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UTILIZED NATURAL GAS VOLUME FROM GAS STORAGE IN TOTAL NATURAL GAS CONSUMPTION AND IMPACT ON TARIFF IN GEORGIA

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ABSTRACT

In Georgia in the case of gas storage construction, import dependence and purchase of imported gas during peak load periods, when the price of natural gas is the highest among the seasons of the year, will be partially reduced, which will contribute to reducing household tariffs. Georgia has interest in implementing a gas storage project. In case of construction of an underground gas storage facility, the country will receive a strategically important facility that will ensure energy security, uninterrupted and reliable gas supply to consumers, and diversify in case of gas supply disruptions in critical situations.

KEYWORDS

Natural Gas, Energy Balance, Gas Storage

CITATION

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According to official data, natural gas still remains the main energy source for Georgia of satisfying basic demand. This trend has been significantly evident in recent years, since no natural gas field has been discovered on the territory of Georgia so far, which would cover a significant share of the country's natural gas consumption. At this stage, production from the Ninotsminda field operating in Georgia accounts for an average of 0.5% to 1% of total consumption.

In 2023, the share of natural gas in total energy consumption was small, but characterized by a growing trend. In 2023, 99.5% of Georgia's demand for natural gas was met by imports, and the remaining 0.5% by local production. Natural gas consumption for domestic purposes in 2023 amounted to 1.341 billion cubic meters, and for non-domestic purposes - 1.625 million cubic meters, including 766 million cubic meters of consumption by thermal power plants.

The main source of natural gas supply for Georgia is the Republic of Azerbaijan. According to the energy balance of Georgia, in 2023, the share of natural gas in total energy consumption amounted to 41.8%. A noticeable decrease in the share of coal, biofuels and household waste is observed, one of the reasons for which is active gasification and the replacement of solid fuels with natural gas. (Fig. 1).

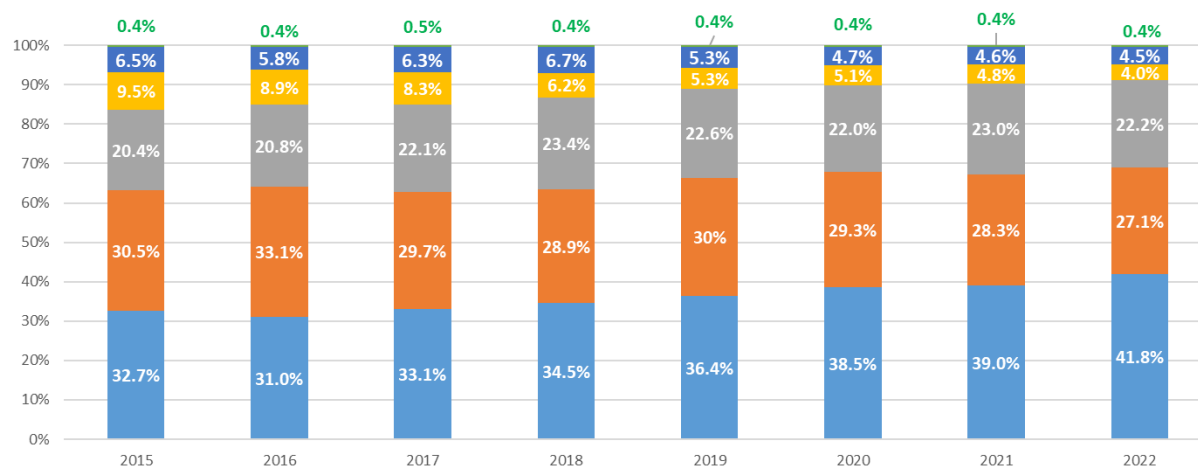


Fig. 1. Dynamics of energy consumption in Georgia 2015-2022

In 2023, natural gas was supplied to Georgia from 5 main sources: two in Azerbaijan, one in Russia, Armenia and the Ninotsminda field located on the territory of Georgia: (Table 1).

Table 1. Sources of natural gas supply in Georgia 2019 -2023

Natural Gas Entry Point		2019	2020	2021	2022	2023
Azerbaijan	Import	1,229	1,183	1,132	1,411	1,081
	Additional and optional	-	-	-	-	963
Azerbaijan - South Caucasus Gas pipeline	Import	339	259	25	-	-
	Additional and optional	853	900	1,026	1,146	413
Russia		162	204	397	520	596
Armenia		-	19	-	-	-
Local extraction		9	8	15	14	16
All		2,592	2,573	2,595	3,091	3,069

The demand for natural gas consumption in the Georgian household sector increases during the winter period, when the population uses natural gas for heating purposes. Accordingly, it is important for Georgia to have an alternative source that will balance the supply of natural gas during peak load.

The construction of an underground gas storage facility is planned in Georgia. In accordance with the project, for which a feasibility study has been conducted, the construction of the gas storage facility will be carried out in the Gardabani municipality, on the depleted, developed oil field of the Samgori South Arch. In accordance with the technical conditions, the total volume of the gas storage facility will be 400-450 million cubic meters. On average, up to 300 million cubic meters of gas will be consumed from the gas storage facility, which, on average, constitutes 15% of the country's annual consumption. [www.gogc.ge]

The domestic tariff for natural gas is regulated and set by the Georgian National Energy and Water Regulatory Commission using a tariff methodology in line with international standards, which defines the tariff

setting algorithm. Increasing the share of cheap natural gas in the tariff will reduce the final consumer tariff paid by the population.

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