GAZPROM
EXPORT





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PROFILE: GAZPROM EXPORT

World's largest exporter of natural gas

OUR COMPANY:

- Supplies natural gas to more than 20 countries;
- Exports gas condensate, crude oil, petroleum products, liquefied petroleum gases, and other petrochemicals;
- Opens up new markets for Russian gas, optimizes export flows, analyses, and forecasts gas markets trends;
- Provides reliable and secure natural gas supply for international clients;
- Participates in development and implementation of Gazprom Group's gas and energy investment projects in Russia and worldwide;
- Actively participates in developing cooperation with international partners.

Gazprom Export is one of Russia's most successful and advanced companies. It is a wholly-owned subsidiary of PJSC Gazprom. Our mission is to export Russian natural gas to foreign markets. Gazprom Export contributes significantly to Russian federal budget revenues and the energy security of Europe.

In 2018, natural gas exports to the Far Abroad countries under the contracts of Gazprom Export amounted to 200.8 bcm.

RUSSIAN GAS AND EUROPE

The share of gas and renewables in the European energy mix is expected to increase, amid continuing decline of the share of oil and coal. Given Europe's limited domestic gas reserves and decline in indigenous production the European countries are likely to import more gas from the third countries. Gazprom Export is ready to contribute to meeting the European demand by drawing on the huge potential of the Russian natural gas industry.

GAS RESERVES OF PJSC GAZPROM

Gazprom Export's global market positions are backed by the gas reserves of PJSC Gazprom. Gazprom holds world's largest natural gas reserves. Its share in the global reserves is around 17%, and in the Russian reserves – approximately 71%.

Gazprom is responsible for around twothirds of Russia's total gas production. In 2018, Gazprom Group companies produced 498.7 bcm of natural gas.

The total length of gas trunk pipelines and gas transmission network has reached 172,600 km. Gas transportation network includes 254 linear compressor stations with a total 47,100 MW of pumping capacity. Gazprom operates 22 underground gas storages, which include 27 gas storage facilities and seven gas processing plants in Russia.

HISTORY OF OUR COMPANY

Stages of a great journey:

1973

V/O Soyuzgazexport

The All-Union Foreign Trade Organization V/O Soyuzgazexport was founded on **23 April 1973.**

1991

GVP Gazexport

In the autumn of 1991, V/O Soyuzgazexport was incorporated into the State Gas Concern Gazprom as a state-owned foreign trade enterprise. In December of the same year, as all organizations on the territory of the Russian Soviet Federative Socialist Republic transitioned to the jurisdiction of the Russian Federation, the company became known as the State-Owned Foreign Trade Enterprise (GVP) Gazexport.

1993

VEP Gazexport

In 1993, GVP Gazexport was transformed into a Foreign Trade Enterprise (VEP), of Russian joint-stock company (RAO) Gazprom's foreign trade subsidiary, and changed its name to VEP Gazexport.

1999

Gazexport LLC

Gazexport LLC, a limited liability company, was established under Resolution No. 39 of the RAO Gazprom Board of Directors, dated **9 April 1997**, and Resolution No. 53 of the RAO Gazprom Board of Directors, dated **12 February 1998.** The Moscow Registration Chamber registered the company on **12 May 1999.** PAO Gazprom is the company's founder and 100% owner.

2006 present

Gazprom Export LLC

In 2006, in accordance with a decision of its founder and owner, Gazexport LLC was renamed Gazprom Export LLC. In **November 2013**, in accordance with a decision of its founder and owner, the company's headquarter moved to Saint Petersburg.



CORPORATE VALUES

Reliable gas supply is a crucial element of Europe's energy security, as proven by the company's over 50 years record of cooperation with the European countries. Gazprom Export's management pays special attention to the company's reputation towards its partners and general public. In its operation, Gazprom Export adheres to the principles of social responsibility, and makes a strong contribution to the development of Russia's gas industry and Russian economy as a whole.



Relevance of the company's activities to the interests of gas importers:

The company guarantees reliable and sustainable gas supply to importing countries. The history of gas supplies to Europe demonstrates that despite the turbulent political transformations both in purchasing countries and in the former Soviet Union, we have always been capable of ensuring uninterrupted gas supply to our clients.



Compliance of the company's operations with Russia's national interests:

- Contribution to the development of Russia's energy exports and the positive foreign trade balance;
- Strengthening of Russia's positions in the global fuel and energy market;
- Expanding the economic base to improve cooperation with the importers of Russian gas;
- Increasing foreign currency earnings;
- Attracting investment into Russian gas industry;
- Raising employment rate and income levels of Russian citizens;
- Creating employment opportunities in the areas of gas extraction, processing, transmission and distribution.



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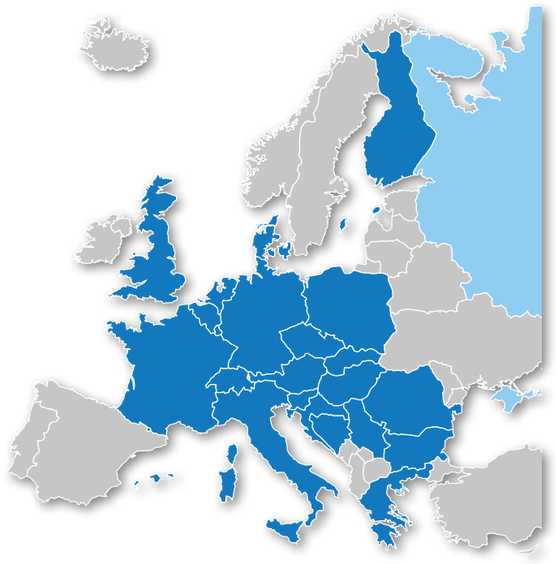
GENERAL STATISTICS OF SUPPLIES TO EUROPE

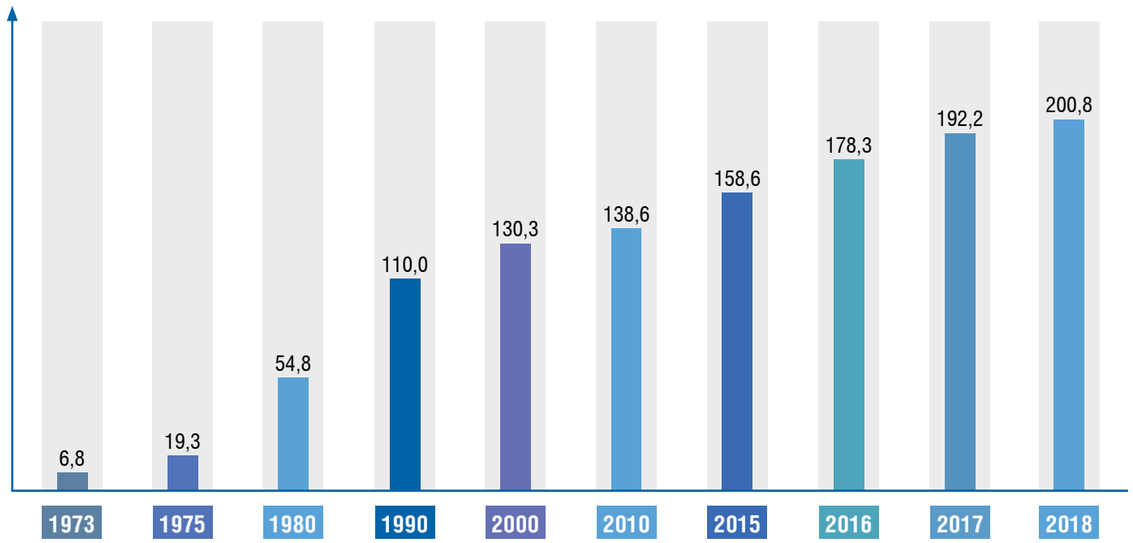
Dynamics of gas supply to Europe

Since 1973, we have supplied approximately 4.9 trillion cubic meters of natural gas to European countries.

In 2018, Gazprom Export supplied 200.8 bcm of gas to European countries. Around 81% of all supplies from Russia was delivered to the countries of Western Europe (including Turkey), with the remaining 19% going to the Central European countries.

In 2018, Gazprom Export supplied 162.39 bcm of gas to the markets of the Western Europe and Turkey. The largest importers are Germany, Turkey, Italy, Great Britain and France.

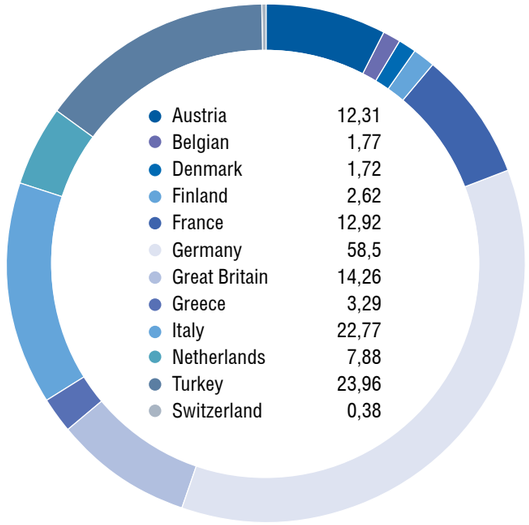




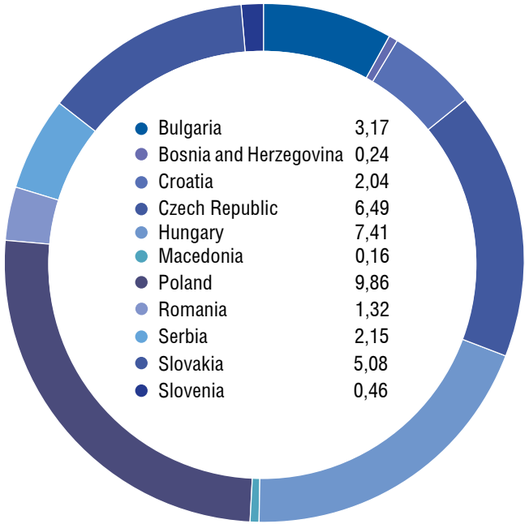
Volume of natural gas sales via Gazprom Export to the Far Abroad countries (bcm)

The natural gas market of Eastern and Central Europe is of particular importance due to its geographic proximity to Russia.

In recent years, the relationship with partners in this region develops against a backdrop of their striving for diversification of energy supply sources. Nevertheless, Russian natural gas provides more than half of the gas consumption in this region. In 2018, Gazprom Export sold 38.38 bcm of gas on this market. The largest importers are Poland, Hungary, Czech Republic and Slovakia. These countries account for around 75% of all of the gas that Gazprom Export sells in Central Europe.



Gazprom Export supplies of natural gas to the countries of Western Europe in 2018 (bcm)



Gazprom Export supplies of natural gas to the countries of Eastern and Central Europe in 2018 (bcm)

AUSTRIA



For more than 50 years, Austria's largest company, OMV AG, has been Gazprom Export's main business partner in the national market. Until 1994, the state owned 100% of the company's shares. Today OMV's shareholders are the Austrian government (via the Austrian Industrial Holding) with 31.5% stake, the International Petroleum Investment Company of Abu Dhabi with 24.9%, OMV itself with 0.2%, and 43.4% shares are in free float. The company's headquarters is located in Vienna.

In 1968, OMV became the first Western company to sign a long-term natural gas purchasing contract with the USSR.

Currently the purchaser of Russian gas is OMV Gas Marketing and Trading GmbH (a 100% subsidiary of OMV AG).

As of 1 January 2019, Austria has received around 225 bcm of Russian natural gas in total since the beginning of supplies for the year, including 12.3 bcm in 2018.

As well as trading gas, Gazprom Export is also involved in operating the Haidach underground gas storage facility (UGS) in Austria, in cooperation with the Austrian RAG and Gazprom Group's company WINGAS GmbH, operating in Germany. In 2017, the Haidach UGS celebrated 10 years anniversary of successful work.

Austria plays an important role in natural gas transportation, annually providing transit for around 30 bcm of Gazprom Group's gas to Italy, France, Germany, Hungary, Slovenia and Croatia. The main components of the gas transmission system are the following gas pipelines: TAG (Trans Austria Gas pipeline, for transit to Italy), SOL (Süd-Ost-Leitung pipeline to Slovenia and Croatia), WAG (West-Austria-Gasleitung to Germany and France), HAG (Hungary-Austria Gas pipeline), and Penta West (linking the Oberkappel and Burghausen points on the Austrian-German border). Aside from its gas trunklines, Austria also has a distribution network spanning a total length of about 25,000 km.

In June 2017, Gazprom and OMV signed a Memorandum of understanding on coordinating activities in order to develop gas transportation infrastructure for natural gas supplies to Central and South-Eastern Europe as well as the Framework agreement on cooperation in the sphere of small-scale LNG.

In June 2018, during the celebration of 50 years anniversary of Russian gas supplies to Austria, Gazprom and OMV extended long-term contract for gas supplies to Austria up to the 31st of December, 2040. Later in 2018, Gazprom and OMV signed a supplement to this contract to increasing the supply volume.

BOSNIA AND HERZEGOVINA



Natural gas has been supplied to Bosnia and Herzegovina, part of the former Yugoslavia, since 1978. Until the break-up of the Socialist Federal Republic of Yugoslavia, gas had been supplied under the Intergovernmental Agreement of 1988.

From 1993 to 1995, gas was supplied under a contract with Progresgas-Trading, a Russian-Yugoslavian joint venture. Since October 1995, Gazprom Export has been selling gas via the Energoinvest d.d.-Sarajevo company. Since July 2015 gas is been supplied to GAS-RES d.o.o.

Gazprom Export's annual exports to Bosnia and Herzegovina do not exceed 400 mcm. The total volume of gas delivered under the current contract with Energoinvest d.d.-Sarajevo between 1997 and 2018 was about 5.15 bcm, including 174.9 mcm in 2018. Under the contract with GAS-RES d.o.o. in 2015-2018 227.5 mcm of natural gas were supplied, including 69.9 mcm in 2018.

BULGARIA



Russia is the only exporter of natural gas to Bulgaria. Supplies began in 1974. Russian-Bulgarian cooperation is based on several documents, the most important being the General Agreement between member states of the Council for Mutual Economic Assistance (CMEA) on development of the Orenburg gas field and constructing the main Orenburg – the Western Soviet Border gas pipeline: and the Yamburg Agreement between the USSR and Bulgaria on developing the Yamburg gas field and constructing the Yamburg – the Western Soviet Border gas pipeline.

Gazprom Export's main partner in the Bulgarian market is Bulgargaz EAD.

Bulgargaz, a state-owned enterprise, is a 100% subsidiary of Bulgarian Energy Holding EAD. The enterprise was established in 1974.

In December 2006, Gazprom Export and Bulgargaz signed a Memorandum on further development of Russian-Bulgarian relations in gas sector. The Memorandum extended the contract for Russian natural gas transmission via Bulgaria to other countries until 2030, keeping booked transit capacity at the level of 17.8 bcma.

On 15 November 2012, Gazprom Export and Bulgargaz EAD signed a new long-term gas supply contract for up to 2.9 bcma. The contract covers natural gas supply from Russia to Bulgaria starting on 1 January 2013, and is effective to 31 December 2022.

In 2018, Bulgaria's natural gas consumption amounted to around 3.47 bcm, including imports of 3.17 bcm (fully covered by supplies from the Russian Federation), including 150 mcm gas for compressor stations.

As on 31 December 2018, the total volumes of gas supplied to Bulgaria throughout the cooperation period was around 176 bcm.

CHINA



Russian-Chinese gas cooperation is currently approaching a fundamentally new level. On 1 December 2019, the first Russian gas will enter the Chinese market. Analysts expect that the gas consumption in China will exceed 320 bcma in 2020, and can reach the level of about 520 bcma in 2030.

Gazprom's main partner on the Chinese market is China National Petroleum Corporation (CNPC), China's largest state-owned oil and gas company and one of the leading integrated oil and gas production companies in the world.

On 21 May 2014, Gazprom and CNPC signed a Purchase and Sale Agreement for Russian pipeline gas along the Eastern route. It marks the largest gas trade deal in the history of the global gas industry. The Agreement, concluded for 30 years, assumes the annual supplies to China of 38 bcma of natural gas from the Yakutsk and Irkutsk gas production centers through the Power of Siberia gas pipeline.

On 13 October 2014, the parties gathered in Moscow to sign a Technical Agreement as an addendum to the Purchase and Sale Agreement. The document establishes the main parameters for the design, construction and operation of the cross-border section of the Power of Siberia pipeline. It also contains the basic technical and technological characteristics for traded gas.

In September 2016, Gazprom and CNPC signed an EPC contract for the construction of an underwater crossing for the cross-border section of the Power of Siberia pipeline under the Amur River. In May 2017, as a part of the construction project for the crossing under the Amur River a temporary two-way checkpoint on the Russian-Chinese border was put into operation. The checkpoint provides unfettered access to the restricted area for operating personnel and construction equipment. In July 2017 Gazprom and CNPC signed a Supplementary Agreement to the Sales and Purchase Agreement. According to the document, gas supplies to China via the Power of Siberia gas pipeline will commence in December 2019.

In May 2015, Chairman of the Gazprom Management Committee Alexey Miller and CNPC Vice President Wang Dongjin signed a Common Terms Agreement determining the main technical and commercial parameters of supply along the future Power of Siberia 2 pipeline (western route). In 2015, Gazprom and CNPC started the technical and economic assessment of opportunities to supply pipeline gas to China from the Russian Far East. In September 2015, Gazprom and CNPC signed a Memorandum of Understanding in this area of cooperation. In December 2017, following the previous agreements, Gazprom and CNPC signed the Heads of Agreement for natural gas to be supplied from Russia's Far East to China.

The Russian and Chinese parties are also continuing talks on studying the potential for cooperation in building power generation capacities in China that would run on natural gas, as well as in gas storage projects that would support potential increase in supplies of Russian "blue fuel" to China.



In 2016, Gazprom and CNPC signed a Memorandum of Understanding in the area of underground gas storage and gas-powered generation. According to the document, the parties will conduct pre-development surveys for the purposes of creating underground gas storage facilities in several provinces of China.

In February 2017, the parties signed the Agreement to conduct geotechnical surveys for the creation of UGS facilities. Pursuant to the document, in May 2017, three contracts were signed to conduct pre-development surveys for the purposes of creating underground gas storage facilities within the Shenzhen 2–1 gas deposit (Heilongjiang province), Baiju aquifers (Jiangsu province), and Chuzhou salt caverns (Jiangsu province).

In May 2017, Gazprom and CNPC also signed a Memorandum of Understanding between Gazprom, CNPC and China Huaneng Group on cooperation in the Chinese power sector.

The companies also cooperate in promotion of use of natural gas as motor fuel. In May 2017, Gazprom, CNPC, Russian Highways State Company and China Communications Construction Company Ltd. signed a Memorandum of Cooperation aimed at promoting the use of liquefied natural gas as vehicle fuel and developing road infrastructure along the Europe – Western China international transport route. On 5 October 2017, Gazprom, CNPC and KazMunayGas signed a Memorandum of Understanding stating the interest of the parties in long-term strategic cooperation in the NGV market, including the development of natural gas filling infrastructure at the Europe – China international transport corridor.

CROATIA



Supply of Russian gas to Croatia started in 1978 within the deliveries to Yugoslavia. On 10 November 1992, an Intergovernmental agreement for Russian natural gas supply in the volume of up to 1.2 bcma until the end of 2010 was signed.

In 2005 – 2010, supply of natural gas was performed by Gazprom Export within the long-term contract with the INA Industrija Nafte Company (Prirodni Plin d.o.o. since 2009). Actual volumes of Russian natural gas supply to Croatia amounted to 1.1 – 1.2 bcma.

Supply of natural gas in 2012 was performed by Gazprom Schweiz AG within the contracts with Croatian Prvo plinarsko društvo d.o.o. (PPD). Since 2017, natural gas addressed to PPD has also been delivered under the contract with Gazprom Export LLC.

In 2017, Gazprom Export and PPD signed a long-term contract on natural gas supply in 2017 – 2027. In 2018, within this contract Gazprom Export supplied to Croatia 2.04 bcm of gas.

CZECH REPUBLIC



Russian natural gas supplies to the Czech Republic began in 1967 within the deliveries to Czechoslovakia.

As for today, Gazprom Export's and Gazprom Group companies' key partner in the Czech Republic is RWE Supply & Trading CZ a.s. (formerly known as RWE Transgas). On 15 October 1998, a long-term contract for supply of Russian natural gas to the Czech Republic was signed. The contract is valid through 2035.

For many years, Russian natural gas transit across Czech territory was based on a long-term contract signed on 1 November 1999 with RWE Transgas (subsequently RWE Supply & Trading CZ a.s.). On 1 April 2013, RWE Supply & Trading CZ a.s. transferred this contract to Net4gaz — the operator of the Czech gas transmission system — in accordance with agreements reached by the parties. Russian natural gas deliveries for onward transit through the territory of the Czech Republic are carried out mainly through the Yamal-Europe and Nord Stream/OPAL gas pipelines through the Olbernhau/Brandov entry point.

In total, 6.49 bcm of gas was supplied to the Czech market in 2018 (including gas for compressor stations).

DENMARK



The state-owned power company Ørsted (formerly known as DONG Energy) was established in 1972. Originally, the company was called Dansk Naturgas and was commissioned to advocate state interests by purchasing Norwegian gas . Discovery of new oil and gas deposits in Danish sectors of the Northern Sea in 1970-s expanded the scope of the company's business activity.

The agreement signed in June 2006 on supplies of natural gas along the Nord Stream gas pipeline determines the basic terms of purchases of Russian gas by the Danish company DONG for a period of 20 years.

The commissioning of the first branch of the Nord Stream gas pipeline on 8 November 2011 marked the start of supply of Russian natural gas to DONG. Based on 2018 results, Denmark was supplied with 1.72 bcm of natural gas from Russia.

FINLAND



Natural gas from Russia has been supplied to Finland for over 40 years. The first contract was signed in 1971, for supplying up to 1.4 bcma.

Gas actually started arriving in Finland in 1974. As at 31 December 2018, Finland has taken delivery of about 128 bcm, including 2.62 bcm in 2018.

For 25 years, Russia's partner has been Finland's Neste company (renamed Fortum after merging with Imatran Voima in 1998). For many years the companies have developed the Finnish natural gas market together. In 1994, this collaboration resulted into the founding of the joint-stock company Gasum, committed to importing and selling natural gas as well as operating and developing Finland's gas transmission system.

In December 2015, Gazprom Export and Gasum extended the contract for gas supply to Finland up to the 31st of December 2031.

FRANCE



Russia and France have enjoyed over 40 years of successful and mutually beneficial cooperation in the area of natural gas supply. Within this, over 393 bcm of "blue fuel" has been exported to France. Exports to this country in 2018 reached 12.92 bcm. There are currently five major long-term contracts between Gazprom Export and Engie (formerly Gaz de France, GDF Suez) for Russian gas supply to France.

The first two contracts were signed on 3 September 1975 and entailed gas deliveries to the Slovak-Austrian border.

Within the 'Gas for Pipes' project, a third contract was signed on 28 October 1983 for delivering gas to the border of Czechoslovakia and West Germany.

On 19 December 2006, Gazprom Export and Engie signed a major package of commercial agreements which covered the extension of their existing contracts through 2031, relocating delivery points to the French border, transferring part of the natural gas volumes – and the corresponding transmission capacities – to Gazprom Export, for the purpose of operating in France's retail market, and selling new volumes delivered through the Nord Stream pipeline.

In March 2010, in the presence of Russian President Dmitry Medvedev and French President Nicolas Sarkozy, a Memorandum of Interest was signed with respect to additional volumes of gas within the scope of the Nord Stream project. On 18 June 2015, at the 19th St. Petersburg International Economic Forum, Gazprom and Engie signed a Memorandum of Understanding and Cooperation on the Nord Stream 2 project; in September 2015, at the Eastern Economic Forum in Vladivostok, shareholders agreements on the project were signed.

Besides the partnership with Engie, cooperation with EDF has been developing actively since 2009. On 27 November 2009, Gazprom and EDF signed a Memorandum of Understanding on engaging in long-term mutually beneficial cooperation in the gas sector, electrical power, and UGS. Gazprom and EDF signed a binding document (GSPA Term Sheet) on gas supply on 21 June 2013 at the St. Petersburg International Economic Forum. According to this deal, the possible volume of natural gas sold by Russia to France can reach 4.8 bcma.

As part of Gazprom's strategy of entering the retail market, a new Gazprom Group company was registered in France in July 2006: the Gazprom Marketing & Trading France, engaged in supplying gas to final consumers in France.



GERMANY



Germany has been and remains the largest buyer of Russian natural gas. The total import volume in 2018, including resale operations inside the country, amounted to 58.5 bcm.

The total volume of natural gas sold by Russia to Germany since the beginning of the supply in 1973 (including East Germany) exceeds 1 trillion cubic meters.

Supply of natural gas to Germany is performed under the contracts signed by Gazprom Export with Uniper Global Commodities SE (previously E.ON Global Commodities SE and Ruhrgas AG), WIEH GmbH & Co.KG, WINGAS GmbH, Shell Energy Europe Ltd., Vitol S.A. and Gazprom Marketing & Trading.

The joint-stock company Ruhrgas AG was established in 1926. It was engaged in purchase and transportation of natural gas via gas pipelines, and its further sale to gas distributing companies. The company also handled a range of functions related to the design, construction and operation of gas transportation systems. In early 2003, Ruhrgas AG's sole shareholder became Germany's largest energy concern E.ON AG.

In compliance with German regulation, E.ON Global Commodities was divided into two companies, a trading and a transportation one, in 2010. Since 1 October 2001, a long-term agreement with transport company Open Grid Europe GmbH (the legal successor to E.ON Gastransport GmbH since late 2010) on transportation of natural gas through Germany to the Netherlands and Belgium has been in effect along with a number of short-term contracts.

Since 1 January 2016, E.ON has reorganized its business structure by dividing into two separate companies. One of them, retaining the E.ON name, focuses on renewable energy sources (wind, solar, hydroelectric), distribution and customer service. The second company, named Uniper (for Unique Performance) is responsible for power generation from non-renewable energy sources, as well as for gas exploration, production and trading.



Uniper imports natural gas from Russia, the Netherlands, Norway and Denmark, providing roughly 60% of the total volume of gas supplied to German market.

Gazprom Export's four main contracts with Uniper are valid through 2035.

Since the beginning of supplies to present days, over 685 bcm of gas has been supplied to Uniper and its legal predecessors.

To improve the cost-effectiveness of natural gas sales and increasing its share in the German market, Gazprom and Wintershall AG (100% owned by BASF AF) established two joint ventures in Germany – WIEH (1990) and WINGAS (1993). On 1 October 2015, Gazprom and Wintershall AG completed an asset swap. As a result of the deal, Gazprom increased its stake in the European gas trading and storage companies WINGAS, WIEH and WIEE to 100%.

Several long-term contracts on natural gas supplies have been concluded with WIEH and WINGAS, some of them are valid through 2030. Gas supplies to WINGAS within the Nord Stream project started in 2013.

In 2018, Gazprom Export supplies to WINGAS and WIEH for the German market amounted to 30 bcm.

In Germany Gazprom Export also cooperates with Shell Energy Europe. A contract for annual supplies of 1.2 bcm of gas for a period of 20 years, to 2031, has been signed with this company.

GREAT BRITAIN



Since December 1994, Gazprom has possessed a stake in Interconnector (UK), the owner and operator of the Interconnector gas pipeline between continental Europe and Great Britain. With the aim of optimizing the use of this pipeline's capacity and developing trade in Europe's deregulated markets, a 100% Gazprom subsidiary – Gazprom UK Trading (now known as Gazprom Marketing & Trading, or GM&T) – was established in Britain on 6 May 1999. Its core areas of activity presently include:

- Trading operations across Europe's major trade platforms, including trading in gas, electricity, crude oil, and petroleum products;
- Developing Gazprom Group's electricity business;
- Selling gas and electricity to end consumers in Britain, France, Germany, and the Netherlands;
- Providing end consumers with consumption metering services for gas, electricity, and other products;
- Developing LNG trade operations in Atlantic and Pacific regional markets;
- Natural gas trading in the North American market via GM&T USA.

Having started with volumes of 260 mcm, Gazprom Group is now supplying 14.26 bcm of natural gas to the British market each year (as at 2018). Together with Russian gas, GM&T's portfolio also includes gas from other producers. GM&T buys significant volumes of gas directly in the market as well.

Another way of improving reliability and optimizing supply involves gas swap deals, which make it possible to lower transmission costs and ensure that gas volumes in the portfolio for any given market can be increased regardless of capacity loading in a particular section. The reliability of gas supply to consumers is also enhanced by optimizing and balancing the company's own product portfolio, including hedging transactions and signing multiple-component contracts involving bundled products.

The sale of gas to final consumers is a gas business segment that enables diversification of the revenue sources. Moreover, direct gas deliveries to end consumers offer an additional guarantee of natural gas sales in Britain's liberalized market. In 2018, gas sales to final consumers in Great Britain via GM&T's Gazprom Marketing & Trading Retail subsidiary came to 4.9 bcm.

GREECE



Russian gas deliveries to Greece began in 1996 under a contract between V/O Soyuzgazexport and the DEPA Public Gas Corporation of Greece, signed in 1988 and covering delivery of up to 3 bcma through 2016, inclusively. In 2014, this contract was extended to 2026.

DEPA is the country's public gas corporation established in 1988 for the purposes of diversifying Greece's fuel and energy balance. DEPA is the main gas importer in Greece.

Currently, Greece has achieved almost full compliance of its gas market operating model with the standards and requirements of the European Union in terms of its liberalization. Since 2012, Greece has developed and adopted National Grid Codes on the management of the country's gas transmission system, introduced tariff regulation and established new rules for the licensing of gas operations. Established in 2007, the DESFA company (a subsidiary structure of DEPA) is an independent transmission operator and the owner of Greece's gas transmission network, holding exclusive rights (for 50 years) to manage, develop, maintain and operate Greek gas transmission network and UGS.

For the purposes of development of Russian-Greek cooperation in the gas industry, Prometheus Gas S.A. company was established in 1991, with equal stakes owned by Gazprom Export and Copelouzos Bros. Group Ltd. The operations of Prometheus Gas S.A. were generally linked to the construction of energy facilities in Greece, in accordance with an addendum to the Intergovernmental Agreement of 1987. To date, eight gas pipeline branches, the Florina TPP with an output capacity of 300 MW, and a compressor station in Nea Mesimvria have been commissioned. Since October 2016, Prometheus Gas has been receiving supplies of natural gas under a contract with Gazprom Export. In October 2017, a long-term contract to supply up to 1 bcm of gas per annum in the period from 1 January 2018 till 31 December 2027, was signed between the companies.

Also in 2017, Gazprom, DEPA and Edison S.p.A. signed a Cooperation Agreement aimed at establishing a southern route for Russian gas supplies from Russia to Europe. According to the document, the companies will coordinate the implementation of the TurkStream project and the Poseidon project in the area from the Turkish-Greek border to Italy.

As of 31 December 2018, more than 47 bcm of gas had been exported to Greece over the entire course of cooperation. In 2018, supplies to the country amounted to roughly 3.29 bcm, including 946 mcm via Prometheus Gas S.A.

HUNGARY



Cooperation in the area of natural gas supplies to Hungary began in 1975, and until 1998, gas was exported under an intergovernmental agreement on development of the Orenburg and Yamburg fields.

Panrusgaz, a Hungarian-Russian gas sector joint venture, was set up in 1994 to ensure that Hungary's long-term natural gas import requirements would be met reliably, to develop mutually beneficial trade ties, and to maximize the opportunities given by the strategic partnership. Importing natural gas is the company's core business. Panrusgaz is Hungary's leading natural gas supplier (around 60%).

In 1996, long-term contracts were signed with Panrusgaz for supplies of natural gas to Hungary in the period of 1996-2015. Currently there are two contracts between Gazprom Export and Panrusgaz valid through 2019, and two contracts valid through 2021. Under these contracts, gas is supplied to Hungary via two routes: through Beregovo (the Ukrainian-Hungarian border) and Baumgarten (the Slovak-Austrian border).

On 5 July 2017, Gazprom Export and Hungarian Gas Trade Ltd signed a Memorandum of Understanding, which reflects the intent of the parties to continue long-term cooperation with regard to Russian gas supplies to Hungary. On the same day Alexey Miller, Chairman of the Gazprom Management Committee, and Peter Szijjarto, Minister of Foreign Affairs and Trade of Hungary, signed a roadmap to implement a number of measures aimed at developing Hungary's gas transmission system.

As of 31 December 2018, a total of 250.5 bcm of natural gas had been exported to Hungary. In 2018, supplies to the country amounted to 7.4 bcm.



ITALY



Gazprom Group's main partner on the Italian market is ENI, established in 1953. The company's structure is divided into three distinct business units: Exploration & Production, Gas & Power, and Refining & Marketing. Gas purchases & sales of gas are handled by the second unit's ENI Gas & Power S.p.A. Gazprom Group supplies natural gas under three long-term contracts with ENI.

Gas is also exported to other Italian market players such as Sinergie Italiane S.r.l. in Liquidazione, Axpo Trading AG, ERG Power Generation S.p.A. and VIVIgas S.p.A.

In addition, supplies of Russian gas to Italy are preformed through the subsidiaries Gazprom Italia S.p.A. This company was established in June 1993 by Gazprom and ENI on a parity basis under the name Promgaz S.p.A. In late 2011, Gazprom bought ENI's stake out. On 25 January 2018, the company changed its name to Gazprom Italia.

In 2018, a total of 22.77 bcm of natural gas was supplied to Italy under all contracts. Since 1974, more than 657 bcm of gas have been supplied to the country.

Within the strategic alliance envisioned by the Agreement of 1998, Gazprom and ENI have jointly implemented the Blue Stream project, operated by the Russian-Italian joint venture Blue Stream Pipeline Company. The pipeline's capacity is split 50/50 between Gazprom and ENI. In 2010, the pipeline reached its design capacity of 16 bcma.

MACEDONIA*



The cooperation with Macedonia in the gas sector began by the signing of a contract with Makpetrol A.D. on the construction of a gas pipeline and pipeline branches in the country, on general contracting terms in 1991. Construction of the pipeline was completed in 1997.

Supplies of Russian gas to Macedonia began in 1997. As of 31 December 2018, total sales to the country amounted to approximately 1.71 bcm of "blue fuel", including 162.2 mcm in 2018.

**By the time when this brochure was completed, the country was called Macedonia. The Republic of Macedonia was renamed to The Republic of North Macedonia following the Prespa Agreement, signed on 25 January 2019.*



NETHERLANDS



Oil and gas fields were first discovered in the Netherlands in the early 20th century, with their commercial development beginning after the Second World War. For the purposes of creating an efficient national gas supply system, on 6 April 1963, the country established the trading company Gasunie. It was granted the right to purchase natural gas from producers, transport it and sell – both inside the country and abroad. Gasunie signed its first export contract with Belgium's Distrigas in 1965.Despite its relatively modest geographical size and population, the Netherlands is currently Europe's fifth-largest consumer of natural gas, due to the high gasification level of its residential, industrial and power generation sectors.

The foundations of business cooperation between Gazprom and Gasunie were first laid by the Framework Agreement of 1996, that envisioned, along with supplies of Russian natural gas to the Netherlands, various forms of partnership in the area of gas transportation and storage, providing added flexibility in gas supplies, etc. In December 1999, a 20-year contract on the sale of Russian natural gas to the Netherlands was signed. First deliveries to the Netherlands began via the Yamal-Europe gas pipeline on 1 October 2001.

As a result of the separation of the transport and trading units of Gasunie, the contract for Russian gas supply was transferred to the newly formed trading unit which is named GasTerra B.V. (50% of the shares are state-owned, the rest of the shareholders are Exxon Mobil – 25%, Shell – 25%).

In 2018, Gazprom Export supplied the Netherlands with 7.88 bcm of gas.

N.V. Nederlandse Gasunie is Gazprom's partner in the Nord Stream project. The Dutch company owns a 9% stake in Nord Stream AG, the pipeline operator.

POLAND



Poland has been purchasing natural gas from Russia longer than any other country. The first small volumes were supplied to Poland from 1944. In recent years, Poland has kept first place among other Eastern European countries in terms of gas import volumes. In 2018, around a half of the country's demand for gas was satisfied by supplies from Russia.

Supply of natural gas to Poland and its transit through the country's territory are covered by the long-term contracts with PGNiG S.A. and EuRoPol GAZ s.a. on the basis of the Intergovernmental Agreement of 25 August 1993 on supplies of gas to Poland and creation of a pipeline system for gas transit through Polish territory to the countries of Western Europe.

Polskie Górnictwo Naftowe i Gazownictwo (PGNiG) is Poland's largest oil and gas company, engaged in the development of oil and gas deposits, production, storage and transportation of these energy resources, construction and development of the country's oil and gas transportation network, as well as the export and import of gas. The company was established as a state-owned enterprise in 1982, and in 1990, was transformed into a joint-stock company with a 100% stake owned by the state. As a result of the gradual partial privatization, the state now controls a 71.88% stake.

EuRoPol GAZ, a Russian-Polish joint venture, was established in 1993 to design, finance and build the gas-pipeline transit system on Polish territory. The company is the owner of the Polish section of the Yamal – Europe gas pipeline spanning some 684 km. In late 1999, construction of the linear section of the first line of the Yamal – Europe pipeline was completed. Today, following the commissioning of five compressor stations, its throughput capacity is roughly 33 bcma of gas.

As of 1 January 2019, a total of 323.8 bcm of natural gas has been supplied to Poland, of that 9.86 bcm in 2018, including 0.4 bcm of fuel gas.



ROMANIA

The gas cooperation with Romania began with the development of the Orenburg gas condensate field and construction of the Orenburg – Western Soviet Border gas pipeline, as established in the General Agreement between member states of the Council for Mutual Economic Assistance of 1974.

Russian natural gas has been supplied to the country since 1979, and its share on the Romanian market has varied from 2% to 25% of total consumption. Gas supplies from the Russian Federation are performed under long-term contracts concluded with the companies Gazprom Schweiz AG (WIEE AG) and Conef Energy for natural gas supplies to Romania through 2030.

As of 31 December 2018, over the course of cooperation over 130 bcm of gas has been supplied to Romania, including 1.32 bcm in 2018.

Romania also plays an important role in the Russian gas transit to Bulgaria, Turkey, Greece and Macedonia.

SERBIA

Supplies of Russian natural gas to Yugoslavia began in 1978. Following the breakup of the Socialist Federal Republic of Yugoslavia in the early 1990s, the separate intergovernmental agreements were signed with the emerging sovereign states on cooperation in the gas industry.

The Russian-Serbian Intergovernmental Agreement was signed on 7 February 1995. In order to strengthen Gazprom's positions in the region, following another Intergovernmental Agreement of 11 April 1996, the Russian-Serbian joint venture Yugorosgaz was established in July 1996, with Gazprom owning a 50% stake. Yugorosgaz' business operations are aimed at gradual implementation of the construction plan for the Southern branch of Serbian gas pipelines, the gasification of the country, and supplying gas to consumers in the South of Serbia as well as participation in joint energy projects. Since 2007, the company has been purchasing natural gas for Serbia.

On 13 October 2012, Russia and Serbia concluded an Intergovernmental Agreement on natural gas supplies in 2012 - 2021, foreseeing a possibility to increase gas supplies up to 5 bcma. On the basis of the Intergovernmental Agreement of 27 March 2013, Gazprom Export and Yugorosgaz signed a long-term contract for supply of natural gas to Serbia through 2021. As of 31 December 2018, under this contract, roughly 9,7 bcm gas had been delivered, including 2.15 bcm in 2018.

On 19 December 2017, Gazprom Export and Yugorosgaz signed the Addendum to the long-term contract for Russian gas deliveries to Serbia. According to the document, the volume of Russian gas supplies under the current contract will be increased from 1.5 bcma to 2 bcma, starting from 2018.

The transportation, distribution and storage of natural gas in Serbia is handled by the state-owned enterprise Srbijagas, established by the Government of the Republic of Serbia in the course of the reorganization of the state-run enterprise Naftna Industrija Srbije (NIS) on 1 October 2005.

An Intergovernmental Agreement on the Banatski Dvor underground gas-storage facility UGS was signed on 25 January 2008. In October 2011, the Banatski Dvor storage facility was commissioned. The active storage capacity of the UGS amounts to 450 mcm of gas, with a maximum withdrawal rate of 5 mcmd. The storage facility guarantees reliable supplies of Russian gas not only to Serbia, but also to consumers in Hungary and Bosnia and Herzegovina.

On 28 October 2015, Gazprom and Srbijagas signed a Memorandum of Understanding reflecting the parties' intent to consider the options to extend the cooperation into the gas storage and into NGV sectors, as well as in small-scale LNG shipments.

On 3 June 2017, Gazprom Export and Srbijagas signed a Memorandum of Understanding on the expansion of the Banatski Dvor UGS facility. According to the document, the companies will prepare technical and financial feasibility studies for the expansion of the active storage capacity up to 750 mcm. On 27 June 2017, Gazprom and the Ministry of Mining and Energy of the Republic of Serbia inked a roadmap on the development of the Serbian gas transmission system.

SLOVAKIA

Slovakia is a long-standing and reliable partner of Russia in the field of gas exports. Deliveries of Russian natural gas to Slovakia began back in 1967 and continue to this day. Slovenský plynárenský priemysel a.s. (SPP) is Gazprom Export's main partner in Slovakia. Currently, SPP is 100% state-owned through the State Property Fund. Moreover, SPP is the major shareholder in Slovakia's gas transmission system operator, the Eustream a.s., as well as in a number of other companies engaged in gas distribution, transmission, and storage.

Gas is supplied to the Slovak Republic on the basis of the Framework Agreement signed in 2008 and effective to 2031. Russian natural gas transit via the Uzhgorod corridor runs through the territory of the Slovak Republic. The current contract with Eustream, the Slovakia's gas transmission network operator, ensures gas transmission to the Baumgarten delivery point on the Austrian border through 2028.

In 2018, 5.08 bcm of gas was supplied to Slovakia (including gas supplies for compressor stations).

SLOVENIA

Natural gas supplies to Slovenia began in 1978. After the breakup of Yugoslavia, cooperation continues on the basis of an Intergovernmental Agreement signed on 5 November 1992. Gazprom Export's partner in the Slovenian market is Geoplin d.o.o. Ljubljana, founded in 1975 and now the country's largest importer of natural gas.

In 2017, Gazprom Export and Geoplin d.o.o. Ljubljana signed a new contract for natural gas supply within the period of 2018 – 2022.

As of 31 December 2018, more than 14.5 bcm of natural gas was supplied to Slovenia in total, including 0.46 bcm in 2018.

TURKEY

The first deliveries of natural gas to Turkey from the Soviet Union began in June 1987, by transit via Romania and Bulgaria through the dedicated Trans-Balkan pipeline.

In February 1986, based on an Intergovernmental Agreement dated 18 September 1984, a contract was signed with Turkey's BOTAŞ company for increasing gas supplies over 25 years (1987-2011), up to 6 bcma.

In 1998, a long-term contract was signed with BOTAŞ for the supply of additional 8 bcma via the same route through 2022.



Until 2003, natural gas was arriving to Turkey only by transit through Ukraine, Moldova, Romania and Bulgaria. In 2003, following the contract of 15 December 1997 between Gazexport and BOTAŞ, and based on the Intergovernmental Agreement, the gas exports through the Blue Stream pipeline started. The maximum annual capacity for supply via this route is 16 bcma.

The state pipeline company BOTAŞ was founded by the state oil company TPAO in 1974, in accordance with a resolution of the Turkish government. BOTAŞ has been engaged in gas trading and transportation since 1986.

Until 2001, BOTAŞ had exclusive rights to control and to shape the gas market in Turkey. Striving to join the European Union, the Turkish government adopted a Natural Gas Market Act that entailed the gradual elimination of the gas import monopoly, by the transfer of pre-contracted gas volumes from BOTAŞ to private sector importers, on a tender basis, and subject to the gas seller's consent.

Against the backdrop of Turkish gas market liberalization, Gazprom Export agreed to transfer part of the volumes under one of its contracts with BOTAŞ, in the course of tender organized by BOTAŞ. In 2007, Gazprom Export signed contracts with four private companies who gained the right to import gas into Turkey.

Following the next step in deregulation of the national gas market, when new private players were admitted into the market, Gazprom Export signed new long-term contracts, majority of which valid through 2042, with Turkish private companies in August 2012, for supplying up to 6 bcma of Russian gas to Turkey. The total supply volumes under these new contracts have fully replaced the volumes previously supplied to BOTAŞ under the contract of 14 February 1986. Gas supply under the new contracts began on 1 January 2013.

On 10 October 2016, the Government of the Russian Federation and the Government of the Turkish Republic inked the Agreement on the TurkStream project. The pipeline's starting point should be the Russkaya compressor station in the Krasnodar Territory.

The new pipeline's offshore section will run along the Black Sea bed. Maximum depth along the pipeline route will reach 2,200 m. The subsea section will exceed 900 km. The length of the Turkish onshore section will amount to 180 km. The capacity of the first and second



strings of TurkStream are expected to total 15.75 bcm each. Construction of the offshore section of the pipeline was commenced on 7 May 2017. On 19 November 2018, the offshore laying of the gas pipeline was completed.

As of 31 December 2018, over the entire cooperation Turkey had been supplied with over 455 bcm of natural gas. In 2018, supply volumes amounted to 23.96 bcm.

GAS SALES WITH THE ELECTRONIC SALES PLATFORM

In 2018, Gazprom Export launched its own Electronic Sales Platform (ESP) for natural gas sales. The ESP started on August 17, 2018. The platform is designed to physically sell natural gas to the European consumers, in addition to supplies under existing contracts.

This tool aims at improving the interaction with our customers in Europe, making the gas sales even more efficient and becoming an additional mean to optimize supplies of gas.

Physical gas sales through the ESP started at the end of September, 2018. Initially the platform offered contracts with supplies within a month to Germany, Austria and Slovakia. In December, the production portfolio extended with day-ahead contracts.

By the end of the year, contracts with more than 20 clients had been signed. In 2018, more than 1.06 bcm of gas was sold on the ESP to Europe.



GAS TRADE WITH NEIGHBOURING COUNTRIES

AZERBAIJAN

In November 2017, Gazprom Export and SOCAR signed a contract on natural gas supply to Azerbaijan in 2017 – 2018. Supply under the contract started on 22 November 2017. Under this contract, 1 bcm of natural gas was delivered in 2018.

ARMENIA

Natural gas supply to the consumers in Armenia started in 2003. As for today, the supply is performed according to the mid-term contract for 2014 – 2018 between Gazprom Export and the Gazprom Armenia company. The contract was extended through 2019. The volume of natural gas supplied to Armenia under this contract amounted to 1.9 bcm in 2018.

GEORGIA

In 2017, a new contract for natural gas transportation through the territory of Georgia to Armenia for 2017 – 2018 was signed between Gazprom Export and Georgian Gas Transport Company (GGTC). According to the terms of the contract, the payment for gas transportation services is performed in cash. Within this contract, in 2018, the Georgian partner transported 1.9 bcm of gas.

Along with that, a contract for supply of natural gas to Georgia in 2017 – 2018 was signed with GGTC. In 2018, under this new contract 0.04 bcm of natural gas was supplied to Georgia.

KAZAKHSTAN

Between 2004 and 2018, Gazprom Export's subsidiaries purchased a total of 142.4 bcm of gas, including purchases intended for the further supply to the North of Kyrgyzstan. 12.6 bcm of gas was purchased in 2018.

Due to the specific features of gas transmission system of Kazakhstan, swap operations are used extensively in gas trading with this country. Thus, Gazprom Export and its subsidiary Gazprom Schweiz AG not only purchase Kazakh gas, but also supply natural gas from Russia and Uzbekistan to the Aktobe and Kostanay regions of Kazakhstan, and to consumers in southern regions of Kazakhstan.

Since 2007, around 33.2 bcm of Uzbek gas has been delivered to the country, including 2.9 bcm in 2018, as well as about 18.1 bcm of Russian gas, including 3.22 bcm in 2018.

KYRGYZSTAN

Since 2017, Gazprom Export has been delivering natural gas to the consumers in northern regions of Kyrgyzstan under a mid-term contract with Gazprom Kyrgyzstan company. The planned annual gas supply under the contract amounted from 0.25 bcm in 2017 to 0.42 bcm in 2021.

In 2018, under mid-term contract, Gazprom Export supplied 0.28 bcm of gas to consumers in northern Kyrgyzstan.



In addition to that, a new mid-term contract for supplying up to 0.06 bcma of natural gas to consumers in the South of Kyrgyzstan was signed in December 2017. The total volume of these supplies to the South of Kyrgyzstan amounted to 0.03 bcm in 2018.

TURKMENISTAN

The contract between Gazprom Export and State Concern Turkmengas covers natural gas purchase from Turkmenistan in the period from 2004 to 2028. Gas deliveries under this contract began in January 2004.

In 2004-2015, Gazprom Export purchased a total of 204.4 bcm of gas.

In 2016, after negotiations with Turkmengas, the agreement was reached to introduce the «commercial break» in the period from 1 January 2016 to 31 December 2018. No Turkmen gas was purchased in 2016-2018.

UZBEKISTAN

Gas deliveries from Uzbekistan started in 2003. The volumes and supply terms were regulated by the Agreement on strategic cooperation in the gas sector between PJSC Gazprom and National Holding Company Uzbekneftegaz, signed on 17 December 2002.

Gazprom Export and its subsidiaries purchased a total of 148 bcm of gas in 2003-2018, including purchases for further supply to consumers in southern regions of Kazakhstan as a part of swap operations and for supply to the South of Kyrgyzstan. The total volume of such purchases amounted to 33.3 bcm.

SOUTH OSSETIA

Direct supply of natural gas to the Republic of South Ossetia has started in 2009. Gazprom Export has been delivering gas to the Republic on the basis of annual contracts since 2014. In 2018, under the contract with Energoresurs – South Ossetia, 0.04 bcm of gas was delivered. In November 2018, the contract was prolonged through 2019.



LNG SUPPLY

Developing the LNG business is one of the key priorities of Gazprom Group operations, aimed at increasing export volumes of natural gas by entering new markets inaccessible to pipeline supplies. For over a decade now, Gazprom Group has been actively ramping up volumes of its LNG trading portfolio both through the implementation of own projects as well as through LNG purchases from third parties.

The aggregator of LNG volumes and operator of the Group's trading portfolio is Gazprom Marketing & Trading company. Taking a portfolio approach to LNG trade operations makes it possible to react quickly to changing market conditions, follow the geographical diversification of supplies, and optimize transportation costs.

The basis of Gazprom Group's LNG trading portfolio currently consists of LNG supply from the Sakhalin-2 project. Additionally, LNG is also purchased from third parties under fixed-term agreements and spot deals. In 2005–2018, Gazprom Marketing & Trading delivered over 400 LNG shipments of total volume of 27 mln t to the markets of 15 countries, including more than 170 cargoes originated from the Sakhalin-2 project. In 2018, Gazprom Group sold 57 LNG shipments of a total volume of 4 mln t.

The implementation of Gazprom Group's new LNG projects, including the third production train of the Sakhalin-2 plant and the Baltic LNG project, will allow for further growth in Gazprom Group's supply portfolio, facilitating the geographical expansion of supplies and entrance to new promising regional markets. Gazprom Group's competitiveness in LNG trading is supported by its extensive trading portfolio, availability of own LNG fleet, and Group's wide experience in trading operations on the LNG market.

LNG supply to the new markets in the Asia-Pacific Region

Gazprom Group is actively operating on the LNG markets of the Asia-Pacific Region, delivering both to traditional markets, like Japan, South Korea, Taiwan, as well as to the fast-growing markets of India, China and Southeast Asia.

For Gazprom Group, the key source of LNG supplies to the Asia-Pacific Region is the Sakhalin-2 project. Its nominal output capacity, including two production trains, amounts to 9.6 mln t a year; that said, actual LNG production at the plant consistently exceeds its nominal output capacity. Thus, in 2018, 11.4 mln t of LNG was supplied to customers from the Sakhalin-2 plant. In 2018, the share of Sakhalin LNG on the Asia-Pacific Region market amounted to 5%, on the global market – to 4%. In 2015, Gazprom and Shell signed a Memorandum on the implementation for the construction of the third technological train of the Sakhalin-2 plant, with an output capacity of up to 5.4 mln t of LNG per annum. In 2018, the plant operator Sakhalin Energy company completed design documentation for the construction of the third production train and all necessary conclusions of the state experts were received.

In 2012, Gazprom Marketing and Trading Singapore, and India's leading gas transmission and gas distribution company, GAIL Limited, signed an LNG Sale and Purchase Agreement (SPA). The first cargo arrived at the port of Dahedzh, located in the state of Gujarat in northwestern India, on June 4, 2018. The contract provides for the supply of 2.9 mln t of LNG per year for 20 years plus a three-year plateau period.

LNG supply to new markets in the Atlantic Basin

The Middle East, Latin America and Africa are new promising centers of LNG consumption. Gazprom Group has already been supplying LNG on a spot and short-term basis to such Atlantic Region countries as Argentina, Mexico, Egypt, Kuwait, the UAE and others, and is working on expansion of the deliveries geography in this region.

To expand its market presence in the countries of the Atlantic basin, Gazprom is also working to expand its own LNG project in Leningrad Region, the Baltic LNG.

Another project that can increase the volume of Gazprom Group's LNG trading portfolio in the Atlantic region is a complex for the production, storage, and shipment of LNG in the Portovaya compressor station (CS Portovaya) with a capacity of 1.5 mln t of LNG per year. The construction of the project is nearing completion, and its commissioning is scheduled for the second half of 2019.

Gazprom is also expanding its LNG portfolio through purchases from third-party projects. For instance, in January 2015, Gazprom Marketing & Trading Singapore signed a long-term contract with Yamal Trade company for purchase of 2.9 mln t of LNG per annum from the Yamal LNG project for a period of 20 years, with delivery to a reloading point in Europe. The first cargo under this contract was delivered in June 2018.

Moreover, in November 2015, a contract for LNG purchase was signed by GM&T Singapore, Perenco Cameroon and SNH (La Société Nationale des Hydrocarbures du Cameroun), implying Gazprom Group's exclusive offtake rights for the entire LNG volume of the Cameroon LNG floating plant project – up to 1.2 mln t of LNG per annum over 8 years since the plant commissioning. LNG supplies under the agreement with Perenco Cameroon and SNH began in June 2018.







TRANSPORTATION AND STORAGE

TRANSPORTATION

Yamal-Europe

The Yamal-Europe transnational gas pipeline crosses the territory of four countries: Russia, Belarus, Poland, and Germany. This export corridor has added flexibility and security to the gas supplies to Western Europe. The European Union classified the Yamal-Europe gas pipeline as a Trans-European Networks (TEN) priority investment project.

Construction of the pipeline began in 1994, and with the final compressor station coming online in 2006, the Yamal-Europe reached its designed annual capacity of 32.9 bcm. The pipeline has 14 compressor stations, a pipe diameter of 1,420 millimeters, and a total length of over 2,000 km.

The pipeline's starting point is the Torzhok gas transmission junction in Russia's Tver Region, where it receives gas from the Northern Tyumen Regions (SRTO)-Torzhok pipeline. The pipeline sector on Russian territory totals 402 km, with three compressor stations Rzhevskaya, Holm-Zhirkovskaya and Smolenskaya.

The pipeline's Belarusian sector is 575 km long, with five compressor stations Nesvizhskaya, Krupskaya, Slonimskaya, Minskaya, and Orshanskaya. Gazprom is the sole owner of the Belarusian sector of the pipeline.

The Polish sector is 683 km long, with five compressor stations Ciechanów, Szamotuły, Zambrów, Włocławek, and Kondratki. The Polish sector of the pipeline is owned by EuRoPol GAZ, a joint venture between Gazprom and Poland's PGNiG.

The pipeline's westernmost point is the Mallnow compressor station near Frankfurt (Oder) on the German-Polish border, where the pipeline connects to the JAGAL-Nord gas transmission system, which then connects to the STEGAL West-MIDAL-Rehden UGS gas transmission system; and STEGAL East-Olbernhau, where the German and Czech gas transmission systems link up. The German part of the pipeline is owned by Gascade Gastransport GmbH (before 1 March 2012 – WINGAS Transport).

To guarantee gas transmission to delivery points, additional capacity was booked with Gascade for deliveries to the Netherlands, Belgium, and France.

The Ukrainian corridor

The Ukrainian gas transport corridor includes the Urengoy-Pomary-Uzhgorod gas pipeline and south gas transport route towards Romania.

The Urengoy-Pomary-Uzhgorod gas pipeline runs through Ukraine to Slovakia. On 11 November 2008 the Agreement on gas transmission across Slovakia's territory was signed with Eustream a.s., covering transmission of around 1 trillion cubic meters of gas in total over 20 years.

Gas transit via Slovakia runs in the direction of Austria and plays an important role in supplying natural gas to Italy, Hungary, Slovenia, and Croatia. Russian gas transmission across Austrian territory to the Italian border uses the TAG gas pipeline, within booked capacities.

Another component of the Ukrainian gas transport corridor is its southern branch, running across Ukraine and Moldova to Romania. Romania plays an important strategic role in natural gas transit to the Balkan states and Turkey. Under an Intergovernmental Agreement signed in 1986, a transit pipeline was built on Romanian territory and used to deliver gas via Bulgaria to Turkey since 1987, to Greece since 1996, and to Macedonia since 1997. In order to increase Russian exports to the Balkan states and Turkey, an Intergovernmental Agreement to expand transit pipeline capacity in Romania was signed in 1996. Since 2002 transit capacity for exporting natural gas via Romania to other countries has been increased to 18.7 bcma.

Blue Stream

The Blue Stream gas pipeline is designed to supply natural gas directly to Turkey across the Black Sea. Blue Stream complements the Russia-Turkey gas transmission corridor running through Ukraine, Moldova, Romania, and Bulgaria.

This pipeline substantially added to supply security of Turkey, as well as facilitated the development of Turkey's gas market and gas infrastructure. Blue Stream also makes it possible to cover demand spikes in Turkey due to cold snaps in winter.

Taking into account that over 60 km of the pipeline's Russian onshore section runs across mountain territory, and the depth of the offshore section reaches 2.15 km in an aggressive hydrogen sulfide environment, some special technical solutions were required during construction in order to enhance the pipeline's reliability. These solutions included using pipes made from high-quality noncorrosive steel with inner and outer polymer coatings, running stress tests on the pipeline, using smart inserts in the mountain and offshore sections, and so on.

The total length of the Blue Stream pipeline is 1,213 km, and its designed throughput capacity is 16 bcma of gas.

Our main partner in building Blue Stream was Italy's ENI, which has extensive experience in building offshore pipelines.

In 2018, the volume of gas transported via Blue Stream reached 13.2 bcm.



Timeline of Nord Stream and Nord Stream 2 projects:

2006

September 2006, shareholders sign a Final Agreement, along with an Agreement on the basic terms for gas transmission.

2010

April 2010, construction of Nord Stream's first string begins in the Baltic Sea.

2011

15 August 2011, the laying of pipes for Nord Stream's first string is completed in the Gulf of Finland.

8 November 2011, the first string of Nord Stream comes online. After four years of planning and 18 months of intensive construction, Russian gas starts being delivered to the European gas transmission network.

2012

April 2012, the laying of pipes for Nord Stream's second string is completed throughout its route.

8 October, 2012, the second string of Nord Stream comes online, bringing the gas pipeline's total throughput capacity to 55 bcm. The project shareholders consider the preliminary findings of a feasibility study for building a third and fourth string for Nord Stream, deciding that construction is economically viable and technologically feasible.

2015

18 June 2015, Gazprom Chairman of the Management Committee Alexey Miller, E.ON Member of the Board of Management Klaus Schäfer, Shell CEO Ben van Beurden, and OMV Executive Board Member Manfred Leitner sign Memorandum reflecting the parties' intention to go ahead with building two new lines for Nord Stream from the Russian coast to the German coast via the Baltic Sea.

4 September 2015, a Shareholders' Agreement on implementing the Nord Stream 2 project is signed by Gazprom and its international partners (E.ON, Shell, OMV, Wintershall, and Engie).

2017

24 April 2017, Nord Stream 2 AG signed the financing agreements for the Nord Stream 2 gas pipeline project with Engie, OMV, Royal Dutch Shell, Uniper, and Wintershall. These five European energy companies will provide long-term financing for 50 per cent of the total cost of the project.

Early November 2017, Stralsund Mining Authority provided approval of mining activities in the area of the German continental shelf.

2018

27 March 2018, the Federal Maritime and Hydrographic Agency of Germany issued the permit for the construction and operation of the 30-kilometres-long pipeline section in the German Exclusive Economic Zone in accordance with the Federal Mining Act.

April 2018, the necessary set of approvals for the construction and operation of the Finnish Exclusive Economic Zone was received.

Mid May 2018, preparatory works started at the offshore section of the Nord Stream 2 pipeline for the subsequent pipelaying in the Bay of Greifswald.

7 June 2018, the project received permission by the Ministry of Enterprise and Innovation of Sweden to build and operate the Nord Stream 2 gas pipeline in the Exclusive Economic Zone of the kingdom. On the same day permit for building the Nord Stream 2 pipeline in Russia was issued by Ministry of Construction and Utilities of the Russian Federation.

5 September 2018, the Solitaire vessel started the pipelay for the Nord Stream 2 gas pipeline in the Gulf of Finland.



Nord Stream and Nord Stream 2

The Nord Stream pipeline directly links Russia and Germany, and is intended to play an important role in ensuring natural gas supply security and meeting additional gas demand in Europe. This route gives opportunity to minimize transit risks.

Nord Stream has two strings with an annual capacity of 27.5 bcm each. It runs along the Baltic Sea bed from Portovaya Bay near the city of Vyborg to the German coast near Greifswald. The total length of Nord Stream is 1,224 km.

Nord Stream AG (Switzerland) gas transportation company was established to plan, build, own, finance, and operate the gas pipeline.

The shareholders of Nord Stream AG are Gazprom (51%), E.ON (15.5%), Wintershall (15.5%), Gasunie (9%), and Engie (9%).

Ever since the Nord Stream pipeline came online, Gazprom has been looking into opportunities for expanding the capacity of this route. Eventually, at the 19th St. Petersburg International Economic Forum in June 2015, the top executives of Gazprom, E.ON, Shell, and OMV signed a Memorandum of Intent with a view to cooperating on a project to build two additional lines for Nord Stream. Like the first pipelines, these will run from the Russian coast via the Baltic Sea to Greifswald. The new gas pipeline will have an annual capacity of 55 bcm.

TurkStream

The purpose of creating a new transport corridor in southern Europe is to increase the volume of natural gas exports to the region and ensure security of supply.

Initially, this purpose was to have been served by the South Stream project. However, in December 2014 it was decided to cancel the project, because Bulgaria had not issued a construction permit for the gas pipeline's offshore section. At the same time, Gazprom and Turkey's BOTAŞ Petroleum Pipeline Corporation signed a Memorandum of Understanding on building a gas pipeline across the Black Sea to Turkey. The project was named TurkStream.

The first string of the pipeline is intended for Turkish consumers, while the second string will deliver gas to European customers. The first and second strings of TurkStream will have the throughput capacity of each string is 15.75 bcm.

TurkStream's offshore section will run from the Russkaya CS near Anapa across the Black Sea to the Turkish seaboard. The Pipeline's landing point to be in the European part of Turkey, near the town of Kiyikoy. Further, an onshore string for gas transit to be laid up to Turkey's border with neighboring countries.

The project meets all modern environmental safety standards. The construction and utilization technologies for the subsea gas pipeline will have minimal impact on the sea floor's ecology and geology, water quality, and the marine environment, including the habitat of marine life, mammals, sea birds, and fisheries.

Timeline of the TurkStream project:

2014

1 December 2014, Gazprom and BOTAŞ Petroleum Pipeline Corporation signed the Memorandum of Understanding to construct a gas pipeline running across the Black Sea toward Turkey.

2015

7 February 2015, Gazprom Chairman of the Management Committee Alexey Miller and Minister of energy and natural resources of Turkey Taner Yıldız determined the route's key reference points and technical solutions for the gas pipeline on Turkish territory.

2016

10 October 2016, the Government of the Russian Federation and the Government of the Turkish Republic inked the Agreement on the TurkStream project.

8 December 2016, South Stream Transport B.V. (a wholly-owned subsidiary of Gazprom) and Allseas Group S.A. signed the contract to build the first string of the TurkStream gas pipeline's offshore section with an option for laying the second string.

2017

20 February 2017, South Stream Transport B.V. and Allseas Group signed a contract to build the second string of the gas pipeline's offshore section.

7 May 2017, construction of the TurkStream gas pipeline was commenced in the Black Sea near the Russian coast.

23 June 2017, the docking of the shallow and deep-water parts of the TurkStream gas pipeline took place and the laying of the deep-water section started.

2018

22 July 2018, nearshore works for the TurkStream pipeline started in Turkey.

19 November 2018, Vladimir Putin, President of the Russian Federation, and Recep Tayyip Erdogan, President of the Republic of Turkey, took part in the ceremony marking the completion of the offshore section of the TurkStream.



1 «YAMAL-EUROPE»
GAS PIPELINE

Design capacity per annum	32,9 bcm
Length	> 2000 km
Pipe diameter	1420 mm

2 «NORD STREAM»
GAS PIPELINE

Design capacity per annum	55 bcm
Length	1224 km
Pipe diameter	1220 mm

Ukrainian Corridor

3 «URENGOY-POMARY-UZHGOROD»
GAS PIPELINE

Design capacity per annum	32 bcm
Протяженность	4451 km
Диаметр труб	1420 mm

4 «SOYUZ»
GAS PIPELINE

Design capacity per annum	26 bcm
Length	2750 km
Pipe diameter	1420 mm

5 «PROGRESS»
GAS PIPELINE

Design capacity per annum	28,5 bcm
Length	3473 km
Pipe diameter	1420 mm

6 «TRANS-BALKAN»
GAS PIPELINE

Design capacity per annum	20 bcm
Length	2750 km
Pipe diameter	800-1200 mm

7 «BLUE STREAM»
GAS PIPELINE

Design capacity per annum	16 bcm
Length I Offshore section	1213 km I 396 km
Pipe diameter	600-1400 mm

8 «NORD STREAM - 2»
GAS PIPELINE
(project)

Design capacity per annum	55 bcm
Length	~1200 km
Pipe diameter	1220 mm

9 «TURKSTREAM»
GAS PIPELINE
(project)

Design capacity per annum	31,5 bcm
Length	> 900 km
Pipe diameter	813 mm

10 «POWER OF SIBERIA»
GAS PIPELINE
(project)

Design capacity per annum	38 bcm
Length	3000 km
Pipe diameter	1420 mm



Timeline of the Power of Siberia project:

2009
2009, Gazprom and CNPC signed a Framework Agreement on the basic terms for supplying natural gas from Russia to China, foreseeing exports of up to 68 bcma to the Chinese market.

2010
2010, the Expanded Basic Terms for gas supply from Russia to China were signed.

2013
September 2013, Gazprom and CNPC signed an Agreement on the basic terms for pipeline gas supply from Russia to China via the Eastern route.

2014
21 May 2014, Gazprom and CNPC signed a contract for Russian pipeline gas supply to China. The contract is effective for 30 years, with annual deliveries of 38 bcm.

1 September 2014, a festive ceremony in Yakutsk marked the welding of the first joint of the Power of Siberia gas transmission system. It will be a highly important element of the gas supply system under construction in eastern Russia.

13 October 2014, in Moscow, Gazprom and CNPC signed a Technical Agreement – a supplement to the Sales and Purchase Agreement for natural gas supply via the Eastern Route. This document sets out the basic parameters for designing, building, and operating the cross-border section of the Power of Siberia gas trunkline. It also contains the basic technical and technological specifications for delivering gas from the seller to the buyer.

2015
17 December 2015, in Beijing, Gazprom and CNPC signed an Agreement on designing and building the cross-border section of the Power of Siberia pipeline, including an underwater passage across the Amur River.

2016
4 September 2016, in Hangzhou, China, Gazprom and CNPC singed an EPC-contract for construction of a subwater crossing under the Amur River within Power of Siberia's cross-border section.

2017
4 July 2017, Gazprom and CNPC signed the Supplementary Agreement to the Sales and Purchase Agreement, which narrows the timeframe for the supply start to December, 2019.

December 2017, the special technical agreements that fix the regime of parties' interaction within commissioning and the set-up of gas supplies in accordance with Sales and Purchase agreements finalized and agreed.

2018
2018, the main part of the Power of Siberia gas pipeline from the Chayanda field to the Russian-Chinese border in the Amur Region was constructed.

Power of Siberia

The first joint of the Power of Siberia gas transmission system was welded in Yakutsk on 1 September 2014. This system will deliver gas from the Yakutsk and Irkutsk production centers to consumers in the Russian Far East and China. The gas transmission system will run across five Russian regions: the Irkutsk Region, the Republic of Sakha (Yakutia), the Amur Region, the Jewish Autonomous Region, and the Khabarovsk Krai. The gas pipeline total length will be around 4,000 km, with annual designed capacity of 61 bcm (including 38 bcm for the Chinese market).

In 2018, the main part of The Power of Siberia gas pipeline from the Chayanda field to the Russian-Chinese border in the Amur Region was constructed. Further plans include building a sector from the Kovykta field in the Irkutsk Region to the Chayanda field (around 800 km), and later a sector from the city of Svobodnyi in the Amur Region to the city of Khabarovsk (around 1,000 km). Thus, Power of Siberia will connect with the Sakhalin-Khabarovsk-Vladivostok gas transmission system.

The development of the Yakutsk gas production center is based around the Chayanda oil and gas condensate field. This field's reserves (C1+C2 categories) make it unique: around 1.45 trillion cubic meters of gas and around 93 mln t of liquid hydrocarbons (recoverable reserves). To isolate valuable components (including helium and ethane) from the gas, Gazprom is building the Amur gas processing plant in the Amur Region.

Development of the Chayanda field's gas deposit and construction of the Amur gas processing plant started in 2015.





GAS STORAGE

To ensure uninterrupted gas supply to European consumers in peak demand periods or during gas transmission system maintenance, and in order to increase gas sales, Gazprom Group has adopted an underground gas storage (UGS) system development strategy. Potential storage facilities must be located close to pipelines used for natural gas transporting. As a rule, Gazprom Export builds UGS facilities in cooperation with local partners.

Between 2006 and 2017, Gazprom Export's gas storage capacity in Europe increased from 1.4 to 5.0 bcm, and daily output rose from 18.2 to 83.3 mcm.

Gazprom Group participates in underground gas storage projects in the countries along Russia's main gas export routes:

- Gazprom Export and WINGAS operate Europe's largest UGS facility **Rehden** in Germany, with 4.7 bcm storage capacity;
- Together with international partners, Gazprom Group is working on the **Etzel** and **Jemgum** UGS projects in Germany. Gazprom Group's active storage capacity in Etzel totals to 350 mcm, with daily output of some 7 mcm. In **Jemgum** project, located in northern Germany, Gazprom Group's active storage capacity totals to around 800 mcm, and daily output to about 20 mcm.
- Gazprom Export, WINGAS, and RAG operate the **Haidach** UGS in Austria. As the second phase of the project was completed, the active gas volume of UGS reached 2.8 bcm. The **Haidach** UGS ensures natural gas supply security in the direction of the Baumgarten hub and for consumers in Slovenia, Croatia, Hungary, Austria, Germany, Slovakia, and Italy;
- Together with German VNG we are working on the **Katharina** UGS project in Germany. This UGS facility is designed to handle daily output of 26 mcm, with an active gas volume of about 650 mcm. Its current active volume is 300 mcm. This UGS facility ensures supply security for Western Europe at the Mallnow, Waidhaus, Gaspool, and NCG delivery points, as well as for the supplies through the Nord Stream pipeline;
- In Serbia, Gazprom Export has implemented the **Banatski Dvor** UGS project, with an active volume of 450 mcm of gas. Gazprom Group holds a 51% stake in this project. This UGS facility ensures natural gas supply security for Hungary, Serbia, Bosnia and Herzegovina. Project partners are actively cooperating to justify the expansion opportunities of the overall active capacity of **Banatski Dvor** up to 0.75 bcm.
- The **Bergermeer** UGS in the Netherlands, where Gazprom has booked 1.8 bcm in storage capacity, was commissioned in 2014. This UGS facility has a strategic location and is intended to ensure the stable operation of the Nord Stream pipeline and security of gas supply;
- Together with Moravské naftové doly (MND) in the Czech Republic, we continue the development of the **Dambořice** UGS facility, commissioned in the summer of 2016. In 2018, its active storage capacity increased to 257.6 mcm, and the maximal project capacity is 456 mcm. This project will ensure Russian natural gas supply security for the OPAL and Nord Stream pipelines.

Gazprom Group is also conducting feasibility studies with a view to participating in UGS projects located in Austria, Slovakia, China and several other countries.



EXPORTS OF CRUDE OIL, PETROLEUM PRODUCTS, SULFUR

CURRENT ACTIVITY

In 2018, Gazprom Export exported 4.8 mln t of liquid hydrocarbon products and refined products, worth a total of around $1.74 bn. These commodities were sold under commission contracts with Gazprom, subsidiaries, and independent producers of oil and gas chemistry products, on the different supply terms including FCA, FOB, CPT.

Gazprom Export's product portfolio included gas-derived sulfur, stable gas condensate (SGC), gas condensate distillate, benzene, diesel fuel, fuel oil, liquefied petroleum gas (LPG) and small-scale LNG (ssLNG), helium, carbon black, and a number of other petroleum products and petrochemicals. Main producers are the Astrakhan gas refinery, the Orenburg gas refinery, the Surgut condensate stabilization plant (CSP), the Urengoy CTPP, the Sosnogorsk gas refinery and the Salavat oil refinery.

In 2018, the total volume of exported products was comparable to the level of previous years. To maintain strong sales revenues against a volatile market background, the company has taken steps to improve the efficiency of export supplies, including cost cutting with respect to transportation, transshipment and survey services, by optimizing its sales channels and consolidating export flows.

Petroleum products and stable gas condensate (SGC)

In 2018, the company exported roughly 2.28 mln t of petroleum products and SGC, worth a total of around $1.34 bn. The volume of exported products remained on the previous year level with revenue growth of 23% compared to 2017. The SGC export volumes has doubled compared to 2017, as well as the range and geography of product supplies has also been expanded. In terms of petroleum products exports, Gazprom export is holding a leading position in the domestic industry. During the reporting period, the main export destinations were European region as well as Azerbaijan, Mongolia and the Republic of Kazakhstan. In connection with the planned commissioning of the Amur gas processing plant within the Eastern Gas Program, and in connection with the start of supplying the oil-gas condensate mixture and SGC from the Eastern Siberia fields through the Eastern Siberia – Pacific Ocean pipeline, the markets for oil and oil products in the Asia-Pacific Region are being studied.

Sulfur

In 2018, Gazprom Export exported around 2.201 mln t of gas-derived, technical, and granulated sulfur.

Sulfur exports to countries outside the former USSR (the North Africa, the Mediterranean region, etc.) and former Soviet states (Lithuania, Belarus) were carried out on a remote basis, including via Russian river and sea ports.

Throughout the 2018, the company managed to maintain the Group's key traditional markets in Far Abroad (Brazil, Tunisia, Israel and Lebanon) and FSU countries (Lithuania and Belarus). At the same time, in 2018, additional diversification was ensured in the geography of the distribution of goods through exports to consumers in Namibia, Senegal, China, South Africa, Argentina, Uruguay, etc. Thanks to timely concluded deals, the company managed to capitalize the market opportunities and increase the revenue compared to 2017.

Helium

Gazprom Export exports Gazprom Group' helium to international markets. Today, the commercial helium is produced by the helium plant of Gazprom Dobycha Orenburg in gaseous and liquid forms in total volume of up to 5 mcm annually. Up to 70% of helium produced is consumed on the internal market of Russia and of the Customs Union, and the rest is delivered for export. The traditional export markets of liquid helium are EU countries and Turkey.

After the Amur gas processing plant, helium production capacity of which is planned to reach 60 mcm by 2026, is commissioned in 2021, the helium export portfolio will be diversified, and Gazprom Group will become one of the leading suppliers for the Asian-Pacific region. The helium produced on the Amur plant will be mostly destined for exports. We expect that Japan, China, South Korea, Taiwan and other Asia-Pacific region countries will become its main customers.

Gazprom Export exports helium, signs long-term export contracts, and together with other Gazprom Group companies and partners, participates in creation of the



logistics infrastructure that secures efficient supplies to international markets. A project for creating a specialized helium hub is being implemented for logistics of helium in Primorsky Krai of Russia. From there,helium containers, prepared for export, will be sent to the ports of the Russian Far East and further to global markets. Gazprom Export actively participates in designing the functional responsibilities of this specialized infrastructure object.

Liquefied petroleum gas

In 2018, the company exported 202.45 thousand tons of technical propane-butane as well as exported test batches of technical propane (0.6 thousand tons) to the Estonian market and shipped 15 thousand tons of a natural gas liquids to the Republic of Belarus.

Gazprom managed to retain its positions on the major export markets of Hungary, Poland, Bulgaria, Latvia and Estonia. In addition to the traditional directions of deliveries, the company carried out shipments to the markets of Romania and Serbia.

Small-scale LNG (ssLNG) exports

In 2018, export sales of ssLNG by Gazprom Export increased by 36% compared to 2017 (from 34.9 thousand tons to 47.3 thousand tons) thanks to the diversification of supplies in the European markets. In particular, ssLNG was shipped by road transport to Lithuania and Latvia, deliveries to Finland were resumed, as well as additional volumes were contracted from existing small-scale natural gas liquefaction plants.

Petrochemical products

In 2018, Gazprom Export exports:

- 25.33 thousand tons of carbon black produced by the Sosnogorsk Gas Processing Plant. Its main markets were Europe, Turkey and North America;
- 42.3 thousand tons of petrochemical products produced by LLC Gazprom Neftekhim Salavat to the markets of Europe, Turkey, India, as well as North and South America;
- 600 tcm of helium, both liquid and gaseous, as well as 500 tons of natural gas odorant, mainly dedicated to the markets of the CIS countries and Europe.

Activities under the European REACH Regulations

Gazprom Export and its Special Representative in the EU, GM&T France, are continuing to work on tracking Gazprom Group products registered in compliance with the requirements of REACH/CLP Regulations. We perform constant monitoring of the updates in applicable legislation of the EU and other countries regarding chemical substances. The safety certificates are being updated in line with the new requirements, including classification and labeling; additional research into the component composition and physical-chemical properties in line with the European Chemical Agency (ECHA) standards is performed. New products are being registered reasonably in advance to ensure their reliable exports to the EU.

FUTURE AREAS OF ACTIVITY

Within its Eastern Gas Program, aside from its natural gas part, Gazprom also aims to create a number of large-scale processing facilities in Eastern Siberia and the Far East. With this, by 2020 the commercial production of the oil-gas condensate mixture will start on the Chayanda gas condensate field. Gazprom Export will export this product via the East Siberia—Pacific Ocean pipeline to China.

As Eastern Siberia's fields are being developed, the implementation of large-scale projects involving production of helium and LPG in the Amur region evolves into a special area of activities. This development will make Gazprom Group one of the leading supplier of these products to the Asia-Pacific region markets.

Within Gazprom's massive strategic project for creation of gas production, transmission and processing capacities for the gas from Eastern Siberia, Gazprom Export is working on the helium and LPG marketing, as well as conclusion of the long-term export contracts. Together with other companies and partners of the Group, Gazprom Export participates in creation of logistics infrastructure that secures stable helium and LPG supplies to international markets.

Within the construction on the Novy Urengoy Gas and Chemical complex (NGCC), Gazprom Export joined Gazprom in developing a strategy for the sale of high-pressure polyethylene abroad. This business area encompasses works on optimizing the brand assortment of NGCC products in view of current and future market conditions, as well as analysis of logistical possibilities to deliver the product to its final customers.





NATURAL GAS AS MOTOR FUEL

Reducing harmful emissions in transport is an important global challenge. Among other ways, it can be met through the use of more environmentally friendly fuels. Broader use of natural gas is an efficient way to reduce emissions in transport. Gas is a readily available, technically and environmentally safer, and less expensive fuel compared to conventional petroleum products.

CO_2 emissions of the gas vehicles are a quarter less than for cars running on gasoline. Methane-fueled engines emit approximately 95% less carbon monoxide than diesel engines, while emissions of solid particles from gas-powered engines are almost zero. Modern originally manufactured gas-powered vehicles comply with the Euro 6 emissions standards.

One of the key challenges in developing gas as transport fuel is the lack of fueling infrastructure for both compressed and liquefied natural gas (CNG and LNG). Gazprom Group is interested in developing the market for gas as motor fuel, both in Russia and abroad, including Europe; and contributes to the development of gas fueling infrastructure.

On the European market, our company is represented in the gas as motor fuel segment by a subsidiary Gazprom NGV Europe (NGVE), which is active in Germany, Czech Republic and Poland. As of the end of 2018, NGVE owned 65 gas filling compressor stations selling CNG; and 2 cryo filling stations selling LNG. Our company actively participates in the work of international and national associations on the implementation of small-scale LNG as a fuel for commercial and cargo trucks, public and municipal transport, as well as for marine and river vessels.

Since 2008, Gazprom Group together with German Uniper (previously E.ON Global Commodities) organizes the Blue Corridor Rally. Every year, a convoy of gas-fueled vehicles travels thousands of kilometers across Europe, proving that massive transport flows could be much less harmful to the environment if gas-fueling infrastructure develops further. In 2018, gas-powered vehicles rally went beyond the European continent for the first time, passing almost 10.000 km along the Europe–China international transport route. The rally started on 4 September 2018 in the Chinese town of Rudong. The ceremonial finish took place on 4 October 2018 within the framework of the 8th St. Petersburg International Gas Forum. The crews of NGVs have completed almost ten thousand kilometers through China, Kazakhstan and Russia, showing reliability, environmental friendliness and affordability of CNG and LNG fueled vehicles. During the rally a series of round tables with participation of NGV manufactures and dealers, LNG and CNG vehicles users and service providers, as well as government officials was organized. All in all 15 LNG and CNG fueled vehicles took part in the rally.

Passenger vehicles are fueled with compressed natural gas (CNG) while large commercial vehicles, municipal public transport and marine or river vessels are usually fueled with liquefied natural gas (LNG).

In 2018, according to Global Gas Engine Fuel Association, the total number of NGVs reached 27 million. According to International Gas Union forecasts, by 2030, the share of vehicles on natural gas could total to 4% of the global engine fuel balance, while demand for gas as motor fuel in Europe could climb to 40 bcm.

Gazprom Group promotes the expansion of natural gas utilization as a motor fuel by motorsport events as well. In 2013 and 2014, Gazprom Group sponsored the Sirocco R-Cup racing series to promote the use of natural gas as motor fuel. At all stages of the races held annually from 2010 to 2014, only factory-built CNG-fueled Volkswagen Siroccos with two-liter turbo engines took part. Gazprom was the exclusive fuel supplier for these vehicles. In 2016, Gazprom Group sponsored the Audi TT racing series and provided a gas-powered Audi A3 as a safety car for these races.

Gazprom Group owns over 11600 vehicles running on natural gas, the largest corporate vehicle fleet of the kind in the world.





ECOLOGY

Environmental advantages of natural gas

At the COP21 conference on climate in Paris, the global community expressed its commitment to the reduction of harmful emissions into the atmosphere. Together with renewable energy sources, natural gas, being an environmentally friendly fuel, can play a significant role in the development of low-carbon economy of the future, and in achievement of targets stipulated at COP21.

The substitution of coal by natural gas in power generation can significantly reduce greenhouse gas emissions ("carbon footprint") and pollutant emissions ("toxic footprint"): nitrogen oxides – by up to 32%, sulfur dioxide – by up to 99%, carbon monoxide – by up to 68%, ash and soot – by up to 100%, carbon dioxide – by up to 50%. In many regions of the world, use of gas can prevent smoke fog and impact positively on the environment and people's health.

Natural gas can become a basis for the future low-carbon energy. Gazprom already performs practical projects to develop innovative technologies to product methane hydrogen mixes and hydrogen from natural gas without carbon dioxide emissions.

Gasification of transport also offers good opportunities. It is estimated that using gas as motor fuel can reduce greenhouse gas emissions by 25-30% in comparison with petrol and diesel fuel. "Toxic footprint" of NGV for the whole production chain is three times smaller than by petrol-engine cars, and five times smaller than by diesel ones.

Gazprom Export's contribution

Being world's largest natural gas supplier, Gazprom Export makes significant contribution to reduction of harmful environmental impact. Beside Europe, large volumes of Gazprom's pipeline gas will reach the largest Asian market, China, within few years. Authorities of China in the recent five-year Plan of Gas Industry Development confirmed that increase of natural gas share in the energy balance will be a key method to tackle the air pollution problem, and the gas should become 'one of the major energy resources'. Significant part of new demand for imported natural gas in China can be met by Russian gas supply.

Compliance with environmental standards in projects development

Gazprom pays much attention to environment protection issues while implementing its infrastructure projects to supply natural gas to its clients abroad. All in all, over €100 mln was invested within Nord Stream and Nord Stream 2 projects in studies of environment impact evaluation and in holding public hearings aimed at ensuring minimal environmental and social impact.

Close attention to environment protection is paid in implementation of TurkStream project as well. Gazprom has invested large amounts in engineering research and studies of routes and environment, to develop a project of a safe offshore gas pipeline. Part of this work is a preparation of environmental impact assessment reports for Russia and Turkey.



Environmental issues are extremely important in implementation of Power of Siberia gas pipeline project from Russia to China. To minimize the impact, Power of Siberia route is drafted to pass mainly over open wood and old fire sites. In addition, rapid-deployed self-propelled river crossings are used in the construction. Their advantages include absence of middle supports for a passage over a river, brook, or ravine, which is very important to preserve the eco-systems.





CHARITY AND SPONSORSHIP

Charity and sponsorship are integral to activities of Gazprom Export. On a regular basis the company provides support for various social, cultural, sport, educational, and other projects to further the effective and constant development of a dialogue between society and business.

One of the Gazprom Export charity priorities is working with social institutions for children and other organizations on implementation of long-term projects providing aid to challenged children. These projects are aimed at children's involvement in various adaption programmes allowing them to obtain new social skills. It facilitates their integration into a full child and later, adult life.

For many years now, Gazprom Export has cooperated with Independent Non-commercial Charity Organisation "House of the Future". In 2018, the active collaboration, among other major results, allowed the implementation of a number of social projects for rehabilitation and social integration of children suffering from CP and other disorders, orphans and children deprived of parental care. Moreover, centers for children with special needs have been modernized and provided with special, educational and development equipment; a number of social, recreational and educational activities were organized.

In 2018, in cooperation with charitable organization MASK Gazprom Export has also conducted many events for children in social and rehabilitation centers.



A long-term programme of social adaptation "I Learn from You", which had been implemented for more than 10 years in residential care facilities of Smolensk and Smolensk Region, has received further support from Gazprom Export. This unique programme operates in two areas: preparing children from disadvantaged social groups for independent life after they graduate from residential care facilities, and further guiding them during their first year after graduation – performed through the "I Learn from You" Graduate Club". The similar project called "The Guiding Graduates' Programme" has been also successful realized in Centre for children in Kostroma Region and is aimed at helping children deprived of parental care.

In 2018, Gazprom Export also cooperated with several charitable foundation. It provided support for a programme "Help for the family", which is organized by the 'Life as Miracle' Charity Fund that helps children with serious hepatic disorders. Within the programme, the foundation purchases necessary medical drugs, covers medical examinations, as well as operations and rehabilitation. Besides, the company supported charitable foundations "AdVita", which helps people with cancer diseases, and "Hospital for children" under the biggest Russian Center for burns treatment. Through this collaboration the medical institutions were supplied with essential drugs and equipment.

The International Open World project for children, successfully implemented for many years in Austria and Germany, holds a special place among Gazprom Export's social programmes. The main goal of this integration project is the development of potential and communicative skills of creative children, including those without parental support and those from disadvantaged groups. Besides, special attention is paid to extension and strengthening of cultural ties and establishment of new contacts between children from Russia and the European countries. The programme was developed and is being implemented by Gazprom Export and Austrian social foundation "Energy for life". Within this cooperation, International summer art academy "Energy for life" was organized in 2018 and hosted many children from Russia, Europe and the CIS. The International Kids







Memorandum of Understanding on the implementation of a joint cultural project. The State Hermitage and the Vienna Art History museum presented their joint exhibition “Imperial Capitals. St. Petersburg – Vienna. Masterpieces of museum collections” in summer in Vienna, and in autumn in Saint-Petersburg. The exhibition comprised twenty-eight paintings from the two museums selected on the basis of their authorship, resemblance of the plot, or composition. Both exhibitions were opened by the leaders of Russia and Austria.

Gazprom Export and OMV traditionally organized bilateral New Year events for children: the Energy for Life charity Christmas ball at the Vienna Hofburg Palace, and





Moscow Theatre of Nations in Istanbul as part of the festival “Golden Mask”. The troupe presented a play “Hamlet/collage”. “Golden Mask” has become preceded the Russia-Turkey Year of Culture events in 2019.

One of the integral elements of Gazprom Group sponsorship strategy is support for sport projects – hockey and football teams, tennis tournaments as well as youth sports schools and student teams.

Gazprom Export constantly and actively participates in various charity and sponsorship projects proving that social responsibility is an essential component of a modern company’s development.



the New Year charity ball for children in Nikolayevskiy Palace in St. Petersburg. The celebrations were marked by ballet performances organized by the students of two oldest dance schools in the world – Vaganova’s Ballet Academy in St. Petersburg, and Vienna State opera’s ballet academy. The feast in Vienna also included the ceremony of transferring donations from Gazprom Group, OMV Company and Caritas Charitable Organization. The money will be used to implement the MOMO Kinderhospiz programme – to create a mobile children’s hospice providing comprehensive assistance to terminally ill children at their homes.

For many years Gazprom Export has actively worked to promote abroad the highlights of the Russian art. In 2018, Gazprom Export assisted foreign concert tour of







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