Country Analysis Brief: Argentina

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Overview

Table 1. Argentina's energy overview, 2022

	Crude oil and other petroleum liquids	Natural gas	Coal	Nuclear	Hydro	Other renewables	Total
Primary energy consumption (quads)	1.39	1.71	0.05	0.09	0.10	0.11	3.45
Primary energy consumption (percentage)	40.4%	49.5%	1.6%	2.5%	2.8%	3.1%	100.0%
Primary energy production (quads)	1.46	1.60	0.00	0.09	0.07	0.19	3.40
Primary energy production (percentage)	42.8%	47.0%	0.0%	2.6%	2.1%	5.5%	100.0%
Electricity generation (terawatthours)	15.06	76.91	1.86	7.47	23.97	19.17	144.98
Electricity generation (percentage)	10.4%	53.0%	1.3%	5.2%	16.5%	13.2%	100.0%

Data source: U.S. Energy Information Administration, International Energy Statistics; the International Energy Agency, *World Energy Statistics 2023*; and Energy Institute, *Statistical Review of World Energy 2024*
Note: *Other renewables* contain solar, wind, and biomass and waste. Percentages may not add up to 100% due to independent rounding. Quads=quadrillion British thermal units

- Argentina's total energy consumption was 3.45 quads in 2022, lower than the 3.57 quads consumed in 2012 (Figure 1). The reduction in energy consumption was curbed by a 0.5% annual decline in the country's gross domestic product per capita, adjusted for inflation, between 2012 and 2022 (Figure 2). As of 2022, transportation fuel accounted for 31.9% of all energy consumed in the country, followed by residential use (26.4%) and industrial use (21.6%).[1]
- Argentina's energy sector relies mainly on fossil fuels, especially natural gas and oil. In 2022, 47% of the country's energy production came from natural gas, and the natural gas share of primary energy consumption was 49.5%. Argentina's global share of natural gas consumption was 1.15% (Figure 3). Oil accounted for 42.8% of total energy production and 40.4% of primary energy consumption (Table 1 and Figure 4).
- Argentina has increased the share of renewable energy consumption from 4.2% in 2012 to 6.0% in 2022; the share of renewable energy production rose from 7.4% in 2012 to 7.6% in 2022.[2, 3]
- Following a 20% cumulative decline between 2004 and 2014 in energy production, Argentina's energy production began to increase in 2015. From 2015 to 2022, energy production grew by an annual average of 2%—primarily driven by natural gas, which contributed 62% to this growth. In late 2014, Argentina's government reformed the national bidding process to provide incentives for private sector investment in upstream

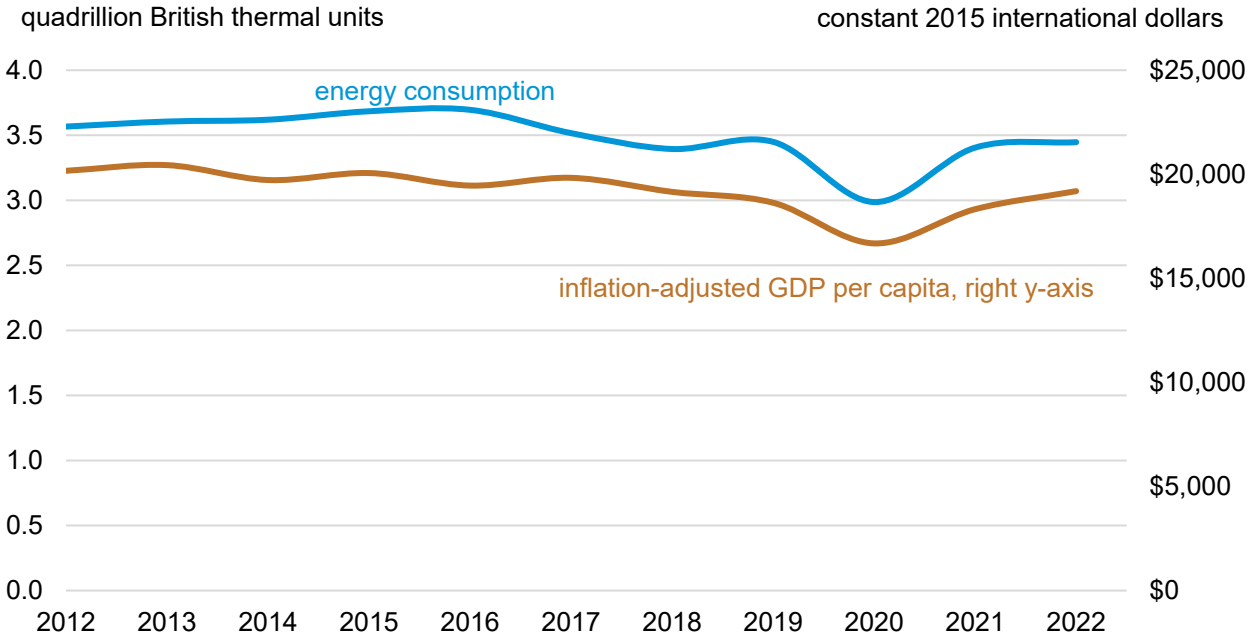
oil and natural gas. The reform increased the frequency of offshore licensing rounds, allowed longer exploitation periods, and offered tax exemptions to companies investing more than $250 million over three years.[4]

- Argentina's energy subsidies have been historically high. In 2023, energy subsidies accounted for 1.6% of GDP. To decrease the burden of subsidies, the government implemented a gradual increase in electricity and natural gas prices in 2024, reducing the caps on subsidized consumption.[5, 6]
- Argentina faces energy infrastructure bottlenecks and regulatory hurdles. In December 2023, the President of Argentina declared an emergency in the electricity transmission and distribution sectors because the equipment is outdated, the industry hasn't adapted to changing demand, and the electricity network hasn't expanded to meet rising demand. Argentina is commissioning large projects in both the generation and transmission sectors to meet rising electricity demand. In addition, equipment and transportation bottlenecks have limited growth in Argentina's oil and natural gas production. The country's economic situation has made it challenging to find financing for drilling equipment and parts, leading to shortages and drilling activity bottlenecks.[7, 8]
- In 2021, Argentina became part of the Net Zero World Initiative, a program managed by the U.S. Department of Energy, aimed at helping countries reduce carbon emissions from their energy sectors. Argentina and the United States are closely collaborating on energy efficiency efforts. In July 2023, Argentina approved the National Energy Transition Plan to 2030. The plan sets the target for the country's net emissions not to exceed 349 million tons of CO_2 equivalent. The plan aims to reduce energy demand by at least 8% through energy efficiency and responsible energy use and to exceed 50% renewables in electricity generation by 2030. The plan also calls for significant investment in electricity transmission, natural gas pipelines, and renewable energy-based generation capacity.[9, 10]
- Argentina's energy sector regulatory framework aims to provide more market certainty and attract foreign investment to enhance oil and natural gas production for exports. Given the current economic challenges, Argentina's federal and provincial governments continue to have a significant role in the energy sector. The Argentine government views the oil and natural gas sector as a major driver of exports and a way to generate revenue. Attracting foreign direct investment to stimulate economic growth is an area of great interest in the country.[11]

Figure 1. Map of Argentina

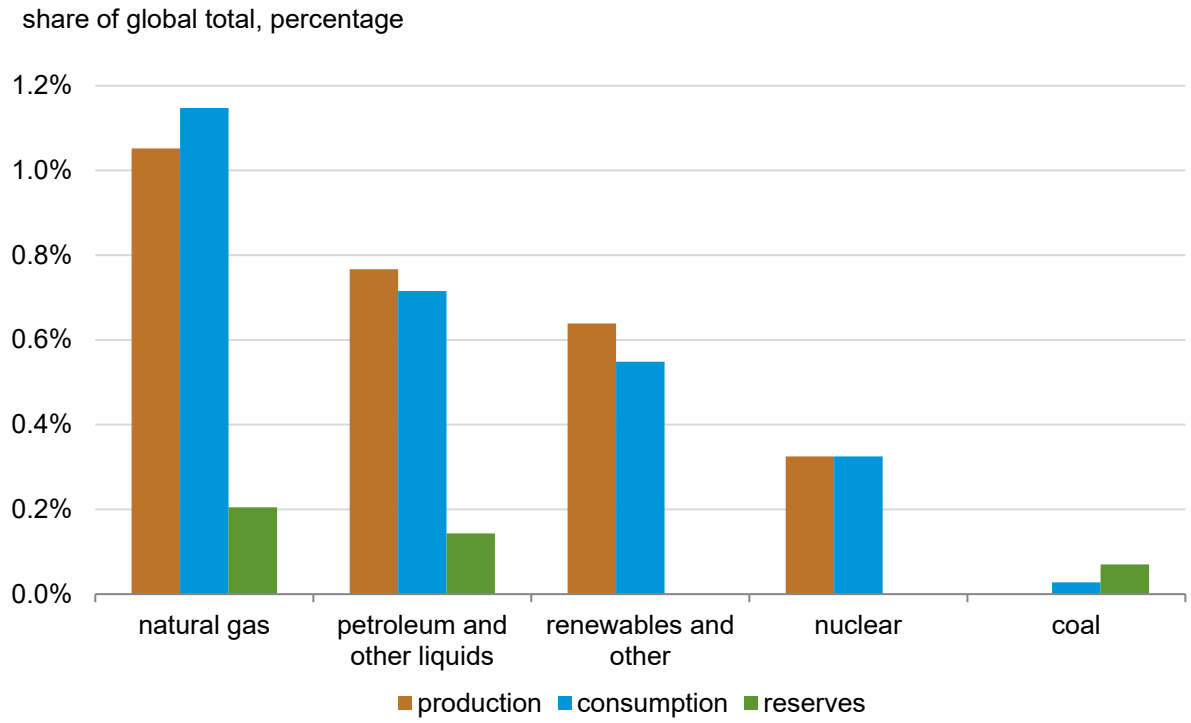
Data source: U.S. Central Intelligence Agency, CIA World Factbook—Argentina

Figure 2. Argentina's total energy consumption and inflation-adjusted GDP per capita, 2012–2022



Data source: U.S. Energy Information Administration, International Energy Statistics

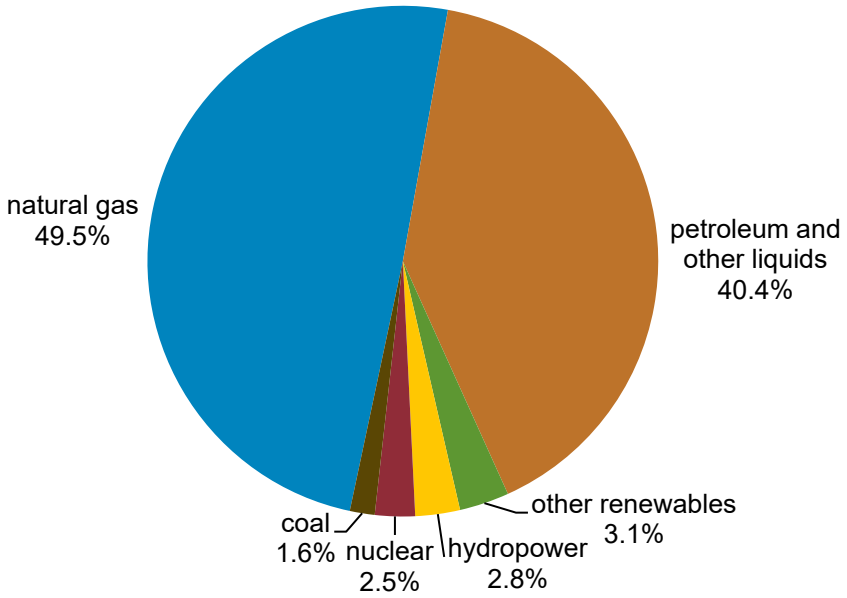
Figure 3. Argentina's energy production, consumption, and reserves, by source, 2022



Data source: U.S. Energy Information Administration, International Energy Statistics; and Energy Institute, *Statistical Review of World Energy 2024*
Note: *Renewables and other* contain hydropower, geothermal, tide, wave, fuel cell, solar, wind, and biomass and waste. Reserves data are from 2020.

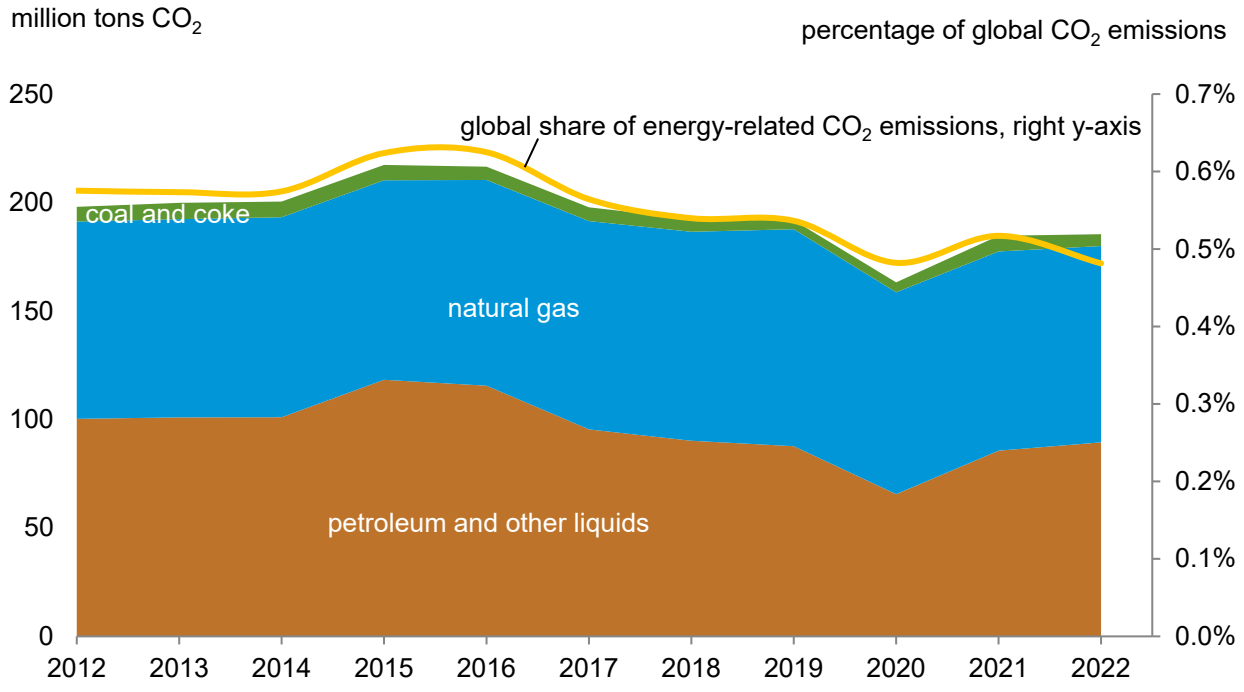
Figure 4. Argentina's total energy consumption by fuel type, 2022

percentage of total energy consumption



Data source: U.S. Energy Information Administration, International Energy Statistics
Note: Total may differ because of rounding.

Figure 5. Argentina's energy-related CO_2 emissions, 2012–2022



Data source: U.S. Energy Information Administration, International Energy Statistics

Petroleum and Other Liquids

- Argentina's proved oil reserves were 3.0 billion barrels in 2023—48% were conventional reserves and 52% were unconventional proved reserves. Unconventional proved oil refers to oil reserves that cannot be accessed using conventional drilling techniques. In 2023, almost 82% of the conventional reserves were located in the Golfo San Jorge Basin. This basin in eastern Patagonia, Argentina, is rich in hydrocarbons. Oil was found in the area in 1907, and it has become the second-most productive hydrocarbon basin in Argentina after the Neuquén Basin. As of 2023, nearly all of the unconventional proved oil was in the Neuquén Basin, largely because of the Vaca Muerta formation (Figure 6). The Vaca Muerta is a geologic formation of the Late Jurassic to Early Cretaceous age, located in the provinces of Neuquén, Mendoza, and Rio Negro in Argentina. Since its discovery in 2010 by the former Repsol-YPF, the Vaca Muerta shale formation has driven Argentina's oil production growth. The shale quality, production incentives, tax exemptions, and labor concessions for this area have helped to reduce operational costs and improve efficiency. In 2023, Argentina is estimated to have received a record-high upstream investment of approximately $11 billion. These investments reflect the attractiveness of the country's unconventional hydrocarbon reservoirs and a series of piecemeal incentives enacted by successive Argentine governments to shield the exploration and production sector from economic volatility. [12, 13, 14, 15, 16, 17]
- Argentina’s biggest upstream and downstream operator is the national company YPF, which was re-nationalized from Spain’s Repsol in 2012. Since 2012, Chevron, ExxonMobil, Shell, TotalEnergies, along with several local firms have been active in Vaca Muerta. The industry has expressed a continued need for small- and medium-sized service companies with shale expertise to enter the market and further improve efficiency and reduce costs. In 2023, YPF, Pan American Energy, and Vista Energy made up almost three-quarters of the oil production. [18, 19, 20, 21, 22]
- In 2023, Argentina produced 819,000 barrels per day (b/d) of total petroleum liquids, a 4% increase from 2022. Unconventional resources accounted for 34% of that production, a 17% increase from 2019 (Figure 7). Argentina’s average rig count was 58 in 2023, which was down from 64 in 2019 as a result of high well costs (Figure 8). Argentina’s oil production growth accelerated from 2021 to 2023, increasing by 8% per year on average. Most of the growth came from crude oil, including condensates (Figure 9).
- YPF, in its latest strategic plan, announced that it will prioritize making crude oil a revenue-generating commodity over the near term (2023–2025). With growing opposition in the Argentine Congress to YPF’s privatization, in January 2024, newly elected President Javier Milei suspended the move by excluding the privatization provision from the Omnibus Bill. However, in February 2024, YPF began selling aging assets to increase its focus on Vaca Muerta developments. [23, 24]
- In 2023, Argentina had a total oil refining capacity of 580,000 barrels per day (b/d) and an average utilization capacity of 89%, up from 80% in 2013 (Figure 10). Despite increased crude oil production, Argentina still imports petroleum products to meet specific refining requirements and ensure a steady supply of refined products. One example is diesel because the domestic refineries do not have enough capacity to refine sufficient diesel fuel to meet demand. As of 2023, Argentine refineries supplied 80% of the domestic demand, and the remaining 20% was imported. Since 1971, refinery capacity has remained relatively stable. Despite proposals, no upcoming additions to

capacity are planned. In 2023, distillate fuel oil remained Argentina's most-consumed refined petroleum product, followed by other petroleum liquids, and motor gasoline (Figure 11). [25, 26]

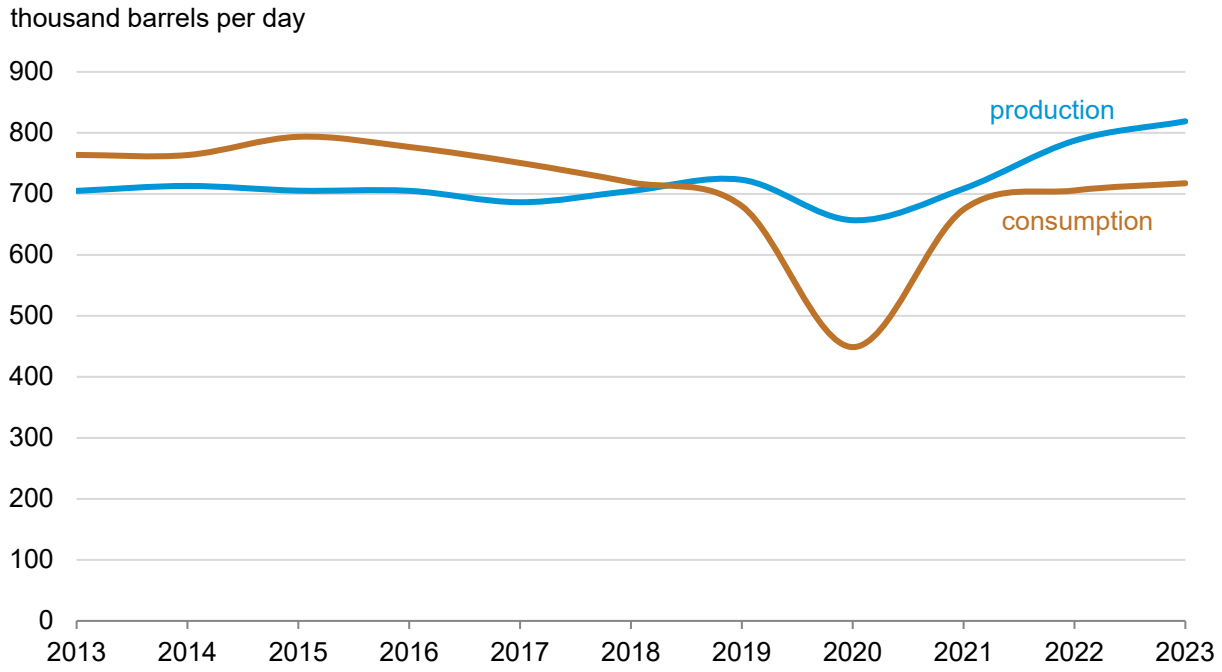
- YPF operates more than 50% of the total refining capacity. About 50% of Argentina's refining capacity is in Buenos Aires. YPF's La Plata refinery is the largest in the country, accounting for about 30% of the total capacity in 2023. La Plata produces fuel oil, diesel oil, and gasoline, as well as lubricants, asphalt, and paraffin. In 2023, the La Plata refinery processed 207,000 b/d, followed by Luján de Cuyo (120,000 b/d), Dock Sud (101,000 b/d), and Campana (93,000 b/d) refineries.
- The Campana refinery in Argentina has undergone several upgrades and expansions recently, including projects to increase production, improve fuel quality, and reduce emissions. In 2023, the Campana Refinery was awarded the Latin American Refining Technology Conference Refinery of the Year and achieved a seven-point improvement in its integrated energy-efficiency index.[27]
- As of 2023, Argentina had a 2,604-mile-long pipeline network (Table 2). The Oldelval network is the largest oil pipeline system in Argentina. It consists of several branches that connect the Puesto Hernández oil field in Neuquén province with the Oiltanking EBYTEM Terminal in Puerto Rosales, Buenos Aires province. A side branch of the system also connects to YPF's Plaza Huincol refinery in Neuquén province. At its western end in Puesto Hernández, the Oldelval System connects to YPF's Puesto Hernández-Luján de Cuyo Oil Pipeline, which continues north to YPF's Luján de Cuyo refinery. At its eastern end in Puerto Rosales, the OldelVal System connects with the Puerto Rosales-La Plata Oil Pipeline, which sends oil north to YPF's La Plata refinery near Buenos Aires. The Puerto Rosales-La Plata Oil Pipeline is the second-largest oil pipeline in Argentina. It runs from Puerto Rosales to YPF's refinery in La Plata, passing through pumping stations at Dorrego, Indio Rico, Laprida, Chillar, Cacharí, and Las Flores (Figure 12).[28, 29]
- Argentina's crude oil transportation network was recently expanded, increasing the transportation capacity from the Neuquén Basin. In 2023, Argentina completed the Vaca Muerta Norte Oil Pipeline, designed to increase crude oil transport and export capacity from the Vaca Muerta in Argentina's Neuquén province. The pipeline, whose construction started in 2022 and was completed in 2023, transports crude oil from several fields in the La Amarga Chica area to YPF's pumping station at Puesto Hernández. This crude oil can supply the Lujan de Cuyo refinery and feed into the Trans-Andean Oil Pipeline for export to Chile.[30]
- The re-commissioning of the Trasandino oil pipeline to Chile, which had been idle since 2006, became operational again in 2023. The operator's shareholders, YPF, ENAP, and Unocal Argentina provided the investment required to resume operations. Additionally, the first stage of the Oldelval crude oil pipeline expansion was completed in 2023. These expansions are crucial for marketing the increasing Vaca Muerta oil production. Private producers have also entered the midstream business. A Riverstone, Southern Cross, and Vista Oil and Gas consortium established Aleph Midstream, further expanding the midstream infrastructure in Vaca Muerta. The private companies holding the existing transportation concessions are carrying out these expansions under the open season scheme established by Decree No 115/19. This scheme involves signing freely negotiated firm capacity contracts between the terminal operator and the shippers.[31, 32, 33]

- In May 2024, YPF began construction of Vaca Muerta Sur, a 373-mile crude oil pipeline. Construction is expected to be completed by the end of 2026 and connect fields in the Añelo region to the existing oil transportation system operated by Oldelval, Argentina's largest crude oil pipeline network (587,000-b/d capacity). With this infrastructure addition, producers in Neuquén will be able to transport crude oil to the export terminal in Puerto Rosales and the three refineries in Luján de Cujo, La Plata, and Plaza Huincul. At maximum operational capacity, the Vaca Muerta Sur Oil Pipeline will be able to transport 390,000 b/d, increasing the oil evacuation capacity of the Neuquén Basin by 70% and doubling the current capacity of the Vaca Muerta formation.[34, 35]
- In March 2024, ExxonMobil reported that it plans to spend more than $191 million on infrastructure, including the new 27-mile Bajo del Choique Nordeste pipeline, which will be able to transport up to 60,000 b/d of oil between the crude oil processing plant in the Bajo del Choique area and the loading and unloading terminal in Oldelval, Auca Mahuida.[36]
- Most of the fuel distribution network is controlled by four major companies: YPF, Axion Energy, Shell, and Trafigura. Together, they hold a combined market share of over 67% and own more than 3,000 retail stations in Argentina. YPF operates over one-third of the retail stations.

Figure 6. Map of Argentina's Vaca Muerta formation

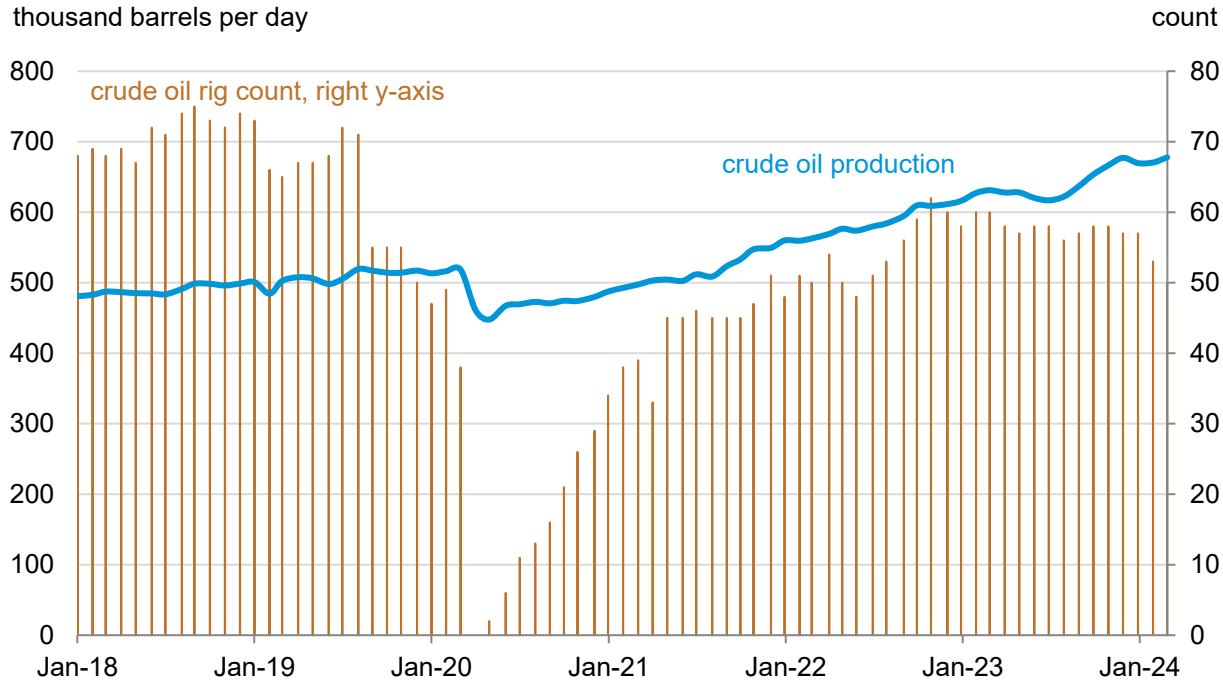
Data source: U.S. Energy Information Administration; World Bank, *ESRI*; Instituto Nacional de Estadistica y Censos; National Energy Technology Laboratory Global Energy and Gas Features Database

Figure 7. Argentina's total petroleum and other liquids production and consumption, 2013–2023



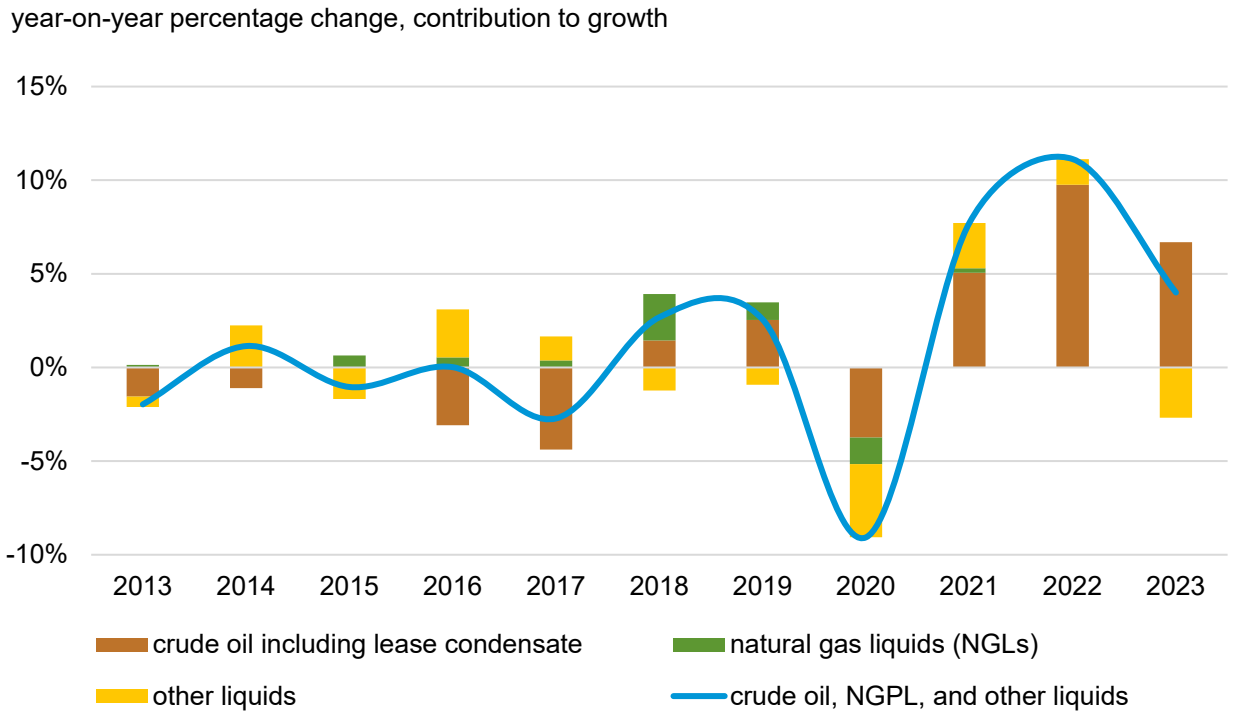
Data source: U.S. Energy Information Administration, International Energy Statistics and *Short-Term Energy Outlook*

Figure 8. Argentina's crude oil rig count and crude oil production, 2018–2024



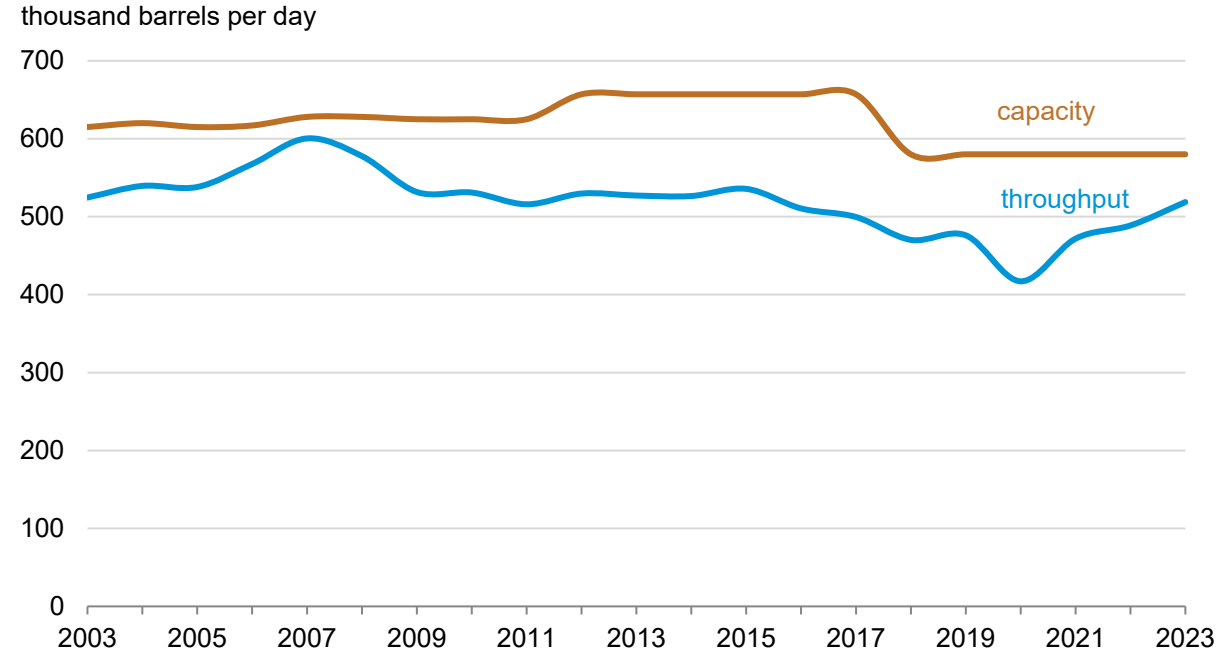
Data source: U.S. Energy Information Administration, International Energy Statistics, and Baker Hughes
Note: Crude oil rig count and crude oil production data through March 2024.

Figure 9. Argentina's petroleum and other liquids production growth, 2013–2023



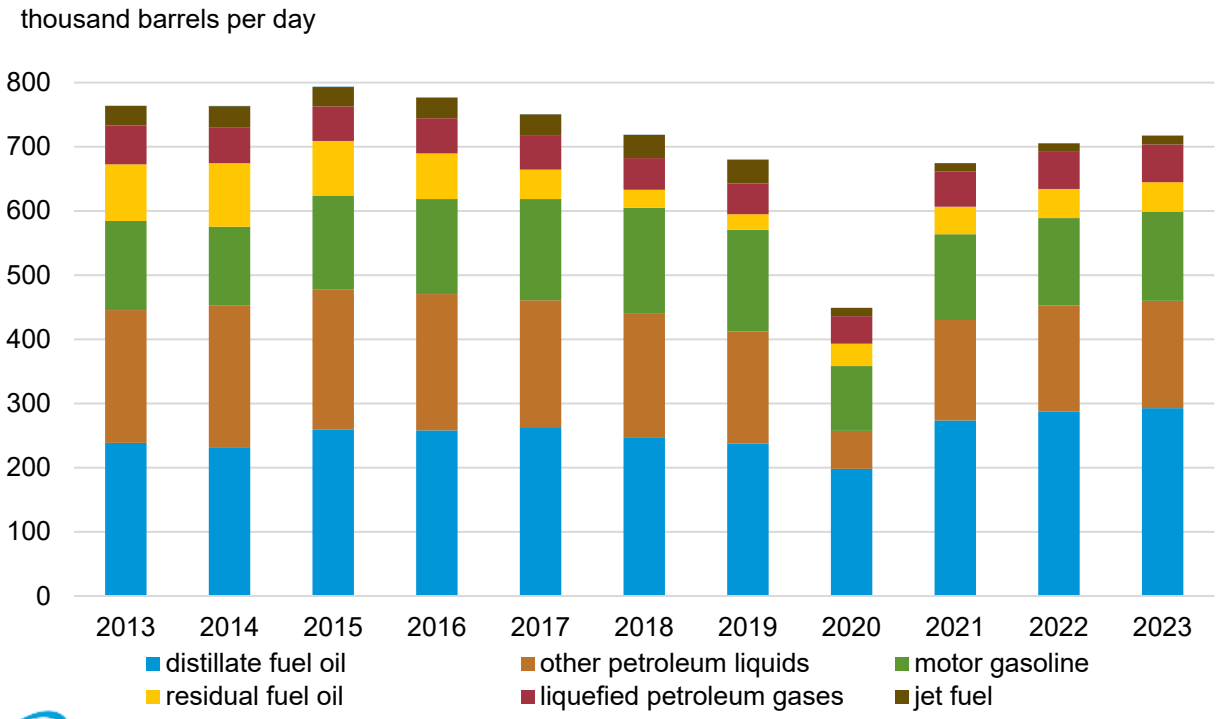
Data source: U.S. Energy Information Administration, International Energy Statistics
Note: NGPL = natural gas plant liquids.

Figure 10. Argentina's refinery capacity and throughput, 2003–2023



Data source: Energy Institute, *Statistical Review of World Energy 2024*

Figure 11. Argentina's refined petroleum products consumption, 2013–2023



Data source: U.S. Energy Information Administration, International Energy Statistics and *Short-Term Energy Outlook*

Figure 12. Map of Argentina's oil pipelines

Data source: U.S. Energy Information Administration; World Bank; and Global Energy Monitor, *Global Oil and Gas Infrastructure Tracker*

Table 2. Argentina's operating oil pipelines, 2023

Name	Owner	Capacity (thousand barrels per day)
Oldelval Oil Pipeline	Oleoductos del Valle SA (100.00%)	587
Puerto Rosales-La Plata Oil Pipeline	YPF (100.00%)	327
Vaca Muerta Norte Oil Pipeline	YPF (100.00%)	160
La Plata-Dock Sud Oil Pipeline	YPF (100.00%)	141
Oiltanking Pipeline	Oiltanking (70.00%); YPF (30.00%)	126
Loma Campana-Lago Pellegrini Oil Pipeline	YPF (85.00%); Tecpetrol (15.00%)	126
Sierras Blancas-Allen Oil Pipeline	Shell (60.00%); Pan American Energy (25.00%); Pluspetrol (15.00%)	125
Trans-Andean Oil Pipeline	Enap (36.25%); YPF (36.00%); Unocal Argentina (27.75%)	115
Puesto Hernández-Luján de Cuyo Oil Pipeline	YPF (100.00%)	94
Anticlinal Grande-Caleta Córdova Oil Pipeline	Pan American Energy (100.00%)	50
Petro Andina Pipeline	Pluspetrol (100.00%)	40
Boleadoras-Punta Loyola Oil Pipeline	CGC (Compañía General de Combustibles) (100.00%)	33
María Inés-Punta Loyola Oil Pipeline	CGC (Compañía General de Combustibles) (100.00%)	33
Loma La Lata-Centenario Oil Pipeline	YPF (100.00%)	33
Borde Montuoso - La Escondida Oil Pipeline	Vista Energy Argentina SAU (unknown %)	31
Los Perales-Las Mesetas-Caleta Olivia Oil Pipeline	YPF (100.00%)	9
El Cóndor-Punta Loyola Oil Pipeline	CGC (Compañía General de Combustibles) (100.00%)	8
Estancia La Maggie-Punta Loyola Oil Pipeline	CGC (Compañía General de Combustibles) (100.00%)	…
25 de Mayo - Medanito Oil Pipeline	Vista Energy Argentina SAU (unknown %)	…
Total		**2,038**

Data source: Global Oil Infrastructure Tracker, *Global Energy Monitor*, May 2024

Natural Gas and LNG

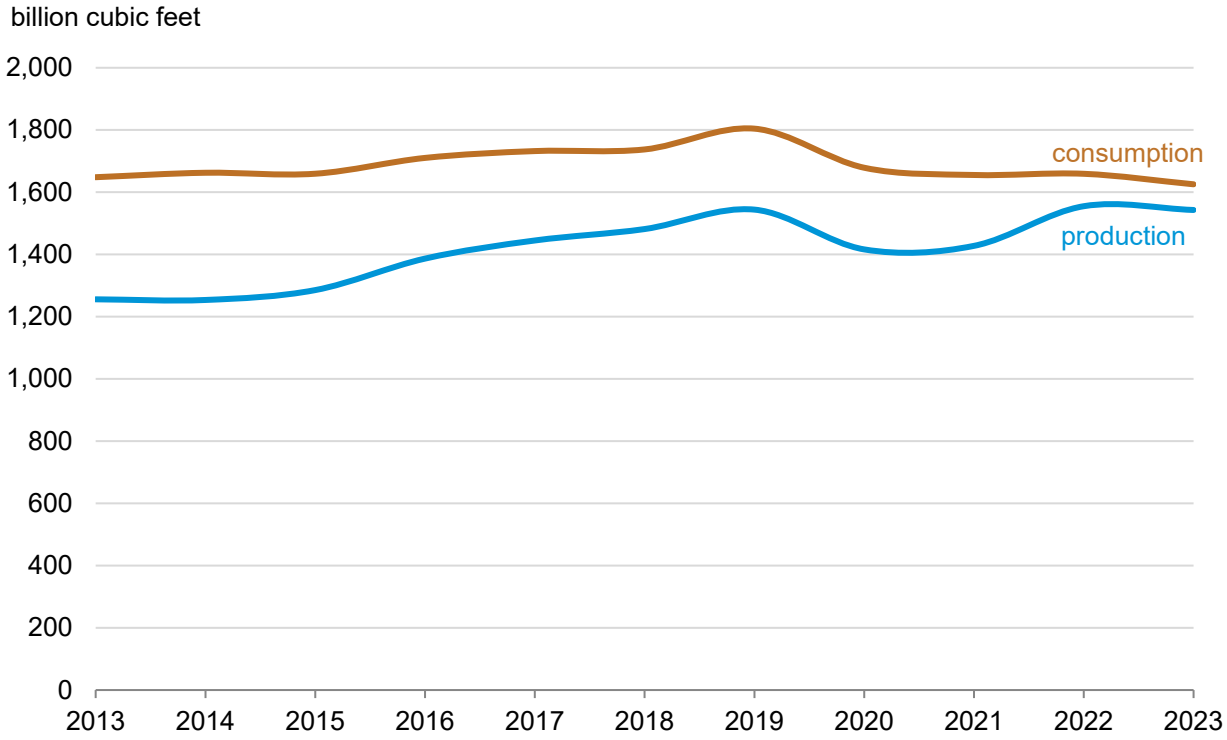
- Argentina's proved natural gas reserves were estimated at 17.2 trillion cubic feet (Tcf) in 2023: 29% were conventional reserves and 71% were unconventional reserves. The Austral Basin holds nearly 51% of the conventional proved natural gas reserves. This basin covers about 88,803 square miles, with 85% of it located in Argentina and 15% in Chile. The Neuquén Basin holds 98% of the country's unconventional proved natural gas reserves. The basin extends over 46,332 square miles in Argentina's northern Patagonia and contains the Vaca Muerta shale formation (Figure 6). Argentina is estimated to have 802 Tcf of technically recoverable shale gas. Technically recoverable resources are oil and natural gas that could be produced with current technology, regardless of oil and natural gas prices and production costs.[37, 38, 39, 40]
- Argentina is the world's 17th-highest natural gas producer, at 1.6 trillion cubic feet (Tcf) in 2022 and 1.05% of global production (Figure 3). Argentina has 166 natural gas-

producing fields; four are located offshore and the rest are onshore. Most natural gas fields in Argentina are in the Neuquén Province, where 72 of the country's 166 natural gas fields are located. Argentina's national oil company, YPF, is responsible for producing just over one-fourth of the country's natural gas. Other large players include Total Austral, Tecpetrol, and Pan American Energy. As of 2023, approximately 63% of Argentina's natural gas production came from conventional reserves; the remaining 37% were unconventional natural gas reserves. Argentina's natural gas production steadily increased by 2.4% between 2015 and 2023, and unconventional production was the primary driver of this growth.[41, 42, 43, 44, 45]

- In 2020, Argentina's government launched Plan GasAr, a natural gas initiative aimed at boosting local production and cutting down on natural gas imports. The plan provides a framework to ensure access to foreign exchange and government support for increased production.[46]
- Natural gas consumption has remained stable over the years (Figure 13). Demand for natural gas is driven by residential, power, and industrial sectors. Residential demand follows a seasonal pattern, peaking from May to September for space heating during winter months.[47]
- Argentina is developing midstream infrastructure projects to strengthen the domestic natural gas market. In July 2023, Argentina's government commissioned the Néstor Kirchner Gas Pipeline, also known as the Vaca Muerta Pipeline. This pipeline connects the natural gas-rich Neuquén Province with the Buenos Aires Province. The initial phase of the Néstor Kirchner pipeline runs from Tratayén in the Vaca Muerta shale fields to a connection with TGS's Neuba II natural gas pipeline at the Saturno compression plant near Salliqueló (Buenos Aires province). Its route passes through additional compressor stations at Casa de Piedra, Chacharramendi, and Doblas (Table 3 and Figure 14). The second phase of the Néstor Kirchner pipeline is expected to be completed by 2026. It will connect Salliqueló in Buenos Aires Province with San Jerónimo in Santa Fe Province, northwest of the capital. The pipeline will pass through compressor stations at Las Toscas and La Angelita. In addition, the project to reverse the northern natural gas pipeline is currently underway. The aim is to transport natural gas from Vaca Muerta to northern Argentina, replacing Bolivia's natural gas imports, which ended in September 2024.[48, 49, 50]
- Argentina is developing projects for its offshore natural gas reserves. In September 2024, TotalEnergies started production from the Fenix gas field, located off the coast of Tierra del Fuego in Southern Argentina. The field is part of the Cuenca Marina Austral 1 (CMA-1) concession, with TotalEnergies holding a 37.5% interest, along with partners Harbour Energy (37.5%) and Pan American Energy (25%). The Fenix development has a production capacity of 353 million cubic feet per day (70,000 boe/d) and features a new unmanned platform in 230 feet of water. Gas from Fenix is transported through a 22-mile subsea pipeline to the TotalEnergies-operated Véga Pléyade platform and then processed onshore at the Río Cullen and Cañadon Alfa facilities, both operated by the company.[51, 52, 53]
- There have been two liquefied natural gas (LNG) regasification facilities in Argentina, including in Bahia Blanca and Escobar in recent years. Regasification is the process of converting liquefied natural gas (LNG) back into a gaseous state. The Bahia Blanca GasPort floating storage and regasification unit (FSRU) is in Bahía Blanca, Buenos Aires province. It was commissioned in 2008 and was South America's first LNG terminal and the world's second dockside regasification facility. The terminal includes a jetty-

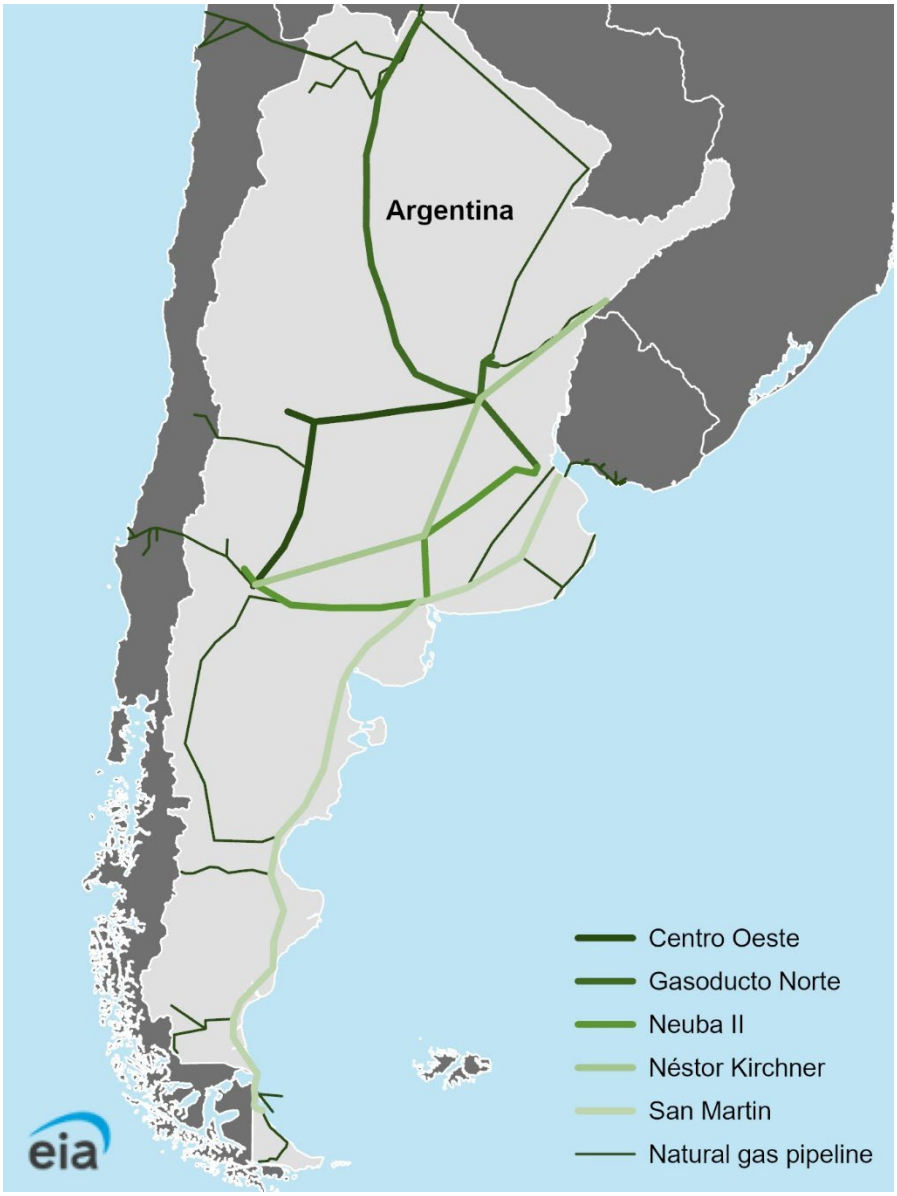
mounted natural gas offloading arm that connects to a regasification vessel. The Escobar FSRU is also a floating LNG import terminal in Buenos Aires, Argentina. It was the second LNG terminal commissioned in 2011 in the country. The terminal supports peak capacity during high-demand winter months and facilitates additional natural gas supply and transportation in the region.[54, 55, 56]

Figure 13. Argentina's dry natural gas production and consumption, 2013–2023



Data source: U.S. Energy Information Administration, International Energy Statistics

Figure 14. Map of Argentina's natural gas pipelines



Data source: U.S. Energy Information Administration; World Bank; and Global Energy Monitor, *Global Oil and Gas Infrastructure Tracker*

Table 3. Argentina's operating natural gas pipelines, 2023

Name	Owner	Capacity (billion cubic feet per day)
Neuba II Gas Pipeline	CIESA-Compañía de Inversiones de Energía SA (51.00%); ANSES-Administración Nacional de la Seguridad Social (24.00%); NYSE-New York Stock Exchange (12.00%); BYMA-Bolsas y Mercados Argentinos SA (8.00%); Other (5.00%)	451
Centro Oeste Gas Pipeline	GasInvest SA (56.00%); Southern Cone Energy Holding Company Inc. (24.00%); Bolsas y Mercados Argentinos SA (20.00%)	412
San Martin Pipeline	CIESA-Compañía de Inversiones de Energía SA (51.00%); ANSES-Administración Nacional de la Seguridad Social (24.00%); NYSE-New York Stock Exchange (12.00%); BYMA-Bolsas y Mercados Argentinos SA (8.00%); Other (5.00%)	397
Gasoducto Norte Gas Pipeline	GasInvest SA (56.00%); Southern Cone Energy Holding Company Inc. (24.00%); Bolsas y Mercados Argentinos SA (20.00%)	361
Néstor Kirchner Gas Pipeline	Enarsa (Energía Argentina SA) (100.00%)	309
Paraná-Uruguayana Gas Pipeline	TotalEnergies SE (32.70%); Tecpetrol (31.50%); Central Puerto S.A. (20.00%); CGC (Compañía General de Combustibles) (15.80%)	194
Neuba I Gas Pipeline	CIESA-Compañía de Inversiones de Energía SA (51.00%); ANSES-Administración Nacional de la Seguridad Social (24.00%); NYSE-New York Stock Exchange (12.00%); BYMA-Bolsas y Mercados Argentinos SA (8.00%); Other (5.00%)	168
Northeast Argentina Gas Pipeline	Enarsa (Energía Argentina SA) (100.00%)	144
GasAndes Pipeline	Aprovisionadora Global de Energía SA (43.50%); CGC (Compañía General de Combustibles) (43.50%); AES Corporation (13.00%)	139
Vega Pléyade Gas Pipeline	TotalEnergies SE (37.50%); Wintershall Energía (37.50%); Pan American Energy (25.00%)	129
NorAndino Gas Pipeline	Engie Energía Chile (EECL) (100.00%)	103
Gasoducto del Pacifico	Naturgy (56.70%); Enap (unknown %); Trigas (unknown %)	97
Second Transmagallánico Gas Pipeline	CIESA-Compañía de Inversiones de Energía SA (51.00%); ANSES-Administración Nacional de la Seguridad Social (24.00%); NYSE-New York Stock Exchange (12.00%); BYMA-Bolsas y Mercados Argentinos SA (8.00%); Other (5.00%)	90
Atacama Gas Pipeline	Enel Generación Chile SA (97.40%); Other (2.60%)	70
Southern Cross Gas Pipeline	BG Group (40.00%); Pan American Energy (30.00%); ANCAP (20.00%); Wintershall Energía (10.00%)	65
Gasoducto del Pacifico	Naturgy (56.70%); Enap (unknown %); Trigas (unknown %)	65
Gasoducto de la Costa Gas Pipeline	Camuzzi Gas Pampeana SA (100.00%)	59
Cordillerano-Patagónico Gas Pipeline	CIESA-Compañía de Inversiones de Energía SA (51.00%); ANSES-Administración Nacional de la Seguridad Social (24.00%); NYSE-New York Stock Exchange (12.00%); BYMA-Bolsas y Mercados Argentinos SA (8.00%); Other (5.00%)	17

Gasoducto del Litoral Gas Pipeline	ANCAP (100.00%)	16
Cordillerano-Patagónico Gas Pipeline	Camuzzi Gas del Sur SA (100.00%)	13
Santa Cruz Sur Gas Pipeline	Distrigas SA (100.00%)	9
Santa Cruz Sur Gas Pipeline	Distrigas SA (100.00%)	9
Puna Gas Pipeline	Remsa (Recursos Energéticos y Mineros de Salta) (100.00%)	4
San Sebastián-Ushuaia Gas Pipeline	Camuzzi Gas del Sur SA (100.00%)	…
Entrerriano Gas Pipeline	Entrerriana de Gas (100.00%)	…
Total		**3,321**

Data source: Global Gas Infrastructure Tracker, *Global Energy Monitor*, December 2023

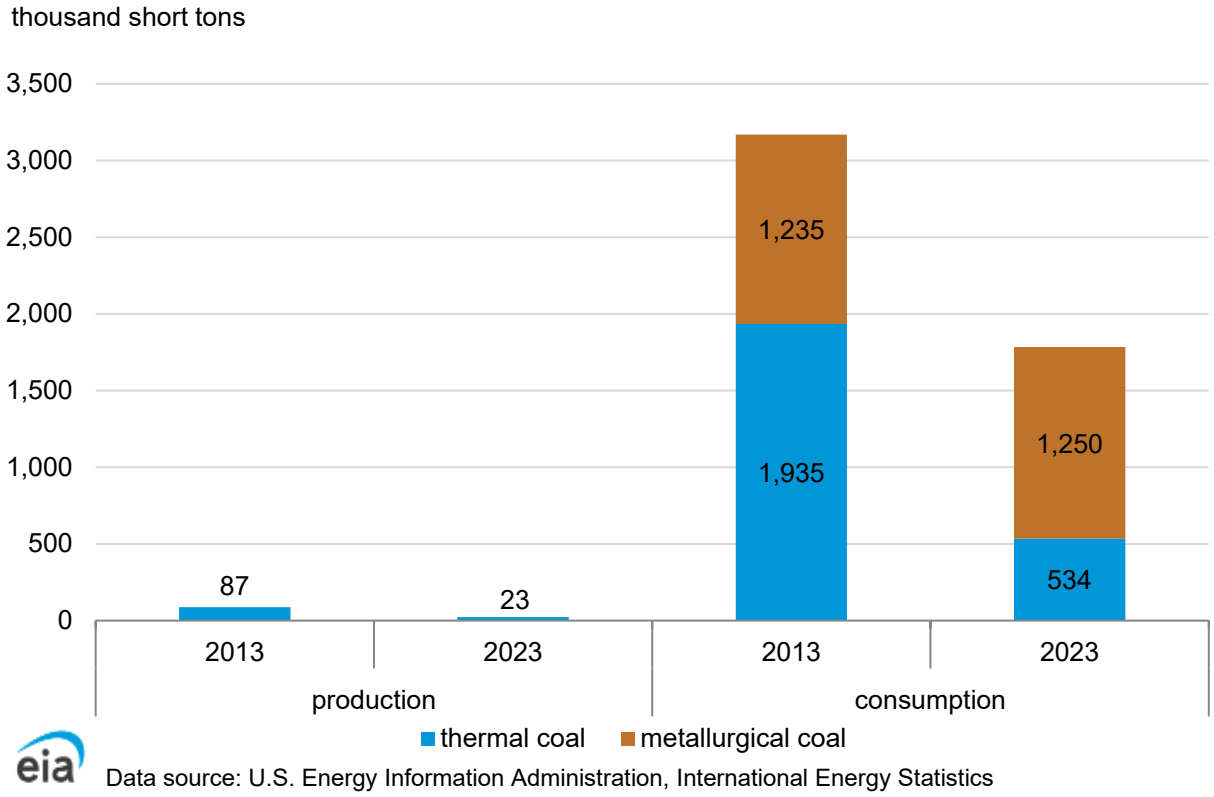
Coal

- Argentina has relatively small coal reserves compared with its reserves of other fossil fuels and they are primarily located in the provinces of Santa Cruz, Río Negro, and Neuquén in southern Patagonia, especially in the Río Turbio area. As of 2023, Argentina held approximately 882 million short tons of proved coal reserves.[57, 58]
- Argentina's thermal coal production is relatively low and has been declining over the years because of the country's focus on other energy sources (Figure 15). Argentina's coal production is for thermal use. From 2013 to 2023, Argentina's thermal coal production declined by 11% annually. The largest and most significant coal mine is the Río Turbio mine in Santa Cruz, which has been operating for several decades. The Río Turbio mine remains the primary source of thermal coal, which is used mainly for electricity generation and some industrial applications.[59, 60]
- Argentina's coal consumption consists of thermal coal and metallurgical coal. In 2023, thermal coal accounted for 30% of the total coal demand, while metallurgical coal made up the remaining 70%. The consumption of thermal coal has decreased over the years. In 2023, Argentina consumed 0.5 million short tons of thermal coal, down from 1.9 million short tons in 2013. Because of low domestic thermal coal production, Argentina relies on importing thermal coal to meet its energy needs, with 96% of thermal coal consumption being imported in 2023. On the other hand, Argentina's metallurgical coal consumption increased from 1.2 million short tons in 2013 to 1.3 million short tons in 2023, driven by increased demand from the industry. Imports account for all of Argentina's metallurgical coal consumption.[61, 62]
- Coal-fired power plants contributed 1.3% of Argentina's electricity generation in 2022 (Table 1). Argentina's most notable coal-fired power plant is the 375-megawatt (MW) San Nicolás power station located in Buenos Aires. The plant was commissioned in 1983 and is scheduled to be retired in 2026. Argentina's most recent project is the 240-MW Río Turbio plant, which has two 120-MW units. The plant sources coal from the Río Turbio coal mine. Unit 1 was commissioned in 2022, and Unit 2 is still under construction. [63, 64]
- Metallurgical coke is a crucial input for steel production, and it is made from metallurgical coal through a high-temperature carbonization process. In Argentina, metallurgical coke production and consumption are essential to its steel industry, which supports the broader steel manufacturing sector. The steel industry is vital to

Argentina's industrial base, including major players such as Ternium Siderar and Acindar.[65]

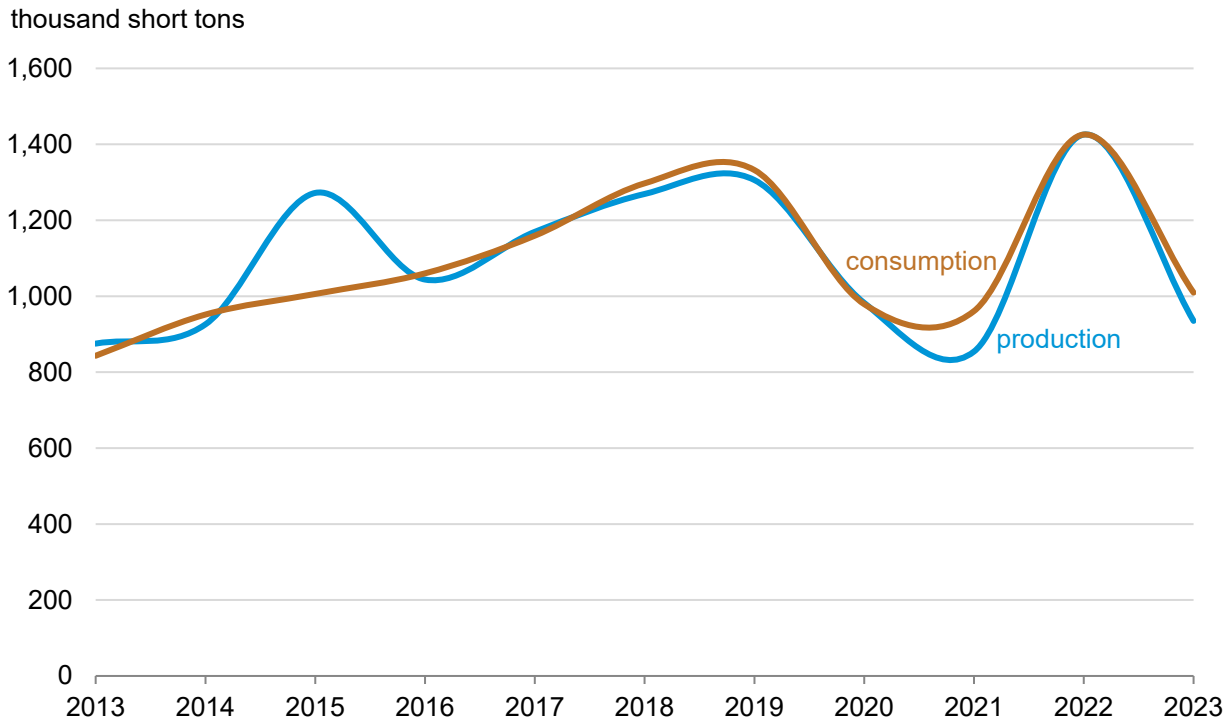
- In Argentina, metallurgical coke production is unique. Unlike the traditional method that heavily relies on coal, Argentina has developed a process that primarily uses petroleum coke and coal tar pitch, a method that reduces dependence on imported coke. From 2013 to 2023, Argentina's metallurgical coke production grew annually by 4.3% while consumption grew by 3.9% annually (Figure 16). Argentina's metallurgical coke market is growing because of increasing demand driven by the construction, infrastructure, and automotive sectors. However, the industry faces challenges such as high production costs, aging infrastructure, and competition from imported coke.[66, 67, 68]

Figure 15. Argentina's coal production and consumption, 2013–2023



Data source: U.S. Energy Information Administration, International Energy Statistics

Figure 16. Argentina's metallurgical coke production and consumption, 2013–2023



Data source: U.S. Energy Information Administration, International Energy Statistics

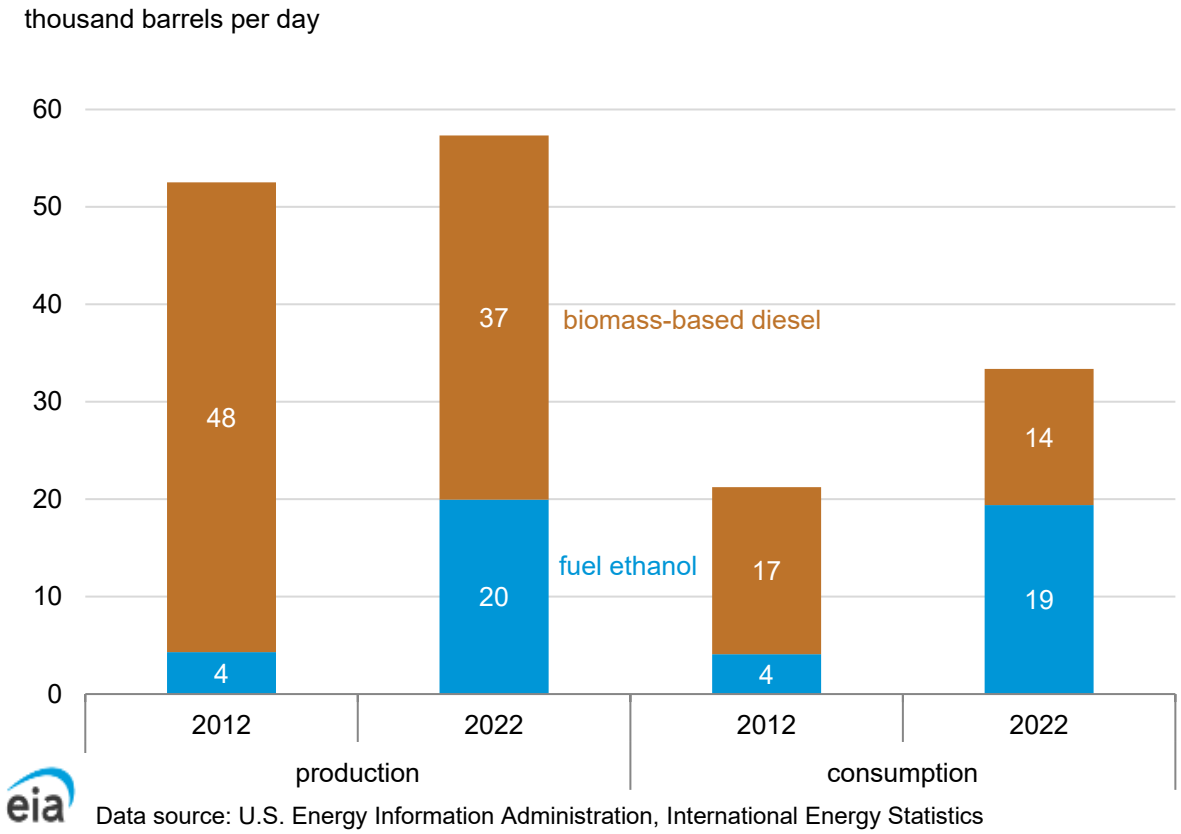
Biofuels

- In 2022, Argentina produced 57,000 b/d of biofuels, making it the seventh-highest producer globally and accounting for 2% of the total global production. In the same year, 65% of the biofuel production was biodiesel, and the remaining 35% was bioethanol. From 2012 to 2022, biofuel production grew at 4% per year; bioethanol contributed 3 percentage points per year to the growth and biodiesel contributed 1 percentage point (Figure 17).[69, 70]
- Argentina was the world's eleventh-highest biofuels consumer, at 33,000 barrels per day in 2022. In 2022, bioethanol accounted for 58% of the biofuels consumed, and biodiesel accounted for the remaining 42%. Between 2012 and 2022, biofuel consumption increased by 8.2% per year; bioethanol contributed 6.7 percentage points per year and biodiesel contributed 1.5 percentage points per year to the growth. As of 2022, transport accounted for the largest share of biofuel consumption, at 56.9%, followed by industrial at 27.1% and residential at 10%.[71, 72, 73]
- Argentina has a significant soybean farming industry. As such, the country uses soybean oil as the main feedstock for biodiesel production. Argentina has 32 biodiesel plants, all of which use vegetable oil from soybean crushing as feedstock. The major biodiesel production facilities are in the provinces of Buenos Aires, Santa Fe, and Córdoba.[74]
- Argentina's bioethanol production is mainly derived from sugarcane and corn. The country has 19 sugar mills and 12 produce bioethanol; they are located in the provinces of Tucuman, Salta, and Jujuy. The corn ethanol industry is made up of five large plants in

the main agricultural production areas in provinces such as Córdoba, Tucuman, Salta, and Jujuy.[75]

- The domestic biofuel market is driven by blending requirements, which create a steady demand for both biodiesel and bioethanol. In June 2022, the government increased the biodiesel requirement to B7.5, which is 7.5% biodiesel and 92.5% diesel. The effective average blend rate for biodiesel in 2023 was 4.4%. The bioethanol mix in 2023 was 11.2%. Partially offsetting finished fuel imports, primarily diesel, was also an important goal to support the country's balance of payments. Debate over the biofuel policy is ongoing between the farm sector and biofuel producers, oil companies, and local car manufacturers.[76, 77]
- The domestic biofuels sector does not receive direct financial support for development or expansion. Official prices are set for biofuels, but prices are not revised in tandem with inflation, resulting in financial stress for biofuel producers. Both biodiesel and bioethanol producers receive some degree of support through exemptions from the liquid fuels tax and the fossil fuel carbon emissions tax.[78]
- The government aims to expand the biofuels sector by promoting the use of advanced biofuels like hydrotreated vegetable oil (HVO) and sustainable aviation fuel (SAF). HVO is a fuel that can be used in diesel engines without modification and has similar chemical and physical properties to diesel fuel. HVO can also be blended with diesel in any proportion. SAF is made from renewable feedstocks and has a lower carbon footprint than conventional jet fuels. So far, SAF lacks supporting policies, despite growing interest.[79, 80, 81, 82]
- Although Argentina actively uses blending as a supply and price management tool in response to changes in feedstock supply and oil prices, biofuels continue to play only a small role in supporting Argentina's commitment to reduce greenhouse gas emissions.[83]

Figure 17. Argentina's biofuels production and consumption, 2012–2022



Electricity

- In 2022, natural gas accounted for 53% of Argentina's electricity generation, and hydropower contributed more than 16%. The country implemented public policies to support utility-scale renewable energy projects, capitalizing on its abundant solar and wind resources. Consequently, wind power generation increased by 163% annually, and solar power generation grew by nearly 160% per year from 2012 to 2022. These increases led to wind's share of electricity generation increasing from 0.6% in 2012 to 9.7% in 2022, and the solar share rising from one-tenth of a percent to 2.0% over the same period.[84]
- Following Brazil, Argentina was the second-highest electricity consumer in Central America and South America in 2022, at 128 terawatthours. Over the past decade, Argentina's electricity consumption has remained relatively stable, growing annually by 0.6% from 2012 to 2022. However, economic crises and changes in industrial activity have led to periodic fluctuations.[85]
- Electricity consumption varies across regions, but the Greater Buenos Aires area is the largest consumer because of its high population density and industrial activity. In contrast, less populated provinces in the north and south of the country have lower consumption. The residential sector is the top consumer of electricity, accounting for 38.2% of total consumption in 2022, driven by electric heating and air conditioning, particularly in urban areas. The industrial sector consumed about 35.0% of the electricity in 2022, with significant demand from the manufacturing and mining

subsectors. The commercial and public services sector is the third-highest consumer, at approximately 25.5% of total electricity consumption in 2022, fueled by retail, healthcare, education, and other public services.[86]

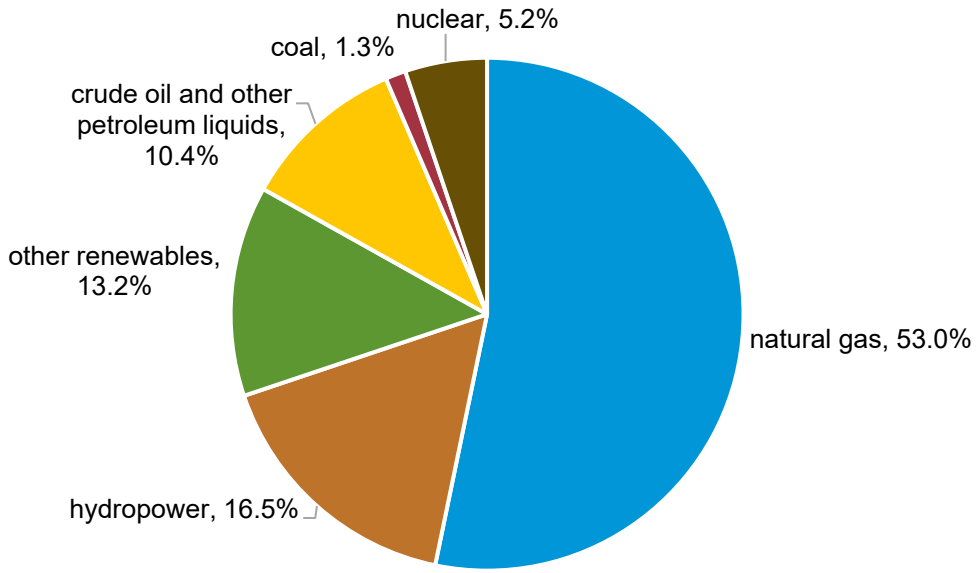
- Government policies, such as subsidies and tariffs, have significantly influenced electricity consumption patterns historically. Subsidies have kept consumer prices low, leading to higher consumption. Recent reforms to reduce subsidies and increased tariffs could affect consumption going forward.[87]
- The regulatory framework for the power sector includes generation, transmission, distribution, and demand. Power generation requires certain clearances; transmission and distribution companies are regulated as public utilities. Rates charged by these utilities are determined by government agencies.[88]
- As of 2023, Argentina had 103 operating natural gas-powered plants, totaling 22,479 MW of capacity. Most of the natural gas-fired electricity generated in Argentina comes from combined-cycle power plants, which are more efficient than simple gas turbines because they recycle the exhaust steam from the gas turbines and use both gas and steam turbines to generate electricity. The most recently inaugurated power plant is the Ensenada Barragán power station, with a capacity of 848 MW, in Ensenada, Buenos Aires, Argentina.[89, 90]
- Argentina had 62 wind farms with a capacity of 3,744 MW of electricity in 2023. The wind farms are distributed mostly in Chubut, Buenos Aires, Santa Cruz, La Rioja, Córdoba, Neuquén, and Río Negro. Solar projects are concentrated in the northern provinces, taking advantage of high solar irradiance levels. Argentina had 45 solar farms, with a total capacity of 1,445 MW as of 2023. Despite the progress in the renewable energy market in Argentina, several challenges persist, including the lack of transmission infrastructure, which makes it difficult to distribute electricity throughout the country.[91, 92, 93]
- Hydropower is an important source of carbon-free energy in Argentina, making up about 16.5% of the country's electricity generation in 2022. As of 2023, Argentina had 33 hydropower plants, with a total capacity of 9,254 MW. Argentina is involved in two major binational hydroelectric projects: Yacyretá (shared with Paraguay) and Salto Grande (shared with Uruguay). Some of the largest hydroelectric plants in Argentina include Yacyretá, Corpus Christi, and Salto Grande. Together, these plants play a crucial role in meeting the country's electricity demand, accounting for one-fourth of Argentina’s hydropower capacity.[94]
- Argentina is one of the few countries in Central America and South America with nuclear power, contributing about 5.2% to the electricity mix in 2022. As of 2023, Argentina had three operational nuclear power plants, Atucha I, Atucha II, and Embalse, with a total capacity of 1,763 MW of electricity. The nuclear plants are pressurized heavy water reactors that use natural uranium. A small, locally designed prototype reactor, CAREM25, is under construction; CAREM25 is a benchmark for a new generation of reactors designed to produce low- to medium-power electricity. The CAREM-like small modular reactor (SMR) is more efficient to build and invest in due to its size and simple design.[95, 96]
- Argentina’s government has implemented several policies to support increased renewable energy in the country. One of the key policies is the Renovation Program for Renewable Energy Sources (RenovAr), launched in 2016, which provides financial incentives for developing renewable energy projects; the program includes subsidies,

tax exemptions, and soft loans (a loan with no interest or a below-market rate of interest) for constructing renewable energy projects. In addition, the Renewable Energy Certificates (RECs) system supports renewable energy project development. Under this system, energy companies that generate electricity from renewable sources receive certificates they can sell to other companies that need them to meet renewable energy targets. This system helps to ensure a steady stream of funding for renewable energy projects.[97]

- The Argentine government established the National Energy Efficiency Plan, which aims to reduce energy consumption and promote energy efficiency. The plan includes measures such as building codes, appliance standards, and financial incentives for energy-efficiency projects. The private sector is also playing a significant role in developing renewable energy in Argentina. Several companies are investing in renewable energy projects; some of the major players in the renewable energy market include YPF, Genneia, Pampa Energia, Enel Green Power, and 360 Energy.

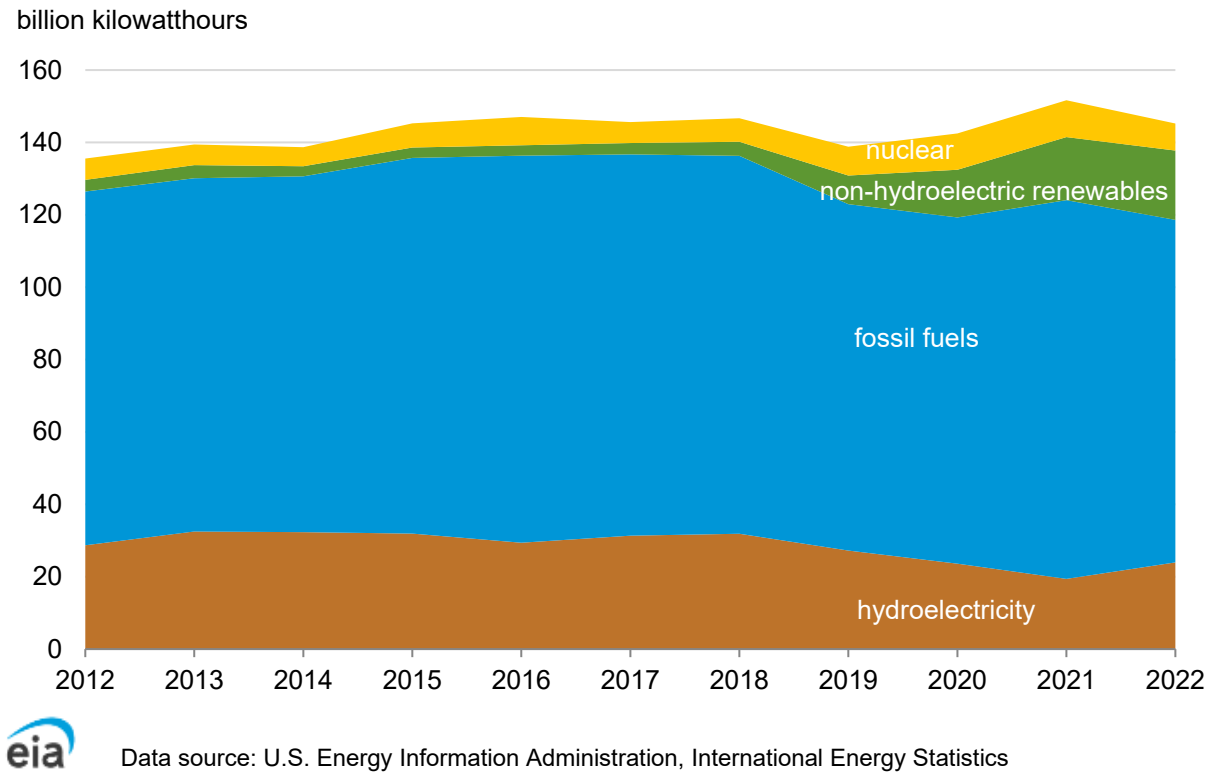
Figure 18. Argentina's electricity generation supply, 2022

percentage of total electricity generation



Data source: U.S. Energy Information Administration, International Energy Statistics
Note: *Other renewables* contain solar, wind, and biomass and waste sources.

Figure 19. Argentina's electricity generation by source, 2012–2022



eia Data source: U.S. Energy Information Administration, International Energy Statistics

Table 4. Argentina's operating hydroelectric plants, 2023

Name	Owner	Start year	Capacity (megawatts)	Type	Location
Yacyretá hydroelectric plant	Entidad Binacional Yacyreta (EBY)	1994	1,550	conventional storage	Departamento Ituzaingó, Corrientes
Piedra Del Aguila hydroelectric plant	Sociedad Energía Sadesa Central Puerto	1993	1,424	conventional storage	Departamento Collón Curá, Neuquén Province
Chocón hydroelectric plant	Enel Generación	1972	1,200	conventional storage	Departamento Confluencia, Neuquén Province
Alicura hydroelectric plant	AES Energía	1984	1,040	conventional storage	Departamento Pilcaniyeu, Río Negro Province
Salto Grande hydroelectric plant	Comisión Técnica Mixta (CTM)	1979	945	conventional storage	Departamento Concordia, Entre Ríos Province
Rio Grande hydroelectric plant	Empresa Provincial de Energía de Córdoba (EPEC)	1986	750	pumped storage	Departamento Calamuchita, Córdoba
Planicie Banderita hydroelectric plant	Orazul Energy	1972	486	conventional storage	Departamento Confluencia, Neuquén Province

Futaleufú hydroelectric plant	Hidroeléctrica Futaleufú SA	1978	472	conventional storage	Departamento Futaleufú, Chubut Province
Pichi Picun Leufu hydroelectric plant	Pampa Energía SA	1999	285	conventional storage	Departamento Pilcaniyeu, Río Negro Province
Los Reyunos hydroelectric plant	Pampa Energía SA	1984	224	conventional storage	Departamento San Rafael, Mendoza
Agua Del Toro hydroelectric plant	Pampa Energía SA	1974	150	conventional storage	Departamento San Rafael, Mendoza
Nihuil 2 hydroelectric plant	Pampa Energía SA	1968	131	conventional storage	Departamento San Rafael, Mendoza
Arroyito hydroelectric plant	Enel Generación	1983	128	conventional storage	Departamento Confluencia, Neuquén Province
Los Caracoles hydroelectric plant	Energía Provincial Sociedad del Estado (EPSE)	2009	125	conventional storage	Zonda, San Juan
Cacheuta Nueva hydroelectric plant	Hidrocuyo SA	2002	120	conventional storage	Departamento Luján de Cuyo, Mendoza
Urugua-í hydroelectric plant	Energía de Misiones SA (EMSA)	1990	120	conventional storage	Departamento Iguazú, Misiones
Cabra Corral hydroelectric plant	AES Energía	1972	104	conventional storage	La Viña, Salta
Total			**9,254**		

Data source: Global Energy Monitor, *Global Hydropower Tracker*, April 2024

Table 5. Argentina's operating wind plants, 2023

Name	Owner	Capacity (megawatts)	Location
Loma Blanca wind farm	Isolux LLC	304	Chubut Province
Puerto Madryn wind farm	Genneia SA	222	Chubut Province
San Jorge Y El Mataco wind farm	Petroquimica Comodoro Rivadavia SA (PCR)	204	Buenos Aires
Chubut Norte wind farm	Genneia SA	196	Chubut Province
Pampa Energia wind farm	Pampa Energia SA	187	Buenos Aires
Los Teros wind farm	YPF Energía Eléctrica SA	175	Buenos Aires
Aluar El Llano wind farm	Aluar	164	Chubut Province
Arauco wind farm	Pampa Energia SA	150	La Rioja
La Genoveva wind farm	Central Puerto SA	129	Buenos Aires
Achiras wind farm	Central Puerto SA	128	San Luis and Córdoba
Bicentenario wind farm	Petroquimica Comodoro Rivadavia SA (PCR)	126	Santa Cruz Province
Canadon Leon wind farm	YPF Energía Eléctrica SA	122	Santa Cruz Province
Pomona wind farm	Genneia SA	113	Río Negro Province
Rawson wind farm	Genneia SA	108	Chubut Province
Corti wind farm	Pampa Energia SA	100	Buenos Aires
Energetica I wind farm	Eipor SA	100	Buenos Aires

Manantiales Behr wind farm	YPF Energía Eléctrica SA	100	Chubut Province
Miramar wind farm	Goldwin	100	Buenos Aires
Tres Picos wind farm	Nordex; AES Corp	100	Buenos Aires
Vientos Bonaerenses wind farm	AES Corp	100	Buenos Aires
Vientos Neuquinos wind farm	AES Corp	100	Neuquén
La Castellana wind farm	Central Puerto SA	99	Buenos Aires
Los Hercules wind farm	Mitsui & Co Ltd; Total Eren SA	97	Santa Cruz Province
Manque wind farm	Central Puerto SA	57	Córdoba
Villalonga wind farm	Genneia SA	52	Buenos Aires
De La Bahia wind farm	Pampa Energia SA	50	Buenos Aires
Malaspina wind farm	Total Eren SA	50	Chubut Province
Trelew wind farm	Genneia SA	50	Chubut Province
Vientos Del Secano wind farm	Envision Energy	50	Buenos Aires
La Banderita wind farm	Grupo Frali	40	La Pampa
Vientos De Necochea wind farm	Genneia SA	38	Buenos Aires
Diadema wind farm	Hychico	28	Chubut Province
Garayalde wind farm	Pan American Energy Group (PAE) ; 3 Gal SA	24	Chubut Province
Kosten wind farm	Grenergy	24	Chubut Province
Los Olivos wind farm	Central Puerto SA	23	Córdoba
Antonio Moran wind farm	Sociedad Cooperativa Popular Limitada (SCPL)	18	Chubut Province
Garcia Del Rio wind farm	Envision Energy	10	Buenos Aires
Diadema wind farm	Hychico	6	Chubut Province
Total		**3,744**	

Data source: Global Energy Monitor, *Global Wind Power Tracker*, June 2024

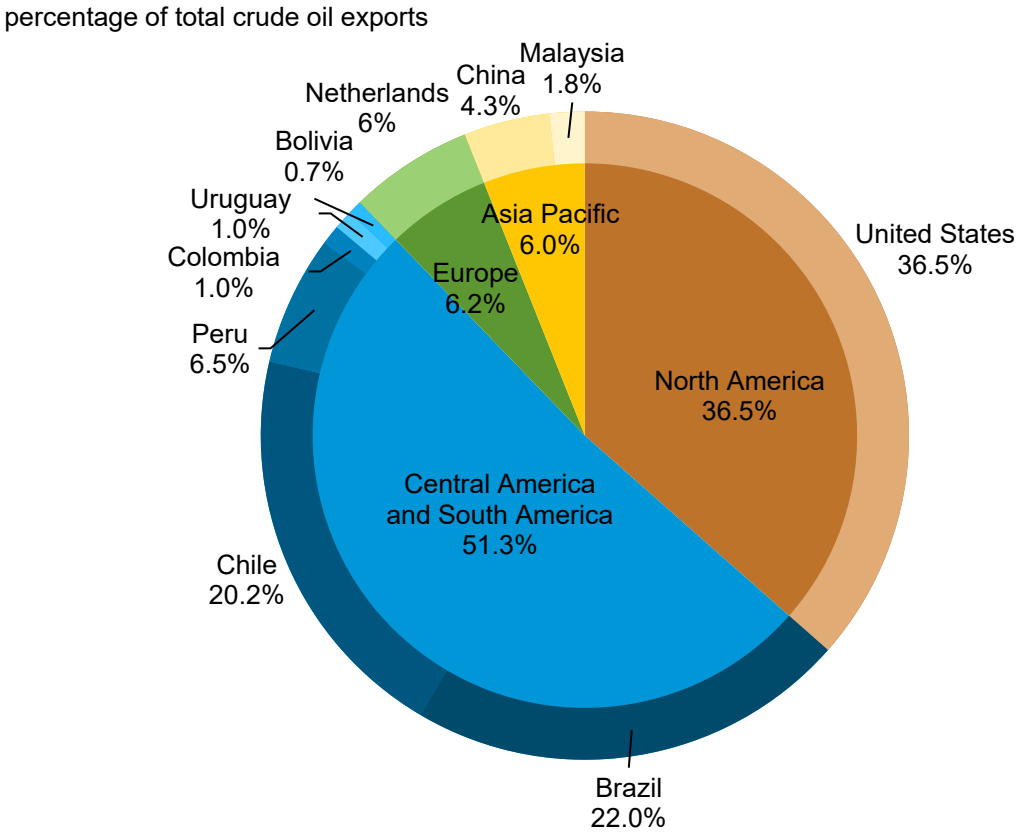
Energy Trade

- After facing a 3.5% GDP energy trade deficit in 2022, Argentina balanced its energy trade in 2023. The country is projected to achieve a 4.7% GDP energy trade surplus in 2024, according to the International Monetary Fund. With growing shale production, Argentina's crude oil exports have increased 28% per year, from 39,000 b/d in 2018 to 99,000 b/d in 2023. In 2023, Argentina's main crude oil export destinations were the United States (36.5%), Brazil (22.0%), and Chile (20.2%) (Figure 20). Argentina shale crude oil, Medanito, accounts for about 70% of total crude oil exported in 2023. Medanito is a light, sweet crude oil with an API of 40.8 degrees and a sulfur content of 0.15%. Medanito is produced in the Neuquen, Rio Negro, and La Pampa Basins and sold from Puerto Rosales. As of 2023, Argentina's main petroleum export continued to be biodiesel feedstock, accounting for 35% of petroleum exports, down from 42% in 2018 (Figure 21).[98, 99, 100]
- In 2020, Argentina started exporting more refined products because of lower domestic fuel demand. Paraguay, Brazil, and Chile were the main importers of Argentina's refined products in 2021. Argentina's reduced domestic consumption also decreased its fuel imports (primarily from the United States and the Netherlands) by 17% in 2023, and the

biggest decline was in gasoil and diesel fuel imports (Figure 22). Furthermore, liquefied natural gas (LNG) imports decreased partly because of increased domestic production and improvements in infrastructure, such as the Vaca Muerta Pipeline natural gas pipeline, which started operating in 2023.[101, 102]

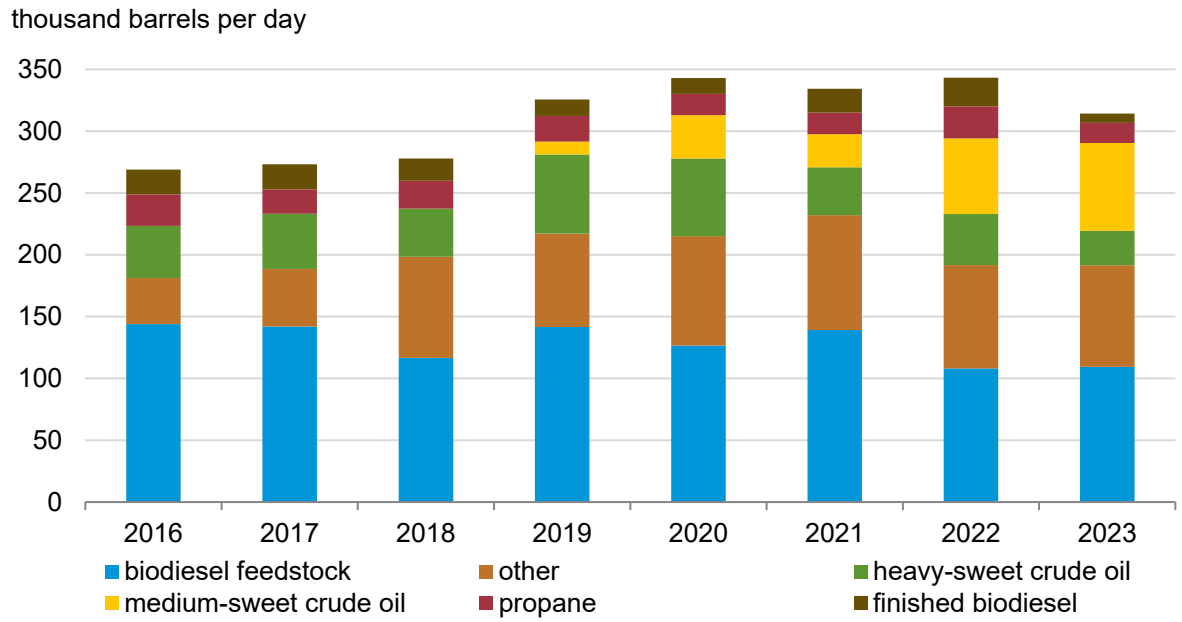
- Argentina's natural gas exports are limited because of inadequate infrastructure, particularly the absence of an LNG export terminal. Inadequate infrastructure has restricted pipeline exports and trade with other countries from expanding. In the past, Argentina relied on imports from neighboring countries, such as Bolivia, to meet its domestic natural gas needs, especially during peak winter months (Figure 23). Argentina has also imported LNG to supplement its natural gas supply during high demand (Figure 24).[103, 104]
- With increasing domestic production, Argentina has increased its exports of natural gas to Chile and, to a lesser extent, Uruguay. Starting in October 2024, Argentina plans to reverse the natural gas pipeline with Bolivia and export 106 million cubic feet per day of natural gas to Brazil through Bolivia. Efforts are also underway to develop LNG export capabilities to sell excess natural gas production to global markets. Projects like the Tango Floating Liquefied Natural Gas (FLNG) unit are part of this strategy. Golar LNG entered into a 20-year agreement with Argentina's Pan American Energy (PAE) to deploy an FLNG unit, the Hilli FLNG, which is expected to start LNG exports in 2027. In addition, in August 2024, the Malaysian energy group Petronas and its Argentinian counterpart YPF agreed to develop a joint LNG project in the Argentine province of Río Negro with an estimated investment of US $30 billion. The Argentine LNG project, led by YPF and Petronas, aims to liquefy natural gas produced in Vaca Muerta to export to global markets.[105, 106, 107, 108]
- In June 2024, the Argentine Congress passed Law No. 27,742, also known as Ley Bases. Ley Bases introduces changes to energy regulations in Argentina to promote international trade of LNG, hydrocarbons, and electricity. This law includes incentives for large oil and natural gas infrastructure projects, allowing the state natural gas importer, Enarsa, to be privatized. It also provides incentives for large projects such as the construction of an LNG export terminal. The law aims to modernize electric power infrastructure, harmonize environmental regulations, and relax rules for companies holding hydrocarbon exploration permits. The law also permits natural gas imports without prior approval and makes LNG export authorizations firm and binding for up to 30 years.[109, 110]
- Biodiesel exports are a main pillar of Argentina's biodiesel industry but vary significantly from year to year based on export countries' policies and conditions and the price differential between diesel and soybean oil. The European Union continues to be the main market for Argentine biodiesel. Biodiesel exports have faced challenges because of trade disputes and tariffs. Negotiations and dispute resolutions are ongoing to maintain market access. The Argentine fuel ethanol market is mostly isolated from world markets, with only marginal volumes traded.[111, 112, 113]
- Argentina is a net importer of electricity and engages in electricity trade with neighboring countries, including Brazil, Uruguay, and Chile, through interconnected power grids (Figure 25). Argentina's deficit in domestic electricity generation is exacerbated by its underdeveloped grid infrastructure and transmission and distribution losses.

Figure 20. Argentina's crude oil exports by region and country, 2023



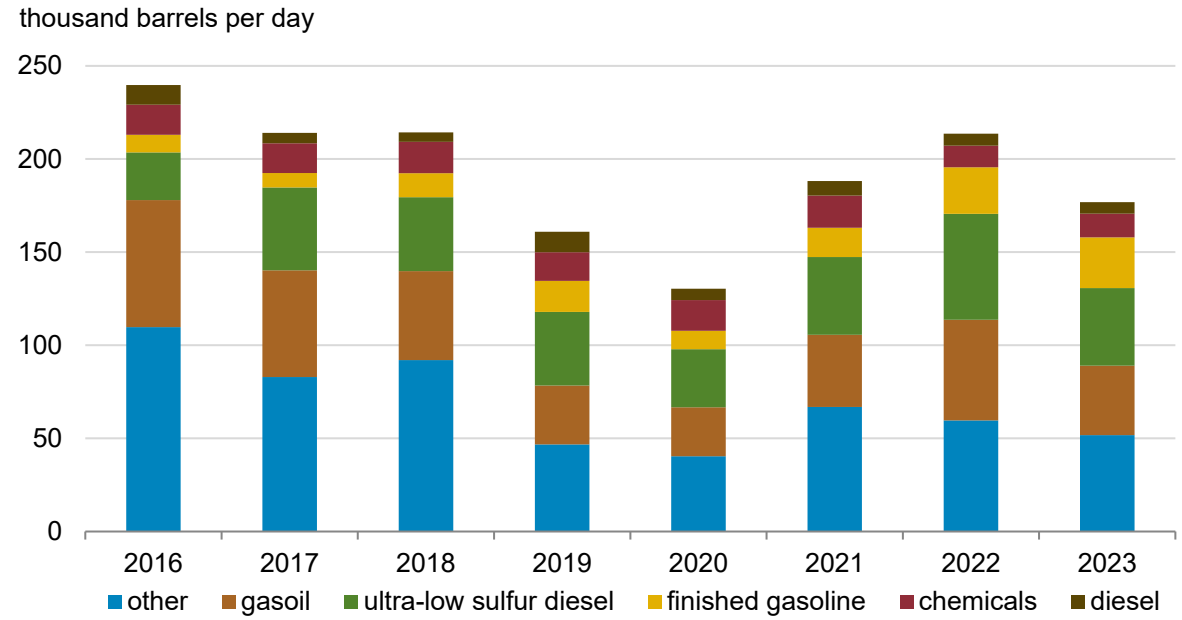
Data source: Global Trade Tracker, provided by Zen Innovations AG © 2024

Figure 21. Argentina's petroleum exports, 2016–2023



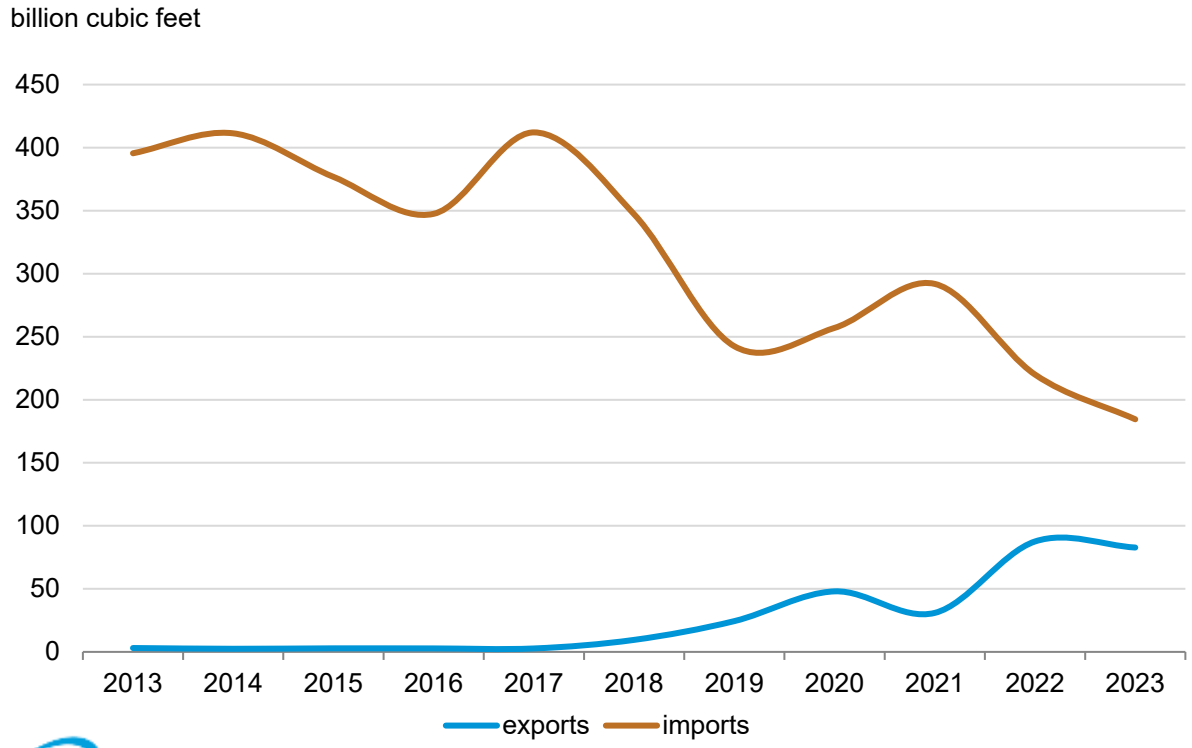
Data source: Vortexa Ltd.
Note: *Other* contains blending components, butane, butane or propane, chemicals, diesel, dirty condensates, finished gasoline, full range naphtha, gasoil, heavy naphtha, jet fuel, kerosene, light naphtha, light-sweet crude oil, low sulfur fuel oil, lube oils, olefins or other chemicals, other biodiesel or edible oils, ultra-low sulfur diesel, undetermined, vacuum gas oil.

Figure 22. Argentina's petroleum imports, 2016–2023



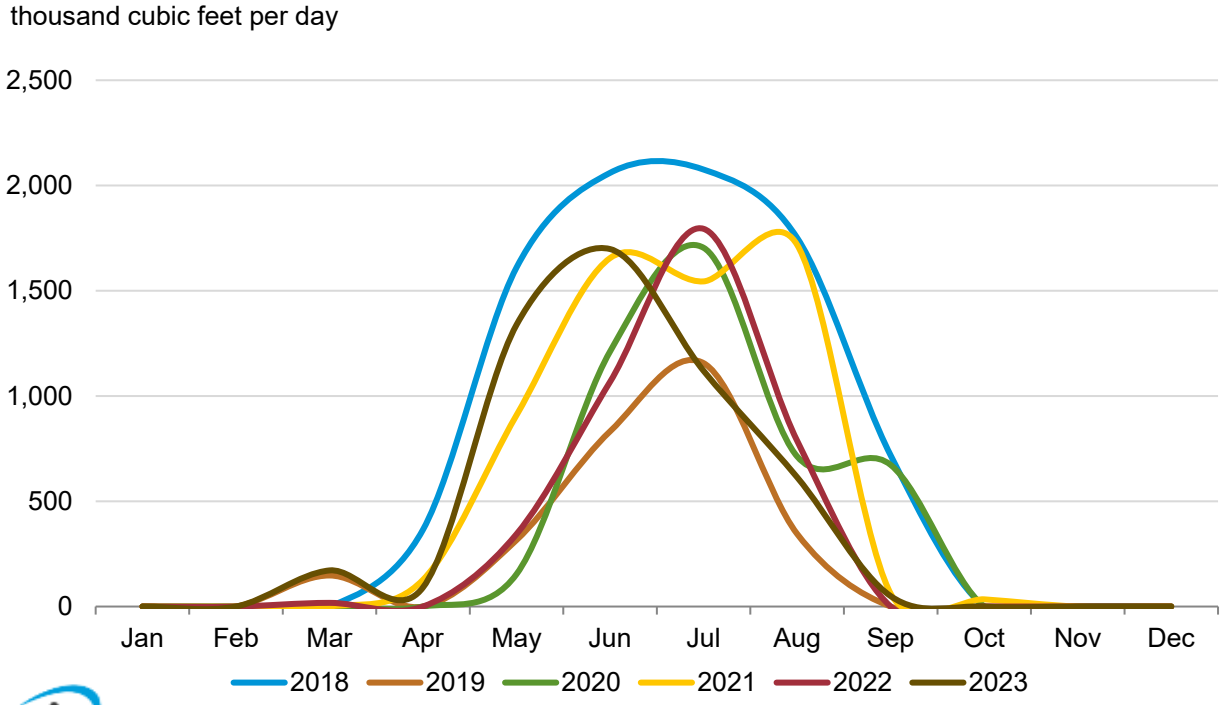
Data source: Vortexa Ltd.
Note: *Other* contains medium-sweet crude oil, low sulfur fuel oil, undetermined, light naphtha, light-sweet crude oil, high sulfur fuel oil, jet fuel, blending components, full range naphta, other biodiesel or edible oils, propane, heavy naphtha, biodiesel feedstock, finished biodiesel, olefins or other chemicals, dirty condensates, bitumen, lube oils, heavy-sour crude oil, asphalt, butane, ethane, vacuum gas oil, and kerosene.

Figure 23. Argentina's dry natural gas trade, 2013–2023



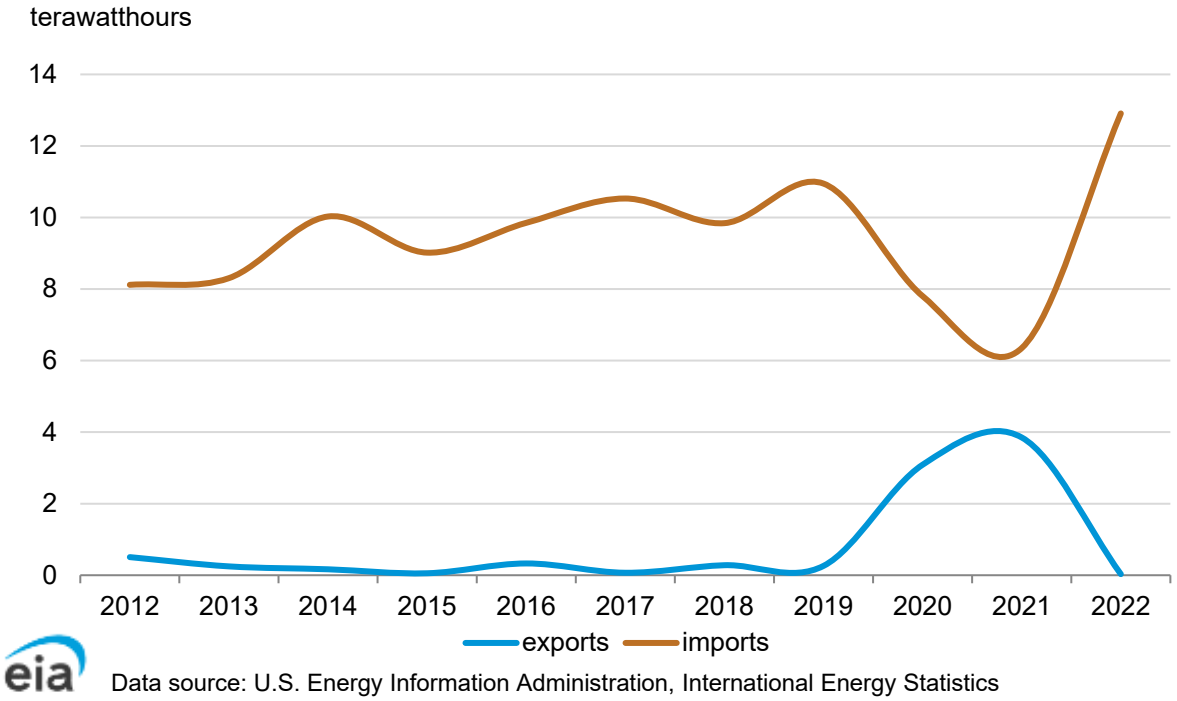
Data source: U.S. Energy Information Administration, International Energy Statistics

Figure 24. Argentina's liquefied natural gas imports, 2018–2023



Data source: Vortexa Ltd.

Figure 25. Argentina's electricity trade, 2012–2022



Data source: U.S. Energy Information Administration, International Energy Statistics

[1] IEA. "Argentina - Countries & Regions." IEA. Accessed July 30, 2024. https://www.iea.org/countries/argentina/energy-mix.

[2] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed July 30, 2024. https://www.eia.gov/international/data/country/ARG/total-energy/total-energy-production?pd=44&p=0040000000000000000000000000000000000000000000000000000000000000000f00o&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.

[3] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed July 30, 2024. https://www.eia.gov/international/data/country/ARG/total-energy/total-energy-consumption?pd=44&p=0000000010000000000000000000000000000000000000000000000000000000u06&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.

[4] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed July 30, 2024. https://www.eia.gov/international/analysis/country/ARG.

[5] "Argentina: Eighth Review under the Extended Arrangement under the Extended Fund Facility, Requests for Modification of Performance Criteria, Waivers of Nonobservance of Performance Criteria, and Financing Assurances Review-Press Release; Staff Report; and Statement by the Executive Director for Argentina." IMF, June 17, 2024. https://www.imf.org/en/Publications/CR/Issues/2024/06/17/Argentina-Eighth-Review-Under-the-Extended-Arrangement-Under-the-Extended-Fund-Facility-550548.

[6] Debre, Isabel. "Argentina's Inflation Edges up in June, Breaking a Months-Long Streak in a Blow to President Milei." AP News, July 13, 2024. https://apnews.com/article/argentina-inflation-economy-dollar-peso-black-market-libertarian-milei-d288baeae4410265bdef5e244b2c8e56.

[7] "Argentina Declares an Energy Sector 'Emergency', Price Hikes and Privatisations." Enerdata, December 21, 2023. https://www.enerdata.net/publications/daily-energy-news/argentina-emergency-energy-sector.html.

[8] Lara, Adrian. "What Does Milei Mean for Oil and Gas in Argentina?" Wood Mackenzie, November 29, 2023. https://www.woodmac.com/news/opinion/what-does-milei-mean-for-oil-and-gas-in-argentina/#:~:text=Issue%206:%20Loosening%20import%20restrictions,lift%20capital%20controls%20should%20help.

[9] Zapata, Juan Camilo. "Argentina Presented Its National Energy Transition Plan to 2030 in Pursuit of Carbon Neutrality Commitment - Green Finance Lac." Green Finance LAC - Latin American and Caribbean Green Finance, July 31, 2023. https://greenfinancelac.org/resources/articles/argentina-presented-its-national-energy-transition-plan-to-2030-in-pursuit-of-carbon-neutrality-commitment/#:~:text=It%20sets%20quantitative%20targets%20for%202030%3A&text=Not%20to%20exceed%20the%20net,line%20with%20the%20latest%20NDC.&text=Reduce%20energy%20demand%20by%20at,efficiency%20and%20responsible%20energy%20use.&text=Exceed%2050%25%20renewables%20in%20electricity%20generation.

[10] Argentina. Accessed July 30, 2024. https://www.argentina.gob.ar/sites/default/files/2023/07/enh2_-_english.pdf.

[11] "Argentina - Energy - Oil & Gas." International Trade Administration | Trade.gov. Accessed July 30, 2024. https://www.trade.gov/country-commercial-guides/argentina-energy-oil-gas.

[12] "Reservas de Petróleo Y Gas." Argentina.gob.ar, September 11, 2023. https://www.argentina.gob.ar/economia/energia/hidrocarburos/reservas-de-petroleo-y-gas.

[13] "Argentina - Energy - Oil & Gas." International Trade Administration | Trade.gov. Accessed July 30, 2024. https://www.trade.gov/country-commercial-guides/argentina-energy-oil-gas.

[14] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed July 30, 2024. https://www.eia.gov/international/analysis/country/ARG.

[15] "Unconventional Oil." Student Energy Unconventional Oil Source. Accessed August 1, 2024. https://studentenergy.org/source/unconventional-oil/#:~:text=Unconventional%20oil%20refers%20to%20oil,be%20extracted%20using%20novel%20methods.

[16] "Vaca Muerta." DBpedia. Accessed August 1, 2024. https://dbpedia.org/page/Vaca_Muerta.

[17] "Argentina's Reforms Likely to Catalyze Oil and Gas Export Boom." IHS Markit, April 8, 2024. https://www.spglobal.com/commodityinsights/en/ci/research-analysis/argentinas-reforms-likely-to-catalyze-oil-and-gas-export-boom.html#:~:text=In%202023%2C%20Argentina%20is%20estimated,exports%2C%20further%20strengthening%20the%20economy.

[18] Hernandez, Vladimir. "YPF Nationalisation: Is Argentina Playing with Fire?" BBC News, April 17, 2012. https://www.bbc.com/news/world-europe-17740393.

[19] "Producción de Petróleo Y Gas." Argentina.gob.ar, November 24, 2023. https://www.argentina.gob.ar/economia/energia/hidrocarburos/produccion-de-petroleo-y-gas.

[20] YPF. Accessed July 30, 2024. https://inversores.ypf.com/documents/presentaciones/YPF-2Q22-Investor-Presentation.pdf.

[21] "Producción de Petróleo Y Gas." Argentina.gob.ar, November 24, 2023. https://www.argentina.gob.ar/economia/energia/hidrocarburos/produccion-de-petroleo-y-gas.

[22] "Vaca Muerta Oil Production – Data – Analysis – Forecast." Enverus. Accessed August 27, 2024. https://www.enverus.com/vaca-muerta-oil-production-data-analysis-forecast/.

[23] Argus Media. "Latest Market News: Argus Media." Latest Market News, January 22, 2024. https://www.argusmedia.com/en/news-and-insights/latest-market-news/2530202-argentina-backs-off-plan-to-privatize-ypf.

[24] "YPF to Exit Aging Argentine Oil Fields to Free $800 Million for Vaca Muerta Shale Push." World Oil - Upstream News. Accessed July 30, 2024. https://worldoil.com/news/2024/3/7/ypf-to-exit-aging-argentine-oil-fields-to-free-800-million-for-vaca-muerta-shale-push/.

[25] Institute, Energy. "Home." Statistical review of world energy. Accessed July 30, 2024. https://www.energyinst.org/statistical-review.

[26] Argentina says fuel shortages should ease soon, imports arriving | reuters. Accessed August 1, 2024. https://www.reuters.com/markets/commodities/argentina-says-fuel-shortages-should-ease-soon-imports-arriving-2023-10-28/.
[27] "LARTC Refinery of the Year 2023: Axion Energy – Campana Refinery: World Refining Association." World Refining Association | The World Refining Association provides networking opportunities & content sharing through conferences, exhibitions, networking evenings and our content portal. October 11, 2023. https://worldrefiningassociation.com/speaker-articles/lartc-refinery-of-the-year-2023/#:~:text=It%20has%20positioned%20itself%20as,more%20of%20their%20outstanding%20work!
[28] Global Energy Monitor. "Oldelval Oil Pipeline." Global Energy Monitor, January 26, 2024. https://www.gem.wiki/Oldelval_Oil_Pipeline.
[29] Global Energy Monitor. "Puerto Rosales-La Plata Oil Pipeline." Global Energy Monitor, April 24, 2023. https://www.gem.wiki/Puerto_Rosales-La_Plata_Oil_Pipeline.
[30] Global Energy Monitor. "Vaca Muerta Norte Oil Pipeline." Global Energy Monitor, February 21, 2024. https://www.gem.wiki/Vaca_Muerta_Norte_Oil_Pipeline.
[31] "Oil, Gas and the Transition to Renewables 2024." Oil, Gas and the Transition to Renewables 2024 - Argentina | Global Practice Guides | Chambers and Partners. Accessed October 2, 2024. https://practiceguides.chambers.com/practice-guides/oil-gas-and-the-transition-to-renewables-2024/argentina/trends-and-developments.
[32] Global Energy Monitor. "Trans-Andean Oil Pipeline." Global Energy Monitor, January 26, 2024. https://www.gem.wiki/Trans-Andean_Oil_Pipeline.
[33] Global Energy Monitor. "Oldelval Oil Pipeline." Global Energy Monitor, January 26, 2024. https://www.gem.wiki/Oldelval_Oil_Pipeline#Project_Details:_Expansion_project_(Proyecto_Duplicar).
[34] Ciruzzi, Camilo. "YPF Begins Construction of Vaca Muerta Sur." *Oil & Gas Journal*, May 22, 2024. https://www.ogj.com/pipelines-transportation/pipelines/article/55041892/ypf-begins-construction-of-vaca-muerta-sur.
[35] Ciruzzi, Camilo. "YPF to Begin Second Phase Construction of Vaca Muerta Sur Project in November." *Oil & Gas Journal*, July 18, 2024. https://www.ogj.com/pipelines-transportation/pipelines/article/55126934/ypf-to-begin-second-phase-construction-of-vaca-muerta-sur-project-in-november.
[36] Ciruzzi, Camilo. "Neuquén Basin Operators Plan Collective Spend of $9 Billion in 2024." *Oil & Gas Journal*, March 19, 2024. https://www.ogj.com/general-interest/companies/article/14310494/neuquen-basin-operators-plan-collective-spend-of-9-billion-in-2024.
[37] "Reservas de Petróleo Y Gas." Argentina.gob.ar, September 11, 2023. https://www.argentina.gob.ar/economia/energia/hidrocarburos/reservas-de-petroleo-y-gas.
[38] "Upstream Business." CGC. Accessed August 2, 2024. https://cgc.energy/eng/exploration-and-production-areas/#:~:text=The%20Austral%20basin%20is%20comprised,production%20as%20of%20December%202021.
[39] "What Are the Main Oil Basins in Argentina?" ISI Oilfield Chemicals, May 15, 2024. https://isioilchem.com/en/news/what-are-main-oil-basins-argentina/.
[40] EIA, September 1, 2015. https://www.eia.gov/analysis/studies/worldshalegas/pdf/Argentina_2013.pdf.
[41] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed September 23, 2024. https://www.eia.gov/international/rankings/world?pa=287&u=2&f=A&v=none&y=01%2F01%2F2022.
[42] "Producción de Petróleo Y Gas." Argentina.gob.ar, November 24, 2023. https://www.argentina.gob.ar/economia/energia/hidrocarburos/produccion-de-petroleo-y-gas.
[43] "Argentina Natural Gas Production: Data and Insights." Offshore Technology, July 11, 2024. https://www.offshore-technology.com/data-insights/argentina-natural-gas-production/?cf-view.
[44] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 6, 2024. https://www.eia.gov/international/data/country/ARG/natural-gas/dry-natural-gas-production?pd=3002&p=00g&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.

[45] "Producción de Petróleo Y Gas." Argentina.gob.ar, November 24, 2023. https://www.argentina.gob.ar/economia/energia/hidrocarburos/produccion-de-petroleo-y-gas.
[46] "Argentina - Energy - Oil & Gas." International Trade Administration | Trade.gov. Accessed August 5, 2024. https://www.trade.gov/country-commercial-guides/argentina-energy-oil-gas.
[47] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 5, 2024. https://www.eia.gov/international/data/country/ARG/natural-gas/dry-natural-gas-consumption?pd=3002&p=0000000g&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.
[48] Global Energy Monitor. "Néstor Kirchner Gas Pipeline." Global Energy Monitor, July 16, 2024. https://www.gem.wiki/N%C3%A9stor_Kirchner_Gas_Pipeline.
[49] Buenos Aires Herald. "Argentina Buys More Gas from Bolivia to Ward off Winter Shortages." Buenos Aires Herald, June 19, 2024. https://buenosairesherald.com/business/energy/argentina-buys-more-gas-from-bolivia-to-ward-off-winter-shortages#:~:text=The%20reversal%20will%20supply%20gas,million%20cubic%20meters%20per%20day.
[50] Global Energy Monitor. "Néstor Kirchner Gas Pipeline." Global Energy Monitor, July 16, 2024. https://www.gem.wiki/N%C3%A9stor_Kirchner_Gas_Pipeline.
[51] "TotalEnergies, Wintershall Dea Begin Development Drilling at Fénix Natural Gas Field Offshore Argentina." TotalEnergies, Wintershall Dea begin development drilling at Fénix field offshore Argentina. Accessed August 5, 2024. https://www.worldoil.com/news/2024/6/10/totalenergies-wintershall-dea-begin-development-drilling-at-fenix-natural-gas-field-offshore-argentina/.
[52] "Fenix Gas Field Development, Argentina." Offshore Technology, February 3, 2023. https://www.offshore-technology.com/projects/fenix-gas-field-development-argentina/?cf-view.
[53] "Argentina: Production Start-up at Fenix Offshore Gas Field." TotalEnergies.com, September 20, 2024. https://totalenergies.com/news/press-releases/argentina-production-start-fenix-offshore-gas-field.
[54] Global Energy Monitor. "Bahía Blanca Gasport FSRU." Global Energy Monitor, October 12, 2023. https://www.gem.wiki/Bah%C3%ADa_Blanca_GasPort_FSRU.
[55] Global Energy Monitor. "Escobar FSRU." Global Energy Monitor, July 17, 2023. https://www.gem.wiki/Escobar_FSRU.
[56] Bertelloni, Bernardo. "Oil & Gas Laws and Regulations Report 2024 Argentina." International Comparative Legal Guides International Business Reports, February 13, 2024. https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/argentina.
[57] Global Energy Monitor. "Argentina and Coal." Global Energy Monitor, August 12, 2021. https://www.gem.wiki/Argentina_and_coal.
[58] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 6, 2024. https://www.eia.gov/international/data/country/ARG/coal-and-coke/coal-reserves?pd=1&p=00000000000000000000000000000000000000000000000000001&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=1199145600000&e=1640995200000.
[59] Global Energy Monitor. "Argentina and Coal." Global Energy Monitor, August 12, 2021. https://www.gem.wiki/Argentina_and_coal.
[60] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 6, 2024. https://www.eia.gov/international/data/country/ARG/coal-and-coke/coal-and-coke-production?pd=1&p=00000000000000000000000000000000000000000000000000u&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&t=C&g=none&l=249--6&s=1199145600000&e=1640995200000&.
[61] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 6, 2024. https://www.eia.gov/international/data/country/ARG/coal-and-coke/coal-and-coke-

production?pd=1&p=000000000000000000000000000000000000000000000000000u&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&t=C&g=none&l=249--6&s=1199145600000&e=1640995200000&.
[62] IEA. "Argentina - Countries & Regions." IEA. Accessed August 6, 2024. https://www.iea.org/countries/argentina/coal.
[63] Global Energy Monitor. "Río Turbio Power Station." Global Energy Monitor, July 17, 2024. https://www.gem.wiki/R%C3%ADo_Turbio_power_station.
[64] IEA. "Argentina - Countries & Regions." IEA. Accessed August 6, 2024. https://www.iea.org/countries/argentina/coal.
[65] Smith, Brett. "What Is Metallurgical Coke?" Sciencing, March 2, 2019. https://sciencing.com/metallurgical-coke-18741.html.
[66] 6Wresearch. "Argentina Metallurgical Coke Market (2024-2030): Trends, Outlook & Forecast." Argentina Metallurgical Coke Market (2024-2030) | Trends, Outlook & Forecast. Accessed August 6, 2024. https://www.6wresearch.com/industry-report/argentina-metallurgical-coke-market-outlook.
[67] Foundry coke without coal: More Than Half. Accessed August 7, 2024. https://abmproceedings.com.br/en/article/download-pdf/foundry-coke-without-coal-more-than-halfcenturyof-production-in-argentina-3.
[68] Madias, Jorge. "Coke without Coal: More than Half-Century of Production in Argentina." Academia.edu, July 24, 2016. https://www.academia.edu/27223843/Coke_without_coal_more_than_half_century_of_production_in_Argentina .
[69] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 7, 2024. https://www.eia.gov/international/data/country/ARG/biofuels/biofuels-production?pd=79&p=000003g&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.
[70] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 7, 2024. https://www.eia.gov/international/data/country/ARG/biofuels/biofuels-production?pd=79&p=000002&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=00000000000000000000000000000000000000000000000001&l=249-ruvvvvvfvtvnvv1vrvvvvfvvvvvvfvvvou20evvvvvvvvvvvnvvvs0008&s=315532800000&e=1640995200000.
[71] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 7, 2024. https://www.eia.gov/international/data/country/ARG/biofuels/biofuels-consumption?pd=79&p=00000000000e&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.
[72] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 7, 2024. https://www.eia.gov/international/data/country/ARG/biofuels/biofuels-consumption?pd=79&p=000000000008&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=00000000000000000000000000000000000000000000000001&l=249-ruvvvvvfvtvnvv1vrvvvvfvvvvvvfvvvou20evvvvvvvvvvvnvvvs0008&s=315532800000&e=1640995200000.
[73] IEA. "Argentina - Countries & Regions." IEA. Accessed August 7, 2024. https://www.iea.org/countries/argentina/renewables.
[74] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.
[75] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.
[76] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.

[77] What is biodiesel? | cummins inc.. Accessed August 8, 2024. https://www.cummins.com/news/2024/03/18/what-is-biodiesel.
[78] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.
[79] "Latest Market News: Argus Media." Latest Market News, March 27, 2024. https://www.argusmedia.com/en/news-and-insights/latest-market-news/2552111-argentina-biofuel-companies-push-for-deep-changes.
[80] Hydrotreated vegetable oil (HVO) explained | Cummins, Inc. Accessed August 7, 2024. https://www.cummins.com/news/2022/07/01/hydrotreated-vegetable-oil-hvo-explained.
[81] Quesada, Oscar. "Harnessing South America's Potential in a Greener Future." Uniting Aviation, May 11, 2023. https://unitingaviation.com/regions/south-america/the-potential-of-sustainable-aviation-fuels-in-south-america/.
[82] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.
[83] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.
[84] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 8, 2024. https://www.eia.gov/international/data/country/ARG/electricity/electricity-generation?pd=2&p=0000000000000000000000000000fvu0000000000000000000000000000000u&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=none&l=249--6&s=315532800000&e=1640995200000.
[85] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." International - U.S. Energy Information Administration (EIA). Accessed August 8, 2024. https://www.eia.gov/international/data/country/ARG/electricity/electricity-consumption?pd=2&p=0000002&u=0&f=A&v=mapbubble&a=-&i=none&vo=value&&t=C&g=00000000000000000000000000000000000000000000000001&l=249-ruvvvvvfvtvnvv1vrvvvvfvvvvvvfvvvou20evvvvvvvvvvvnvvvs0008&s=315532800000&e=1640995200000.
[86] IEA. "Argentina - Countries & Regions." IEA. Accessed August 8, 2024. https://www.iea.org/countries/argentina/electricity.
[87] Buenos Aires Herald. "Steep Hikes in Water, Electricity, and Natural Gas Tariffs for April." Buenos Aires Herald, April 6, 2024. https://buenosairesherald.com/business/energy/steep-hikes-in-water-electricity-and-gas-tariffs-for-april.
[88] "Argentina: Renewables and Energy Transition - Policy and Latest Developments." Latin Lawyer. Accessed August 8, 2024. https://latinlawyer.com/insight/renewables-and-energy-transition-hub/2023/article/argentina-renewables-and-energy-transition-policy-and-latest-developments.
[89] Global Energy Monitor. "Ensenada Barragán Power Station." Global Energy Monitor, May 11, 2024. https://www.gem.wiki/Ensenada_Barrag%C3%A1n_power_station.
[90] "Global Oil and Gas Plant Tracker." Global Energy Monitor, August 5, 2024. https://globalenergymonitor.org/projects/global-oil-gas-plant-tracker/.
[91] "Argentina's Burgeoning Renewable Energies Sector." The Net-Zero Circle. Accessed August 8, 2024. https://www.netzerocircle.org/articles/argentinas-burgeoning-renewable-energies-sector.
[92] "Global Solar Power Tracker." Global Energy Monitor, August 5, 2024. https://globalenergymonitor.org/projects/global-solar-power-tracker/.
[93] "Global Wind Power Tracker." Global Energy Monitor, August 5, 2024. https://globalenergymonitor.org/projects/global-wind-power-tracker/.
[94] "Global Hydropower Tracker." Global Energy Monitor, August 5, 2024. https://globalenergymonitor.org/projects/global-hydropower-tracker/.
[95] "Global Nuclear Power Tracker." Global Energy Monitor, August 5, 2024. https://globalenergymonitor.org/projects/global-nuclear-power-tracker/.
[96] Global Energy Monitor. "Atucha Nuclear Power Plant." Global Energy Monitor, July 12, 2024. https://www.gem.wiki/Atucha_nuclear_power_plant.

[97] "Argentina's Burgeoning Renewable Energies Sector." The Net-Zero Circle. Accessed August 8, 2024. https://www.netzerocircle.org/articles/argentinas-burgeoning-renewable-energies-sector.
[98] "Argentina: Eighth Review under the Extended Arrangement under the Extended Fund Facility, Requests for Modification of Performance Criteria, Waivers of Nonobservance of Performance Criteria, and Financing Assurances Review-Press Release; Staff Report; and Statement by the Executive Director for Argentina." IMF, June 17, 2024. https://www.imf.org/en/Publications/CR/Issues/2024/06/17/Argentina-Eighth-Review-Under-the-Extended-Arrangement-Under-the-Extended-Fund-Facility-550548.
[99] Specifications Guide Americas Crude Oil. Accessed August 9, 2024. https://www.spglobal.com/commodityinsights/PlattsContent/_assets/_files/en/our-methodology/methodology-specifications/americas-crude-methodology.pdf.
[100] Smith, Matthew. "Vaca Muerta's Sweet Crude Attracts Global Energy Giants." OilPrice.com, August 24, 2023. https://oilprice.com/Energy/Crude-Oil/Vaca-Muertas-Sweet-Crude-Attracts-Global-Energy-Giants.html.
[101] Martinez, Juan. "Argentina Eyes Record Energy Trade Surplus in 2024." *The Rio Times*, April 8, 2024. https://www.riotimesonline.com/argentina-eyes-record-energy-trade-surplus-in-2024/.
[102] Barragan, Florencia. "Argentina Expects Energy Trade Surplus in 2024." *Buenos Aires Herald*, September 6, 2023. https://buenosairesherald.com/business/energy/argentina-expects-energy-trade-surplus-in-2024.
[103] Kennedy, Charles. "Argentina Discusses Natural Gas Exports to Brazil via Bolivia." OilPrice.com, April 1, 2024. https://oilprice.com/Latest-Energy-News/World-News/Argentina-Discusses-Natural-Gas-Exports-to-Brazil-via-Bolivia.html.
[104] Argentina may have first LNG plant ready in 4 years if reforms pass -tecpetrol | Reuters. Accessed August 9, 2024. https://www.reuters.com/business/energy/ceraweek-argentina-right-path-solve-fiscal-deficit-boost-energy-output-tecpetrol-2024-03-19/.
[105] "Bolivia Is Ready to Transport Natural Gas from Argentina to Brazil." BNamericas, June 19, 2024. https://app.bnamericas.com/.
[106] Paraskova, Tsvetana. "Argentina's Shale Patch to Boost Oil Exports with Supertankers." OilPrice.com, July 15, 2024. https://oilprice.com/Energy/Crude-Oil/Argentinas-Shale-Patch-to-Boost-Oil-Exports-with-Supertankers.html.
[107] "Petronas and YPF Will Develop an LNG Project in Rio Negro (Argentina)." Enerdata, August 1, 2024. https://www.enerdata.net/publications/daily-energy-news/petronas-and-ypf-will-develop-lng-project-rio-negro-argentina.html.
[108] "Golar LNG Signs Deal to Deploy a 2.45 Mt/Year FLNG Vessel in Argentina." Enerdata, July 9, 2024. https://www.enerdata.net/publications/daily-energy-news/golar-lng-signs-deal-deploy-245-mtyear-flng-vessel-argentina.html.
[109] Newbery, Charles. "Argentina Approves Incentives for Large Oil, Gas Infrastructure Projects." S&P Global Commodity Insights, June 28, 2024. https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/062824-argentina-approves-incentives-for-large-oil-gas-infrastructure-projects.
[110] "Argentina Passes Sweeping Economic Reforms: Deregulation, Privatizations, and Promotion of Private Investments in Large Projects: Insights: Mayer Brown." Insights | Mayer Brown, July 2, 2024. https://www.mayerbrown.com/en/insights/publications/2024/07/argentina-passes-sweeping-economic-reforms-deregulation-privatizations-and-promotion-of-private-investments-in-large-projects.
[111] "Argentina: Biofuels Annual." USDA Foreign Agricultural Service, August 6, 2024. https://fas.usda.gov/data/argentina-biofuels-annual-9.
[112] "Argentina Initiates WTO Dispute Complaint Targeting Peruvian Duties on Biodiesel Imports." WTO. Accessed August 7, 2024. https://www.wto.org/english/news_e/news22_e/ds614rfc_06sep22_e.htm#:~:text=Sign%20up%20for%20email%20updates,on%20biodiesel%20originating%20from%20Argentina.
[113] "World Trade Organization." World Trade Organization - Home page - Global trade. Accessed August 7, 2024. https://www.wto.org/english/news_e/archive_e/country_subj_arc_e.htm?country1=ARG&subject1=DISP#:~:text=Argentina%20files%20dispute%20against%20the%20European%20Union%20over%20biodiesel&text=Argentina%20notified%20the%20WTO%20Secretariat,of%20an%20Anti%2DDumping%20investigation.