

ARGENTINA



- In 2016, Argentina was the largest dry gas producer and the fourth-largest petroleum and other liquids producer in South America, according to the *BP Statistical Review of World Energy 2017*.
- Natural gas, which is widely used in the electricity, industrial, and residential sectors, represented 52% of total primary energy consumption in 2015. Oil is the primary fuel used in the transportation sector and represented 36% of total primary energy consumption. Hydroelectricity is the third-largest primary energy source. A smaller share of the country's total energy consumption can be attributed to nuclear, coal, and hydropower, which are used for electricity generation, while other renewable resources are used to produce biofuels for transportation.
- Historically, Argentina's energy sector policies prompted an imbalance of energy supply and demand by limiting the industry's attractiveness to private investors, restraining the profits of domestic producers, and shielding consumers from rising prices. Over the past decade, domestic demand for energy grew rapidly while production of petroleum and other liquids and of natural gas declined — making Argentina a net hydrocarbons importer.
- Argentina's hydrocarbons reform, implemented in late 2014, provides investors with offshore exploration opportunities and encourages foreign ventures in unconventional plays. To provide incentives for private sector investment in the upstream oil and natural gas industries and to boost domestic energy supplies, the government reformed the national bidding process by increasing the frequency of offshore licensing rounds, allowing for longer exploitation periods, and offering tax exemptions to companies that invest more than \$250 million over a three-year period.
- At the beginning of 2017, the Argentine government successfully negotiated terms between labor unions and natural gas producers and eliminated currency controls. The central government also extended the natural gas production stimulus programs implemented in 2012 and set a floor price on wellhead natural gas production until 2021. This price guarantee offers higher natural gas prices to investors for new natural gas production sold in the domestic market.
- The Argentine government increased natural gas, gasoline, and electricity prices in 2016 to reduce historically high subsidies for consumers. The government intends to narrow Argentina's energy supply gap, in part, by eliminating natural gas subsidies by 2022, raising domestic prices to attract sufficient investment in production, and becoming energy self-efficient.

- In Argentina, the energy sector is regulated by the Ministerio de Planificación Federal, Inversión Pública y Servicios (Ministry of Federal Planning, Public Investment, and Services). The Ministry includes the Ente Nacional Regulador de Gas (ENARGAS), which regulates natural gas transportation and distribution activities, and the Secretaría de Energía (Energy Secretariat), which oversees upstream oil and natural gas production.
-

Petroleum and other liquids

- As of December 2016, Argentina held 2.4 billion barrels of proved crude oil reserves, according to Oil and Gas Journal (OGJ). In 2016, total oil production was 693,000 barrels per day (b/d), of which 489,000 b/d was from crude oil and 112,000 b/d was from natural gas plant liquids. Crude oil production has declined overall in Argentina in the past two decades as a result of conventional assets maturing and a lack of sufficient investment in exploration and development.
 - Yacimientos Petrolíferos Fiscales (YPF), Argentina's former state-owned energy company and the largest oil producer in the country, extracted roughly 245,000 b/d of crude oil in 2016. The second-leading oil producer, with 19% of total production in 2016, was Pan American Energy (PAE), which is owned by BP and the Bidasas Corporation. PAE currently operates one of Argentina's largest hydrocarbon producing fields, Cerro Dragón field. Chevron (U.S.), Petrobras (Brazil), Pluspetrol (Argentina) and Sinopec Group (China) also have had a significant presence in Argentina's upstream oil production.
 - Shale oil production from unconventional fields has risen so far in 2017 as a result of higher drilling efficiency. Argentina's Vaca Muerta formation makes up about 60% of the country's 27 billion barrels of technically recoverable shale oil reserves, ranking as the fourth-largest shale oil reserves in the world. Vaca Muerta is in the preliminary stages of development and is located in a region with geology that is favorable to shale oil and natural gas extraction. These factors, coupled with the Argentine government's recent investment incentives, are likely to raise unconventional oil production in Argentina.
 - In 2016, Argentina had 11 refineries with a combined 634,000 b/d of crude oil refining capacity, about half of which is controlled by YPF, according to the OGJ.
 - Argentinian-refined products do not satisfy all domestic fuel demand. As a result, Argentina imported approximately 90,000 b/d of total oil products, about half from the United States, in 2016.
-

Natural gas

- Argentina had proved natural gas reserves of approximately 11.1 trillion cubic feet (Tcf) in December 2016, according to the latest estimates from OGJ, which was a decrease of 0.6 Tcf from 2015 levels. Argentina is home to the world's second—largest shale gas reserves, Vaca Muerta, located in the Neuquen Basin, with an estimated 308 Tcf of dry, wet, and associated shale gas resources.
 - According to Argentina's energy ministry, YPF was Argentina's largest natural gas producer in 2016, accounting for about 31% of the country's total domestic supply. Other significant producers in the country's natural gas sector include Pan American Energy, Petrobras (Brazil), Tecpetrol (Argentina), and Total Austral.
 - Argentine dry natural gas production reached a peak of 1.6 Tcf in 2006 before declining each year until 2014. Greater investment and higher development prospects of unconventional resources lifted dry natural gas volumes over the next two years to nearly 1.4 Tcf in 2016, according to the *BP Statistical Review of World Energy*. The largest natural gas-producing basins include Neuquén, Austral, and Noroeste. Together, these three basins account for nearly 85% of the country's natural gas production.
 - Argentina's primary natural gas pipelines include Gasoducto Centro Oeste, Gasoducto North, Neuba I, Neuba II, and General San Martín, which connect producing provinces in the Neuquén, San Jorge, Austral, and Noroeste basins (located inland throughout the country) with Buenos Aires and other demand centers. Argentina also has international natural gas pipeline connections with Chile, Uruguay, Brazil, and Bolivia.
 - As a result of lower production and higher demand over the past decade, Argentina has turned to natural gas imports to fill its supply gap. Bolivia is the source of virtually all of Argentina's pipeline natural gas imports. Following the installation of a new pipeline from Bolivia in 2012, Argentina has imported slightly more than 200 billion cubic feet (Bcf) each year from neighboring countries. Escobar terminal, located on the Paraná River, and Bahía Blanca terminal, a floating terminal located 400 miles south of Buenos Aires, are Argentina's only liquefied natural gas (LNG) terminals. In 2016, Argentina imported about 175 Bcf of LNG, of which the largest share came from Trinidad and Tobago.
-

Electricity

- Argentina produced about 136 billion kilowatthours (BkWh) of electricity in 2016 and is now the second-largest consumer of electricity in South America after Brazil. Natural gas accounted for about half of Argentina's electricity generation in 2016, followed by a 28% share of hydroelectricity. Most of the remaining power generation is fueled by petroleum products or nuclear and very small amounts of coal and other renewables.
- Fossil fuel-fired power generation has steadily risen over the past decade, and natural gas is likely to remain the predominant fuel source of electricity in the near future. However, the government intends to build more renewable energy infrastructure to reduce the country's greenhouse gas emissions and to provide greater electricity capacity. The government launched a renewable energy program that boosts the share of renewable energy (excluding large hydroelectricity units) to 20% of the country's electricity production by 2025 from only 2% in 2016. Argentina is also developing its sizeable hydropower resources. The proposed 1.7 gigawatt Kirchner-Cepernic hydroelectric facility, which is still under development and slated to be one of Argentina's largest hydropower facilities, is expected to produce about 5 BkWh annually.
- In 2016, Argentina imported 9.5 BkWh in 2016 through electrical transmission interconnections with Brazil, Chile, [Paraguay](#), and Uruguay to meet increasing domestic electricity demand.