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IN FOCUS

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Russia-China Natural Gas Trade

The Russian Federation (Russia) is a major energy exporter, while the People's Republic of China (PRC) is the world's leading consumer and importer of energy. Expanding China's access to Russian natural gas has become an important priority in Russia-PRC relations as China's need for energy grows and Russia looks to diversify export markets in response to Western sanctions. Unlike oil supplies, which the global market reallocates quickly, natural gas is mainly consumed in the country or region where it is produced because most gas is transported by pipeline. However, increasing volumes of natural gas are being liquefied and moved by ships to foreign markets, which provides greater flexibility. Russian natural gas used to be primarily exported to Europe, but since Russia's initial invasion of Ukraine in 2014, increasing amounts of Russian natural gas have gone to China, both as liquefied natural gas (LNG) and via new pipeline infrastructure.

Especially since 2022, when Russia launched its full-scale invasion of Ukraine, the executive branch and Congress have sought to monitor and respond to Russia and China's deepening military and economic relationship (see, for example, §§1273 and 5143, respectively, of the FY2026 National Defense Authorization Act and Department of State Authorization Act; P.L. 119-60, Divisions A and E). The United States and the European Union (EU) have also sought to slow down the development of Russia's natural gas sector, including Russian exports to China, through the imposition of sanctions. Some Members of the 119th Congress have introduced legislation that would, among other measures, expand U.S. sanctions on Russia's global natural gas trade (S. 1241/H.R. 2548, S. 2904, S. 3513, H.R. 6856).

Natural Gas in China

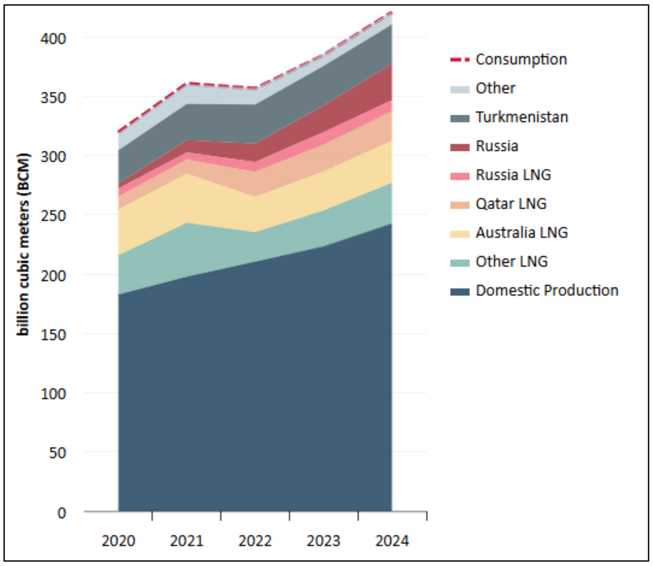
Fossil fuels remain the most significant source of energy in China, despite the replacement of about 12% of PRC's fossil fuel use with renewable energy sources as of 2024. In 2024, 58% of China's primary energy demand came from coal, 20% from oil, and 10% from natural gas. China produces approximately 60% of the natural gas it needs.

In addition to steadily increasing domestic production, China imports natural gas from multiple suppliers, which affords China some bargaining power when negotiating natural gas purchases (see **Figure 1**). In 2024, 59% of China's natural gas imports arrived via ships carrying LNG to China's east coast. China lacks the pipeline distribution capacity to move natural gas from the coast to other parts of the country. Instead, inland China is primarily supplied with pipeline natural gas from the west (see **Figure 2**).

In 2024, Russia was China's largest source of imported natural gas (pipeline and LNG combined). Russian imports made up approximately 10% of China's natural gas use in 2024, up from 3% in 2020. Russian imports are transported mainly by pipeline, particularly via the China-Russia Natural Gas Pipeline Eastern Route, also known as Power of Siberia 1 (PS-1) (see **Figure 2**).

Figure 1. Sources of China's Natural Gas, 2020-2024

Figure is interactive in HTML report version.



Source: Cedigaz, a subscription service.

Notes: LNG = liquefied natural gas. Gas not labeled LNG is imported by pipeline.

Natural gas is an important part of China's efforts to meet its climate goals. China's central government, as well as some local and provincial governments, have indicated that gas could play a transitional role in reducing coal demand in favor of other energy sources. Northern provinces in particular have demonstrated an interest in coal-to-gas switching. In March 2025, China's National Development and Reform Commission (NDRC), the country's central economic planning agency, emphasized natural gas pipeline and storage infrastructure as an economic priority moving into the country's 15th Five-Year Plan period (2026-2030).

Preliminary details about China's 15th Five-Year Plan show plans to address gaps in China's LNG distribution infrastructure. They also identify PS-1 as a "key" pipeline for supporting cross-provincial gas distribution. In November 2025, the NDRC published its first major update to China's oil and gas infrastructure regulations since 2014. These measures include provisions to incentivize provincial governments to link provincial pipelines with national networks and to invest in LNG receiving terminals, which could influence the structure of PRC natural gas demand in the medium-to-long term.

Future Russia-China Pipeline Prospects

Russia's initial invasion of Ukraine in 2014 and resulting Western sanctions led Moscow to seek a greater economic partnership with China. Russia and China signed a natural gas contract in 2014 for PS-1, which went into operation in 2019. PS-1 runs more than 1,400 miles from the Chayanda natural gas field in Russia's Far East into China's Heilongjiang province. In 2024, PS-1 provided about 31 billion cubic meters (BCM) of natural gas deliveries, accounting for 7% of China's natural gas consumption that year, according to PRC estimates. In 2025, PS-1 delivered more than 38 BCM of natural gas to China (exceeding planned capacity).

Figure 2. China/Russia Regional Gas Infrastructure

Source: S&P, U.S. Department of State, and ESRI.

Notes: LNG = liquefied natural gas. LNG projects are by project name, not individual processing units. For example, Arctic LNG comprises Arctic LNG 1 and Arctic LNG 2. Liquefaction facilities are for exporting gas; regasification facilities are for importing gas.

In September 2025, Russian President Vladimir Putin met with his counterpart, Xi Jinping, in Beijing. Energy was a topic of discussion, and the two leaders reached agreements related to the Russia-China gas trade. One agreement concerned construction of a Power of Siberia 2 (PS-2) pipeline, which would extend from Russia's Yamal Peninsula in northwestern Siberia through Mongolia into northern China. PS-2 would increase the capacity of Russian pipeline natural gas exports to China by 50 BCM. Reportedly, the pipeline would be sponsored by Russia's national gas company Gazprom and one of China's state-owned energy companies, China National Petroleum Corporation (CNPC). A key issue of contention for PS-2 has been the pricing mechanism for the gas, which was a sticking point in earlier PS-1 negotiations. Yamal natural gas previously went exclusively to Europe.

As of December 2025, official media sources in China have not published any details on the status of PS-2 negotiations, while Russian media sources and Gazprom press releases have described the outcome of the September 2025 discussions as a "legally binding agreement." Some experts point to this gap in official communications about the deal as an indicator that negotiations may still be ongoing.

Sanctions and LNG Imports

As the United States and the EU have sought to slow down the development of Russia's natural gas sector, China has facilitated it. In response to Russia's 2022 invasion of Ukraine, P.L. 117-109 prohibits the importation into the United States of Russian energy products, including LNG. In 2023, the Biden Administration imposed sanctions on the operator of Russia's Arctic LNG 2 project.

Since then, several vessels and entities linked to Arctic LNG 2, including some PRC-based vessels, have been targeted for U.S. sanctions. The majority owner of Arctic LNG 2 is Novatek, a major Russian natural gas company; it and some subsidiaries are subject to certain U.S. sanctions (Novatek itself is subject to financing-related restrictions but not asset-blocking sanctions). CNPC, through subsidiaries, owns a stake in Arctic LNG 2.

In October 2024, then-U.S. Assistant Secretary of State Geoffrey Pyatt stated that U.S. sanctions seek "to ensure that [Russia] is not able to take the gas that Gazprom used to send to Europe through pipeline exports and [redirect] that gas to global markets."

The EU has also gradually increased sanctions on Russia's natural gas sector. In June 2024, the EU imposed restrictions on trade and investment related to completing Russian LNG projects, including Arctic LNG 2. In October 2025, the EU banned imports of Russian LNG as of January 2027 for long-term contracts and as of April 2026 for short-term contracts. In December 2025, the EU agreed to ban all Russian natural gas imports by September 2027.

PRC companies reportedly supplied critical components for the construction of Arctic LNG 2. At the end of August 2025, a few days before Putin met with Xi in China, media reports indicated that an LNG shipment originating at the Arctic LNG 2 terminal had arrived at China's Beihai terminal. The tanker, Arctic Mulan (formerly Mulan), which conveyed the LNG to China, is also subject to U.S. sanctions as of the end of 2025. Reports indicate that Arctic LNG 2 had sent at least 21 LNG shipments to China on sanctioned vessels; Russia is reportedly also using a sanctioned icebreaker to transport LNG in the wintertime. A delivery from Portovaya LNG facility, whose operator is also subject to U.S. sanctions, reportedly arrived in Beihai on another sanctioned vessel.

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