

GAS TRANSPORTATION AND MARKETING

9 November saw the ultimate transfer of 100% of shares in JSC KazTransGas to JSC Samruk-Kazyna Sovereign Wealth Fund (the "Fund"). Prior to this transfer, KazMunayGas was the beneficiary owner of KazTransGas. KTG shares were transferred to the Fund to carry out the commission of the Council for the Fund Governance (chaired by Nursultan Nazarbayev, the First President of Kazakhstan) dated 3 June 2020 and the commission of President Kassym-Jomart Tokayev to establish a national gas exploration, production, and transportation operator given at an enlarged meeting of the Government on 26 January 2021. KTG had been part of KMG since the national company's establishment in 2002. During this period, KMG invested around KZT 143 bln in KTG in cash and property. This resulted in a more than 20x increase in KTG's assets from KZT 125 bln to KZT 2.5 tln, while equity and annual revenue grew from KZT 61 bln to KZT 1.6 tln and from KZT 85 bln to KZT 900 bln, respectively. Since the establishment of KTG, more than 10,000 km of trunk gas pipelines have been laid and launched in Kazakhstan. Currently, KTG operates over 20,600 km of trunk gas pipelines and over 59,000 km of gas distribution networks.

It should be noted that the 2021 gas transportation data represent the period from 1 January to 8 November 2021.

Gas pipeline infrastructure

JSC KazTransGas (KTG) (JSC NC QazaqGaz starting 2022) is Kazakhstan's national gas and gas supply operator. KTG operates the centralised infrastructure for commercial gas transportation via trunk pipelines and gas distribution networks, supports international transit and marketing of gas on the domestic and foreign markets, as well as designs, finances, builds and operates gas pipelines and gas storage facilities.

KTG operates the largest trunk gas pipeline network in Kazakhstan with a total length of over 20,600 km, including 2,728 km of pipeline branches, as well as gas distribution networks with a total length of over 59,000 km. Gas transportation is supported by 42 compressor stations and 238 compressor units.

Intergas Central Asia (ICA) is the national gas pipeline operator and a wholly-owned subsidiary of KTG.

Today, ICA carries out export, internal transportation and transit of natural gas within the territory of Kazakhstan through gas pipelines with a total length of 12,532 km and a 185.5 bln m³ per year capacity.

ICA operates three underground gas storages (UGS):

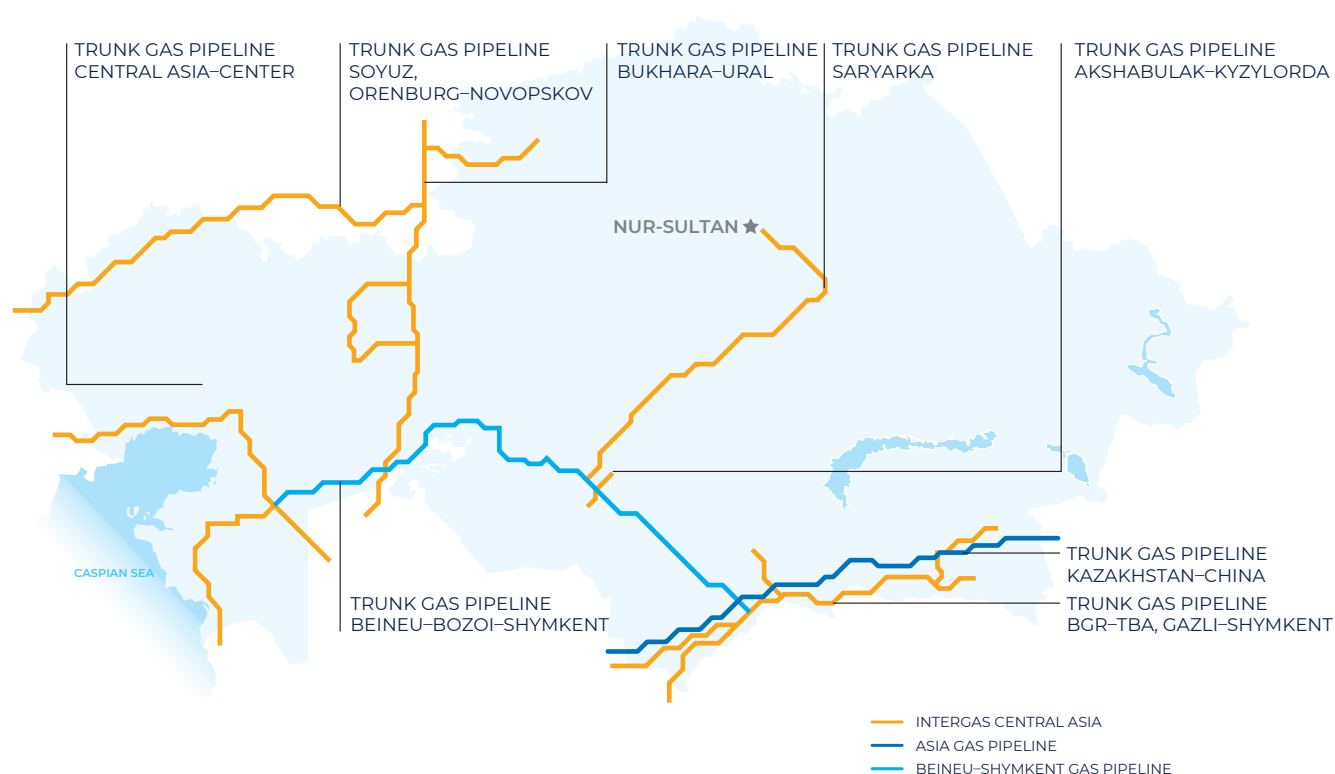
- Bozoykskoye UGS in the Aktobe Region;
- Poltoratskoye UGS in the South Kazakhstan Region;
- Aktyubinskoye UGS in the Zhambyl Region.

Asia Gas Pipeline LLP (AGP) is a 50/50 joint venture between JSC KazTransGas and Trans-Asia Gas Pipeline Company Ltd. (shareholder – CNODC, a subsidiary of CNPC), launched to finance, build and operate the Kazakhstan–China gas pipeline. The purpose of the project is to facilitate the transit of Turkmen and Uzbek gas to China, exports of Kazakh gas to China, as well as uninterrupted gas supply to southern regions of Kazakhstan.

The pipeline comprises three strings: A and B, with a total length of 2,612 km and throughput capacity of 30 bln m³ per year, and the 1,304 km String C with a throughput capacity of 25 bln m³ per year.

Beineu-Shymkent Gas Pipeline LLP is a 50/50 joint venture between JSC KazTransGas and Trans-Asia Gas Pipeline Company Ltd. (shareholder – CNODC, a subsidiary of CNPC). The project is of paramount strategic importance to the Republic of Kazakhstan,

Management company	JSC Intergas Central Asia (ICA)	Asia Gas Pipeline LLP	Beineu-Shymkent Gas Pipeline LLP	JSC KazTransGas Aimak (KTGA)
Interest	KTG: 100 %	KTG: 50 %	KTG: 50 %	KTG: 100 %
Key destinations	Exports, domestic market and transit	Exports and transit to China, domestic market	Exports to China, domestic market	Trunk pipeline gas transportation to the domestic market, transportation via gas distribution systems
Key routes	Kazakhstan, Russia, Uzbekistan and Turkmenistan	Kazakhstan–China	Beineu–Bozoi–Shymkent	n/a
Total length, km	15,260	3,916	1,454	59,182
Capacity, bln m³ per year	198	55	15	-



as it supplies the natural gas needs of Kazakhstan's southern regions, enables diversification of Kazakhstan's gas exports, ensures energy security of the country, and builds a unified gas transportation system.

The Beineu–Bozoi–Shymkent trunk gas pipeline is the second section of the Kazakhstan–China gas pipeline. The gas pipeline connects the western oil and natural gas fields with the southern regions of the country, as well as with the Bukhara gas-bearing region – Tashkent–Bishkek–Almaty gas pipeline, the Gazli–Shymkent gas pipeline and String C of the Central Asia–China gas pipeline. The actual length of the Beineu–Shymkent gas pipeline is 1,454 km, and its capacity is 15 bln m³ per year.

JSC KazTransGas Aimak (KTGA)

is the largest gas distributor in Kazakhstan, operating more than 59,000 km of distribution and 2,728 km of trunk gas pipelines across all ten regions and three cities of national significance connected to the gas grid.

KazTransGas Aimak's key objectives:

- Ensuring commercial gas supplies
- Transportation of gas via distribution networks
- Management of gas transportation assets in the regions.

Company	Trunk gas pipeline/gas pipeline	Length, km	Capacity, bln m ³ per year
Intergas Central Asia	Soyuz, Orenburg–Novoposkov	805	40.4
	Central Asia–Center	4,149.2	47.2
	Bukhara–Ural	1,567.8	44.6
	BGR–TBA ¹ , Gazli–Shymkent	1,903.4	24.4
	Akshabulak–Kyzylorda	123	0.42
	Saryarka ²	1,061.3	2.7 ³
Asia Gas Pipeline	Kazakhstan–China	3,916	55
Beineu–Shymkent Gas Pipeline	Beineu–Bozoi–Shymkent	1,454	15

¹ The Bukhara gas-bearing region – Tashkent–Bishkek–Almaty.

² Saryarka trunk gas pipeline was leased to ICA, but is owned by JSC AstanaGaz KMG, which has JSC Samruk-Kazyna and JSC Baiterek Venture Fund as its shareholders (50%/50%).

³ For the 1st stage of the gas pipeline, the design and actual capacity is 2.2 bln m³ per year.

Trunk pipeline gas transportation

From 1 January to 8 November 2021, the volume of gas transported through KMG's trunk pipelines amounted to 81,851 mln m³. Comparing the total annual volumes in 2020 and 2021, trunk pipeline gas transportation was up 10.2% to 95,422 mln m³, mainly due to higher Central Asian gas transit flows to Russia and China, as well as higher gas consumption in Kazakhstan's market. At the same time, gas export is declining due to redistribution of some gas volumes to the domestic market as well as reduced commercial gas production by large suppliers.

Gas distribution and regional expansion of gas infrastructure

In 2021, two projects were successfully completed:

[Gas infrastructure expansion in Almaty, Almaty gas distribution infrastructure upgrade and reconstruction](#)

As a result of the project, 4,100 new customers were provided with gas, 226 km of new pipelines were built, 95.6 km of existing pipelines reconstructed, and 36 gas control units installed.

[Construction of the gas distribution infrastructure for the 1st and 2nd start-up complexes of Phase 2 in Nur-Sultan](#)

Gas distribution infrastructure of 100.581 km is built to 3 residential areas: Internatsionalny, Michurino, and Kuygenzhar. Five block-type gas distribution plants and five gas-control units were installed. At year-end 2021, 71 customers and 1 municipal enterprise were connected at Internatsionalny, Michurino, and Kuygenzhar residential areas. It is planned to connect 1,644 customers.

Volume of gas transportation, mln m³

Company	2019	2020	2021
Intergas Central Asia (100%)	72,961	57,753	54,874
export	19,069	12,687	7,606
transit	40,229	30,788	34,940
domestic market	13,663	14,278	12,329
Asia Gas Pipeline (100%)	45,870	39,776	41,611
export	7,090	7,011	4,938
transit	38,280	31,878	35,294
domestic market	500	886	1,379
Beineu-Shymkent Gas Pipeline (100%)	10,087	12,694	10,709
export	7,091	7,011	4,907
domestic market	2,996	5,682	5,802
KazTransGas Aimak (100%), domestic market	2,554	2,603	816

Gas transportation volumes (net to KMG), mln m³

Total trunk pipeline gas transportation	2019	2020	2021
Intergas Central Asia (100%)	72,961	57,753	54,874
Asia Gas Pipeline (50%)	22,935	19,888	20,805
Beineu-Shymkent Gas Pipeline (50%)	5,044	6,347	5,354
KazTransGas Aimak (100%)	2,554	2,603	816
Total	103,494	86,590	81,851

Structure of gas transportation by destination in 2021, %

Company	Export	Transit	Domestic market
Intergas Central Asia	14	64	22
Asia Gas Pipeline	12	85	3
Beineu-Shymkent Gas Pipeline	46	n/a	54
KazTransGas Aimak	n/a	n/a	100

Gas turnover (commodity transportation volumes), mln m³*km

Company	2019	2020	2021
Intergas Central Asia (100%)	22,325	16,302	16,227
Asia Gas Pipeline (100%)	57,470	49,337	51,711
Beineu-Shymkent Gas Pipeline (100%)	14,669	17,831	14,064

Gas turnover (commodity transportation volumes) (net to KMG), mln m³*km

Company	2019	2020	2021
Intergas Central Asia (100 %)	22,325	16,302	16,277
Asia Gas Pipeline (50 %)	28,735	24,668	25,855
Beineu-Shymkent Gas Pipeline (50 %)	7,334	8,915	7,032

Gas marketing

As the national gas and gas supply operator, KazTransGas exercises the government's pre-emptive right to purchase raw and/or commercial gas from subsoil users / suppliers.

In accordance with the law, subsoil users send commercial proposals to the national operator, indicating the volumes, price and delivery point for the proposed supply of raw and/or commercial gas. The national operator uses its own judgement to decide whether to exercise or waive the government's pre-emptive right.

Currently, the national operator exercises the government's pre-emptive right to acquire gas from the following companies with KMG interest:

- JSC Embamunaigas (100%)
- JV Kazgermunai LLP (50%)
- Kazakhoil Aktobe LLP (50%)
- Kazakhturkmunay LLP (100%)
- KazMunayTeniz LLP (100%).

The gas supplied by the above companies is marketed in the domestic market.

Gas resources, mln m³

Indicator	2019	2020	2021
Gas purchase volumes	24,200	23,313	19,087
Kazakh subsoil users/suppliers	16,435	19,879	17,431
Companies with KMG participation	9,537	14,113	13,011
Third parties	6,898	5,766	4,330
Gas imports	7,765	3,434	1,746
Russia	5,055	3,434	1,746
Uzbekistan	2,710	0	0

Indicator	2019	2020	2021
Export	8,806	7,852	5,188
Russia	1,000	560	0
Kyrgyzstan	264	281	250
Uzbekistan	452	0	0
China	7,091	7,011	4,938
Domestic market	14,028	14,811	12,830
Total	22,834	22,663	18,019

Companies with a KMG interest that are exempt from the government's pre-emptive right to acquire gas:

- Amangeldy Gas LLP (100%)
- KazGPZ LLP (100%)
- Tengizchevroil LLP (20%)
- Karachaganak Petroleum Operating B.V. (10%)
- North Caspian Operating Company N.V. (8.44%)

The above companies all sell gas domestically and for export.

Commercial gas sales volumes from 1 January until 8 November 2021 totalled 18,019 mln m³ with an insignificant decline by 0.8% to 22,473 mln m³ when comparing the full-year volumes of 2021 and 2020. The prevalent share of commercial gas sales, 73.1%, is attributable to the domestic market with consumption increasing by 10.9%. Exports plummeted by 23.0% to 6,044 mln m³ due to lower gas supplies to Russia and China.