Law provides that Metrogas may request from ENARGAS a License renewal for an additional term of ten years upon the expiration of the original 35 year-term. ENARGAS will then evaluate Metrogas' performance and make a recommendation to the PEN. Metrogas is entitled to the renewal of its License unless the ENARGAS proves that it has not substantially performed all of its obligations under the Gas Law, the respective regulations and decrees and the License.

At the end of the 35 or 45-year period, as the case may be, the Gas Law requires a new competitive bidding to grant the license, for which, if it has performed its obligations, Metrogas will have the option to equal the best bid made to the Government by a third party.

Generally, upon the termination of a License due to completion of its time period, Metrogas will be entitled to a consideration equal to the value of the designated assets or to the amount paid by the successful bidder in a new call for tenders, whichever is lower.

Metrogas has various obligations under the Gas Law, including the obligation to comply with all reasonable requests within its service area. A service request will not be deemed reasonable if it were uneconomic for a distribution company to undertake the requested service. Metrogas is obliged to operate and maintain its facilities in a safe manner, which may require certain investments to replace or upgrade its facilities pursuant to the License.

The License specifies other obligations of Metrogas, including the obligation to provide a distribution service, to maintain continuous service, to operate the system in a prudent manner, to maintain the distribution network, to make the Mandatory Investments, to keep certain accounting records and to provide certain regular reports to the ENARGAS.



34. MAIN REGULATIONS AND OTHER (Cont.)

The License may be revoked by the Argentine Government, upon recommendation from the ENARGAS, in the following cases:

- Serious and repeated failure by Metrogas to meet its obligations.
- Total or partial interruption in the uninterruptible service for reasons attributable to Metrogas for a term exceeding the periods set forth in the License in one calendar year.
- Sale, disposition, transfer and encumbrance of Metrogas Core Assets, without the prior authorization of the ENARGAS, except where the said encumbrance is used to finance extensions and improvements to the gas pipeline system.
- Bankruptcy, dissolution or liquidation of Metrogas. The bankruptcy proceedings did not affect the normal course of Metrogas operations, and therefore, could not be the reason for the revocation of the Metrogas License.
- Ceasing the provision of the services provided for in the License, or the attempt to unilaterally assign or transfer, in whole or in part (without the previous authorization of the ENARGAS), or the waiver of, other than as permitted.
- Transfer of the Technical Assistance Contract or the delegation of the duties specified in the Contract, without the previous authorization of the ENARGAS, during the first ten years from License granting.

In relation to restrictions, the License provides that Metrogas will not assume its parent company's debts or grant credits or encumber assets to secure debt of, or award any other benefit to, its parent company's creditors.

- **Tariff renegotiation**

On January 7, 2002, the Emergency Law and Exchange Regime Reform No. 25,561 ("Emergency Law") was published in the BO affecting the legal framework for license contracts of public utility companies.

The main provisions of the Emergency Law that affected the License granted to Metrogas by the Argentine Government and modified express dispositions of the Gas Law were: The "pesification" of the tariffs established in U.S. dollars convertible at the exchange rate specified in the Convertibility Law (Law No. 23,928), the prohibition of tariff adjustment based on any foreign index, thereby preventing the application of the international index fixed in the Regulatory Framework (Producer Price Index -PPI- of the United States) and the renegotiation of the License granted to Metrogas in 1992.

Likewise, the Emergency Law ordered the renegotiation of public services contracts awarded by the PEN, and that public utility companies were bound to continue performing all their duties.

The Emergency Law, which originally expired in December 2003, was successively extended to December 31, 2017, altogether with the terms for license renegotiation and public services concessions.

Within the framework of the renegotiation process, Metrogas executed a number of agreements with the various entities on behalf of the Argentine Government.

The agreements entered into and in force as of December 31, 2019 are described below:

- i. Memorandum of Understanding for the Natural Gas Distribution License Contract (also known as "Memorandum of Comprehensive Understanding")

On March 30, 2017, and within the framework of the renegotiation process of the public service contracts established by the Emergency Law, its extensions and Decrees No. 367/2016 and N° 2/2017, Metrogas subscribed with the MINEM and with the Ministry of Finance, a Memorandum of Agreement for the Adaptation of the Natural Gas Distribution License Agreement (which contains the terms of the comprehensive renegotiation and conditions for the adjustment of the License Agreement. The Memorandum of Comprehensive Agreement is based on the 2008 Transitional Agreement, the 2014 Transitional Agreement, the 2016 Transitional Agreement and the 2017 Transitional Agreement.

34. MAIN REGULATIONS AND OTHER (Cont.)

The provisions contained in the Memorandum of Comprehensive Agreement, will applied during the contractual period ranging from January 6, 2002 and the termination of the License Agreement.

A series of guidelines by the RTI process were established in the terms provided for therein.

Finally, the Memorandum of Comprehensive Agreement provides for the Company's commitment to make, during the effective term of the License, plus its potential ten-year extension and within the area of its License, additional sustainable investments equivalent to the amount of the award rendered in the arbitration proceedings in re: "BG Group Plc. vs. The Argentine Republic (UNC 54 KGA)" with the proportional abatement percentage that would have been established in the payment agreement and excluding the amounts corresponding to the default interest on the payment of the award. The amount and the plan for additional investments will be determined by ENARGAS at the proposal of Metrogas and they will not be included in the rate base.

Regarding the entry into force of the RTI, it was established that it would not exceed December 31, 2017. However, if ENARGAS provides for the phased and progressive application of the tariff increase resulting from the RTI, the application of the last step could not exceed April 1, 2018.

With respect to those Licensees whose Memorandum of Agreement had not entered into force, the ENARGAS was instructed to apply to them a temporary adjustment of tariffs on account of the RTI, taking into consideration, to such effects, the studies carried out under such RTI in compliance with the provisions set forth in Article 1 of MINEM Resolution No. 31/2016.

On March 28, 2018, Decree No 252/2018 was published in the BO whereby the PEN ratifies the Memorandum of Comprehensive Agreement entered into by MINEM, the Ministry of Economy and Metrogas.

ii. Tariff schemes

On March 30, 2017, the MINEM instructed the ENARGAS, through Resolution No. 74—E/2017, to put into effect the tariff schemes resulting from the RTI process.

In this regard, it set forth that for the gradual and progressive implementation of this measure, the ENARGAS should apply on a progressive basis, the rate increases resulting from the RTI as follows: 30% of the increase, from April 1, 2017, 40% of the increase, as of December 1, 2017, and the remaining 30%, as of April 1, 2018.

Moreover, and for cases in which the corresponding Memorandum of Comprehensive Agreement had not entered into force, it instructed the ENARGAS to apply to the Licensees (including Metrogas) a transitory tariff adjustment because of the RTI.

On March 31, 2017, ENARGAS Resolution No. 4,356/2017 was published in the BO through which the tariff schemes resulting from the Metrogas RTI, effective as of April 1, 2017 and the temporary tariff schemes applicable to Metrogas users were approved.

In addition, ENARGAS Resolution No. 4,356/2017 approved: (i) the technical economic studies of Metrogas' RTI, (ii) the non-automatic Semi-Annual Adjustment Methodology to become effective jointly with the License Readjustment Memorandum of Agreement and (iii) the Metrogas Investment Plan for the next five-year term.

On October 24, 2017, and through ENARGAS Resolution No. 74/2017, a public hearing was called for November 15, 2017 in order to consider the transitory tariff adjustment effective as of December 1, 2017, corresponding to Metrogas.

On December 1, 2017, the BO published: (i) ENARGAS Resolution No. 131/2017 that ordered (a) to declare the validity of the Public Hearing called by ENARGAS Resolution No. 74/2017; (b) to approve the Metrogas temporary tariff scheme applicable as of December 1, 2017; and (c) to approve new values for the Rates and Charges received by Metrogas for Additional Services; and (ii) ENARGAS Resolution N° 132/2017 that provides for a bonus to be implemented by Metrogas in favor of certain users who (a) record savings in their consumption; or (b) are beneficiaries of the Social Tariff.

34. MAIN REGULATIONS AND OTHER (Cont.)

On January 31, 2018, ENARGAS Resolution No. 249/2018 was published in the BO, which called for a public hearing to be held on February 22, 2018 to consider (i) the application of the Semi-Annual Tariff Adjustment Methodology, if applicable, for the adjustment of Metrogas tariffs; (ii) the application of the transfer to tariffs of the price of the purchased gas; and (iii) methodological alternatives for a more predictable billing of residential users' consumption.

On March 28, 2018, ENARGAS Resolution No. 300/2018 was published in the BO declaring the Public Hearing No. 94 valid, approving the final tariff schedules applicable as of April 1, 2018 and approving the new Fees and Charges received by Metrogas for additional services.

On October 8, 2018, FC ENARGAS Resolution No. 281/2018 was published in the BO declaring the validity of Public Hearing No. 96, approving Metrogas Tariff Schedules, effective from its publication and approving the new Fees and Charges received by Metrogas for additional services.

Subsequently, FC ENARGAS Resolution No. 292/2018 issued on the BO on October 12, 2018, rectified the tariff schedules of the aforementioned FC ENARGAS Resolution No. 281/2018, with retroactive application as of October 8, 2018, the date on which this Resolution was published.

SGE Resolution No. 148/2019, published on April 1, 2019, established discounts of 27% and 12% in the price of gas at the TSEP for natural gas and undiluted propane gas through networks to residential users, for the months of April and May consumptions, respectively. In its recitals, this Resolution provides that the discount for residential users will bear the corresponding reimbursement to gas providers, pursuant to the methodology and with the prior controls to be established on a timely basis. On May 30, 2019, SGE Resolution No. 299/2019, supplementary to the previous one, was published, establishing that natural gas and undiluted propane gas through networks providers shall bill the volume of delivered gas for its distribution to beneficiary users with the deductions in the price of gas established as discounts, and approved the methodology applicable to the declaration, verification, determination and payment of the compensation to gas providers by reason of the discount applied to the price of gas at the TSEP.

Likewise, ENARGAS Resolution No. 198/2019, published on April 1, 2019, declared Public Hearing No. 98 valid, approved Metrogas Tariff Schemes effective as of April 1, 2019 (winter period 2019) and approved the new fees and charges.

On June 24, 2019, SGE Resolution No. 336/2019 was published, establishing the deferral of payment for residential users of natural gas and undiluted propane gas through networks of 22% in invoices issued from July 1, 2019 to October 31, 2019, which will be recovered from regular invoices issued from December 1, 2019 and for five monthly, equal and consecutive periods. This Resolution also determined that the financial cost of such deferral (calculated in respect of the original payment due dates of the invoices and the due dates of the invoices in which each recovery fee is included) would be assumed by the National Government as a subsidy, through the payment of interest to distributors, sub-distributors, transporters and producers, applicable, to such end, at the rate for 30- or 35-day deposits of twenty million Pesos or higher, known as TM20, published by the BNA. On July 3, 2019, ENARGAS Resolution No. 359/2019 was published, instructing Licensees of the Natural Gas Distribution Service to apply the deferral established by SGE Resolution No. 336/2019, and in accordance with the commercial guidelines set forth in ENARGAS Resolution No. 359/2019.

On August 23, 2019, SGE Resolution No. 488/2019 was published which: i) approved the methodology for deferral of payments for residential users of natural gas and undiluted propane through networks in invoices issued from July 1, 2019 to October 31, 2019, established in Resolution No. 336/2019, and the deferral of payment of interest; and ii) instructed the UHaF to administer, execute and implement under its control the compensation procedure established and required ENARGAS to refer to the UHaF the reports contemplated in the methodology approved.

34. MAIN REGULATIONS AND OTHER (Cont.)

On September 4, 2019, SGE Resolution No. 521/2019 was published, which, among its most relevant aspects, provided: i) to defer the semi-annual adjustment of the margins of natural gas transportation and distribution, scheduled for October 1, 2019, to January 1, 2020; ii) to compensate the licensees of the natural gas transportation and distribution service by reviewing and adapting—in the exact incidence- their mandatory investments; iii) to include in the deferral the rates of undiluted propane through networks, which will be compensated, in the case of distribution licensees, by adapting mandatory investments, and in the case of sub-distributors, the compensation will be recognized to the suppliers of propane as a discount to be paid by the National Government; and iv) to defer the tariff adjustment due to the variation in the price of gas at the TSEP scheduled for October 1, 2019, to January 1, 2020.

On November 25, 2019, SGE Resolution No. 751/2019 was published in the BO, establishing the deferral of the semi-annual adjustment of the transportation and distribution margins scheduled for October 1, 2019 to February 1, 2020, for which purpose, on this occasion, the respective adjustment index shall be used to reflect the price variation from February to August 2019.

Subsequently, on December 5, 2019, SGE Resolution No. 791/2019 was published in the BO, which amended section 5 of SGE Resolution No. 521/2019, establishing the deferral of the gas price variation adjustment at the TSEP scheduled for October 1, 2019 to February 1, 2020.

iii. Procedure for the compensation of the lower revenues that the Distributors receive from their users for benefits and / or bonuses and for higher costs of unaccounted gas

MINEM Resolution No. 508-E/2017, published on December 29, 2017, established the procedure for the compensation of the lower revenues that the Licensees of the Natural Gas Distribution Service through Networks receive from their users, as a product of: (i) the application of benefits and/or discounts to users arising from the regulations in force in the tariff area of the distribution service of natural gas through networks, and (ii) the higher UNG costs compared to those established for its recognition in the rates, applicable as of January 1, 2018.

On December 7, 2018, ENARGAS communicated to the National Hydrocarbon Economy Department certain observations to the procedure established by MINEM Resolution No. 508-E/2017. Based on such observations, the SGE did not recognize the adjustment provided for in MINEM Resolution No. 508-E/2017 regarding UNG. Additionally, ENARGAS determined that all amounts received starting on January 2018 through such date were of a provisional nature and had to be set off with the amounts owed by the SGE to Metrogas. Moreover, the adjustments to actual values established by such procedure for the same period, and the excess in costs incurred from December 2018 to December 2019 were not recognized either. The impact of the adjustment on the consolidated financial statements as of December 31, 2019 represented a loss of 622.

iv. Amendment to Basic Rules for the Distribution License

On March 28, 2018, MINEM Resolution No. 91/2018 was published in the BO. Such resolution unifies the terms for the adjustment due to variations in prices of the purchased gas or seasonal adjustment and the six-month adjustment of tariffs, providing that once the transition period has elapsed, adjustments shall be seasonal, for the periods between April 1 to September 30 of each year, and between October 1 and March 31 of the following year.

34. MAIN REGULATIONS AND OTHER (Cont.)

- **Law No. 27,541 on Social Solidarity and Production Reactivation within the Public Emergency Framework**

On December 23, 2019 Law No. 27,541 on Social Solidarity and Production Reactivation was published in the BO, which empowered the National Executive Branch to maintain natural gas tariffs under its federal jurisdiction and to initiate a renegotiation process of the current RTI or to initiate an extraordinary revision pursuant to the terms of Laws No. 24,065, No. 24,076 and other related regulations, from the date such law entered into force and for a maximum term of 180 days, seeking a real reduction of the tariff burden on households, businesses and industries for the year 2020. Also, the Law established that the National Executive Branch had administrative powers to intervene the ENARGAS for a term of 1 year.

- **Note of ENARGAS relating to the equity interest of YPF in Metrogas**

The Company has received from Metrogas a copy of the note received by it from ENARGAS, requesting it to adjust Metrogas' equity structure in line with the term provided for in Emergency Law No. 25,561 and in compliance with Section 34 of Law 24,076. In this regard, it should be noted that YPF indirectly acquired 70% of Metrogas equity, in a transaction that was approved by ENARGAS Resolution No. 1/2,566 dated April 19, 2013; and, following the merger with YPF Inversora Energética S.A. and Gas Argentino S.A., is the holder of 70% of Metrogas shares.

On March 30, 2017, YPF filed an appeal for reconsideration requesting that the ENARGAS Note be revoked and a new decision be rendered setting a reasonable timeframe consistent with the current reality of the gas market to comply with the provisions set forth in article 34 of Law 24,076.

On June 15, 2017, YPF submitted to ENARGAS a tentative schedule for the process of adapting its equity interests in Metrogas, which was expanded in detail on July 3, 2017. Such presentation does not imply withdrawal of the aforementioned appeal.

On April 5, 2018, ENARGAS rejected the reconsideration petition filed by YPF on March 30, 2017. ENARGAS' decision was notified to YPF on April 6, 2018 by means of ENARGAS Resolution No. 313/2018.

YPF requested examination of the proceedings, which was granted by ENARGAS on September 10, 2018, which in turn enabled the company to file an appeal in time.

On October 8, 2018, YPF filed an appeal for resolution by the SGE. As of the date of issuance of these consolidated financial statements, this appeal is pending resolution.

34.i) Regulatory requirements applicable to the petroleum liquid gas industry

- **Benchmark prices for the butane commercialization chain**

On April 5, 2017, the SRH published Resolution No. 56-E/2017 in the BO, establishing new maximum benchmark prices for the different segments of the butane commercialization chain to be bottled in 10, 12 and 15 kg bottles under the Household Program (Decree No. 470/2015 and former Energy Secretariat Resolution No. 49/2015), and modifying the benchmark prices established in former Energy Secretariat Resolution No. 70/2015.

On June 7, 2017, the SRH published Resolution No. 75/2017 in the BO, which modifies the regulations applicable to the Household Program (former Energy Secretariat Resolution No. 49/2015) and provides that the adjustment of benchmark prices applicable to the different segments of the butane commercialization chain to be bottled in 10 and 12 kg bottles will not be implemented automatically in quarterly periods. Instead, those adjustments will be made at the discretion of the SRH in its capacity as enforcement authority of the Household Program. In addition, the resolution establishes that the adjustment of benchmark prices for LPG producers and fractionators on account of the RTI established by the Household Program in its regulations will take place only after the prior analysis of cost variations and their incidence, and taking into account regional, distribution and logistical factors.

MINEM Resolution No. 287-E/2017, published on December 1, 2017, established new maximum benchmark prices and compensations for butane and propane producers effective from December 1, 2017, and introduced amendments to the Annex to the Regulation of the Bottle-to-Bottle Program approved by Resolution No. 49/2015, which, among other things prohibited charging the distributors for any additional service whatever its denomination, if in doing so the maximum benchmark prices and the maximum allowed deviations are exceeded.

34. MAIN REGULATIONS AND OTHER (Cont.)

Regulation No. 5/2018 of the Under-Secretariat of Hydrocarbon Resources was published on March 28, 2018, which established new maximum reference prices for the commercialization of butane for the sale of bottled LPG, effective as of April 1, 2018.

SGE Resolution No. 15/2019, published on January 28, 2019, updated benchmark prices (at the producer's plant) for the commercialization of butane and propane effective as of February 1, 2019 and set the economic compensation to producers at Pesos 0 from the same date.

Regulation No. 29/2019 issued by the UHaF, published on April 24, 2019, replaced section VI of the Annex to Resolution 49/2015 of former Secretariat of Energy, in relation to the methodology to determine the contributions of butane and propane by producing companies and the quotas assigned to the fractionating companies.

On June 27, 2019, Regulation No. 104/2019 issued by the UHaF was published in the BO, which established the reference prices and compensations for butane and propane producers, effective as of July 1, 2019. In this respect, Regulation No. 80/2019 issued by the Under-Secretariat of Hydrocarbons and Fuels established new compensation amounts for residential users of bottled butane that were included in the record of subsidized beneficiaries.

34.j) Tax Regulations

- **Tax Reform**

Laws No. 27,430 and No. 27,432 were published in the BO on December 29, 2017, and significantly modified several taxes. The main modifications are the following:

- Income tax

- Corporate tax rate and withholdings on dividends

The general income tax rate applicable to limited companies (*sociedades de capital*) is reduced from the current 35% to 30% for fiscal years beginning January 1, 2018 and ending December 31, 2019, inclusive, and to 25% for those fiscal years beginning January 1, 2020 onwards.

Moreover, a new withholding on dividends is established, which will be 7% for those fiscal years beginning on January 1, 2018 and ending on December 31, 2019, and 13% for those fiscal years beginning on or after January 1, 2020 onwards.

Finally, the tax equalization (a 35% withholding is applicable when dividends exceed the amount of the taxable income) is no longer applied on the income accrued as of January 1, 2018.

With regard to the general income tax rate and withholding of dividends, the modifications related to these items, established for the fiscal year beginning on January 1, 2020, were suspended by Law No. 27,541 until the fiscal year beginning on January 1, 2021. See the "Social Solidarity and Production Reactivation Law" section.

- Capital gains for foreign beneficiaries

The new law establishes a 15% withholding on capital gains derived from the sale of shares or other similar securities (calculated on the actual or presumed gains equivalent to 90% of the sale price). The law establishes an exemption applicable to foreign beneficiaries who sell listed shares under the supervision of the CNV. Furthermore, an exemption is established for the interest and sale results of government bonds, NO and ADRs. These exemptions will only apply to non-resident foreign beneficiaries whose funds do not derive from non-cooperating jurisdictions. Finally, such exemption does not apply to those benefits derived from the securities known as Lebac.

In the case of ADRs, the law specifies that the source thereof is determined by the residence of the issuer of the respective shares.

34. MAIN REGULATIONS AND OTHER (Cont.)

- Indirect transfers made by the Foreign Beneficiaries

The law establishes a tax on the indirect sale of assets located in Argentina. In particular, such tax will be levied on sales or transfers made by foreigners who own a company also abroad that owns assets in the country, when such assets are significant, i.e., when the following conditions are met: (i) at least 30% of the value of the shares in the foreign company derives from assets located in Argentina; and (ii) the transferred shares represent at least 10% of the assets of the foreign company.

The applicable rate will be 15% (calculated on real net profit or presumed net profit equivalent to 90% of the sale price) in the proportion corresponding to Argentine assets. It is applicable to indirect transfers over assets acquired after January 1, 2018.

- Costs for the abandonment of hydrocarbon wells

The deduction of well abandonment expenses is admitted as they are considered as an integral part of the computable cost of the investments in wells, those costs intended to satisfy the technical and environmental requirements by the concessionaire and/or permit holder required by the enforcement authority. They will be included from the date on which such obligations arise in accordance with current regulations, regardless of the fiscal year in which the effective disbursement is made.

- Other modifications

It replaces the tax transparency rules contemplating broader situations and introduces the presumed dividend concept.

Moreover, it ratifies the taxability of the sales of shares of Argentine companies made by non-residents as of the effectiveness of Law 26,983, although it establishes the taxation of results in the cases of sales made through stock exchanges or similar markets, when the stockbroker did not withhold the tax.

- Tax revaluation

The regulation establishes that, at the option of the companies, tax revaluation of assets is permitted for assets located in Argentina and that are affected to generation of taxable profits. The special tax on the amount of the revaluation depends on the asset, being 8% for real estate not classified as inventories, 15% for real estate classified as inventories, 5% for shares, quotas and equity interests owned by individuals and 10% for the rest of the assets. The gain generated by the revaluation is exempted according to article 291 of Law 27,430, and the additional tax generated by the revaluation is not deductible.

On March 28, 2019, the Company adhered to the tax revaluation established in Law No. 27,430 for the “Mines, quarries, forests and analogue assets” category, establishing a special tax of 4,562. The adherence will allow a higher deduction of the depreciation of the assets revaluated in the income tax, and therefore will affect the recording of the deferred income tax. See Note 16.

- Tax on Fuels

The main modifications are the following:

- A new tax is introduced: tax on carbon dioxide, which added to the tax on fuels as of the date of publication of the rule provided tax burden similar to the previous one.
- Both taxes are levied based on a fixed amount per liter adjusted for CPI on a quarterly basis. In the case of carbon dioxide, two new products are incorporated: petroleum coke and mineral coal.

34. MAIN REGULATIONS AND OTHER (Cont.)

- Tax on bank debit and credits

The PEN may fix the tax percentage to be computed as payment on account of the income tax, which will be progressively increased by up to 20% per fiscal year starting on January 1, 2018, and it may also establish that this tax will be fully computed as payment on account of the income tax in 2022.

On May 7, 2018, by means of Decree No. 409/2018, the PEN provided that 33% of the amounts debited from the tax may be computed both for account credits and debits.

- VAT

A system of refund of tax paid for investments in fixed assets is established, subject to the future generation of tax debits, in order to reduce the financial cost generated by the accumulation of tax credits for new investments.

- Social Security

There will be a minimum monthly salary exempt from employer contributions, while the rate of the same will be unified around 19.5%, although VAT tax credits will be eliminated for employment in secondary areas. These changes will occur by 2022, gradually converging from the current situation.

- **Social Solidarity and Productive Reactivation Law**

On December 23, 2019, Law No. 27,541 known as the “Social Solidarity and Production Reactivation Law” was published in the BO, which declared a public emergency in economic, financial, tax, administrative, pension, tariff, energy, health and social matters. The major tax modifications are listed below:

- Income Tax

The Law established the suspension of the income tax rate reduction from 30% to 25% until the fiscal year beginning on January 1, 2021, as well as the modification of the dividend withholding rate from 13% to 7% until the same date.

On the other hand, 1/6 of the positive or negative adjustment for inflation provided for in Title VI of the Income Tax Law, for the first and second fiscal years beginning on January 2019, shall be registered in such fiscal year, and the remaining 5/6 in equal parts over the immediately following five fiscal years.

- Personal assets Tax

The Law established an increase in the tax rate applicable to shares and ownership interests - substitute taxpayer regime - from 0.25% to 0.50%.

- Export duties

Decree No. 37/2019 published on December 14, 2019, eliminated the cap of 4 Pesos per each US Dollar of the taxable amount of FOB price as export duty established by Decree No. 793/2018, and established a general rate of 12% applicable to hydrocarbon exports.

However, section 52 of Law No. 27,541 provided that, export duties on hydrocarbon and mining exports shall not exceed 8% of the taxable amount or the official FOB price. As of the date of issuance of these consolidated financial statements, governmental authorities have not issued regulations on this matter, and the General Directorate of Customs continues to determine export duties in accordance with the rates that were in force prior to entry into force of Law No. 27,541.

34. MAIN REGULATIONS AND OTHER (Cont.)

34.k) Other regulatory requirements

- **CNV Regulatory Framework (N.T. 2013)**

a) CNV General Resolution No. 622

- i. Pursuant to section 1, Chapter III, Title IV of such Resolution, a description of the notes to the consolidated financial statements containing information required under the Resolution in the form of exhibits follows.

Exhibit A – Fixed Assets	Note 8 Property, plant and equipment
Exhibit B – Intangible assets	Note 7 Intangible assets
Exhibit C – Investments in companies	Note 10 Investments in associates and joint ventures
Exhibit D – Other investments	Note 6 Financial instruments by category
Exhibit E – Provisions	Note 13 Trade receivables Note 12 Other receivables Note 10 Investments in associates and joint ventures Note 8 Property, plant and equipment Note 7 Intangible assets Note 15 Provisions
Exhibit F – Cost of goods sold and services rendered	Note 24 Costs
Exhibit G – Assets and liabilities in foreign currency	Note 37 Assets and liabilities in currencies other than the Peso

- ii. On March 18, 2015, the Company was registered with the CNV under the category “Settlement and Clearing Agent and Trading Agent - Own account”, record No. 549. Considering the Company’s business, and the CNV Rules and its Interpretative Criterion No. 55, the Company will not, under any circumstance, offer brokerage services to third parties for transactions in markets under the jurisdiction of the CNV, and it will also not open operating accounts to third parties to issue orders and trade in markets under the jurisdiction of the CNV.

Moreover, in accordance with the amendment to the CNV Rules provided for by General Resolution No. 731/2018, the Company is subject to the provisions of Section 5 b.1 of Title VII, Chapter II, of the CNV Rules, “Settlement and Clearing Agent - Direct Participant”. In this respect, as set forth in Section 13, Title VII, Chapter II, of the CNV Rules, as of September 30, 2019, the equity of the Company exceeds the minimum equity required by such Rules, which amounts to 18. Additionally, the balancing entry requirement established in Section 15 does not apply to the Company, as established in Section 5 b.1 of the aforementioned regulations.

b) CNV General Resolutions No. 629/2014 and No. 813/2019

Due to General Resolutions No. 629/2014 and No. 813/2019 of the CNV, the Company informs that supporting documentation of YPF’s operations, which is not in YPF’s headquarters, is stored in the following companies:

- Adea S.A. located in Barn 3 – Route 36, Km. 31.5 – Florencio Varela – Province of Buenos Aires.
- File S.R.L., located in Panamericana and R.S. Peña – Blanco Encalada – Luján de Cuyo – Province of Mendoza.

Additionally, it is placed on record that the detail of the documentation given in custody is available at the registered office, as well as the documents mentioned in section 5, subsection a.3, Section I, Chapter V, Title II of the CNV Rules.

35. BALANCES AND TRANSACTIONS WITH RELATED PARTIES

The information detailed in the tables below shows the balances with associates and joint ventures as of December 31, 2019, 2018 and 2017 and transactions with the mentioned parties for the years ended on such dates.

YPF SOCIEDAD ANONIMA
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2019, 2018 AND 2017

35. BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)

	2019				2018				2017						
	Other receivables Current		Trade receivables Current		Accounts payable Current		Contract liabilities Current		Other receivables Current		Trade receivables Current		Accounts payable Current		
	Revenues	Purchases and services	Net interest income (loss)	Revenues	Purchases and services	Net interest income (loss)	Revenues	Purchases and services	Net interest income (loss)	Revenues	Purchases and services	Net interest income (loss)	Revenues	Purchases and services	Net interest income (loss)
Joint ventures:															
Profertil	12	587	114	—	2	461	428	107	239	215					
MEGA	—	2,995	350	—	—	2,441	6	—	925	149					
Refinor	—	956	123	—	—	770	5	—	224	8					
Bizoy S.A.	—	17	—	—	11	—	—	5	—	—					
Y-GEN I	—	—	—	—	—	2	—	57	—	—					
Y-GEN II	—	—	—	—	—	—	—	22	—	—					
YPF EE(1)	296	2,278	2,183	679	218	1,552	1,301	—	—	—					
Petrofaro S.A.	—	6	—	—	—	267	151	—	35	51					
OLCLP	56	59	70	—	1,884	—	—	—	—	—					
	364	6,898	2,840	679	2,115	5,493	1,891	191	1,423	423					
Associates:															
CDS	—	1,063	—	—	—	518	—	—	122	—					
YPF Gas	90	317	73	—	637	414	62	589	230	15					
Oldelval	—	77	401	—	—	34	272	—	—	131					
Termap	—	—	182	—	—	—	102	—	—	52					
OTA	9	—	14	—	5	—	14	—	—	5					
OTC	4	—	—	—	7	—	—	5	—	—					
GPA	—	—	99	—	4	—	80	4	—	19					
Oilbanking	—	—	198	—	21	—	147	—	—	96					
Gas Austral S.A.	—	12	1	—	2	16	—	2	7	—					
	103	1,469	968	—	676	982	677	600	359	318					
	467	8,367	3,808	679	2,791	6,475	2,568	791	1,782	741					
		2019				2018				2017					
Joint ventures:															
Profertil	4,418	3,044	—	2,751	1,964	—	906	901	—	—					
MEGA	10,672	1,854	—	8,150	438	—	4,058	814	—	—					
Refinor	3,310	481	(16)	2,594	323	—	838	225	10	—					
Bizoy S.A.	—	—	—	—	—	—	1	—	—	—					
Y-GEN I	5	—	—	4	—	—	34	—	—	—					
Y-GEN II	—	—	—	—	—	—	41	—	—	—					
YPF EE(1)	5,016	3,862	—	2,064	1,548	47	—	—	—	—					
Petrofaro S.A.	9	23	—	223	150	—	33	58	—	—					

35. BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)

Additionally, in the normal course of business, and considering being the main energy group in Argentina, the Group's client/suppliers portfolio encompasses both private sector entities as well as national public sector entities. As required by IAS 24 "Related party disclosures", among the major transactions above mentioned the most important are:

Customers / Suppliers	Ref.	Balances			Transactions		
		Credits / (Liabilities)			Income / (Costs)		
		2019	2018	2017	2019	2018	2017
SGE	(1) (16)	26,223	26,978	13,417	—	—	12,840
SGE	(2) (16)	3,416	1,211	—	5,684	1,376	—
SGE	(3) (16)	155	282	190	657	347	191
SGE	(4) (16)	166	192	162	7	107	119
SGE	(5) (16)	475	—	—	475	—	—
SGE	(6) (16)	172	1,255	—	995	3,447	—
SGE	(7) (16)	4,417	3,535	—	361	4,149	—
Ministry of Transport	(8) (16)	2,056	3,044	840	5,923	9,192	5,402
Secretariat of Industry	(9) (16)	—	—	24	688	—	188
CAMMESA	(10)	627	3,822	4,444	6,650	18,029	17,569
CAMMESA	(11)	386	(444)	(316)	(3,778)	(3,272)	(2,090)
IEASA	(12)	5,041	4,326	698	11,994	7,600	2,920
IEASA	(13)	(505)	(745)	(1,591)	(462)	(1,156)	(214)
Aerolíneas Argentinas S.A. and Austral Líneas Aéreas Cielos del Sur S.A.	(14)	5,033	3,454	946	16,036	8,710	4,300
Aerolíneas Argentinas S.A. and Austral Líneas Aéreas Cielos del Sur S.A.	(15)	—	—	—	—	(21)	(28)

- (1) Benefits for the Stimulus Programs for the Additional Injection of Natural Gas.
- (2) Benefits for the Stimulus Program for Investments in Natural Gas Production Developments from Non-Conventional Reservoirs.
- (3) Benefits for the propane gas supply agreement for undiluted propane gas distribution networks.
- (4) Benefits for the bottle-to-bottle program.
- (5) Benefits for recognition of the financial cost generated by payment deferral by providers of the distribution service of natural and undiluted propane gas through networks.
- (6) Procedure to compensate for the lower income that Natural Gas Piping Distribution Service Licensed Companies receive from their users for the benefit of Metrogas.
- (7) Procedure to compensate the payment of the daily differences accumulated on a monthly basis between the price of the gas purchased by Natural Gas Piping Distribution Service Companies and the price of the natural gas included in the respective tariff schemes for the benefit of Metrogas.
- (8) The compensation for providing diesel to public transport of passengers at a differential price.
- (9) Incentive for domestic manufacturing of capital goods, for the benefit of AESA.
- (10) The provision of fuel oil and natural gas, and electric power generation corresponding to YPF EE until the date of loss of control by YPF.
- (11) Purchases of energy. As of December 31, 2019, the Group has a credit balance for energy purchases.
- (12) Sale of natural gas and provision of regasification service in the regasification projects of LNG in Escobar. Likewise, for the ten months period as of December 31, 2018 and for the fiscal year ended December 31, 2017, it also included the regasification projects of LNG in Bahía Blanca.
- (13) The purchase of natural gas and crude oil.
- (14) The provision of jet fuel.
- (15) The purchase of miles for the YPF Serviclub program.
- (16) Income recognized under the guidelines of IAS 20.

Additionally, the Group has entered into certain financing and insurance transactions with entities related to the national public sector. Such transactions consist of certain financial transactions that are described in Notes 14 and 20 and transactions with Nación Seguros S.A. related to certain insurance policies contracts.

On the other hand, the Group holds BONAR 2020 (see Note 34.g) and 2021, classified as "Investments in financial assets".

Furthermore, in relation to the investment agreement signed between YPF and Chevron subsidiaries, YPF has an indirect non-controlling interest in CHNC with which YPF carries out transactions in connection with the mentioned investment agreement. See Note 33.b.



35. BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)

The table below discloses the compensation for the YPF's key management personnel, including members of the Board of Directors and Vice Presidents (managers with executive functions appointed by the Board of Directors), for the years ended December 31, 2019, 2018 and 2017:

	2019	2018	2017
Short-term employee benefits ⁽¹⁾	515	337	221
Share-based benefits	123	55	34
Post-retirement benefits	22	14	10
Termination benefits	—	—	109
	<u>660</u>	<u>406</u>	<u>374</u>

(1) Does not include Social Security contributions of 133, 66 and 50 for the years ended December 31, 2019, 2018 and 2017, respectively.

36. EMPLOYEE BENEFIT PLANS AND SIMILAR OBLIGATIONS

Note 2.b.10 describes the main characteristics and accounting treatment for benefit plans implemented by the Group.

i. Retirement plan

The total charges recognized under the Retirement Plan amounted to approximately 133, 87 and 80 for the years ended December 31, 2019, 2018 and 2017, respectively.

ii. Objective performance bonus programs and performance evaluation programs

The amount charged to expense related to the programs described was 3,790, 2,141 and 1,650 for the years ended December 31, 2019, 2018 and 2017, respectively.

iii. Share-based benefit plan

Consistent with share-based benefit plans approved in previous years, the Board of Directors:

- at its meeting held on June 11, 2014, approved the creation of a new share-based benefit plan 2014-2017 effective for 3 years from July 1, 2014 (grant date), with similar characteristics to those of the 2013-2015 plan.
- at its meeting held on June 8, 2015, approved the creation of a new share-based benefit plan 2015-2018 effective for 3 years from July 1, 2015 (grant date), with similar characteristics to existing plans.
- at its meeting held on May 10, 2016, approved the creation of a new share-based benefit plan 2016-2019 effective for 3 years from July 1, 2016 (grant date), with similar characteristics to the previously implemented schemes.
- at its meeting held on May 9, 2017, approved the creation of a new shared-based benefit plan for 2017-2020 effective for 3 years from July 1, 2017 (grant date), with similar characteristics to the previously implemented schemes.
- at its meeting held on May 8, 2018, approved the creation of a new shared-based benefit plan for 2018-2021 effective for 3 years from July 1, 2018 (grant date), with similar characteristics to the previously implemented schemes.
- at its meeting held on May 9, 2019, approved the creation of a new shared-based benefit plan for 2019-2022 effective for 3 years from July 1, 2019 (grant date), with similar characteristics to the previously implemented schemes.

The amounts charged to expense in relation to the share-based plans, which are disclosed according to their nature, amounted to 493, 308 and 162 for the fiscal years ended December 31, 2019, 2018 and 2017, respectively.

36. EMPLOYEE BENEFIT PLANS AND SIMILAR OBLIGATIONS (Cont.)

During the fiscal years ended December 31, 2019, 2018 and 2017, the Company has repurchased 411,623, 250,795 and 263,298 of its own shares issued for an amount of 280, 120 and 100, respectively, and has delivered to the beneficiaries of the plan 609,910, 538,252 and 502,996 shares, respectively, for purposes of compliance with the share-based benefit plans. The cost of such repurchases is disclosed in the shareholders' equity under the name of "Acquisition cost of Treasury shares", while the nominal value and its adjustment derived from the monetary restatement made under the Prior Accounting Principles have been reclassified from the accounts "Subscribed capital" and "Adjustment to contributions" to the "Treasury shares" and "Adjustment to treasury shares" accounts, respectively.

Information related to the evolution of the quantity of shares, of the plans at the end of the years ended December 31, 2019, 2018 and 2017, is as follows:

Plan 2014-2017

	2019	2018	2017
Amount at the beginning of the fiscal year	—	—	99,278
- Granted	—	—	6,269
- Settled	—	—	(105,201)
- Expired	—	—	(346)
Amount at end of fiscal year⁽¹⁾	<u>—</u>	<u>—</u>	<u>—</u>
Expense recognized during the fiscal year	—	—	8
Fair value of shares on grant date (in U.S. dollars)	—	—	33.41

(1) The life of the plan in 2017 was 7 months.

Plan 2015-2018

	2019	2018	2017
Amount at the beginning of the fiscal year	—	162,051	339,459
- Granted	—	—	2,682
- Settled	—	(155,385)	(168,814)
- Expired	—	(6,666)	(11,276)
Amount at end of fiscal year⁽¹⁾	<u>—</u>	<u>—</u>	<u>162,051</u>
Expense recognized during the fiscal year	—	12	26
Fair value of shares on grant date (in U.S. dollars)	—	19.31	19.31

(1) The life of the plan in 2018 was 7 months, whereas the remaining life as of December 31, 2017 was 7 months.

Plan 2016-2019

	2019	2018	2017
Amount at the beginning of the fiscal year	183,080	393,972	682,307
- Granted	—	—	—
- Settled	(180,478)	(189,303)	(228,981)
- Expired	(2,602)	(21,589)	(59,354)
Amount at end of fiscal year⁽¹⁾	<u>—</u>	<u>183,080</u>	<u>393,972</u>
Expense recognized during the fiscal year	21	54	59
Fair value of shares on grant date (in U.S. dollars)	16.99	16.99	16.99

(1) The life of the plan in 2019 was 7 months, whereas the remaining life of the plan was 7 months as of December 31, 2018, and between 7 and 19 months as of December 31, 2017.

36. EMPLOYEE BENEFIT PLANS AND SIMILAR OBLIGATIONS (Cont.)

Plan 2017-2020

	2019	2018	2017
Amount at the beginning of the fiscal year	375,552	644,949	—
- Granted	—	—	646,149
- Settled	(182,445)	(193,564)	—
- Expired	(9,906)	(75,833)	(1,200)
Amount at end of fiscal year⁽¹⁾	<u>183,201</u>	<u>375,552</u>	<u>644,949</u>
Expense recognized during the fiscal year	98	142	69
Fair value of shares on grant date (in U.S. dollars)	20.26	20.26	20.26

- (1) The average remaining life of the plan is 7 months as of December 31, 2019, between 7 and 19 months as of December 31, 2018 and between 7 and 31 months as of December 31, 2017.

Plan 2018-2021

	2019	2018	2017
Amount at the beginning of the fiscal year	761,512	—	—
- Granted	—	761,512	—
- Settled	(246,987)	—	—
- Expired	(6,067)	—	—
Amount at end of fiscal year⁽¹⁾	<u>508,458</u>	<u>761,512</u>	<u>—</u>
Expense recognized during the fiscal year	212	100	—
Fair value of shares on grant date (in U.S. dollars)	13.60	13.60	—

- (1) The average remaining life of the plan is between 7 and 19 months as of December 31, 2019 and between 7 and 31 months as of December 31, 2018.

Plan 2019-2022

	2019	2018	2017
Amount at the beginning of the fiscal year	—	—	—
- Granted	758,690	—	—
Amount at end of fiscal year⁽¹⁾	<u>758,690</u>	<u>—</u>	<u>—</u>
Expense recognized during the fiscal year	189	—	—
Fair value of shares on grant date (in U.S. dollars)	9.97	—	—

- (1) The average remaining life of the plan is between 7 and 31 months as of December 31, 2019.

Moreover, the 2019-2022 Plan was supplemented with an additional dollar amount, with the same vesting as the shares, to be paid in pesos at the exchange rate in force on the date of such vesting. This supplement has no significant effects.

37. ASSETS AND LIABILITIES IN CURRENCIES OTHER THAN THE PESO

	2019			2018			2017		
	Amount in currencies other than the Peso	Exchange rate in force ⁽¹⁾	Total	Amount in currencies other than the Peso	Exchange rate in force ⁽¹⁾	Total	Amount in currencies other than the Peso	Exchange rate in force ⁽¹⁾	Total
Noncurrent assets									
<u>Other receivables</u>									
U.S. dollar	1	59.69	60	10	37.50	375	2	18.55	37
Chilean peso	—	—	—	11	0.05	1	—	—	—
Bolivian peso	14	8.58	119	—	—	—	—	—	—
<u>Trade receivables</u>									
U.S. dollar	220	59.69	13,132	489	37.50	18,338	2	18.55	37
Total noncurrent assets			<u>13,311</u>			<u>18,714</u>			<u>74</u>
Current assets									
<u>Other receivables</u>									
U.S. dollar	276	59.69	16,474	191	37.50	7,163	165	18.55	3,061
Euro	4	66.85	267	2	42.84	86	5	22.28	111
Real	—	—	—	—	—	—	—	—	—
Chilean peso	5,241	0.08	419	6,253	0.05	313	4,303	0.03	129
Yen	151	0.55	83	—	—	—	—	—	—
Swiss franc	—	—	—	—	—	—	3	19.04	57
<u>Trade receivables</u>									
U.S. dollar	939	59.69	56,030	907	37.50	34,013	380	18.55	7,049
Chilean peso	17,221	0.08	1,378	15,285	0.05	764	9,836	0.03	295
<u>Investments in financial assets</u>									
U.S. dollar	140	59.69	8,370	292	37.50	10,941	697	18.55	12,936
<u>Cash and cash equivalents</u>									
U.S. dollar	723	59.69	43,172	900	37.50	33,750	526	18.55	9,757
Chilean peso	1,685	0.08	135	1,097	0.05	55	898	0.03	27
Bolivian peso	10	8.58	90	—	—	—	—	—	—
Total current assets			<u>126,418</u>			<u>87,085</u>			<u>33,422</u>
Total assets			<u>139,729</u>			<u>105,799</u>			<u>33,496</u>
Noncurrent liabilities									
<u>Provisions</u>									
U.S. dollar	2,020	59.89	120,968	1,956	37.70	73,741	2,909	18.65	54,253
<u>Lease liabilities</u>									
U.S. dollar	674	59.89	40,388	—	—	—	—	—	—
<u>Loans</u>									
U.S. dollar	6,863	59.89	411,032	6,475	37.70	244,094	6,200	18.65	115,628
Swiss franc	—	—	—	—	—	—	300	19.13	5,731
<u>Other liabilities</u>									
U.S. dollar	12	59.89	699	14	37.70	523	14	18.65	269
<u>Accounts payable</u>									
U.S. dollar	6	59.89	359	3	37.70	113	4	18.65	75
Total noncurrent liabilities			<u>573,446</u>			<u>318,471</u>			<u>175,956</u>
Current liabilities									
<u>Provisions</u>									
U.S. dollar	59	59.89	3,555	73	37.70	2,752	57	18.65	1,063
<u>Taxes payable</u>									
Chilean peso	3,102	0.08	248	1,752	0.05	88	1,524	0.03	46
<u>Salaries and social security</u>									
U.S. dollar	7	59.89	406	6	37.70	226	6	18.65	112
Chilean peso	—	—	—	274	0.05	14	247	0.03	7
<u>Lease liabilities</u>									
U.S. dollar	357	59.89	21,384	—	—	—	—	—	—
<u>Loans</u>									
U.S. dollar	1,229	59.89	73,599	1,206	37.70	45,475	1,647	18.65	30,725
Chilean peso	2,993	0.08	239	—	—	—	—	—	—
Swiss franc	—	—	—	302	38.31	11,563	3	19.13	54

Other liabilities									
U.S. dollar	22	59.89	1,310	12	37.70	452	125	18.65	2,331
Accounts payable									
U.S. dollar	1,181	59.89	70,711	1,087	37.70	40,980	1,149	18.65	21,429
Euro	16	67.23	1,053	21	43.16	906	18	22.45	404
Chilean peso	3,744	0.08	300	2,202	0.05	110	1,826	0.03	55
Bolivian peso	7	8.58	60	—	—	—	—	—	—
Yen	133	0.55	73	13	0.34	4	19	0.17	3
Swiss franc	—	—	—	—	—	—	3	19.13	57
Total current liabilities			<u>172,938</u>			<u>102,570</u>			<u>56,286</u>
Total liabilities			<u>746,384</u>			<u>421,041</u>			<u>232,242</u>

(1) Exchange rate in force at December 31, 2019, 2018 and 2017 according to BNA.

38. SUBSEQUENT EVENTS

On January 24, 2020, the Company issued the following NOs:

- NO Series V denominated and payable in pesos, accruing interest at a variable rate (BADLAR plus 5%) with a twelve-months maturity, in a principal amount of 2,112.
- NO Series VI denominated and payable in pesos, accruing interest at a variable rate (BADLAR plus 6%) with an eighteen-months maturity, in a principal amount of 2,150.
- NO Series VII denominated in dollars and payable in pesos, accruing interest at a fixed rate of 5%, with a twelve-months maturity, in a principal amount of US\$ 9.9 million.
- Additional NO Series XLVI accruing interest at a variable rate (BADLAR plus 6%) maturing on 2021, in a principal amount of 4,105.

On March 4, 2020, the Company issued the following NOs:

- NO Series VIII denominated and payable in dollars, accruing interest at a fixed rate of 5%, with a twelve-months maturity, in a principal amount of US\$ 8.9 million.
- NO Series IX denominated and payable in dollars, accruing interest at a fixed rate of 6%, with a twelve-months maturity, in a principal amount of US\$ 3.9 million.
- Additional NO Series VI accruing interest at a variable rate (BADLAR plus 6%) maturing on July 2021, in a principal amount of 2,856.
- On April 17, 2020, the Company issued the following NOs:
 - NO Series X denominated and payable in pesos, accruing interest at a variable rate (BADLAR plus 3%) with a three-months maturity, in a principal amount of 993.
 - Additional NO Series III denominated and payable in pesos, accruing interest at a variable rate (BADLAR plus 6%) maturing on December 2020, in a principal amount of 496.

Since the start of 2020, there has been a developing outbreak of COVID-19, impacting negatively on demand of refined products in those geographies where severe measures to control the virus spread were taken. Furthermore, during March recent global developments and uncertainty in crude oil supply have caused abnormally large volatility in commodity markets.

Since March 20, 2020, the Argentine Government adopted certain measures in order to protect the general population and fight the disease. These measures imposed a general restriction on the economic activity with some exceptions, which included, among others, price controls, the prohibition of dismissals without just cause and for reasons of lack or reduction of work and force majeure for a period of 60 days, general restriction on displacement during certain periods in Argentina, general travel restrictions, suspension of visas, nation-wide lockdowns, closing of public and private institutions, suspension of sporting events, restrictions to the operation of museums and tourist attractions and extension of holidays. Since the implementation of such measures, the demand of gasoline and diesel has decreased approximately 70% and 40% respectively, as average on a daily basis compared with demand in previous days to the measures, affecting the results of operations and cash flows of the Group.

As of the date of these financial statements, due to uncertainties inherent to the scale and duration of these developments it is not reasonably possible to estimate the final negative impact this pandemic will have in the world economy and its financial markets, in the Argentinean economy, and consequently in the results of operations, cash flows and financial position of the Group.

As of the date of issuance of these consolidated financial statements, there are no other significant subsequent events that require adjustments or disclosure in the financial statements of the Group as of December 31, 2019, or their description in note to these consolidated financial statements, which were not already considered in such consolidated financial statements according to IFRS.

The consolidated financial statements as of December 31, 2019, presented for regulatory purposes before the CNV, have been approved by the Board of Director's meeting and authorized to be issued on March 5, 2020, and will be considered by the next annual shareholders' meeting. These consolidated financial statements, which comprise those presented before the CNV on March 5, 2020, and an update of Note 38 – "Subsequent events" and the inclusion of Note 39 – "Supplemental information on oil and gas producing activities (unaudited)", have been approved by Management on April 24, 2020.



39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED)

The following information is presented in accordance with ASC No. 932 “Extractive Activities – Oil and Gas”, as amended by ASU 2010 – 03 “Oil and Gas Reserves. Estimation and Disclosures,” issued by FASB in January 2010.

Oil and gas reserves

Proved oil and gas reserves are those quantities of oil and gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within reasonable time. In some cases, substantial investments in new wells and related facilities may be required to recover proved reserves.

Information on net proved reserves as of December 31, 2019, 2018 and 2017 was calculated in accordance with the SEC rules and Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month for crude oils of different quality produced by the Company. Consequently, to calculate our net proved reserves as of December 31, 2019, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2021, in accordance with Law 27,541). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2019, which refers to the Brent prices adjusted by each different quality produced by the Company.

Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company considered the domestic market realized prices 12 months average, according to the SEC rules and FASB’s ASC 932 rules.

Notwithstanding the foregoing, commodity prices have fluctuated significantly since 2016. See “Item 3. Key Information—Risk Factors—Risks Relating to the Argentine Oil and Gas Business and Our Business—Our oil and natural gas reserves are estimates” and “Item 3. Key Information—Risk Factors—Risks Relating to the Argentine Oil and Gas Business and Our Business—Our reserves and production are likely to decline.”

Net reserves are defined as that portion of the gross reserves attributable to the interest of YPF after deducting interests owned by third parties. In determining net reserves, the Group excludes from its reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from the reported reserves despite the fact that such payments are referred to as “royalties” under local rules. The same methodology is followed in reporting our production amounts.

Gas reserves exclude the gaseous equivalent of liquids expected to be removed from the gas on concessions and leases, at field facilities and at gas processing plants. These liquids are included in net proved reserves of natural gas liquids.

Technology used in establishing proved reserves additions in 2019

YPF’s estimated proved reserves are based on estimates generated through the integration of available and appropriate data, utilizing well-established technologies that have been demonstrated in the field to yield repeatable and consistent results. Data used in these integrated assessments include information obtained directly from the subsurface via wellbore, such as well logs, reservoir core samples, fluid samples, static and dynamic pressure information, production test data, and surveillance and performance information. The data utilized also include subsurface information obtained through indirect measurements, including high quality 2-D and 3-D-seismic data, calibrated with available well control. Where applicable, geological outcrops information was also utilized. The tools used to interpret and integrate all these data included both proprietary and commercial software for reservoir modeling, simulation and data analysis. In some circumstances, where appropriate analog reservoir models are available, reservoir parameters from these analog models were used to increase the reliability of our reserves estimates.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Changes in YPF's Estimated Net Proved Reserves

The table below sets forth information regarding changes in YPF's net proved reserves during 2019, 2018 and 2017, by hydrocarbon product.

Oil and Condensate	2019			2018			2017		
	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign
Consolidated entities									
At January 1,	582	582	—	422	422	—	525	525	—
Developed	339	339	—	286	286	—	380	380	—
Undeveloped	243	243	—	136	136	—	145	145	—
Revisions of previous estimates ⁽¹⁾	21	21	*	126	126	—	(72)	(72)	—
Extensions and discoveries	86	86	—	103	103	—	19	19	—
Improved recovery	8	8	—	15	15	—	33	33	—
Purchase of minerals in place	—	—	—	—	—	—	—	—	—
Sale of minerals in place	(1)	(1)	—	(1)	(1)	—	—	—	—
Production for the year ⁽²⁾	(83)	(83)	*	(83)	(83)	—	(83)	(83)	—
At December 31, ⁽³⁾	613	613	—	582	582	—	422	422	—
Developed	301	301	—	339	339	—	286	286	—
Undeveloped	312	312	—	243	243	—	136	136	—
Equity-accounted entities									
At January 1,	—	—	—	—	—	—	—	—	—
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Revisions of previous estimates ⁽¹⁾	—	—	—	—	—	—	—	—	—
Extensions and discoveries	—	—	—	—	—	—	—	—	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchase of minerals in place	—	—	—	—	—	—	—	—	—
Sale of minerals in place	—	—	—	—	—	—	—	—	—
Production for the year ⁽²⁾	—	—	—	—	—	—	—	—	—
At December 31, ⁽³⁾	—	—	—	—	—	—	—	—	—
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Consolidated and Equity-accounted entities									
At January 1,	—	—	—	—	—	—	—	—	—
Developed	339	339	—	286	286	—	380	380	—
Undeveloped	243	243	—	136	136	—	145	145	—
Total	582	582	—	422	422	—	525	525	—
At December 31,	—	—	—	—	—	—	—	—	—
Developed	301	301	—	339	339	—	286	286	—
Undeveloped	312	312	—	243	243	—	136	136	—
Total	613	613	—	582	582	—	422	422	—

* Not material (less than 1).

- (1) Revisions in estimates of reserves are performed at least once a year. Revisions of oil and gas reserves is considered prospectively in the calculation of depreciation.
- (2) Crude oil production for the years 2019, 2018 and 2017 includes an estimated approximately 12, 12 and 12 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax.
- (3) Proved crude oil reserves of consolidated entities as of December 31, 2019, 2018 and 2017 include an estimated approximately 88, 83 and 61 mmbbl, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Natural Gas Liquids	2019			2018			2017		
	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign
(Millions of barrels)									
Consolidated entities									
At January 1,	56	56	—	58	58	—	68	68	—
Developed	41	41	—	47	47	—	53	53	—
Undeveloped	15	15	—	11	11	—	15	15	—
Revisions of previous estimates ⁽¹⁾	4	4	—	(1)	(1)	—	4	4	—
Extensions and discoveries	14	14	—	13	13	—	5	5	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchase of minerals in place	—	—	—	—	—	—	—	—	—
Sale of minerals in place	—	—	—	—	—	—	—	—	—
Production for the year ⁽²⁾	(14)	(14)	—	(14)	(14)	—	(19)	(19)	—
At December 31, ⁽³⁾	60	60	—	56	56	—	58	58	—
Developed	38	38	—	41	41	—	47	47	—
Undeveloped	22	22	—	15	15	—	11	11	—
Equity-accounted entities									
At January 1,	—	—	—	—	—	—	—	—	—
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Revisions of previous estimates ⁽¹⁾	—	—	—	—	—	—	—	—	—
Extensions and discoveries	—	—	—	—	—	—	—	—	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchase of minerals in place	—	—	—	—	—	—	—	—	—
Sale of minerals in place	—	—	—	—	—	—	—	—	—
Production for the year ⁽²⁾	—	—	—	—	—	—	—	—	—
At December 31, ⁽³⁾	—	—	—	—	—	—	—	—	—
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Consolidated and Equity-accounted entities									
At January 1,	41	41	—	47	47	—	53	53	—
Developed	41	41	—	47	47	—	53	53	—
Undeveloped	15	15	—	11	11	—	15	15	—
Total	56	56	—	58	58	—	68	68	—
At December 31,	38	38	—	41	41	—	47	47	—
Developed	38	38	—	41	41	—	47	47	—
Undeveloped	22	22	—	15	15	—	11	11	—
Total	60	60	—	56	56	—	58	58	—

* Not material (less than 1).

- (1) Revisions in estimates of reserves are performed at least once a year. Revision of oil and gas reserves is considered prospectively in the calculation of depreciation.
- (2) Natural gas liquids production for the years 2019, 2018 and 2017 includes an estimated approximately 1, 2 and 2 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax.
- (3) Proved natural gas liquids reserves of consolidated entities as of December 31, 2019, 2018 and 2017 include an estimated approximately 6, 8 and 6 mmbbl, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Natural gas	2019			2018			2017		
	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign
Consolidated entities									
At January 1,	2,481	2,481	—	2,520	2,520	—	2,923	2,923	—
Developed	1,915	1,915	—	1,850	1,850	—	2,143	2,143	—
Undeveloped	566	566	—	670	670	—	780	780	—
Revisions of previous estimates ⁽¹⁾	(104)	(104)	—	178	178	—	(161)	(161)	—
Extensions and discoveries	384	384	—	329	329	—	313	313	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchase of minerals in place	—	—	—	—	—	—	12	12	—
Sale of minerals in place	(8)	(8)	—	(4)	(4)	—	—	—	—
Production for the year ⁽²⁾	(512)	(512)	—	(542)	(542)	—	(567)	(567)	—
At December 31, ^{(3) (4)}	<u>2,241</u>	<u>2,241</u>	<u>—</u>	<u>2,481</u>	<u>2,481</u>	<u>—</u>	<u>2,520</u>	<u>2,520</u>	<u>—</u>
Developed	1,743	1,743	—	1,915	1,915	—	1,850	1,850	—
Undeveloped	498	498	—	566	566	—	670	670	—
Equity-accounted entities									
At January 1,	—	—	—	—	—	—	—	—	—
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Revisions of previous estimates ⁽¹⁾	—	—	—	—	—	—	—	—	—
Extensions and discoveries	—	—	—	—	—	—	—	—	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchase of minerals in place	—	—	—	—	—	—	—	—	—
Sale of minerals in place	—	—	—	—	—	—	—	—	—
Production for the year ⁽²⁾	—	—	—	—	—	—	—	—	—
At December 31, ⁽³⁾	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Consolidated and Equity-accounted entities									
At January 1,	—	—	—	—	—	—	—	—	—
Developed	1,915	1,915	—	1,850	1,850	—	2,143	2,143	—
Undeveloped	566	566	—	670	670	—	780	780	—
Total	<u>2,481</u>	<u>2,481</u>	<u>—</u>	<u>2,520</u>	<u>2,520</u>	<u>—</u>	<u>2,923</u>	<u>2,923</u>	<u>—</u>
At December 31,	—	—	—	—	—	—	—	—	—
Developed	1,743	1,743	—	1,915	1,915	—	1,850	1,850	—
Undeveloped	498	498	—	566	566	—	670	670	—
Total	<u>2,241</u>	<u>2,241</u>	<u>—</u>	<u>2,481</u>	<u>2,481</u>	<u>—</u>	<u>2,520</u>	<u>2,520</u>	<u>—</u>

* Not material (less than 1).

- (1) Revisions in estimates of reserves are performed at least once a year. Revision of natural gas reserves is considered prospectively in the calculation of depreciation.
- (2) Natural gas production for the years 2019, 2018 and 2017 includes an estimated approximately 60, 61 and 64 bcf, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax.
- (3) Proved natural gas reserves of consolidated entities as of December 31, 2019, 2018 and 2017 include an estimated approximately 259, 288 and 289 bcf, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.
- (4) Proved natural gas reserves of consolidated entities and equity-accounted entities as of December 31, 2019, 2018 and 2017 include an estimated approximately 321, 349 and 364 bcf, respectively, which is consumed as fuel at the field.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Oil equivalent ⁽¹⁾	2019			2018			2017		
	Worldwide	Argentina	Other foreign	Worldwide (Millions of barrels of oil equivalent)	Argentina	Other foreign	Worldwide	Argentina	Other foreign
Consolidated entities									
At January 1,	1,080	1,080	—	929	929	—	1,113	1,113	—
Developed	722	722	—	663	663	—	815	815	—
Undeveloped	358	358	—	266	266	—	298	298	—
Revisions of previous estimates ⁽²⁾	7	7	*	157	157	—	(96)	(96)	—
Extensions and discoveries	169	169	—	174	174	—	80	80	—
Improved recovery	8	8	—	15	15	—	32	32	—
Purchase of minerals in place	—	—	—	—	—	—	2	2	—
Sale of minerals in place	(3)	(3)	—	(2)	(2)	—	—	—	—
Production for the year ⁽³⁾	(188)	(188)	*	(193)	(193)	—	(202)	(202)	—
At December 31, ⁽⁴⁾	<u>1,073</u>	<u>1,073</u>	<u>—</u>	<u>1,080</u>	<u>1,080</u>	<u>—</u>	<u>929</u>	<u>929</u>	<u>—</u>
Developed	650	650	—	722	722	—	663	663	—
Undeveloped	423	423	—	358	358	—	266	266	—
Equity-accounted entities									
At January 1,	—	—	—	—	—	—	—	—	—
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Revisions of previous estimates ⁽²⁾	—	—	—	—	—	—	—	—	—
Extensions and discoveries	—	—	—	—	—	—	—	—	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchase of minerals in place	—	—	—	—	—	—	—	—	—
Sale of minerals in place	—	—	—	—	—	—	—	—	—
Production for the year ⁽³⁾	—	—	—	—	—	—	—	—	—
At December 31, ⁽⁴⁾	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Developed	—	—	—	—	—	—	—	—	—
Undeveloped	—	—	—	—	—	—	—	—	—
Consolidated and Equity-accounted entities									
At January 1,	722	722	—	663	663	—	815	815	—
Developed	722	722	—	663	663	—	815	815	—
Undeveloped	358	358	—	266	266	—	298	298	—
Total	<u>1,080</u>	<u>1,080</u>	<u>—</u>	<u>929</u>	<u>929</u>	<u>—</u>	<u>1,113</u>	<u>1,113</u>	<u>—</u>
At December 31,	650	650	—	722	722	—	663	663	—
Developed	650	650	—	722	722	—	663	663	—
Undeveloped	423	423	—	358	358	—	266	266	—
Total	<u>1,073</u>	<u>1,073</u>	<u>—</u>	<u>1,080</u>	<u>1,080</u>	<u>—</u>	<u>929</u>	<u>929</u>	<u>—</u>

* Not material (less than 1).

- (1) Volumes of natural gas have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.
- (2) Revisions in estimates of reserves are performed at least once a year. Revision of crude oil, natural gas liquids and natural gas reserves are considered prospectively in the calculation of depreciation.
- (3) Barrel of oil equivalent production of consolidated entities for the years 2019, 2018 and 2017 includes an estimated approximately 24, 24 and 25 mmboc, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.
- (4) Proved oil equivalent reserves of consolidated entities as of December 31, 2019, 2018 and 2017 include an estimated approximately 140, 143 and 119 mmboc, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

The paragraphs below explain in further detail the most significant changes in our proved reserves during 2019, 2018 and 2017.

Changes in our estimated proved reserves during 2019

Extensions and Discoveries

As a result of wells drilled in unproved reserves and resources areas, approximately 32 mmboe of proved developed reserves (11 mmbbl of crude oil, 2 mmbbl of NGL and 107 bcf of natural gas), and 137 mmboe of proved undeveloped reserves (76 mmbbl of crude oil, 12 mmbbl of NGL and 276 bcf of natural gas) were added mainly due to new shale oil and gas projects from Loma La Lata Norte, Bandurria Sur, La Amarga Chica and Aguada de la Arena fields.

Main proved undeveloped reserves additions are related to Unconventional activities in the Neuquina basin, while proved developed reserves contributions come in most cases from the Neuquina and San Jorge basin executed projects.

Improved Recovery

A total of approximately 8 mmboe of proved reserves were added mainly due to new projects and positive production response. Main contributions came from Neuquina basin where additions were 5 mmboe of proved secondary recovery reserves, 2 mmboe from Golfo San Jorge basin and 1 mmboe from Cuyana basin.

Sales and Acquisitions

As a net result of Sales and Acquisitions, 3 mmboe of proved reserves were reduced. The decrease in these reserves is related mainly to the sale of interests in Al Sur de la Dorsal, El Santiagueño and Bajo del Piche fields.

Revisions of Previous Estimates

During 2019, the Company's proved reserves were revised upwards by 7 mmboe (21 mmbbl of crude oil, 4 mmbbl of NGL and a decrease of 103 bcf of natural gas).

The main revisions to proved reserves have been due to the following:

- As a result of lower average oil and gas prices jointly with lower operating costs in 2019, its impact on incomes, and on fields economic limit, 10 mmboe of proved reserves were deducted. Changes occurred mainly in fields of Cuyana and Neuquina basins.
- Total liquids and gas production performance from existing wells was better than expected, resulting in an addition of approximately 33 mmboe to proved developed reserves, according to new reserves estimates, mainly in the Neuquina and Golfo San Jorge basins.
- Change of development strategy in certain areas which resulted in a downwards revision of 42 mmboe from previous projects, mainly from Neuquina, Austral and Golfo San Jorge basins.
- Revision of Vaca Muerta development project at Loma Campana field, which resulted in an upward revision of 19 mmboe.
- Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in a 6 mmboe proved undeveloped reserves reduction, mainly in Golfo San Jorge and Neuquina basins

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Changes in our estimated proved reserves during 2018

Extensions and Discoveries

As a result of wells drilled in unproved reserves and resources areas, approximately 25 mmboe of proved developed reserves (8 mmbbl of crude oil, 1 mmbbl of NGL and 92 bcf of natural gas), and 149 mmboe of proved undeveloped reserves (95 mmbbl of crude oil, 12 mmbbl of NGL and 238 bcf of natural gas) were added mainly due to new shale oil and gas projects from Loma La Lata Norte, Loma Campana, Bandurria Sur and La Amarga Chica fields.

Main proved undeveloped reserves additions are related to Unconventional and Tight Gas activities in the Neuquina basin, while proved developed reserves contributions come in most cases from the Neuquina, Noroeste and San Jorge basin projects.

Improved Recovery

A total of approximately 15 mmboe of proved reserves were added mainly due to new projects and positive production response. Main contributions come from Golfo San Jorge basin where additions were 4.4 mmboe of proved developed and 8 mmboe of proved undeveloped secondary recovery reserves and 3 mmboe from Neuquina basin.

Sales and Acquisitions

As a net result of Sales and Acquisitions, 1.4 mmboe of proved developed reserves were reduced. The decrease in these reserves is related mainly to the change in participation for Cerro Bandera and Bandurria Sur fields and acquisition of participation in Llancanelo field.

Revisions of Previous Estimates

During 2018, the Company's proved reserves were revised upwards by 156 mmboe (126 mmbbl of crude oil and 178 bcf of natural gas and a decrease of 1 mmbbl of NGL).

The main revisions to proved reserves have been due to the following:

- As a result of higher average oil and gas prices and lower operating costs in 2018, its impact on incomes, and on fields economic limit, 143 mmboe of proved developed reserves were added. Changes occurred mainly in fields of Neuquina Basin (56 mmboe), Golfo San Jorge basin (40 mmboe) and Austral Basin (31 mmboe).
- New economic scenario also improved scheduled projects economics, resulting in a 48 mmboe Proved Undeveloped Reserves incorporation mainly from oil fields of Golfo San Jorge Basin (33 mmboe) and Neuquina basin (15 mmboe).
- Total liquids and gas production performance from existing wells was better than expected, resulting in an addition of approximately 33 mmboe to proved developed reserves, according to new reserves estimates, mainly in the Neuquina and Golfo San Jorge basins.
- Change of development strategy in certain areas which resulted in a downwards revision of 43 mmboe from previous projects, mainly from Neuquina, Austral and Golfo San Jorge basins.
- Some primary and improved recovery oil projects development schedules were modified or canceled, resulting in a 5 mmboe proved undeveloped reserves reduction, mainly in Austral, Golfo San Jorge and Cuyana basins.
- Changes in gas compression projects which resulted in a 5 mmboe reduction of proved undeveloped reserves, mainly from Neuquina basin.
- Net production results and forecasts from existing and new wells were lower than expected, resulting in a 13 mmboe reduction of proved reserves. Main differences were found in Neuquina basin.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Changes in our estimated proved reserves during 2017

Extensions and Discoveries

As a result of wells drilled in unproved reserves and resources areas, approximately 26 mmbbl of proved developed reserves (7.4 mmbbl of crude oil, 1.9 mmbbl of NGL and 94 bcf of natural gas), and 54 mmbbl of proved undeveloped reserves (11.7 mmbbl of crude oil, 3.4 mmbbl of NGL and 219 bcf of natural gas) were added.

Main proved undeveloped reserves additions are related to Unconventional and Tight Gas activities in the Neuquina basin, while proved developed reserves contributions come in most cases from the Neuquina and San Jorge basin projects.

Improved Recovery

A total of approximately 32 mmbbl of proved reserves were added mainly due to new projects and positive production response. Main contributions come from Neuquina basin (5.4 mmbbl of proved developed and 10 mmbbl of proved undeveloped reserves) while Golfo San Jorge basin additions were 5.6 mmbbl of proved developed and 9.6 mmbbl of proved undeveloped secondary recovery reserves.

Sales and Acquisitions

As a net result of Sales and Acquisitions, 2.3 mmbbl of proved developed reserves were added. The increase in these reserves is related to the change in participation for Aguada de la Arena field.

Revisions of Previous Estimates

During 2017, the Company's proved reserves were revised downwards by 96 mmbbl (71 mmbbl of crude oil and 161 bcf of natural gas and an increase of 4 mmbbl of NGL).

The main revisions to proved reserves have been due to the following:

- As a result of lower average oil and gas prices and higher operating costs in 2017, its impact on incomes, and on fields economic limit, 105 mmbbl of proved developed reserves were deducted. Changes occurred mainly in fields of Neuquina basin (-60 mmbbl), Golfo San Jorge Basin (-25 mmbbl) and Cuyana Basin (-14 mmbbl).
- New economic scenario also affected scheduled projects economics, resulting in a 20 mmbbl Proved Undeveloped Reserves reduction mainly from oil fields of Neuquina basin (-15 mmbbl) and Golfo San Jorge Basin (-3 mmbbl).
- Total liquids and gas production performance from existing wells was better than expected, resulting in an addition of 25 mmbbl to proved developed reserves, according to new reserves estimates. Upward revisions of 48 mmbbl are primarily due to better than expected well performance mainly in the Neuquina basin (31 mmbbl) and Golfo San Jorge basin (14 mmbbl). Downward revisions of approximately 23 mmbbl are mainly related to performance updates in certain wells in the Neuquina basin.
- A total volume of 5.6 mmbbl of proved reserves was added due to feasibility studies performed to include new projects to field development plans, mainly in Golfo San Jorge basin (3.5 mmbbl) and Neuquina basin (2.1 mmbbl).
- Net production results and forecasts from some new wells were lower than expected, resulting in a 7 mmbbl reduction of proved reserves. Main differences were found in Neuquina and Golfo San Jorge basins.
- As a better than expected WO jobs performance, 4.2 mmbbl of Proved Reserves were added, mainly in Golfo San Jorge and Neuquina basins.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Capitalized costs

The following tables set forth capitalized costs, along with the related accumulated depreciation and allowances as of December 31, 2019, 2018 and 2017:

	2019			2018			2017		
	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide
Consolidated capitalized costs									
Proved oil and gas properties									
Mineral property, wells and related equipment ⁽¹⁾	2,693,690	2,033	2,695,723	1,594,064	—	1,594,064	770,461	—	770,461
Support equipment and facilities	80,012	—	80,012	47,224	—	47,224	22,171	—	22,171
Drilling and work in progress ⁽²⁾	142,122	—	142,122	80,737	—	80,737	40,567	—	40,567
Unproved oil and gas properties	30,012	—	30,012	14,909	1,241	16,150	6,189	558	6,747
Total capitalized costs	2,945,836	2,033	2,947,869	1,736,933	1,241	1,738,174	839,388	558	839,946
Accumulated depreciation and valuation allowances ⁽³⁾	(2,239,487)	(1,973)	(2,241,460)	(1,283,840)	(489)	(1,284,328)	(600,086)	—	(600,086)
Net capitalized costs	<u>706,349</u>	<u>60</u>	<u>706,409</u>	<u>453,093</u>	<u>752</u>	<u>453,846</u>	<u>239,302</u>	<u>558</u>	<u>239,860</u>

(1) Includes 24,468 corresponding to all Upstream contracts, excepted for Drilling Contracts (2) comprised in right-of-use assets (IFRS 16).

(2) Includes 11,032 corresponding to Drilling contracts comprised in right-of-use assets (IFRS 16).

(3) Includes (8,841) corresponding to Accumulated Depreciation of all Upstream contracts of right-of-use assets (IFRS 16).

There is no Group's share in equity method investees' capitalized costs during the years ended December 31, 2019, 2018 and 2017.

Costs incurred

The following tables set forth the costs incurred for oil and gas producing activities during the years ended December 31, 2019, 2018 and 2017:

	2019			2018			2017		
	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide
Consolidated costs incurred									
Acquisition of unproved properties	4,171	—	4,171	276	—	276	—	—	—
Acquisition of proved properties	—	—	—	166	—	166	154	—	154
Exploration costs	9,115	771	9,886	7,283	381	7,664	3,302	149	3,451
Development costs ⁽¹⁾	132,289	—	132,289	53,553	—	53,553	39,039	—	39,039
Total costs incurred	<u>145,575</u>	<u>771</u>	<u>146,346</u>	<u>61,278</u>	<u>381</u>	<u>61,659</u>	<u>42,495</u>	<u>149</u>	<u>42,644</u>

(1) Includes 18,547 corresponding to additions of Upstream contracts comprised in right-of-use assets (IFRS 16).

There is no Group's share in equity method investees' costs incurred during the years ended December 31, 2019, 2018 and 2017.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Results of operations from oil and gas producing activities

The following tables include only the revenues and expenses directly associated with oil and gas producing activities. It does not include any allocation of the interest costs or corporate overhead and, therefore, is not necessarily indicative of the contribution to net earnings of the oil and gas operations.

Differences between these tables and the amounts shown in Note 5 “Segment information”, for the exploration and production business unit, relate to additional operations that do not arise from those properties held by the Group.

	2019			2018			2017		
	Argentina	Other Foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide
Consolidated results of operations									
Net sales to unaffiliated parties	1,949	120	2,069	3,085	—	3,085	521	—	521
Net intersegment sales	286,585	—	286,585	207,480	—	207,480	115,955	—	115,955
Total net revenues	288,534	120	288,654	210,565	—	210,565	116,476	—	116,476
Production costs	(164,562) ⁽¹⁾	(242)	(164,804)	(114,381)	—	(114,381)	(69,944)	—	(69,944)
Exploration expenses	(6,045)	(734)	(6,779)	(5,185)	(224)	(5,409)	(2,279)	(168)	(2,447)
Depreciation of property, plant and equipment; intangible and right-of-use assets	(124,977) ⁽²⁾	(980)	(125,957)	(72,044)	—	(72,044)	(45,277)	—	(45,277)
Impairment of Property, plant and equipment	(40,561)	—	(40,561)	3,265	(365)	2,900	5,032	—	5,032
Other	(6,569)	(56)	(6,625)	(2,839)	(168)	(3,007)	(2,706)	—	(2,706)
Pre-tax income (loss) from producing activities	(54,180)	(1,892)	(56,072)	19,381	(757)	18,624	1,302	(168)	1,134
Income tax expense / benefit	16,254	417	16,671	(5,814)	227	(5,587)	(456)	59	(397)
Results of oil and gas producing activities	(37,926)	(1,475)	(39,401)	13,567	(530)	13,037	846	(109)	737

(1) Includes Ps 6,680 million corresponding to short term leases and variable lease payments related to the use of assets. For more information See Note 2.b.12) to the Audited Consolidated Financial Statements.

(2) Includes Ps (6,060) million corresponding to depreciation of right-of-use assets (IFRS 16).

There is no Group’s share in equity method investees’ results of operations during the years ended December 31, 2019, 2018 and 2017.

Standardized measure of discounted future net cash flows

The standardized measure is calculated as the excess of future cash inflows from proved reserves less future costs of producing and developing the reserves, future income taxes and a discount factor. Future cash inflows represent the revenues that would be received from production of year-end proved reserve quantities assuming the future production would be sold at the prices used for reserves estimates as of year-end (the “average price”). Accordingly, crude oil prices used to determine reserves were calculated each month, for crude oils of different quality produced by the Group.

For the year ended December 31, 2019, the Company considered the realized prices for crude oil in the domestic market taking into account the effect of export taxes as in effect as of each of the corresponding years (until 2021, in accordance with Law 27,541). For the years beyond the mentioned periods, the Company considered the unweighted average price of the first-day-of-the-month for each month within the twelve-month period ended December 31, 2019, which refers to the Brent prices adjusted by each different quality produced by the Company.

Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company considered the realized prices in the domestic market according to the SEC rules and FASB’s ASC 932 rules, but also taking into account the effect of certain market regulations set forth mainly during the second half of the year for certain natural gas segments.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Future production costs include the estimated expenditures related to production of the proved reserves, plus any production taxes without consideration of future inflation. Future development costs include the estimated costs of drilling development wells and installation of production facilities, plus the net costs associated with dismantling and abandonment of wells, assuming year-end costs continue without consideration of future inflation. Future income taxes were determined by applying statutory rates to future cash inflows less future production costs and less tax depreciation of the properties involved. The present value was determined by applying a discount rate of 10% per year to the annual future net cash flows.

The future cash inflows and outflows in foreign currency have been remeasured at the selling exchange rate of Argentine pesos 59.79 as of December 31, 2019.

The standardized measure does not purport to be an estimate of the fair market value of the Group's proved reserves. An estimate of fair value would also take into account, among other things, the expected recovery of reserves in excess of proved reserves, anticipated changes in future prices and costs and a discount factor representative of the time value of money and the risks inherent in producing oil and gas.

Consolidated standardized measure of discounted future net cash flows	2019			2018			2017		
	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide	Argentina	Other foreign	Worldwide
Future cash inflows ⁽¹⁾	2,545,028	—	2,545,028	1,786,896	—	1,786,896	564,396	—	564,396
Future production costs	(1,333,468)	—	(1,333,468)	(913,980)	—	(913,980)	(349,819)	—	(349,819)
Future development costs	(482,015)	—	(482,015)	(304,448)	—	(304,448)	(128,885)	—	(128,885)
Future income tax expenses	(120,966)	—	(120,966)	(121,388)	—	(121,388)	(2,324)	—	(2,324)
10% annual discount for estimated timing of cash flows	(227,670)	—	(227,670)	(138,847)	—	(138,847)	(16,935)	—	(16,935)
Total standardized measure of discounted future net cash flows	380,909	—	380,909	308,233	—	308,233	66,433	—	66,433

(1) For the years ended December 31, 2019, future cash inflows are stated net of the effect of withholdings on exports until 2021 in accordance with Law No. 27,541. For the years ended December 31, 2018, future cash inflows are stated net of the effect of withholdings on exports until 2020 in accordance with Decree No. 793/2018. For the years ended December 31, 2017, future cash inflows are stated net of the effect of withholdings on exports until 2017 in accordance with Law No. 26,732.

There is no Group's share in equity method investees' standardized measure of discounted future net cash flows during the years ended December 31, 2019, 2018 and 2017.

39. SUPPLEMENTAL INFORMATION ON OIL AND GAS PRODUCING ACTIVITIES (UNAUDITED) (Cont.)

Changes in the standardized measure of discounted future net cash flows

The following table reflects the changes in standardized measure of discounted future net cash flows for the years ended December 31, 2019, 2018 and 2017:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Beginning of year	308,233	66,433	106,411
Sales and transfers, net of production costs	(197,278)	(62,115)	(53,759)
Net change in sales and transfer prices, net of future production costs	(239,226)	68,651	(74,046)
Changes in reserves and production rates (timing)	(26,496)	111,137	15,495
Net changes for extensions, discoveries and improved recovery	228,354	160,784	28,489
Net change due to purchases and sales of minerals in place	(1,152)	(730)	—
Changes in estimated future development and abandonment costs	(82,799)	(71,368)	(32,052)
Development costs incurred during the year that reduced future development costs	102,784	39,780	22,475
Accretion of discount	43,534	11,490	9,724
Net change in income taxes	66,705	(80,832)	25,920
Others ⁽¹⁾	178,250	65,003	17,776
End of year	<u>380,909</u>	<u>308,233</u>	<u>66,433</u>

(1) Corresponds mainly to exchange differences arising from the translation of our cashflows in the functional currency to the presentation currency.

There is no Group's share in equity method investees' changes in the standardized measure of discounted future net cash flows during the years ended December 31, 2019, 2018 and 2017.

GUILLERMO EMILIO NIELSEN
 President

**DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES
REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT**

As of December 31, 2019, the registrant had the following series of securities registered pursuant to Section 12 of the U.S. Securities Exchange Act of 1934, as amended:

<u>Title of each class:</u>	<u>Name of each exchange on which registered:</u>
Class D Shares	New York Stock Exchange*
American Depositary Shares, each representing one Class D Share, par value 10 pesos per share	New York Stock Exchange

* Not for trading purposes, but only in connection with the trading on the New York Stock Exchange of American Depositary Shares representing those Class D shares.

The Bank of New York Mellon, as depositary, registers and delivers American Depositary Shares, also referred to as ADSs. Each ADS represents one Class D share. Each ADS also represents any other securities, cash or other property which may be held by the depositary. The deposited shares together with any other securities, cash or other property held by the depositary are referred to as the deposited securities. The depositary's office at which the ADSs are administered and its principal executive office are located at 240 Greenwich Street, New York, NY, 10286, USA. The ADSs are listed on the NYSE under the trading symbol "YPF," which trading began on June 28, 1993.

According to data provided by The Bank of New York Mellon, as of, April 16, 2020, there were 161,558,849 ADSs outstanding and 46 holders of record of ADSs. Such ADSs represented approximately 41% of the total number of issued and outstanding Class D shares as of such date. The Buenos Aires Stock Market is the principal Argentine Market for trading the ordinary shares.

You may hold ADSs either (A) directly (i) by having an American Depositary Receipt, also referred to as an ADR, which is a certificate evidencing a specific number of ADSs, registered in your name, or (ii) by having uncertificated ADSs registered in your name, or (B) indirectly by holding a security entitlement in ADSs through your broker or other financial institution that is a direct or indirect participant in The Depository Trust Company, also called DTC. If you hold ADSs directly, you are a registered ADS holder, also referred to as an ADS holder. This description assumes you are an ADS holder. If you hold the ADSs indirectly, you must rely on the procedures of your broker or other financial institution to assert the rights of ADS holders described in this section. You should consult with your broker or financial institution to find out what those procedures are.

Registered holders of uncertificated ADSs will receive statements from the depositary confirming their holdings.

As an ADS holder, we will not treat you as one of our shareholders and you will not have shareholder rights. Argentine law governs shareholder rights. The depositary will be the holder of the Class D shares underlying your ADSs. As a registered holder of ADSs, you will have ADS holder rights. A deposit agreement among us, the depositary, ADS holders and all other persons indirectly or beneficially holding ADSs sets out ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADSs.

The following is a summary of the material provisions of the deposit agreement. For more complete information, you should read the entire deposit agreement and the form of ADR. You can find a copy of the deposit agreement in the report on Form 6 furnished by the Company to the SEC on November 6, 2009.

Deposit, Withdrawal and Cancellation

How are ADSs issued?

The depositary will deliver ADSs if you or your broker deposits Class D shares or evidence of rights to receive Class D shares with the custodian. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will register the appropriate number of ADSs in the names you request and will deliver the ADSs to the persons you request.

How do ADS holders cancel ADSs and obtain shares?

If you surrender ADSs to the depositary, upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will deliver the Class D shares and any other deposited securities underlying the surrendered

ADSs to you or a person you designate at the office of the custodian. Or, at your request, risk and expense, the depository will deliver the deposited securities at its office, if feasible. The depository may charge you a fee and its expenses for instructing the custodian regarding delivery of deposited securities.

How do ADS holders interchange between certificated ADSs and uncertificated ADSs?

You may surrender your ADR to the depository for the purpose of exchanging your ADR for uncertificated ADSs. The depository will cancel that ADR and will send to the ADS holder a statement confirming that the ADS holder is the registered holder of uncertificated ADSs. Upon receipt by the depository of a proper instruction from a registered holder of uncertificated ADSs requesting the exchange of uncertificated ADSs for certificated ADSs, the depository will execute and deliver to the ADS holder an ADR evidencing those ADSs.

Dividends and Other Distributions

Under our by-laws, all Class A, Class B, Class C and Class D shares rank equally with respect to the payment of dividends. All shares outstanding as of a particular record date share equally in the dividend being paid, except that shares issued during the period to which a dividend relates may be entitled only to a partial dividend with respect to such period if the shareholders' meeting that approved the issuance so resolved. No provision of our by-laws or of the Argentine General Corporations Law gives rise to future special dividends only to certain shareholders.

The amount and payment of dividends are determined by majority vote of our shareholders voting as a single class, generally, but not necessarily, on the recommendation of the Board of Directors. In addition, under the Argentine General Corporations Law, our Board of Directors has the right to declare dividends subject to further approval of the shareholders' meeting.

Although we have not adopted a formal policy regarding dividends, we intend to maintain the practice of an annual distribution, within the framework of a management that will also consider, among other factors, the capital requirements related to investment plans, the attention of debt services, working capital needs, legal and / or contractual restrictions that apply at all times, and the general conditions of the economic and financial context. At the shareholders' ordinary and extraordinary general meeting held on April 29, 2016, a dividend of Ps. 889 million (Ps. 2.26 per share or ADS) was authorized for distribution by December 31, 2016, which was paid in July 2016. At the shareholders' ordinary and extraordinary general meeting held on April 28, 2017, a dividend of Ps. 716 million (Ps. 1.82 per share or ADS) was authorized and paid in December 2017. At the shareholders' ordinary and extraordinary general meeting held on April 27, 2018, a dividend of Ps. 1,200 million (Ps. 3.05 per share or ADS) was authorized and paid in December 2018. At the shareholders' ordinary and extraordinary general meeting held on April 26, 2019, an allocation of Ps. 4,800 million to a reserve for future dividends was authorized empowering the Board of Directors, up to the date of the next General Ordinary Shareholders Meeting that will consider the Financial Statements closed as of December 31, 2019. Dividends of Ps. 5.85 per share or ADS was authorized and paid in July 11, 2019. On March 5, 2020, the Board decided to propose the following to the General Ordinary Shareholders' Meeting: a) to completely eliminate the reserve for future dividends, the reserve for purchasing YPF shares and the reserve for investments; b) to fully absorb accumulated losses in unallocated results of up to Ps 34,071 million against amounts corresponding to the discontinued reserves for up to that amount; and c) to allocate the remaining of the discontinued reserves for up to Ps 13,184 million as follows: (i) Ps 550 million to establish a reserve for purchasing YPF shares, in order to grant the Board of Directors the possibility to acquire YPF shares, subject to the provisions under the "Bonus and incentives plan" of the annual report, at any time as it considers appropriate, and comply, in carrying out the share compensation plan, with the obligations currently existing under such plan and those that may arise in the future; (ii) the sum of Ps 3,700 million to a reserve for future dividends, authorizing the Board of Directors, until the date of the next Ordinary General Shareholders' Meeting that will consider the Financial Statements closed as of December 31, 2020, to determine the opportunity and the amount of such distribution, if it is considered convenient and doable, taking into account contractual, financial conditions and the availability of funds, as well as operating results, investments and other aspects that it deems relevant in the development of the activities of YPF S.A; and (iii) the sum of Ps 8,934 million to establish a reserve for investments in accordance with article 70, paragraph third of the General Corporations Law N° 19,550, as amended.

The following table sets forth for the periods and dates indicated, the dividend payments made by us, expressed in pesos.

<u>Year Ended December 31,</u>	<u>Pesos Per Share/ADS</u>				<u>Total</u>
	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	
2005	—	8.00	—	4.40	12.40
2006	—	6.00	—	—	6.00
2007	6.00	—	—	—	6.00
2008	10.76	6.50	—	6.35	23.61

<u>Year Ended December 31,</u>	<u>Pesos Per Share/ADS</u>				<u>Total</u>
	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	
2009	—	6.30	—	6.15	12.45
2010	—	5.50	—	5.80	11.30
2011	—	7.00	—	7.15	14.15
2012	—	—	—	0.77	0.77
2013	—	—	0.83	—	0.83
2014	—	—	1.18	—	1.18
2015	—	—	1.28	—	1.28
2016	—	—	2.26	—	2.26
2017	—	—	—	1.82	1.82
2018	—	—	—	3.05	3.05
2019	—	—	5.85	—	5.85

Amount Available for Distribution

Under Argentine General Corporations Law, dividends of a listed Argentine company that makes public offering of its shares may be lawfully paid only out of liquid and realized profits reflected in the annual audited financial statements of the Company prepared in accordance with accounting rules prevailing in Argentina and CNV regulations and approved by a shareholders' meeting. The Board of Directors of a listed Argentine company that makes public offering of its shares may declare interim or provisional dividends, in cash, or based on special or quarterly financial statements with the report of the external auditor and the Supervisory Committee, in which case the members of the Board, the members of the Shareholders' Surveillance Committee (*Consejo de Vigilancia*) when applicable, and of the Supervisory Committee are jointly and severally liable for the repayment of such dividends if retained earnings at the close of the fiscal year in which such dividends were paid would not have been sufficient to permit the payment of them.

According to the Argentine General Corporations Law and our by-laws, the Company is required to maintain a legal reserve of at least 5% of the fiscal year's income until such reserve equals 20% of the then-outstanding capital stock of the Company. The legal reserve is not available for distribution to shareholders.

Under our by-laws, the Company's liquid and realized profits are applied as follows:

- 1) at least 5% of net income, plus (less) prior fiscal year adjustments, is segregated to build the legal reserve until such reserve is equal to 20% of our subscribed capital;
- 2) an amount is segregated to pay the accrued fees of the members of the Board of Directors and of the Supervisory Committee. See "Item 6. Directors, Senior Management and Employees—Compensation of members of our Board of Directors";
- 3) an amount is segregated to pay dividends on preferred stock, if any; and to unpaid cumulative dividends, as the case may be (the Company does not currently have preferred stock); and
- 4) the remainder, in whole or in part may be distributed as dividends to common shareholders or allocated for voluntary or contingent reserves or otherwise as determined by the shareholders' meeting.

Our Board of Directors submits the Company's financial statements for the preceding fiscal year, together with reports thereon by the Supervisory Committee and the external auditor, at the annual ordinary shareholders' meeting for approval. Within four months of the end of each fiscal year, an ordinary shareholders' meeting must be held to consider the yearly financial statements of the Company and determine the allocation of its net income for such year.

Under applicable CNV regulations, cash dividends must be paid to shareholders within 30 days from the shareholders' meeting approving such dividends. In cases where the shareholders meeting delegates the authority for the distribution of dividends to the Board of Directors, the payment of dividends has been usually resolved within 30 days from the relevant Board of Directors' resolution. In the case of payment of stock dividends, or payment of both stock and cash dividends, both shares and cash are required to be available within three months of the receipt of notice of the authorization of the CNV for the public offering of the shares arising from such dividends. In accordance with the Argentine Civil and Commercial Code, the statute of limitations to the right of any shareholder to

receive dividends declared by the shareholders' meeting is five years from the date on which it has been made available to the shareholder. However, according to Article 2,537 of the Argentine Civil and Commercial Code, the statute of limitations on the right of any shareholder to receive dividends declared before August 1, 2015 is three years.

Owners of ADSs are entitled to receive any dividends payable with respect to the underlying Class D shares. Cash dividends are paid to the Depositary in pesos, directly or through BoNY, as depositary, although the Company may choose to pay cash dividends outside Argentina in a currency other than pesos, including U.S. dollars as long as the applicable laws and regulations allow it. The deposit agreement provides that the Depositary shall convert cash dividends received by the Depositary in pesos to dollars, to the extent that, in the judgment of the Depositary, such conversion may be made on a reasonable basis, and, after deduction or upon payment of the fees and expenses of the Depositary, shall make payment to the holders of ADSs in U.S. dollars.

Voting of the Underlying Class D Shares

Under the by-laws, each Class A, Class B, Class C and Class D share entitles the holder thereof to one vote at any shareholders' meeting of YPF, except that a specified number of Directors is elected by majority vote of each class (except as provided below). See “—Directors—Election of Directors” of the annual report for information regarding the number of directors that holders of each class of shares are entitled to elect and certain other provisions governing nomination and election of directors. The Depositary has agreed that, as soon as practicable after receipt of a notice of any meeting of shareholders of YPF, it will mail a notice to the holders of ADRs, evidencing ADSs, registered on the books of the Depositary which will contain the following:

- a summary in English of the information contained in the notice of such meeting;
- a statement that the holders of ADRs at the close of business on a specified record date will be entitled, subject to any applicable provisions of Argentine law, the by-laws of YPF and the Class D shares, to instruct the Depositary to exercise the voting rights, if any, pertaining to the Class D shares evidenced by their respective ADSs; and
- a statement as to the manner in which such instructions may be given to the Depositary.

The Depositary shall endeavor, to the extent practicable, to vote or cause to be voted the amount of Class D shares represented by the ADSs in accordance with the written instructions of the holders thereof. The Depositary will vote Class D shares, as to which no instructions are received, in accordance with the recommendations of the Board of Directors of YPF. The Depositary will not vote Class D shares, as to which no instructions have been received, in accordance with the recommendations of the Board of Directors, however, unless YPF has provided to the Depositary an opinion of Argentine counsel stating that the action recommended by the Board of Directors is not illegal under Argentine law or contrary to the by-laws or Board regulations of YPF. In addition, the Depositary will, if requested by the Board of Directors and unless prohibited by any applicable provision of Argentine law, deposit all Class D shares represented by ADSs for purposes of establishing a quorum at meetings of shareholders, whether or not voting instructions with respect to such shares have been received.

Voting

Under our by-laws, each Class A, Class B, Class C and Class D share entitles the holder thereof to one vote at any meeting of our shareholders, except that the Class A shares (i) vote separately with respect to the election of members of the Board of Directors and the Supervisory Committee and are entitled to appoint one director, and the alternate director and one member of the Supervisory Committee and the alternate member, (ii) have certain veto rights, as described below.

Reporting Requirements

Pursuant to our by-laws, any person who, directly or indirectly, through or together with its affiliates and persons acting in concert with it, acquires Class D shares or securities convertible into Class D shares, so that such person controls more than 3% of the Class D shares, is required to notify the Company of such acquisition within 5 days of its closing, in addition to complying with any requirements imposed by any other authority in Argentina or elsewhere where our Class D shares are traded. Such notice must include the name or names of the person or persons, if any, acting in concert with it, the date of the acquisition, the number of shares acquired, the price at which the acquisition was made, and a statement as to whether it is the purpose of the person or persons to acquire a greater shareholding

in, or control of, the Company. Each subsequent acquisition by such person or persons, as long as it exceeds the above mentioned 3% of the Class D shares, requires a similar notice.

In addition, pursuant to the regulations of CNV, any person that directly or indirectly, or any group of persons acting in concerted form, by any means and with a certain purpose:

- a) acquire or dispose of shares or securities convertible into shares, or acquire call or put options over them;
- b) alter the integration or configuration of its direct or indirect interest over the capital stock of an issuer;
- c) convert notes (“obligaciones negociables”) into shares;
- d) exercise the put or call options of the securities referred to in a); or
- e) change their purpose regarding their interest in an issuer at the time of occurrence of any the abovementioned events;

is required to inform CNV and BYMA of such circumstances, immediately after executing the acquisition, disposal, alteration of the integration or configuration of the interest, conversion into shares, and/or exercise of the calls or put options referred to above, or after the occurrence of the change in the purpose referred to above.

In any case, the information shall be submitted only as long as the acquisitions involved and/or facts referred to above grant 5% or more of the voting rights that can be exercised in the shareholders’ meetings of YPF.

Similar information is required to be submitted to CNV and BYMA in the event of changes over the interests previously informed, until becoming a controlling shareholder in which case the regulations applicable to him shall become applicable.

Preemptive and Accretion Rights

Except as described below, in the event of a capital increase, a holder of existing shares of a given class has a preferential right to subscribe a number of shares of the same class sufficient to maintain the holder’s existing proportionate holding of shares of that class. Preemptive rights also apply to issuances of convertible securities, but do not apply upon conversion of such securities. Pursuant to the Argentine General Corporations Law, in exceptional cases and on a case-by-case basis when required for the best interest of the Company, the shareholders at an extraordinary meeting with a special majority may decide to limit or suspend shareholders’ preemptive rights, provided that such limitation or suspension of the shareholders’ preemptive rights is included in the agenda of the meeting and the shares to be issued are paid in kind or are issued to cancel preexisting obligations.

Under its by-laws, the Company may only issue securities convertible into Class D shares, and the issuance of any such convertible securities must be approved by a special meeting of the holders of Class D shares.

Holders of ADSs may be restricted in their ability to exercise preemptive rights if a registration statement under the Capital Markets Law relating thereto has not been filed or is not effective. Preemptive rights are exercisable during the 30 days following the last publication of notice informing shareholders of their right to exercise such preemptive rights in the Official Gazette and in an Argentine newspaper of wide circulation. Pursuant to the Argentine General Corporations Law, if authorized by an extraordinary shareholders’ meeting, companies authorized to make public offering of their securities, such as YPF, may shorten the period during which preemptive rights may be exercised from 30 to 10 days following the publication of notice of the offering to the shareholders to exercise preemptive rights in the Official Gazette and a newspaper of wide circulation in Argentina. Pursuant to our by-laws, the terms and conditions on which preemptive rights may be exercised with respect to Class C shares may be more favorable than those applicable to Class A, Class B and Class D shares.

Shareholders who have exercised their preemptive rights have the right to exercise accretion rights, in proportion to their respective ownership, with respect to any non-preempted shares, in accordance with the following procedure:

- Any non-preempted Class A shares will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise additional preemptive rights with respect to any such Class A shares.
- Any non-preempted Class B shares will be assigned to those provinces that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to such shares; any excess will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to any such Class B shares.

- Any non-preempted Class C shares will be assigned to any PPP participants who exercised preemptive rights and indicated their intention to exercise accretion rights with respect to such shares; any excess will be converted into Class D shares and offered to holders of Class D shares that exercised preemptive rights and indicated their intention to exercise accretion rights with respect to any such Class C shares.
- Any non-preempted rights will be assigned to holders of Class D shares that exercised their preemptive rights and indicated their intention to exercise accretion rights; any remaining Class D shares will be assigned pro rata to any holder of shares of another class that indicated his or her intention to exercise accretion rights.

The term for exercise of accretion rights is the same as that fixed for exercising preemptive rights.

Amendment and Termination

How may the deposit agreement be amended?

The deposit agreement may at any time, and from time to time, be amended by agreement between us and the Depositary in any respect which we may deem necessary or desirable. Any amendment which shall impose or increase any fees or charges (other than taxes and other governmental charges, registration fees, cable, telex or facsimile transmission costs, delivery costs or other such expenses), or which shall otherwise prejudice any substantial existing right of the ADS holders, shall, however, not become effective until the expiration of 30 days after notice of such amendment shall have been given to the ADS holders.

Every ADS holder at the time any amendment so becomes effective shall be deemed, by continuing to hold such ADR, to consent and agree to such amendment and to be bound by the deposit agreement as amended thereby. In no event shall any amendment impair the right of the ADR holder to surrender such receipt and receive therefor the deposited securities represented thereby, except in order to comply with mandatory provisions of applicable law.

How may the deposit agreement be terminated?

The Depositary shall at any time at our direction, terminate the deposit agreement by mailing notice of such termination to the ADR holders then outstanding at least 30 days prior to the date fixed in such notice for such termination. The Depositary may likewise terminate the deposit agreement by mailing notice of such termination to us and the ADR holders then outstanding if at any time 90 days shall have expired after the Depositary shall have delivered to us a written notice of its election to resign and a successor depositary shall not have been appointed and accepted its appointment as provided in the deposit agreement.

Limitations on Obligations and Liability

The deposit agreement expressly limits our obligations and the obligations of the Depositary. It also limits our liability and the liability of the Depositary. We and the depositary:

- are only obligated to take the actions specifically set forth in the deposit agreement without negligence or bad faith;
- are not liable if we are or it is prevented or delayed by law or by events or circumstances beyond our or its ability to prevent or counteract with reasonable care or effort from performing our or its obligations under the deposit agreement;
- are not liable if we or it exercises discretion permitted under the deposit agreement;
- have no obligation to become involved in a lawsuit or other proceeding related to the ADSs or the deposit agreement on your behalf or on behalf of any other person;
- are not liable for any action or nonaction by it in reliance upon the advice of or information from legal counsel, accountants, any person presenting shares for deposit, any ADS holder or any other person believed by it in good faith to be competent to give such advice or information
- the Depositary shall not be liable for any acts or omissions made by a successor depositary whether in connection with a previous act or omission of the Depositary or in connection with any matter arising wholly after the removal or resignation of

the Depository, provided that in connection with the issue out of which such potential liability arises the Depository performed its obligations without negligence or bad faith while it acted as Depository; and

- the Depository shall not be responsible for any failure to carry out any instructions to vote any of the deposited securities, or for the manner in which any such vote is cast or the effect of any such vote, provided that any such action or nonaction is in good faith.

Further, the depository has no duty to make any determination or provide any information as to our tax status, or any liability for any tax consequences that may be incurred by ADS holders as a result of owning or holding ADSs.

In the deposit agreement, we and the depository agree to indemnify each other under certain circumstances.

Direct Registration System

In the deposit agreement, all parties to the deposit agreement acknowledge that the Direct Registration System, also referred to as DRS, and Profile Modification System, also referred to as Profile, will apply to the ADSs. DRS is a system administered by DTC that facilitates interchange between registered holding of uncertificated ADSs and holding of security entitlements in ADSs through DTC and a DTC participant. Profile is feature of DRS that allows a DTC participant, claiming to act on behalf of a registered holder of uncertificated ADSs, to direct the depository to register a transfer of those ADSs to DTC or its nominee and to deliver those ADSs to the DTC account of that DTC participant without receipt by the depository of prior authorization from the ADS holder to register that transfer.

In connection with and in accordance with the arrangements and procedures relating to DRS/Profile, the parties to the deposit agreement understand that the depository will not determine whether the DTC participant that is claiming to be acting on behalf of an ADS holder in requesting registration of transfer and delivery as described in the paragraph above has the actual authority to act on behalf of the ADS holder (notwithstanding any requirements under the Uniform Commercial Code). In the deposit agreement, the parties agree that the depository's reliance on and compliance with instructions received by the depository through the DRS/Profile system and in accordance with the deposit agreement will not constitute negligence or bad faith on the part of the depository.

Shareholder Communications; Inspection of Register of Holders of ADSs

The depository will make available for your inspection at its office all communications that it receives from us as a holder of deposited securities that we make generally available to holders of deposited securities, including any proxy soliciting material. The depository will send you copies of those communications or otherwise make those communications available to you if we ask it to. You have a right to inspect the register of holders of ADSs, but not for the purpose of contacting those holders about a matter unrelated to our business or the ADSs.

Memorandum and Articles of Association

YPF's by-laws were approved by National Executive Decree No. 1,106, dated May 31, 1993, and notarized by public deed No. 175, dated June 15, 1993 at the National Notary Public Office, sheet 801 of the National Registry, and registered at the Inspection Board of Legal Entities of the Argentine Republic on the same date, June 15, 1993 under number 5,109 of the book of Corporations number 113, volume "A."

At a shareholders' meeting on April 29, 2016, YPF's shareholders approved an amendment to YPF's by-laws. Copies of the by-laws, which have been filed as Exhibit 1.2. to YPF's 2016 annual report on Form-20 filed on April 7, 2017, are also available at the offices of YPF, and on its own web site at <https://www.ypf.com/inversoresaccionistas/GobiernoCorporativo/paginas/estatuto.aspx>

For a detailed description of YPF's object and purpose, see "Item 4. Information on the Company." YPF's object is set forth in Section 4 of its by-laws.

Pursuant to Argentine General Corporations Law, the Board of Directors or the Supervisory Committee shall call either annual ordinary or extraordinary shareholders' meetings in the cases provided by law and whenever they consider appropriate. Shareholders representing not less than 5% of YPF's capital stock may also request that a shareholders' meeting be called.

A shareholders' meeting shall be called at least 20 calendar days – and no more than 45 calendar days - prior to the meeting date by notice published in the legal publications journal (Official Gazette), in an Argentina newspaper of wide circulation and in the bulletin

of the BASE for a period of 5 days. The notice shall include the type of meeting to be held, date, time and place of the meeting, the agenda to be discussed and the specific requirements shareholders must meet to attend the meeting.

Shareholders' Meetings

As previously noted, pursuant to the Argentine General Corporations Law, the Board of Directors or the Supervisory Committee shall call either annual ordinary or extraordinary shareholders' meetings in the cases provided by law and whenever they consider appropriate. Shareholders representing not less than 5% of the capital stock of the Company may also request that a shareholders' meeting be called, in which case the meeting must be held within 40 days of such shareholders' request. If the Board of Directors or the Supervisory Committee fails to call a meeting following such a request, a meeting may be ordered by the CNV or by the courts.

Shareholders' meetings may be ordinary meetings or extraordinary meetings. The Company is required to convene and hold an ordinary meeting of shareholders within four months of the closing of each fiscal year to consider the matters specified in the first two paragraphs of Section 234 of the Argentine General Corporations Law, such as the approval of our financial statements, allocation of net income for such fiscal year, consideration of the reports of the Board of Directors and of the Supervisory Committee, consideration of the performance and determination of the remuneration of directors and members of the Supervisory Committee. In addition, pursuant to the Capital Markets Law, at ordinary shareholders' meetings, shareholders must consider (i) the disposition of, or creation of any lien over, all or a substantial part of the assets of the Company as long as such decision has not been performed in the ordinary course of business, and (ii) the execution of administration or management agreements and whether to approve any agreement by virtue of which the assets or services provided to the Company are paid partially or totally with a percentage of the income, results or earnings of the Company, if the payment is material when measured against the volume of the ordinary course of business and our shareholders' equity. Other matters which may be considered at an ordinary shareholders' meeting convened and held at any time include the responsibility of directors and members of the Supervisory Committee, capital increases and the issuance of certain notes. Extraordinary shareholders' meetings may be called at any time to consider matters beyond the authority of an ordinary meeting including, without limitation, the amendment of our by-laws, issuance of debentures, early dissolution, merger, spin-off, reduction of capital stock and redemption of shares, transformation from one type of entity to another and limitation or suspension of shareholders' preemptive rights.

Notices of meetings

Notice of shareholders' meetings must be published for 5 days in the Official Gazette, in an Argentine newspaper of wide distribution and in the bulletin of the BASE, at least 20 but not more than 45 calendar days prior to the date on which the meeting is to be held. Such notice must include information regarding the type of meeting to be held, the date, time and place of such meeting, the agenda, and the specific requirements shareholders must meet to attend the meeting. If a quorum is not available at such meeting, a notice for a meeting on second call, which must be held within 30 days of the date on which the first meeting was called, must be published for 3 days, at least 8 days before the date of the meeting on second call. Shareholders' meetings may be called simultaneously on first and second in the same notice, only in the case of ordinary meetings. Shareholders' meetings may be validly held without publication of the call if all the shares of the outstanding share capital of the Company are present in the meeting and resolutions are adopted by unanimous vote of shares entitled to vote.

Quorum and voting requirements

Except as described below, the quorum for ordinary meetings of shareholders on first call is a majority of the shares entitled to vote, and action may be taken by the affirmative vote of an absolute majority of the shares present that are entitled to vote on such action. In case of a meeting on second call (provided that the quorum is not available at the first meeting), action may be taken by the holders of an absolute majority of the shares present, regardless of the number of such shares. The quorum for an extraordinary shareholders' meeting on first call is 60% of the shares entitled to vote and pursuant to our by-laws if such quorum is not available, a meeting on second call may be held, with the presence of any number of shares entitled to vote. In both cases action may be taken, by the holders of an absolute majority of the shares present, regardless of the number of such shares.

Our by-laws establish that in order to approve (i) the transfer of our domicile outside Argentina, (ii) a fundamental change of the corporate purpose set forth in our by-laws, (iii) delisting of our shares from ByMA or NYSE, and (iv) a spin-off by us, when as a result of such spin-off more than 25% of our assets are transferred to the resulting corporations, (even in case that such result is reached by several spin-offs during a one year term), a majority of the shares representing 75% or more of our voting shares is required, both in first and second call.

Our by-laws also establish that in order to approve (i) certain amendments to our by-laws concerning tender offers of shares, (ii) the granting of certain guarantees in favor of our shareholders, (except when the guarantee and the guaranteed obligation were assumed

while procuring the corporate purpose set forth in our by-laws) (iii) full stop of refining, commercialization and distribution activities and (iv) rules regarding appointment, election and number of members of our Board of Directors, a majority of the shares representing 66% or more of our voting shares is required, both in first and second call.

The affirmative vote of Class A shares, voting at a special meeting of the holders of such shares is also needed to: (i) decide upon the merger of the company; (ii) approve any acquisition of shares by a third party representing more than 50% of the company's capital; (iii) transfer to third parties all the exploitation rights granted to YPF pursuant to the Hydrocarbons Law, applicable regulations thereunder or the Privatization Law, if such transfer would result in the total suspension of the company's exploration and production activities; (iv) voluntarily dissolve the company; and (v) transfer our legal or fiscal domicile outside Argentina. The actions described in clauses (iii) and (iv) above also require prior approval of the Argentine Congress through enactment of a law

To affect the rights of any class of shares, the affirmative vote of such Class of shares, voting at a special meeting of the holders of such shares, is required.

A special majority is required to amend any rule provided by the by-laws of the Company in which such same special majority is required.

In order to attend the meeting, shareholders must deposit their shares, or a certificate representing book-entry shares issued by a bank, clearing house or depository trust company, with us. This certificate will allow each shareholder to be registered in the attendance book which closes 3 business days before the date on which the meeting will be held. The Company will issue to each shareholder a deposit certificate required for admission into the meeting. Shares certified and registered in the attendance book may not be disposed of before the meeting is held unless the corresponding deposit is cancelled.

Under the Argentine General Corporations Law, foreign companies that own shares in an Argentine corporation are required to register in the National Corporations Registry (held by the Ministry of Justice and Human Rights, or the agency to be determined by such ministry to that effect, according to Decree No. 27/2018 - published on January 11, 2018 in the Official Gazette) in order to exercise certain shareholder rights, including voting rights. Such registration may require the filing of certain corporate and accounting documents. Accordingly, if a shareholder owns Class D shares directly (rather than in the form of ADSs) and it is a non-Argentine company, and such shareholder fails to register in the National Corporations Registry, the ability to exercise its rights as a holder of Class D shares may be limited.

According to Section 62 Bis of the Capital Markets Law and to General Resolution No. 789 of the CNV, issued on March 29, 2019, foreign companies may vote in shareholders' meetings by a duly authorized attorney in fact.

Directors, members of the Supervisory Committee and senior managers are both entitled and required to attend all shareholders' meetings. These persons may only exercise voting power to the extent they have been previously registered as shareholders, in accordance with the provisions described in the above paragraph. Nevertheless, these persons are not allowed to vote on any proposal regarding the approval of their management duties or their removal for cause.

Shareholders who have a conflict of interest with the Company and who do not abstain from voting may be liable for damages to the Company, but only if the transaction would not have been approved without such shareholders' votes. Furthermore, shareholders who willfully or negligently vote in favor of a resolution that is subsequently declared void by a court as contrary to the law or our by-laws may be held jointly and severally liable for damages to the Company or to other third parties, including shareholders.

The affirmative vote of our major shareholder is needed to adopt certain resolutions of the Company (see "ITEM 10. Additional Information - Quorum and voting requirements").

For information on specific provisions relating to acquisitions of shares, please see "ITEM 10. Additional Information – Certain Provisions Relating to Acquisitions of Shares" of our annual report.

Foreign Investment Legislation

Under the Argentine Foreign Investment Law, as amended, and its implementing regulations (together, referred to as the "Foreign Investment Legislation"), the purchase of shares of an Argentine corporation by an individual or legal entity domiciled abroad or by an Argentine company of "foreign capital" (as defined in the Foreign Investment Legislation) constitutes foreign investment. Currently, foreign investment in industries other than broadcasting, purchase land located in frontier and other security areas by foreigners and limits on the ownership of rural land by foreign individuals or legal entities according to Law 26,737, is not restricted, and no prior

approval is required to make foreign investments. No prior approval is required in order to purchase Class D shares or ADSs or to exercise financial or corporate rights thereunder.

CODE OF ETHICS AND CONDUCT

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PURPOSE

Our Code of Ethics and Conduct (this “Code”) contains values, principles and rules that will guide us as we adapt to the new and complex realities of the market and to the challenges facing our organization, as well as the different environments where we operate.

The purpose of this Code is to communicate our company’s beliefs and standards as we build a corporate culture of integrity, based on ethical values essential to the maintenance of an economically viable and sustainable business. This Code will also guide us towards an understanding of the policies and principles that define how we want to do business, in making decisions consistent with such principles and in being informed on the conduct that we expect as a company

This Code applies to all of us at YPF (employees and directors), as well as YPF’s subsidiaries, wholly-owned companies, its respective contractors, subcontractors, suppliers, consultants, and other “business partners” and their respective members who carry out business with our company, whether directly or on behalf of us and on our account.

Business activities firmly supported in ethics, integrity and transparency are vital for our company. All of us who are part of YPF and our business partners are critical in developing our activities. Therefore, we require everybody to comply with the applicable laws, the respect for Argentine and internationally-recognized human rights and the standards established in this Code.

This document highlights our individual and collective responsibilities how we want to put our values into practice every day, in every action we perform, with the full conviction that doing the right thing is not only what makes a difference, but that this is also the only way in which to act.

HOW DO WE WANT TO DEVELOP OUR ACTIVITY?

A Code of Ethics and Conduct is much more than a compilation of rules and regulation. It is a way of expressing how we want to embody our values and develop our activity. Thus, our intention is not to list all the possible situations that may arise in the professional field. In other words, this does not replace our responsibility and good judgment upon, on a daily implementing the principles, values and standards contained in this Code.

Our Values

- ❖ **We act with integrity:** We work ethically, transparently and honestly. We share accurate and reliable information. We are responsible and honor our commitments.
- ❖ **We create value:** We deliver results in an efficient and sustainable way. We are innovative and agile, continuously improving our processes. Teamwork and professionalism are essential in obtaining results.
- ❖ **We prioritize safety:** We protect people and their environment. We look after the company’s information, assets and reputation.
- ❖ **We are committed to sustainability:** We understand the three dimensions of sustainable energy development: economic, social and environmental.

❖ **We focus on the client:** We aim to get to know and understand the needs of our customers, and add value to them with comprehensive, economically- viable energy solutions, through quality products and services. We continually strive to evolve and offer better experiences.

❖ **We value gender equality and diversity:** We respect the characteristics that make us unique as people, promoting plurality and inclusion as the pillars of the company's success and of the full development of its members.

❖ ***We act with Integrity:*** *We work ethically, transparently and honestly. We share accurate and reliable information. We are responsible and honor our commitments.*

We do the Right Thing

Having integrity means doing the right thing, in line with the highest ethical standards.

Integrity is the guiding principle through which we interpret and embody all of the values in our Code.

We respect and comply with the laws, rules and regulations that apply to the company by virtue of the activities we carry out.

We share information necessary for decision-making and also for whatever needs to be reported, whether internally or externally.

At YPF we commit to listening to you and maintaining the confidentiality of your complaint.

We hope you will make yourself heard and that your complaint is in good faith.

Whatever our role or function, we all share the duty and obligation to make ourselves heard when dealing with behavior or a situation that doesn't seem right.

YPF guarantees security, confidentiality, the choice to remain anonymous and that no type of retaliation will arise in the development of labor and/or contractual relationships of those using the Ethics Hotline in good faith.

There are various channels or available means for you to make your voice heard and file your complaint

- In person: have a conversation with your superior, a representative from Human Resources, from Internal Auditing or the Compliance department.
- File a complaint using the Ethics Hotline, whether online, by phone, or in an email to the Ethics Committee. Find information regarding the toll-free complaints number, the complaints links and the Ethics Committee email by visiting the Ethics Space web site at <http://y-net/Paginas/Espacio-Etico.aspx>.

Zero Tolerance for Bribery and Corruption

At YPF we are committed to conducting our business and activities with transparency. YPF does not, under any circumstance, consent to the offer, delivery or receipt of bribes, favors, or any other form of corruption. We have Zero Tolerance for Corruption.

Corruption can take on many forms and includes the offer, delivery, and/or receipt of something of value and/or any kind of benefit to influence a decision or attitude so as to give or receive an undue advantage.

At YPF, facilitation payments made to public officials or any administrative action undertaken to ensure, advance or accelerate a particular routine public procedure or action, independent of how much is involved, are also prohibited.

We all have the responsibility and obligation to comply with our anti-corruption standards and the different laws and regulations governing the matter, and we also have the obligation to reject and report any deed or event involving corruption.

We require all our business partners to adhere to and comply with our anti-corruption policy.

Examples of corruption: If you know about or find yourself involved in any of these situations, report it using the channels available:

- Speed up the provision of a services certification in exchange for an undue benefit.
- Pay or advance payment to an inspector so that they overlook insufficient procedures.
- Pay customs agents so that consumables lacking the proper customs documentation can enter our country and be used in our operations.

Political Contributions

The financing of electoral campaigns and/or contributions to political parties in all forms is strictly prohibited.

Using company funds or resources, whether directly or indirectly, to help finance political parties, political campaigns, political candidates or their associates, is strictly prohibited.

Interaction with the Public Sector

Our company interacts with the public sector exclusively according to our standards and principles, and only through the departments and persons authorized to do so.

Conflict of Interest

A conflict of interest occurs when a direct or indirect personal interest (a personal situation, such as a family or romantic relationship, friendship, or a relationship based on a shared activity, or any other type of circumstance) has the potential to affect our objectivity or independent judgment in the course of our activities at the company, making it difficult to act in the best interests of YPF.

Employees and directors should refrain from getting involved in situations that could give rise to a conflict of interest. Similarly, employees and directors may not carry out commercial or professional activities in parallel to those they perform for YPF that, in some way, compete directly or indirectly with our company's business.

If you have a conflict of interest or believe that you may be facing a situation that could involve or lead to one, whether current or potential, you must complete the Conflict of Interest Declaration and send it to the Compliance department.

If you have any doubt about a possible conflict of interest, contact the Compliance department.

Directors should report a conflict of interest, whether current or potential, or any doubt regarding the existence of a conflict of interest situation, to the Audit Committee.

Bear in mind that you must:

- Inform the company about the direct or indirect involvement of your relatives with YPF's supplier companies, clients, competitors, contractors and/or subcontractors.
- Abstain from making recommendations for YPF to do business with any company where you might have a personal interest, whether direct or indirect.

Some examples that could create a conflict of interest and should be reported:

- Financial interests: you, or a member of your family, are shareholders, partners or employees of a company that does business with YPF, or is one of its suppliers, or a client or a competitor.
- Relationships: if you have a close personal relationship, including but not limited to family, friends, or a romantic relationship, with anyone working for a competitor, seller, client or supplier of YPF, or with another employee of the company reporting to you or to whom you report directly or indirectly.

Undue Influence for Personal Benefit

Do not use your authority, the influence associated with your position, or YPF information and/or resources for personal benefit, whether directly or indirectly.

Gifts, Presents and Hospitality

The promise, delivery and acceptance of gifts may well be part of building a business relationship. However, sometimes it may be difficult to be objective about the people providing such gifts and impartiality is lost in said relationship leading to abuses that may favor situations of corruption or conflict of interest or cause the appearance of a conflict of interest.

It's important to do the right thing and set an example with our actions. The decisions we take regarding our business relationships with third parties should be based on objective factors, such as cost, quality, value, compliance with deadlines, and service, among others.

If we decide to make or receive business or corporate gifts, these must not exceed the value of US\$100 (one hundred United States dollars), or their equivalent in local currency, per year by source. However, no gifts or hospitality should be accepted or made, even for a lower amount, when one's objectivity or business, professional or administrative relationship could be affected.

We should return any and every gift whose market value exceeds US\$100 (one hundred United States dollars), or its equivalent in local currency or when it affects one's objectivity as mentioned above. If the gift can't be returned, it should be forwarded to the YPF Foundation.

Invitations to attend business events, conventions, conferences, commercial presentations or technical courses must be authorized by senior management as well as by the Compliance department, in case that the aforementioned value is exceeded.

Gifts may not be made to public officials, unless these are courtesy gifts or required by diplomatic custom and have been duly authorized by senior management and the Compliance department. An adequate record of such gifts must be kept.

Reliable Accounting and Reporting Records

We must disseminate truthful, verifiable and reliable information about our management activities and communicate this information clearly, both internally and externally. Therefore, we must therefore take the necessary measures to ensure the transparency of information and the conditions of security and integrity at all levels.

All YPF transactions, including the breakdown of the information required by accounting standards, must be accurately and reliably reflected in the measurement and accounting records, daily reports and ledger systems, in accordance with current legal provisions.

Protection and Reasonable Use of Company Resources

We are all responsible for the proper use of YPF assets, and we share the obligation to protect them against misuse, abuse, sabotage or loss. Our assets also include YPF's corporate image and reputation.

In the course of our work, we have access to YPF resources to help us to develop our activity, which take different forms: physical, electronic, financial, and intangible.

These resources include, among other, computers, Internet access, email, data bases, industrial secrets, software, tools, equipment, company vehicles or corporate credit cards. YPF reserves the right to control and monitor the use of assets assigned in accordance with the provisions established in current regulations.

We must look after the assets YPF assigns to us for use in developing processes, businesses and projects, adopting criteria and preventive actions to ensure their safe custody and integrity.

In case company members have to make trips and/or incur expenses for representing the company, these must be consistent with our business purposes.

Knowing our Business Partners

Clients, vendors, suppliers, contractors or other business partners with whom we interact can often create responsibility or co-responsibility for our company. We must know our business partners well. When contracting a business partner, we should evaluate their integrity, therefore we should follow third-party contracting program making clear what is acceptable and what is not permitted at YPF.

When conducting business with our company, our business partners must comply with the applicable laws, with our Code, and our corporate policies, including, but not limited to, our anti-corruption standards nationally and internationally-recognized human rights principles, and adhere to and comply with our ethical requirements consistent with our standards of integrity.

❖ ***We create value:*** *We deliver results in an efficient and sustainable way. We are innovative and agile, continuously improving our processes. Teamwork and professionalism are essential in order to obtain results.*

Energy in Teamwork

At YPF we understand that when we work as a team it enhances our energy. This is how we obtain results in an efficient and sustainable way, with a professional approach. We know that our business resides in the development of our people and in collaborative work. We seek to achieve a work environment where respect, trust and good faith prevail. We are innovative and agile in our search for the continuous improvement of our processes.

Therefore, in everything we do, each one of us must adopt a leadership attitude commensurate with this Code, paving the way for doing the right thing. Each member of the company must exercise their responsibility and initiative both individually and jointly.

Leadership Attributes Guidelines

- Know and apply this Code, as well as our corporate policies and our resources when taking decisions and/or identifying problems.
- Transmit our knowledge, experience and good practices throughout the organization.
- Ask for help, advice and if necessary, make yourself heard.
- Delegate to others on the basis of sound criteria and ensure they then take responsibility for their actions.
- Report undesirable or unethical behavior, as well as cases of non-compliance with the law, this Code, and our corporate policies.

Guidelines for Decision-making When Facing an Ethical Challenge

- Would I feel comfortable if this situation were aired in the media or on social networks?
- Is it legal and consistent with the company's policies and the spirit of their letter?
- Am I acting for the good of the company?
- Would I be proud of this decision if it were known by someone I respect, or by my family or friends, my co-workers and colleagues?
- Have I evaluated in detail all the risks associated with this decision in detail?

❖ ***We prioritize safety:*** *We protect people and their environment. We look after the company's information, assets and reputation.*

Our Culture of Safety, Occupational Health and Environmental Protection

At YPF we provide and demand the highest standards in terms of health care, our people's safety, and that of our facilities and surroundings, as well as the preservation of the environment, in addition to the processes

involved in our operations, facilities and services. We make a point of communicating this principle throughout our organization as well as transmitting it to our business partners.

We train, commit and monitor all levels of the organization to manage risks and impacts, and ensure everyone complies with our standards and associated regulations, all the while seeking continuous improvement.

We must all know, understand, and comply with our company's policies, rules and safety standards as well as their respective protocols, so that we can help prevent accidents, harm to health, environmental damage, or a negative impact on local communities. The violation of these rules may result in damage to your person, your colleagues, third parties or company property.

Maintain the Workplace Safe and Protected

Any behavior that could put employees at risk is prohibited, including violent acts, threats or other forms of intimidation. Weapons and firearms, as well as forbidden substances, are not permitted at our company's facilities.

If you feel threatened, if you observe threatening behavior, or if you have knowledge that there is a weapon or forbidden substances on our premises, you must immediately report this to your boss, any Human Resources representative, and the Physical Security Department.

Confidentiality and Data Protection

At YPF we understand that information is a key asset for the development of our activity. The company's Information Security Policy has been designed to preserve the integrity, availability and confidentiality of information by ensuring it is correctly identified and classified, in order to avoid its exposure, loss and/or corruption. All information owned or controlled by the company that is of a non-public nature should be considered to be restricted.

We must maintain the confidentiality of all of the information accessed in the course of our daily activities at YPF. For example, information about YPF's plans, investments, objectives, projects and strategic activities, technical, geological or IT knowledge, results and statistics, should not be disclosed to third parties, unless YPF has expressly issued prior authorization in writing in accordance with current rules and regulations. Similarly, we should refrain from talking about confidential issues when in public places (such as restaurants, elevators and public transport).

All information, whether that of our clients, employees or any third party, accessed due to our professional activity, is confidential. It should be kept private and the necessary measures must be adopted to collect, store and access these data in accordance with the applicable regulations in order to avoid undue access.

In the case of legal requirements (such as requests for information or judicial summons) the Legal Services department is charged with representing the company as required in order to safeguard the company's information.

Any who cease work with YPF may not use any kind of confidential or privileged information obtained during their employment. They are strictly prohibited from disseminating such information according to legal standards and the provisions established in labor and/or contractual agreements. Any work developed for YPF is the company's exclusive property. Any property of YPF in your possession when you cease activity with the company must be returned immediately.

Use of Email and IT Tools

Electronic mail and IT are work tools to be used in a responsible manner for the development of our work functions, in the full understanding of the risks incurred by their incorrect use.

Security and Protection of Privacy in the Workplace

If you are using company networks or systems, regardless of the device, you should know that any information you send or receive is not personal information. All information produced by and stored on YPF assets and systems is considered property of the company. Therefore, YPF reserves the right to access, download, print, inspect, copy or disclose information at any time and without prior notice, in accordance with current legislation.

Protection of our Employees' Privacy

Information about our employees is confidential and should only be supplied to people who have been expressly authorized to handle it. This type of information should never be shared, unless you are sure it is appropriate in line with our policies and current legislation.

Use these principles as a guide:

- Limit the collection, transfer and disclosure of personal information as indicated in our policies.
- Protect personal information and follow the conservation and destruction policies established by the company.

Insider Information

If you have information that may affect the trading value of YPF's securities, or the course of their trading, you must keep this information private. You may not disclose it neither directly nor indirectly, as established by the Internal Code of Conduct of YPF S.A. in the context of the Capital Markets.

Trading YPF's securities based on nonpublic material information or providing it to third parties is illegal and may give rise to legal action. Therefore, you must comply with the policies and limited period for transactions that could be applicable given the circumstances affecting our company.

❖ ***We are committed to sustainability:*** *We understand the three dimensions of sustainable energy development: economic, social and environmental.*

We are a full servicing energy company, focused on generating affordable and sustainable energy. We are competitive and committed to leading the transition to energy in the country and in the region.

We seek profitable growth with a focus on creating value and making the most of all the energy potential available.

We respect the human rights of all persons in our operations and activities by exercising due diligence in this matter. This involves taking a preventive approach and adopting safeguards in our activities.

We build solid, lasting relationships with the aim of creating value which we share with the communities where we develop our activities, based on recognition, mutual respect and constant dialogue.

Preserving the environment is an integral part of our decision-making processes and business practices. We focus on the efficient and sustainable use of natural resources, seeking to prevent and minimize environmental impacts as we strive to continuously improve our environmental management.

We promote environmental awareness throughout our business activities, complying with the applicable laws, policies, norms and environmental regulations.

Therefore, it is important for you to comply with the company's commitments to sustainability as established previously.

❖ **We focus on the client:** *We aim to know our customers, understanding their needs and adding value with integral energy solutions, economically viable, through quality products and services. We continually strive to evolve and offer them the best experience possible.*

Focus on the Client

The needs of our clients, both external and internal, is our main priority throughout our processes, business areas and products, because this represents the path to our future and helps us evolve as a company. We are convinced that the only way of achieving the most competitive standards for our products and services is to focus our actions on putting the client front and center, in all our activities.

Protection of our Clients' Privacy

We take all the measures necessary to protect our clients' information and guard against unauthorized access to their data.

Responsible Advertising

We promote and advertise our products, services and actions within a framework of truthfulness, responsibility and legality. We are committed to a transparent and truthful advertising policy.

❖ **We value gender equality and diversity:**

We value gender equality: We guarantee that both women and men receive the same treatment and opportunities, with identical conditions and possibilities, including those of economic nature, for persons holding the same jobs. We also project a continuous increase in women participation in the board of directors and senior positions until a balance is reached.

We value diversity: We respect the characteristics that make us unique as people, promoting plurality and inclusion as the pillars of the company's success and of the full development of its members.

Strength Through Diversity

At YPF, we are committed to ensuring that everyone has access to the same opportunities and receives the same treatment so that they can fulfill their maximum potential as professionals. We promote a work environment that encourages our employees to develop and grow, valuing the broad diversity of their abilities and experiences, and respecting all the characteristics that make us unique as people.

At YPF:

- We foster an inclusive and trusting environment.
- We recognize the value lying in each one of us, respecting our differences and enriching ourselves as we listen to different perspectives.
- We make decisions about hiring, promotion and professional development based on suitability, merit and equal opportunities in an open environment of diversity and inclusion.

Ensuring the Workplace is a Respectful and Harassment-Free Environment

We are committed to ensuring a cordial workplace free from situations of discrimination, abuse or any form of harassment or abusive behavior. Such situations violate the company's policies and are not allowed.

YPF does not tolerate any form of discrimination, abuse or harassment, or aggravating or abusive behavior.

We encourage our employees to treat each other with respect and avoid situations that may be perceived as inappropriate. For example, do not physically or verbally intimidate other people, do not try to humiliate them, make inappropriate or obscene jokes or comments, and do not show material that is offensive or disrespectful. Make sure to comply with our commitments regarding human rights.

RESPONSIBILITY IN EXTERNAL COMMUNICATION

We communicate in many ways and through different mediums and social network channels, so everything we write or say can affect YPF's reputation.

Speaking on Behalf of the Company

When we speak on behalf of YPF or its group of companies, we must provide timely, reliable, and accurate public information that is easy to understand.

You may only disclose corporate information if you have express permission to do so and prior confirmation granted by the Company's Communications department.

If the media contacts you, do not make any statements and refer them to the proper department in our company authorized to deal with them.

Here are some examples of situations where confidential information could be revealed and should not be published on social media or through other mediums:

- Upcoming marketing campaigns.
- Development of new projects or businesses.
- Casual references to your work or work trip plans that involve technical information.
- Reflections on the company's performance.
- References to pricing policies.

Responsible Use of Social Networks Media and Other Media

Social media platforms are an opportunity to demonstrate the excellence of our businesses and products and strengthen the relationship with our customers. When you post information or an opinion as a YPF employee, you should act with respect, using good judgment and common sense. Never publish confidential information about YPF, its clients or employees, or any opinions that could be attributed to YPF. Your personal social media accounts should be used responsibly. When you publish information or share an opinion on your own behalf, do not use your status as an employee, or any other reference, as this could allow the content published to be attributed to YPF. We must look after our reputation and prevent it from being affected by the improper use of social networks.

MEASURES APPLICABLE IN CASE OF NON-COMPLIANCE

The company may apply disciplinary sanctions in case of the breach of this Code, of the rules and/or policies of our company, current regulations and the law. These sanctions may also imply the termination of employment or the rescission of a contractual relationship, as the case may be, and may also give rise to legal actions as appropriate. Furthermore, if someone in bad faith makes false reports or complaints, and/or lies, or obstructs the investigation of an ethical case, the same sanctions shall be applied.

ETHICS COMMITTEE

Our Ethics Committee was created to oversee the company's policy so that we achieve the highest standards of quality with regard to the principles and values we promote. Ethics are an integral part of our activities, which is why we care not only about the results we get, but also how we obtain them.

The Committee is composed of six members, which include the Internal Auditor, the Corporate Vice President of Legal Services, the Vice President of Human Resources and the Chief Compliance Officer. The remaining two members are appointed by the Chairman of the Board of Directors of YPF S.A. from those employees working in operational or business areas, to ensure the decision-making process is both fair and comprehensive.

COMPLIANCE

We have an independent and autonomous Compliance department charged with the responsibility of raising people's awareness of ethics and compliance throughout the organization. This department can provide guidance in understanding the company's policies, the applicable laws, as well as how to deal with ethical dilemmas.

Final Words

Thank you for taking the time to read and understand our Code.

We ask you that you apply and comply with our Code so that you can be sure that you always make the right decision.

ANNEX: YPF S.A. INTERNAL REGULATIONS FOR CONDUCT IN THE CAPITAL MARKETS

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1. PURPOSE
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1. PURPOSE

1.1. The purpose of these YPF S.A. Internal Regulations for Conduct in the Securities Market (the "Regulations") is to define the principles and framework of action for directors and employees of YPF S.A. (hereinafter, "YPF" or "the Company"), as well as its statutory auditors and external advisers, in the securities market.

1.2. Subject Persons under these Rules shall likewise comply with current regulations governing each of the markets where YPF is authorized to make public offerings. Subject Persons shall always act in such a way that, both themselves and the Company, strictly abide by these Rules and the regulations governing each market.

1.3. These Regulations incorporate the best practices on the matter, in order to foster transparency and proper market operation and preserve investors' legitimate interests.

2. SCOPE OF APPLICATION

2.1. Subjective Scope:

Without prejudice to YPF's obligations as a legal entity in matters pertaining to these Regulations, the following persons are bound to comply with these Regulations (hereinafter, the "Subject Persons"):

- a) Members of the governing bodies of YPF, its subsidiaries and controlled entities (the "Directors");

b) Employees of YPF, its subsidiaries and controlled entities;

c) External advisers, for the purposes provided in Section 4. The term “external adviser” refers to any individual or legal entity rendering consulting, financial, legal, or any other kind of services, to YPF, or its subsidiaries, or controlled entities and, therefore, with access to Privileged Information.

d) Members of the supervisory committee of YPF, and of its subsidiaries and controlled entities (the “Statutory Auditors”).

e) Contractors, subcontractors, vendors and other business partners, and their respective members, who carry out activities or conduct business with YPF, or its controlled entities or subsidiaries, or in the name and on behalf thereof, and have access to Privileged Information for this reason.

2.2. Objective Scope:

These Regulations apply to the following marketable securities, contracts or financial instruments:

a. marketable securities issued by YPF and its subsidiaries and controlled entities, which are traded or whose admission to trading has been requested, on Argentine or overseas securities markets.

b. Financial instruments and contracts of any kind conferring the right to purchase or sell the marketable Securities referred to in a);

c. Financial instruments and contracts of any kind whose underlying assets are the marketable securities referred to in a);

All of the above, the “Marketable Securities”.

3. RULES OF CONDUCT REGARDING THE PURCHASE AND SALE OF MARKETABLE SECURITIES AND FINANCIAL INSTRUMENTS ISSUED BY YPF S.A., AND ITS SUBSIDIARIES AND CONTROLLED ENTITIES

3.1. Initial notice

Any Subject Persons that have subscribed for, purchased or sold —whether in cash or credit—for their own account:

a) shares or marketable securities convertible into shares issued by YPF and/or its subsidiaries, and/or its controlled entities, which are traded, or whose admission to trading has been requested, on capital markets of Argentina or abroad;

b) Financial instruments and contracts of any kind which grant a right to purchase or sell shares, or the marketable securities mentioned in a) above;

c) Financial instruments and contracts of any kind whose underlying assets are shares or the marketable securities mentioned in a) above;

shall notify the Vice-Presidency of Human Resources or the Board of Directors’ Secretary, as the case may be, within fifteen days following the month in which the transaction was made, if they held office as director (regular or alternate), statutory auditor (regular or alternate) and senior manager. The notice shall describe the transactions and indicate the date, quantity and price.

Any non-employee Directors of the Company as well as the Statutory Auditors shall address such notice to the Board of Directors’ Secretary.

The obligation to send this notice is without prejudice to any other obligations set forth in current regulations governing the markets where the Marketable Securities are traded.

3.2. Related Persons

Any transactions made by the following persons related to Subject Persons (hereinafter referred to as “Related Persons”) shall be deemed equivalent to the own-account trading transactions, and therefore, shall be declared:

a) The Subject Person’s spouse, domestic partner, or any person in an affective relationship similar to marriage.

- b) The Subject Person's minor children under parental authority;
- c) Any legal entities controlled by the Subject Persons.
- d) Those relatives who live with Subject Persons, or who are under their charge.
- e) Any other individual or legal entity acting on behalf or in the interest of Subject Persons.

Prohibited trading period

Subject Persons shall be prohibited from trading in YPF's Marketable Securities from fifteen (15) consecutive days prior to the Company's reporting of its annual and quarterly financial results, to two (2) business days after their publication, when Subject Persons are in possession of YPF's non-public and material information about its results, i.e. Privileged Information. If Subject Persons are in possession of any other Privileged Information, they shall refrain from trading in YPF's Marketable Securities as soon as they become aware of such information, until it is officially in the public domain.

4. PRIVILEGED INFORMATION

4.1. Concept of Privileged Information

Privileged Information means any specific information referred, directly or indirectly, to one or several Marketable Securities, or to the issuers thereof, which is not in the public domain and which, if made public or having been made public, may have or has significantly influenced the conditions, or the placement price, or trading of such Marketable Securities.

Information shall be considered to significantly influence the conditions, or the price of said securities, when a reasonable investor would probably make use of that information as one of the elements of the basic motivation for investment decisions.

Information shall be deemed public when it is available to the public in general.

For illustrative purposes, Privileged Information shall be the information which has not been made public and refers to:

- The financial results of YPF S.A., or its subsidiaries and/or controlled entities, or else unreleased financial statements.
- Extraordinary changes in said financial results, or modifications of result estimates formerly disclosed to the public.
- Any forthcoming transactions by the Company, such as capital increase, issuance of securities, or dividend distribution proposals.
- Mergers, acquisitions, investment decisions or significant divestments of any kind of assets.
- Any events giving rise to litigation, disputes or penalties with a potential material impact on financial statements.
- Decisions by authorities prior to their becoming public knowledge.
- Discoveries of fields or extraordinary field yields.

4.2. Loss of Privileged Information status

Any Privileged Information shall be no longer regarded as such immediately after it is made public.

4.3. Prohibitions

Subject Persons in possession of any kind of Privileged Information, and who are aware or should have been aware of such Privileged Information status, shall refrain from using the Privileged Information to obtain, for themselves or others, any kind of advantage derived from the purchase or sale of Marketable Securities, or from any other transaction related to the public offering system.

They shall refrain from engaging, either for their own account or on behalf of third parties, directly or indirectly, in the following practices:

- a. Preparing, facilitating, participating in or performing any kind of market transaction in respect of the Marketable Securities with reference to or based on Privileged Information, for their own benefit or for the benefit of Related Persons or third parties;
- b. Disclosing such Privileged Information to third parties, except in the normal course of their work, profession, position or office, subject to the requirements stated herein;
- c. Recommending or inducing third parties to purchase, sell or transfer the Marketable Securities, or cause others to purchase, sell or transfer such Marketable Securities, on the basis of Privileged Information.

4.4. Obligation to safeguard Privileged Information

- a. Any persons in possession of Privileged Information have the obligation to safeguard it, without prejudice to their duty to report to and cooperate with judicial and administrative authorities under the terms stipulated in the applicable legislation.
- b. Any persons in possession of Privileged Information shall also take adequate measures to prevent the misuse or unfair use of that information.
- c. Furthermore, in the event of misuse or unfair use of Privileged Information, anyone aware of this fact shall immediately report it to the responsible officer.

4.5. Actions during the evaluation or negotiation of transactions regarded as Privileged Information

4.5.1. Monitoring of Market Prices

The Finance Vice-Presidency shall oversee the market performance of the Marketable Securities, as well as any news published or broadcast by professional reporters of economic information and the media, and which might affect said securities and instruments during the evaluation or negotiation of any kind of legal or financial operation regarded as Privileged Information (hereinafter, the “transaction”).

4.5.2. Public announcement in case of breach of secrecy

In the event of abnormal behavior of trading prices or volumes of Marketable Securities, the Finance Vice-Presidency shall immediately report to the Board Chairman who shall, if necessary and if there are reasonable signs that such behavior is due to premature, partial, or distorted disclosure of the transaction in question, take any pertinent measures to promptly issue a public statement clearly and precisely indicating the status of this ongoing transaction or giving a preview of the information to be released in due course.

4.5.3. Safeguard Measures

Subject Persons shall:

- a. Limit access of Privileged Information to the strictly necessary number of persons within the organization or external advisers.
- b. Expressly warn recipients of the confidential nature of such information and of the prohibition to use it.
- c. Implement security measures for the safekeeping, filing, access, reproduction, and distribution of Privileged Information.

4.6. Compliance with Securities Market Regulations

Subject Persons in possession of Privileged Information shall strictly comply with current Securities Market Regulations where YPF is authorized to make public offerings, as well as with these Regulations and any other applicable provisions in force.

5. RELEVANT INFORMATION

5.1. Concept of Relevant Information

The term “Relevant Information” refers to any fact or situation which, given its significance, may materially affect the placement of the Marketable Securities, their trading or the conduct of the business of YPF, its subsidiaries and/or controlled entities. The concept of Relevant Information also includes any information

whose knowledge may reasonably influence an investor to acquire or transfer securities or other financial instruments, with the consequent material effect on their prices on a secondary market.

5.2. Duty to report Relevant Information

YPF hereby undertakes to immediately inform investors through a notice addressed to the National Securities Commission (*Comisión Nacional de Valores* – CNV) as well as to any pertinent entities according to the markets where YPF’s securities are traded, of any Relevant Information concerning the Company, in compliance with applicable regulations in force. Where appropriate, YPF’s Internal Transparency Committee—created by the Board of Directors and composed by the Company’s senior executives— shall take cognizance of this situation and proceed accordingly.

5.3. Content of Relevant Information

Any Relevant Information disclosed to investors shall be accurate, clear, quantified and complete, and shall not be confusing, misleading or deceptive.

5.4. Confidential Relevant Information

When the Company believes that publication of any non-public Relevant Information may impair corporate interest, it shall immediately request the CNV to suspend the Company’s duty to inform its investors in compliance with the Capital Markets Law No. 26,831, the CNV’s rules and any other applicable legislation.

6. TRANSACTIONS IN OWN SECURITIES

6.1. Applicable rules and regulations

The determination and execution of specific plans for the acquisition or sale of YPF S.A.’s shares shall conform to the provisions of the Capital Markets Law No. 26,831, the CNV Rules, the Argentine Corporations’ Law No. 19,550 and any other amending, supplementary or regulatory provisions on the matter, and any other rules governing the markets where the Company is authorized to make public offerings.

6.2. Notices

YPF’s Investor Relations Management shall issue the pertinent official notices about the Company’s transactions in its own securities, as required by current regulations, and shall keep an adequate control and record of such transactions.

7. MANIPULATION OF SECURITY PRICES

7.1. Prohibition

Subject Persons shall refrain from preparing or conducting practices that distort free pricing, and from those stipulated in Section 117, subsection b) of the Capital Markets Law No. 26,831 and Section 2, Chapter III, Title XII (Transparency in Public Offerings) of CNV’s Rules (as amended in 2013), and any regulatory or superseding provisions thereof.

7.2. Prohibited practices

This term encompasses practices and behaviors aimed at, or allowing for, the manipulation of prices or trading volumes of Marketable Securities, which alter the normal behavior of the supply and demand, and those deceptive practices or acts capable of misleading market participants, in respect of the purchase or sale of any listed Marketable Securities, whether by means of artifices, false or inaccurate statements omitting basic facts or any act, practice or course of action with deceptive and detrimental effects on any person operating in the market.

In particular, and for illustrative purposes only, it shall be forbidden to:

- a. Artificially affect price formation, the liquidity, or the trading volume of one or more Marketable Securities. This shall include: a.1) Transactions where, beyond appearances, the transfer of Marketable Securities did not occur; a.2) Transactions performed for the purpose of creating the false appearance of

the existence of supply and demand, or of an active market, even when the transfer of Marketable Securities actually occurred.

b. Mislead market players. This shall include: b.1) Any inaccurate or misleading false statement made knowingly, or which should be reasonably considered as such; b.2) Any omission of essential information likely to mislead, by those who are bound to provide such information.

c. Disclose information that is likely to give false or misleading signals in relation to the Marketable Securities, including the dissemination of rumors and false and misleading news.

d. Disseminate opinions about a Marketable Security in which the issuer of the opinion is invested, without adequately and simultaneously informing the public opinion about the conflict of interest created by that investment.

8. CONFLICTS OF INTEREST

8.1. Prior communication

In order to control any potential conflicts of interest, all Subject Persons shall inform the Ethics Committee and/or the Audit Committee (in the case of Board members), before conducting any transaction or carrying out any business, sufficiently in advance to enable the timely implementation of adequate measures, regarding situations that might potentially, and in each specific circumstance, give rise to a conflict of interest with YPF or any subsidiary and/or affiliate, by virtue of such Subject Persons' activities outside YPF, or those of their relatives or acquaintances, their assets, or for any other reason, and that might compromise their impartial performance.

8.2. Duty of abstention

Subject Persons shall refrain from engaging in situations that might give rise to a conflict between their personal interests —and/or the interest of Related Persons— and YPF's interests. Subject Persons shall also abstain from engaging in or exerting influence over decisions regarding situations where a personal interest is at stake, whether directly or indirectly; in all cases, Subject Persons shall act with loyalty to YPF.

9. EFFECTIVE TERM

These Regulations shall become effective upon the entry into force of the Code of Ethics and Conduct of YPF S.A., approved by the Board on May 9, 2019. The Regulations shall be periodically reviewed and updated in order to take account of all current legal and regulatory provisions as well as the best practices on the matter.

The Vice-Presidency of Human Resources undertakes to distribute these Regulations among Subject Persons; to this end, each Subject Person shall sign a document whose content will be identical to the form attached hereto as Appendix I.

10. MANDATORY OBSERVANCE

Observance of these Regulations is mandatory for all Subject Persons.

11. BREACH

Failure to comply with the provisions of these Regulations shall be deemed a labor violation or contractual breach (as appropriate), whose seriousness will be determined in the proceedings to be pursued in accordance with current legal provisions.

The foregoing shall be without prejudice to any other penalties for the violation of the Capital Markets Law No. 26,831, the CNV's Rules and any other applicable provisions, as well as the pertinent civil and/or criminal liability to which the breaching party may be subject.

12. SUPERVISION

The performance of the obligations hereunder shall be supervised by YPF's Ethics Committee, Audit Committee or Internal Transparency Committee, as applicable.

302 CERTIFICATION

I, Daniel Cristian González Casartelli, certify that:

1. I have reviewed this annual report on Form 20-F of YPF S.A.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 24, 2020

/s/ Daniel Cristian González Casartelli
Daniel Cristian González Casartelli
Chief Executive Officer

302 CERTIFICATION

I, Diego Martín Pando, certify that:

1. I have reviewed this annual report on Form 20-F of YPF S.A.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 24, 2020.

/s/ Diego Martín Pando
Diego Martín Pando
Controller (Principal Financial Officer)

906 CERTIFICATION

The certification set forth below is being submitted in connection with the Annual Report on Form 20-F for the year ended December 31, 2019 (the “report”) for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Daniel Cristian González Casartelli, the Chief Executive Officer and, Diego Martín Pando, the Controller (Principal Financial Officer) of YPF S.A., each certifies that, to the best of their knowledge:

1. the report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the report fairly presents, in all material respects, the financial condition and results of operations of YPF S.A.

Date: April 24, 2020.

/s/ Daniel Cristian González Casartelli

Daniel Cristian González Casartelli
Chief Executive Officer

/s/ Diego Martín Pando

Diego Martín Pando
Controller (Principal Financial Officer)

DeGolyer and MacNaughton

5001 Spring Valley Road
Suite
800 East
Dallas, Texas 75244

April 24, 2020

YPF Sociedad Anónima
Macacha Güemes 515
C1106BKK Buenos Aires
Argentina

Ladies and Gentlemen:

We hereby consent to the references to DeGolyer and MacNaughton and to the inclusion of and information derived from our report of third party dated February 11, 2020, containing our opinions regarding our estimates, as of December 31, 2019, of the proved oil, condensate, natural gas liquids, gasoline, marketable gas, and oil equivalent reserves of certain selected properties in Argentina and Chile in which YPF Sociedad Anónima (YPF S.A.) has represented it holds an interest as set forth under the headings “Item 4. Information on the Company–Upstream Overview–Oil and Gas Reserves–Internal controls on reserves and reserves audits” and “Item 19. Exhibits” and as Exhibit 15.2 in the Annual Report on Form 20-F of YPF S.A. for the year ended December 31, 2019, to be filed with the United States Securities and Exchange Commission.

Very truly yours,

/s/ DeGolyer and MacNaughton

DeGOLYER and MacNAUGHTON
Texas Registered Engineering Firm F-716

DeGolyer and MacNaughton
5001 Spring Valley Road
Suite 800 East
Dallas, Texas 75244

February 11, 2020

YPF Sociedad Anónima
Macacha Güemes 515
Ciudad Autónoma de Buenos Aires
Argentina

Ladies and Gentlemen:

Pursuant to your request, this report of third party presents an independent evaluation, as of December 31, 2019, of the extent of the estimated net proved oil, condensate, natural gas liquids (NGL), gasoline, and gas reserves of certain properties in which YPF Sociedad Anónima (YPF S.A.) has represented it holds an interest. This evaluation was completed on February 11, 2020. The properties evaluated herein are located in Argentina and Chile. YPF S.A. has represented that these properties account for approximately 36 percent on a net equivalent barrel basis of YPF S.A.'s net proved reserves as of December 31, 2019. The net proved reserves estimates have been prepared in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the Securities and Exchange Commission (SEC) of the United States. This report was prepared in accordance with guidelines specified in Item 1202 (a)(8) of Regulation S–K and is to be used for inclusion in certain SEC filings by YPF S.A.

Reserves estimates included herein are expressed as net reserves. Gross reserves are defined as the total estimated petroleum remaining to be produced from these properties after December 31, 2019. Net reserves are defined as that portion of the gross reserves attributable to the interests held by YPF S.A. after deducting all interests held by others.

Estimates of reserves should be regarded only as estimates that may change as further production history and additional information become available. Not only are such estimates based on that information which is currently available, but such estimates are also subject to the uncertainties inherent in the application of judgmental factors in interpreting such information.

DeGolyer and MacNaughton

The properties evaluated herein are listed in the following table:

Country Basin Area	Country Basin Area
Argentina	Argentina – (Continued)
Cuyana	Neuquina – (Continued)
Barrancas	Cerro Liupuca
Estructura Cruz de Piedra–Lunlunta	Cerro Negro
Lunlunta Carrizal	Don Ruiz
LV–Cañada Dura	El Manzano
Mesa Verde	La Ribera Bloque I
Ugarteche	La Ribera Bloque II
Golfo San Jorge	Las Manadas
Barranca Baya	Las Tacanas
Barranca Yankowsky	Lindero Atravesado
Cañadón Yatel	Llancanelo R
Lomas del Cuy	Loma Amarilla
Los Monos	Loma del Molle
Los Perales	Los Caldenes
Manantiales Behr	Ojo de Agua
Restinga Ali	Pampa de las Yeguas Bloque I
Río Mayo	Río Neuquén
Sarmiento No Operada	Volcán Auca Mahuida
Seco León	Noroeste
Zona Central–Bella Vista Este	Acambuco
Neuquina	Aguaragüe
Aguada de la Arena	Ramos
Aguada Toledo–Sierra Barrosa	San Antonio Sur
Altiplanicie del Payún	Chile
Cajón de los Caballos	Austral
Cerro Fortunoso	San Sebastián

Information used in the preparation of this report was obtained from YPF S.A. In the preparation of this report we have relied, without independent verification, upon information furnished by YPF S.A. with respect to the property interests being evaluated, production from such properties, current costs of operation and development, current prices for production, agreements relating to current and future operations and sale of production, and various other information and data that were accepted as represented. A field examination of the properties was not considered necessary for the purposes of this report.

Definition of Reserves

Petroleum reserves estimated in this report are classified as proved. Only proved reserves have been evaluated for this report. Reserves classifications used by us in this report are in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the SEC. Reserves are judged to be economically producible in future years from known reservoirs under existing economic and operating conditions and assuming continuation of current regulatory practices using conventional production

DeGolyer and MacNaughton

methods and equipment. In the analyses of production-decline curves, reserves were estimated only to the limit of economic rates of production under existing economic and operating conditions using prices and costs consistent with the effective date of this report, including consideration of changes in existing prices provided only by contractual arrangements but not including escalations based upon future conditions. The petroleum reserves are classified as follows:

Proved oil and gas reserves – Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

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(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

- (A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and
(B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

Developed oil and gas reserves – Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Undeveloped oil and gas reserves – Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

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- (i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.
- (ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances justify a longer time.
- (iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in [section 210.4–10 (a) Definitions], or by other evidence using reliable technology establishing reasonable certainty.

Methodology and Procedures

Estimates of reserves were prepared by the use of appropriate geologic, petroleum engineering, and evaluation principles and techniques that are in accordance with practices generally recognized by the petroleum industry as presented in Monograph 3 and Monograph 4 published by the Society of Petroleum Evaluation Engineers and as presented in the publication of the Society of Petroleum Engineers entitled “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (revised June 2019) Approved by the SPE Board on 25 June 2019.” Proved reserves were estimated in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the SEC. The method or combination of methods used in the analysis of each reservoir was tempered by experience with similar reservoirs, stage of development, quality and completeness of basic data, and production history.

Based on the current stage of field development, production performance, the development plans provided by YPF S.A., and analyses of areas offsetting existing wells with test or production data, reserves were classified as proved. The undeveloped reserves estimates were based on opportunities identified in the plan of development provided by YPF S.A.

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YPF S.A. has represented that its senior management is committed to the development plan provided by YPF S.A. and that YPF S.A. has the financial capability to execute the development plan, including the drilling and completion of wells and the installation of equipment and facilities.

For the evaluation of unconventional reservoirs, a performance-based methodology integrating the appropriate geology and petroleum engineering data was utilized for this report. Performance-based methodology primarily includes (1) production diagnostics, (2) decline-curve analysis, and (3) model-based analysis (if necessary, based on availability of data). Production diagnostics include data quality control, identification of flow regimes, and characteristic well performance behavior. These analyses were performed for all well groupings (or type-curve areas).

Characteristic rate-decline profiles from diagnostic interpretation were translated to modified hyperbolic rate profiles, including one or multiple b-exponent values followed by an exponential decline. Based on the availability of data, model-based analysis may be integrated to evaluate long-term decline behavior, the effect of dynamic reservoir and fracture parameters on well performance, and complex situations sourced by the nature of unconventional reservoirs.

For depletion-type reservoirs or those whose performance disclosed a reliable decline in producing-rate trends or other diagnostic characteristics, reserves were estimated by the application of appropriate decline curves or other performance relationships. In the analyses of production-decline curves, reserves were estimated only to the limits of economic production as defined under the Definition of Reserves heading of this report or the expiration of the fiscal agreement, as appropriate.

Where adequate data were available and where circumstances justified, material balance and other engineering methods were used to estimate the original oil in place (OOIP) and original gas in place (OGIP) based on an analysis of reservoir performance, including production rate, reservoir pressure, and reservoir fluid properties.

In certain cases, reserves were estimated by incorporating elements of analogy with similar wells or reservoirs for which more complete data were available.

In the evaluation of undeveloped reserves, type-well analysis was performed using well data from analogous reservoirs for which more complete historical performance data were available.

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Data provided by YPF S.A. from wells drilled through December 31, 2019, and made available for this evaluation were used to prepare the reserves estimates herein. These reserves estimates were based on consideration of monthly production data available for certain properties only through September, October, or November 2019. Estimated cumulative production, as of December 31, 2019, was deducted from the estimated gross ultimate recovery to estimate gross reserves. This required that production be estimated for up to 3 months.

Oil and condensate reserves estimated herein are to be recovered by normal field separation. NGL reserves estimated herein consist primarily of propane and butane fractions, and gasoline reserves estimated herein consist of pentanes and heavier fractions (C_{5+}). NGL and gasoline reserves are the result of low-temperature plant processing and were estimated in accordance with YPF S.A.'s internal reporting standards. Oil, condensate, NGL, and gasoline reserves reported herein are expressed in thousands of barrels (10^3 bbl). In these estimates, 1 barrel equals 42 United States gallons. For reporting purposes, oil and condensate reserves have been estimated separately and are presented herein as a summed quantity. The properties evaluated herein do not produce NGL; therefore, NGL reserves were estimated herein to be zero.

Gas quantities estimated herein are expressed as marketable gas and fuel gas. Marketable gas is defined as the total gas produced from the reservoir after reduction for shrinkage resulting from field separation; processing, including removal of the nonhydrocarbon gas to meet pipeline specifications; and flare and other losses but not from fuel usage. Fuel gas is defined as that portion of the gas consumed in field operations and is included in the marketable gas and is estimated herein as reserves. Gas reserves estimated herein are expressed at a temperature base of 60 degrees Fahrenheit ($^{\circ}$ F) and at a pressure base of 14.696 pounds per square inch absolute (psia). Gas reserves presented in this report are expressed in millions of cubic feet (10^6 ft³).

Gas quantities are identified by the type of reservoir from which the gas will be produced. Nonassociated gas is gas at initial reservoir conditions with no oil present in the reservoir. Associated gas includes both gas-cap gas and solution gas. Gas-cap gas is gas at initial reservoir conditions and is in communication with an underlying oil zone. Solution gas is gas dissolved in oil at initial reservoir conditions. Gas quantities estimated herein include both associated and nonassociated gas.

At the request of YPF S.A., marketable gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 5,615 cubic feet of gas per 1 barrel of oil equivalent. This conversion factor was provided by YPF S.A.

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Primary Economic Assumptions

This report has been prepared using initial prices, expenses, and costs provided by YPF S.A. in United States dollars (U.S.\$). Future prices were estimated using guidelines established by the SEC and the Financial Accounting Standards Board (FASB). The following economic assumptions were used for estimating the reserves reported herein:

Oil, Condensate, and Gasoline Prices

YPF S.A. has represented that the oil, condensate, and gasoline prices were based on a reference price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual agreements. YPF S.A. supplied differentials by field to a Brent reference price of U.S.\$62.82 per barrel and the prices were held constant thereafter. The volume-weighted average adjusted product price attributable to estimated proved reserves was U.S.\$59.88 per barrel of oil, condensate, and gasoline.

Gas Prices

YPF S.A. has represented that the gas prices were based on a reference price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual agreements. YPF S.A. has represented that the gas prices were U.S.\$3.74 per million Btu (10⁶Btu) for the San Jorge Basin, U.S.\$3.37 per 10⁶Btu for the Neuquina and Cuyana Basins, and U.S.\$4.06 per 10⁶Btu for the Noroeste Basin. The prices were held constant thereafter. Btu factors provided by YPF S.A. were used to convert prices from dollars per million Btu to dollars per thousand cubic feet. The volume-weighted average gas price attributable to the estimated proved reserves was U.S.\$2.43 per thousand cubic feet.

Operating Expenses, Capital Costs, and Abandonment Costs

Operating expenses and capital costs, based on information provided by YPF S.A., were used in estimating future costs required to operate

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the properties. In certain cases, future costs, either higher or lower than existing costs, may have been used because of anticipated changes in operating conditions. These costs were not escalated for inflation. Abandonment costs, which are those costs associated with the removal of equipment, plugging of wells, and reclamation and restoration associated with the abandonment, were provided by YPF S.A. Estimates of operating expenses, capital costs, and abandonment costs were considered, as appropriate, in determining the economic viability of the undeveloped reserves estimated herein.

In our opinion, the information relating to estimated proved reserves of oil, condensate, NGL, gasoline, and gas contained in this report has been prepared in accordance with Paragraphs 932-235-50-4, 932-235-50-6, 932-235-50-7, and 932-235-50-9 of the Accounting Standards Update 932-235-50, *Extractive Industries – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures* (January 2010) of the FASB and Rules 4–10(a) (1)–(32) of Regulation S–X and Rules 302(b), 1201, 1202(a) (1), (2), (3), (4), (8), and 1203 (a) of Regulation S–K of the SEC; provided, however, that estimates of proved developed and proved undeveloped reserves are not presented at the beginning of the year.

To the extent the above-enumerated rules, regulations, and statements require determinations of an accounting or legal nature, we, as engineers, are necessarily unable to express an opinion as to whether the above-described information is in accordance therewith or sufficient therefor.

Summary of Conclusions

The estimated net proved reserves, as of December 31, 2019, of the properties evaluated herein were based on the definition of proved reserves of the SEC and are summarized as follows, expressed in thousands of barrels (10^3 bbl), millions of cubic feet (10^6 ft³), and thousands of barrels of oil equivalent (10^3 boe):

	Estimated by DeGolyer and MacNaughton Net Proved Reserves as of December 31, 2019				
	Oil and Condensate (10^3 bbl)	NGL (10^3 bbl)	Gasoline (10^3 bbl)	Marketable Gas (10^6 ft ³)	Oil Equivalent (10^3 boe)
South America					
Proved Developed	162,421	0	773	669,207	282,376
Proved Undeveloped	60,762	0	26	221,926	100,312
Total Proved	223,183	0	799	891,133	382,688

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Notes:

1. Marketable gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 5,615 cubic feet of gas per 1 barrel of oil equivalent.
2. The marketable gas reserves estimated herein include fuel gas. The fuel gas portion of the marketable gas reserves estimated herein is 192,835 10^6ft^3 of the proved developed marketable gas reserves, 52,797 10^6ft^3 of the proved undeveloped marketable gas reserves, and 245,632 10^6ft^3 of the total proved marketable gas reserves.

While the oil and gas industry may be subject to regulatory changes from time to time that could affect an industry participant's ability to recover its reserves, we are not aware of any such governmental actions which would restrict the recovery of the December 31, 2019, estimated reserves.

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DeGolyer and MacNaughton is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1936. DeGolyer and MacNaughton does not have any financial interest, including stock ownership, in YPF S.A. Our fees were not contingent on the results of our evaluation. This report has been prepared at the request of YPF S.A. DeGolyer and MacNaughton has used all assumptions, data, procedures, and methods that it considers necessary and appropriate to prepare this report.

Submitted,

/s/ DeGolyer and MacNaughton

DeGOLYER and MacNAUGHTON
Texas Registered Engineering Firm F-716

/s/ Federico Dordoni

[SEAL]

Federico Dordoni, P.E.
Vice President
DeGolyer and MacNaughton

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CERTIFICATE of QUALIFICATION

I, Federico Dordoni, Petroleum Engineer with DeGolyer and MacNaughton, 5001 Spring Valley Road, Suite 800 East, Dallas, Texas, 75244 U.S.A., hereby certify:

1. That I am a Senior Vice President with DeGolyer and MacNaughton, which firm did prepare the report of third party addressed to YPF S.A. dated February 11, 2020, and that I, as Vice President, was responsible for the preparation of this report of third party.
2. That I attended Buenos Aires Institute of Technology (ITBA) University, and that I graduated with a degree in Petroleum Engineering in the year 2004; that I am a Registered Professional Engineer in the State of Texas; that I am a member of the Society of Petroleum Engineers; and that I have in excess of 15 years of experience in oil and gas reservoir studies and reserves evaluations.

[SEAL]

/s/ Federico Dordoni

Federico Dordoni, P.E.
Vice President
DeGolyer and MacNaughton