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Administration

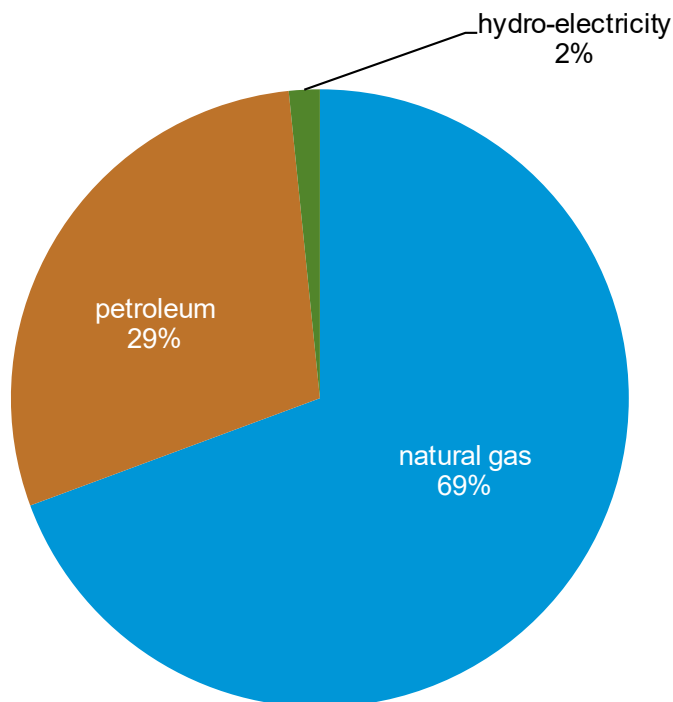
Country Analysis Executive Summary: Azerbaijan

Last Updated: August 12, 2021

Overview

- Azerbaijan is a net energy exporter; crude oil and natural gas production and exports are central to Azerbaijan's economy and government revenues.
- Natural gas accounts for over two-thirds of Azerbaijan's total domestic energy consumption. Oil supplies less than one-third of total energy consumption (Figure 1).¹
- In 2018, the five countries bordering the Caspian Sea met regarding a decades-old delimitation dispute over the maritime and seabed boundaries of the Caspian. In early 2021, the foreign ministers of Turkmenistan and Azerbaijan signed a memo of understanding, which signified collaboration for joint exploration in the previously contested deep-water block along the Caspian maritime borders for both countries. The agreement is likely to attract foreign investment for exploratory drilling and development in the Dostluk field.²

Figure 1. Azerbaijan's total primary energy consumption, 2020



Source: Graph by EIA based on data from *BP Statistical Review of World Energy 2021*.

Note: Chart does not include traditional biomass and waste, such as burning firewood and waste.

Petroleum and other liquids

- Azerbaijan's proved crude oil reserves were estimated at 7 billion barrels in January 2021, according to the *Oil & Gas Journal* (OGJ).³

Sector organization

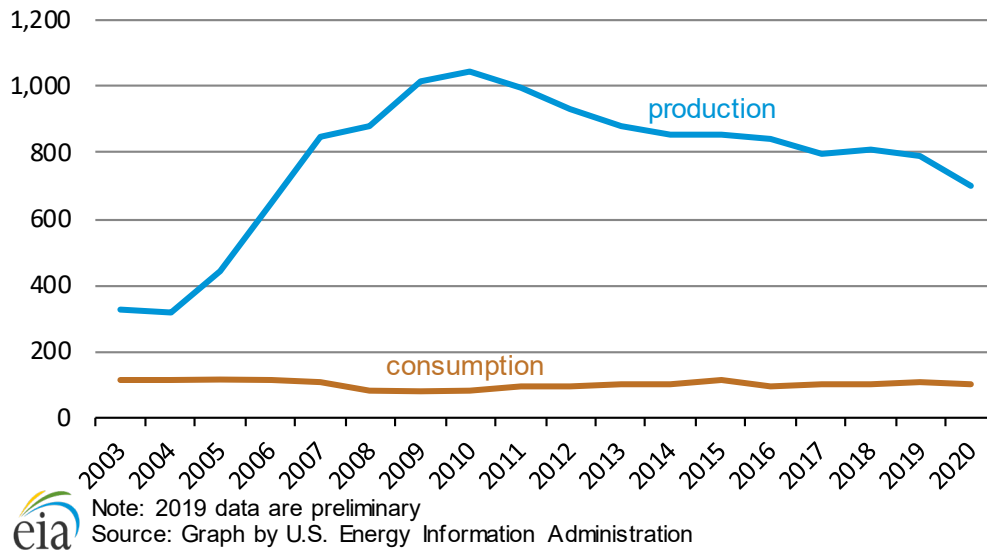
- The State Oil Fund of the Republic of Azerbaijan (SOFAZ) manages currency and assets from oil and natural gas activities, and it had \$43.564 billion in managed assets at the start of January 2021, an increase of over 5% from the beginning of 2020 (\$41.349 billion).⁴ The national oil company, the State Oil Company of the Azerbaijan Republic (SOCAR), explores and produces oil and natural gas in the country. In 2019, SOCAR produced about 154,000 barrels per day (b/d) of oil, about 20% of Azerbaijan's total oil output.⁵

Exploration and production

- In 2020, Azerbaijan's petroleum and other liquids production was an estimated 716,000 barrels per day (b/d) of which domestic use averaged about 92,000 b/d (Figure 2).⁶

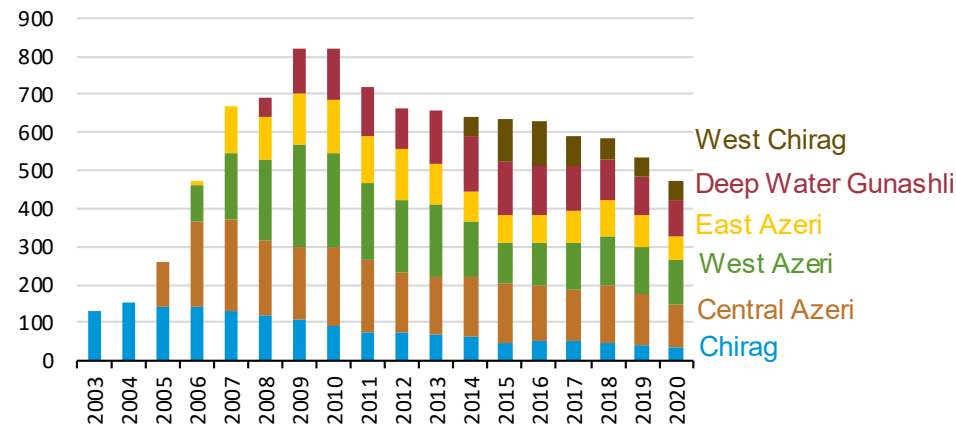
Figure 2. Azerbaijan petroleum and other liquids consumption and production

thousand barrels per day



- Most oil production occurs offshore in the [Caspian Sea](#) and is exported to the West. In 2017, the production-sharing agreement (PSA) for Azerbaijan’s main offshore Azeri-Chirag-Gunashli (ACG) fields was extended through 2049, indicating that with added investment and enhanced recovery, Azerbaijan will continue to produce crude oil and petroleum liquids.⁷ Under the new PSA, SOCAR’s share in the ACG complex increased to 25%. The next stage of development is the Azeri Central East (ACE) platform, located between the existing Central Azeri and East Azeri platforms, and will include pipelines to transfer oil and gas to the land-based Sangachal Terminal. The ACE platform was the first major investment decision since the signing of the PSA. The \$6 billion development is set to achieve first production in 2023 and is designed to process 100,000 barrels per day.⁸
- In 2020, more than 67% of Azerbaijan's total oil output—about 477,000 b/d—came from the ACG fields, down from 535,000 b/d in 2019 (Figure 3).

Figure 3. Azeri-Chirag-Gunashli production
thousand barrels per day



eia Source: Graph by the U.S. Energy Information Administration, based on BP

Pipelines

- Most of Azerbaijan’s oil is exported through the Baku-Tbilisi-Ceyhan pipeline (BTC). The pipeline runs well below its capacity of 1.2 million b/d, with exports in 2020 averaging 578,000 b/d, including oil from Turkmenistan, Russia and Kazakhstan.⁹

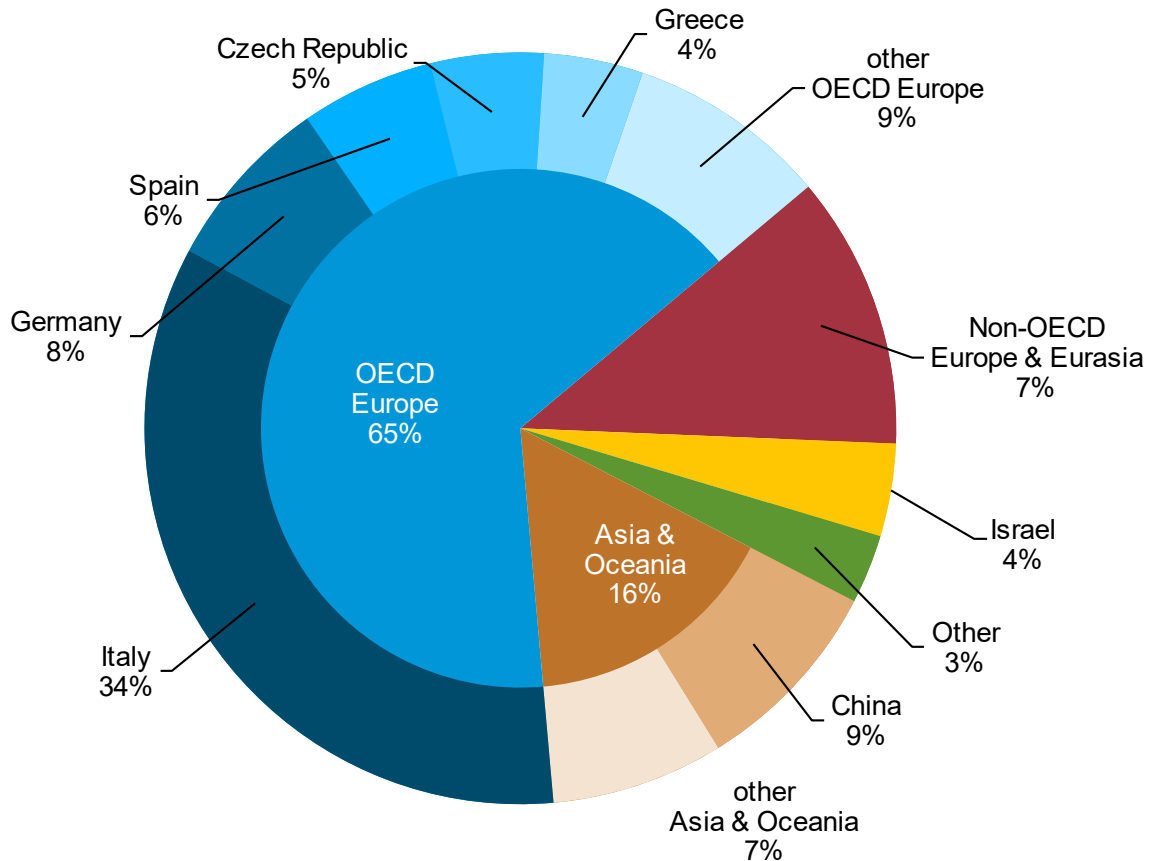
Refining

- Azerbaijan’s crude oil refining capacity was 120,000 b/d in 2020 at SOCAR’s New Baku refinery, according to the OGJ.¹⁰

Trade

- Azerbaijan’s crude oil exports were about 568,000 b/d in 2020 (Figure 4).¹¹ Most of the exports were destined for European countries, with Italy receiving 34% of Azerbaijan’s crude oil exports in 2020.

Figure 4. Azerbaijan crude oil exports by destination, 2020



Note: Sum of individual percentages may not equal 100 because of independent rounding. Source: Graph by the U.S. Energy Information Administration, based on Azerbaijani partner country import statistics, Global Trade Tracker

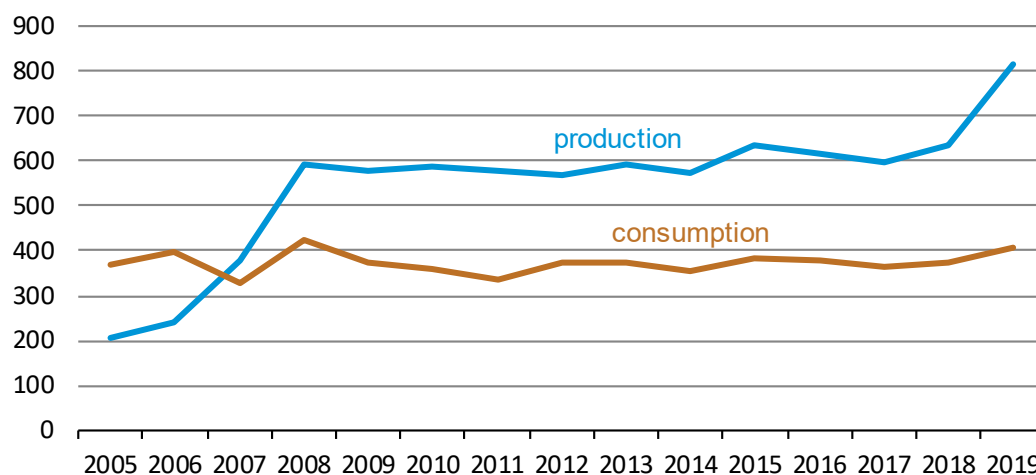
Natural gas

- Most of Azerbaijan's proved natural gas reserves, which were estimated at about 60 trillion cubic feet (Tcf) in January 2021, are located in the Shah Deniz offshore natural gas and condensate field.¹²

Exploration and production

- Preliminary 2020 estimates show an increase in the country's natural gas consumption of 9% and in production of 28% from 2018 to 2019 (Figure 5). In the first quarter of 2021 alone, the Shah Deniz field produced about 16.7 billion cubic feet (Bcf) of natural gas and 7.8 million barrels of condensate.¹³

Figure 5. Azerbaijan dry natural gas consumption and production
billion cubic feet



Note: 2019 data are preliminary estimates.

Source: Graph by the U.S. Energy Information Administration

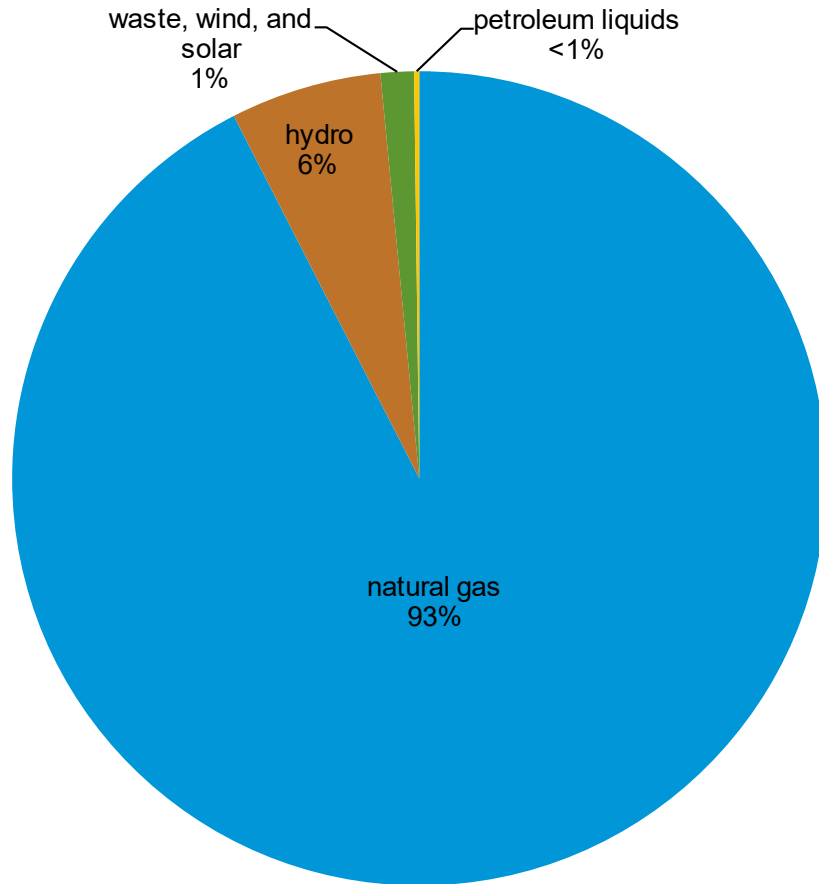
Trade

- Azerbaijan’s natural gas exports totaled about 418 Bcf of natural gas in 2019.¹⁴ The country ships most of its natural gas exports from the Caspian through Georgia to Turkey and southern Europe. The expansion of the Baku-Tbilisi-Erzurum (BTE) pipeline connects to the Trans-Anatolian Pipeline (TANAP), which crosses Turkey, and to the Trans Adriatic Pipeline (TAP) that runs from the Turkish border under the Adriatic Sea to southeast Europe and Italy. The TANAP makes up the longest stretch of the Southern Gas Corridor, carrying gas from Azerbaijan’s Shah Deniz II field to Europe.¹⁵ In 2020, the majority of Azerbaijan’s natural gas was exported to Turkey and Georgia with a lesser volume exported to Iran and Greece. The completion of TAP in October 2020, allowed exports of natural gas to flow from Azerbaijan to Bulgaria and Italy in 2021.¹⁶

Electricity

- Use of electricity in Azerbaijan increased from 21.7 to 22.5 billion terawatthours (Twh) in 2019 (Figure 6).¹⁷
- In 2019, 93% of Azerbaijan’s electric power came from natural gas-fired generation, hydropower accounted for 6%, and about 1% came from renewable sources and petroleum.¹⁸

Figure 6. Azerbaijan electricity generation by fuel type, 2019



 Source: Graph by the U.S. Energy Information Administration, based on International Energy Agency

Notes

- In response to stakeholder feedback, the U.S. Energy Information Administration has revised the format of the *Country Analysis Briefs*. As of September 2021, updated briefs are available in two complementary formats: the Country Analysis Executive Summary provides an overview of recent developments in a country's energy sector and the Background Reference provides historical context. Archived versions will remain available in the original format.
- Data presented in the text are the most recent available as of September 2021.
- Data are EIA estimates unless otherwise noted.

Endnotes

¹ BP, [Statistical Review of World Energy 2021](#).

² Upstream, "[Deep-water friendship: Turkmenistan and Azerbaijan bury Caspian Sea hatchet](#)" (January 21, 2021).

³ *Oil & Gas Journal*, "Worldwide Look at Reserves and Production," (December 7, 2020), p. 16.

⁴ State Oil Fund of the Republic of Azerbaijan, [SOFAZ Revenue and Expenditure Statement for January-December 2020](#); State Oil Fund of the Republic of Azerbaijan, [SOFAZ Revenue and Expenditure Statement for January-June 2020](#).

⁵ SOCAR, [Economics & Statistics: Oil Production](#), (accessed August 3, 2021).

⁶ BP, [Statistical Review of World Energy 2021](#).

⁷ BP, "[The Azerbaijan government and co-venturers sign a mended and restated Azeri-Chirag-Deepwater Gunashli PSA](#)," (accessed September 11, 2018)

⁸ BP, [Azeri Central East \(ACE\) development project](#), (accessed August 4, 2021).

⁹ BP, [2020 year-end results](#), (accessed August 4, 2021).

¹⁰ *Oil & Gas Journal*, "2020 Worldwide Refining Survey," (December 2020), p. 1.

¹¹ The State Statistical Committee of the Republic of Azerbaijan, [Energy: Commodity balance of crude oil](#), (accessed August 3, 2021).

¹² *Oil & Gas Journal*, "Worldwide Look at Reserves and Production," (December 7, 2020), p. 16.

¹³ BP, [Shah Deniz](#), (accessed August 4, 2021).

¹⁴ The State Statistical Committee of the Republic of Azerbaijan, [Energy: Export of Energy Products](#), (accessed August 4, 2021).

¹⁵ Reuters, "[Turkey and Azerbaijan mark completion of TANAP pipeline to take gas to Europe](#)," (November 30, 2019).

¹⁶ BP, [Statement on TAP](#), (October 13, 2020).

¹⁷ International Energy Agency (IEA), *World Energy Balances 2019* edition.

¹⁸ International Energy Agency (IEA), *World Energy Balances 2019* edition.