HELLENIC REPUBLIC
HELLENIC STATISTICAL AUTHORITY

Piraeus, 20 September 2024

TRANSPORT VIA NATURAL GAS PIPELINES, FOR THE YEAR 2023

The Hellenic Statistical Authority (ELSTAT) announces statistical data on the transport of natural gas via pipelines in Greece, for the year 2023.

A) National Natural Gas System (NNGS)

- On the basis of the data of the Hellenic Gas Transmission System Operator (DESFA S.A.), in 2023 the total length of the natural gas transmission pipelines amounted to 1,466 km. More specifically, 512 km corresponded to the main high-pressure pipeline and 954 km to the transmission branches delivering natural gas all over Greece. The total length of the transmission network remained the same compared with 2022 (Table 1).
- In 2023, maintenance expenditure on natural gas transmission infrastructure amounted to 4,857 thousand euro recording an increase of 29.6% in comparison with 3,747 thousand euro in 2022. Investment on new infrastructure amounted to 179,393 thousand euro in 2023 recording an increase of 47.6% in comparison with 121,563 thousand euro in 2022 (Table 2).
- Table 3 presents data on the transmission of natural gas all over Greece. As regards the total quantity of natural gas deliveries at the entry points of the National Natural Gas System (NNGS), in 2023 a decrease of 21.4% was observed in comparison with 2022. Accordingly, a decrease of 21.5% was recorded in 2023 compared with 2022 as regards the total quantity of natural gas off-takes at the exit points of NNGS.
- In 2023, the total transportation work amounted to 588.1 million tonne-kilometres (Mtkm), recording an increase of 16.5% in comparison with 504.8 million tonne-kilometres (Mtkm) in 2022.
- Table 4 presents data on natural gas deliveries and off-takes expressed as a share over the technical capacity of the entry-exit points of natural gas for the period 2020-2023. In 2023 compared with 2022, a decrease was recorded in the share of deliveries at entry points to their technical capacity, from 53.2% to 46.6%, as well as in the share of off-takes at exit points to their technical capacity, from 27.8% to 21.6%.

B) Independent Natural Gas System (INGS)

In addition to the National Natural Gas System (NNGS), there is also the Independent Natural Gas System which consists of the TAP (Trans Adriatic Pipeline) interconnection pipeline and the Greece-Bulgaria interconnection pipeline (IGB). Through TAP pipeline, natural gas is transported from the Caspian region to Europe and its length in Greek territory amounts to 550.8 kilometers. The operation of TAP pipeline started in December 2020. The length of the Greece-Bulgaria interconnection pipeline (IGB) in Greek territory amounts to 31.6 kilometers and its operation started in October 2022. Tables 5 and 6 as well as graph 4 show data on the operation and the characteristics of the above two pipelines.

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A) NATIONAL NATURAL GAS SYSTEM

Table 1. Length of natural gas transmission pipelines (km), 2020-2023

	2020	2021	2022	2023	Change % 2021/2020	Change % 2022/2021	Change % 2023/2022
Total	**1,466**	**1,466**	**1,466**	**1,466**	**0.0**	**0.0**	**0.0**
Main High Pressure Pipeline	512	512	512	512	0.0	0.0	0.0
Branches Covering the whole Country (Greece)	954	954	954	954	0.0	0.0	0.0

Graph 1. Length of natural gas transmission pipelines (km), 2020-2023

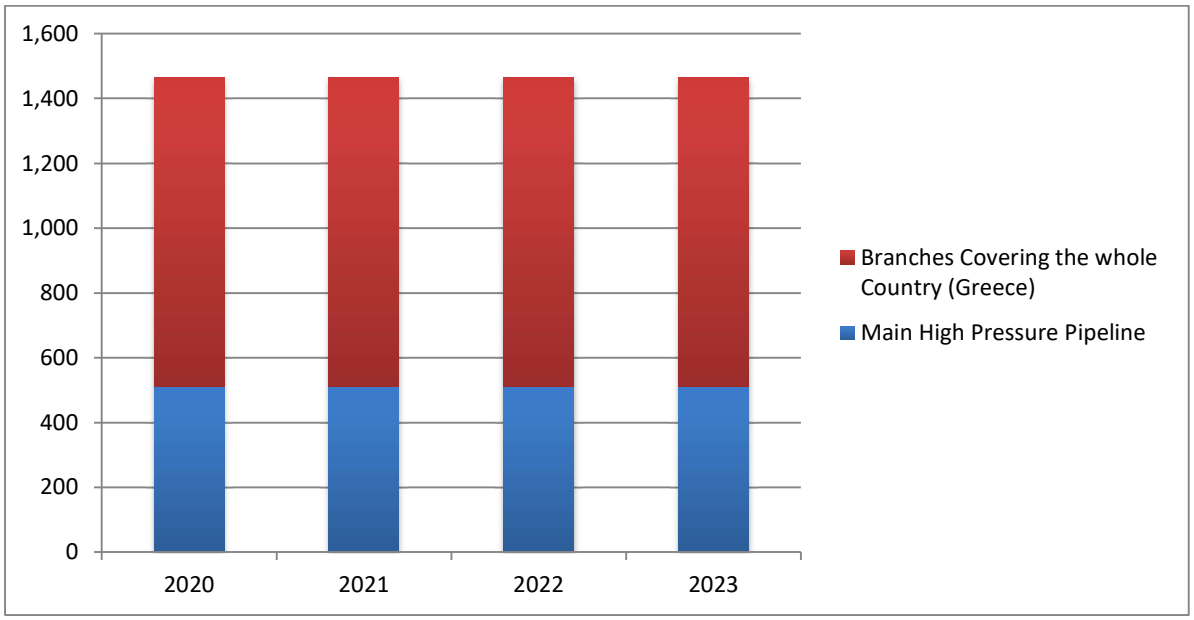


Table 2. Expenditure on natural gas transmission infrastructure (thousand euro), 2020-2023

	2020	2021	2022	2023	Change % 2021/2020	Change % 2022/2021	Change % 2023/2022
Total	**31,992**	**34,009**	**125,310**	**184,250**	**6.3**	**268.5**	**47.0**
Maintenance	4,580	4,796	3,747	4,857	4.7	-21.9	29.6
Investment on new infrastructure	27,412	29,213	121,563	179,393	6.6	316.1	47.6

Table 3. Transmission of natural gas through the NNGS, 2020-2023

	2020	2021	2022	2023	Change % 2021/2020	Change % 2022/2021	Change % 2023/2022
Deliveries at entry points (MWh)	70,649,066	77,736,918	86,157,785	67,723,344	10.0	10.8	-21.4
Off-takes at exit points (total) (MWh))	70,474,183	77,562,806	86,176,038	67,606,113	10.1	11.1	-21.5
national transport	*63,104,605*	*69,960,612*	*56,639,902*	*50,914,754*	*10.9*	*-19.0*	*-10.1*
international transport	*7,369,578*	*7,602,194*	*29,536,136*	*16,691,359*	*3.2*	*288.5*	*-43.5*
Transport work (Mtkm)	830.6	1,127.9	504.8	588.1	35.8	-55.2	16.5

Note: One tonne-kilometre (tkm) corresponds to the transportation of one (1) tonne of natural gas over a distance of one (1) kilometre.

One megawatt hour (MWh) is a unit of energy equivalent to one (1) megawatt (MW) of power expended for one (1) hour of time.

Graph 2. Transmission of natural gas through the NNGS, 2020-2023

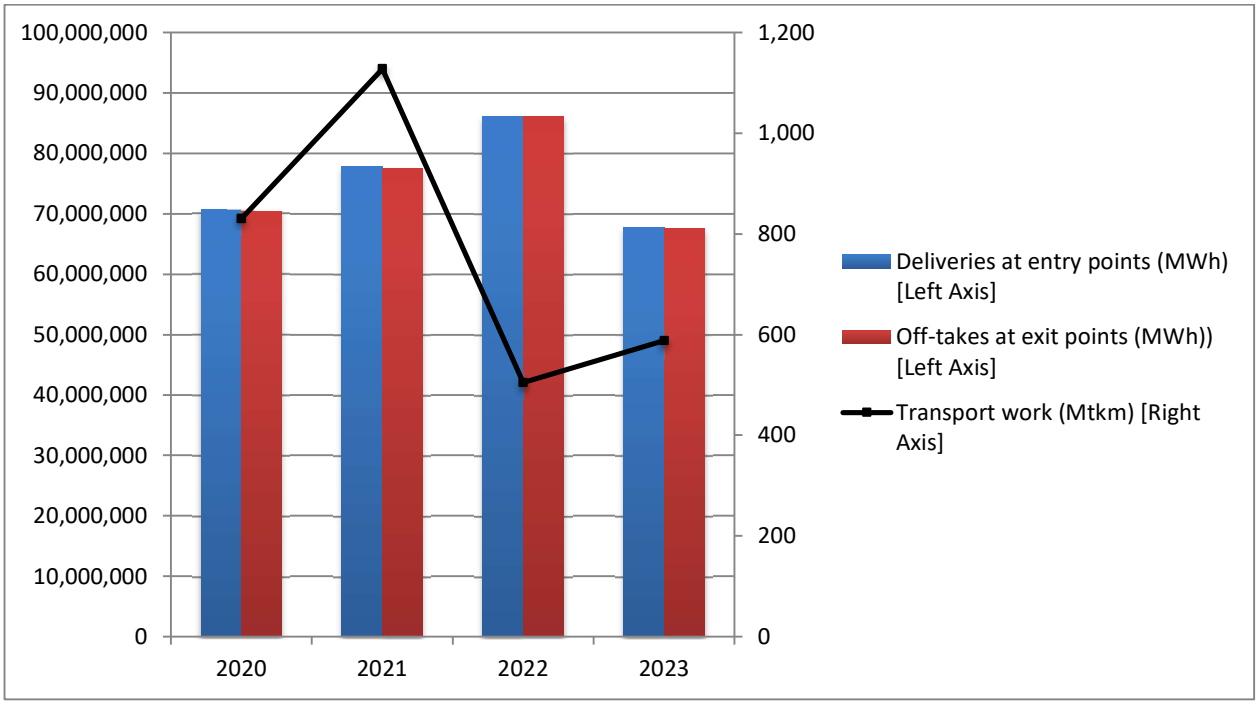
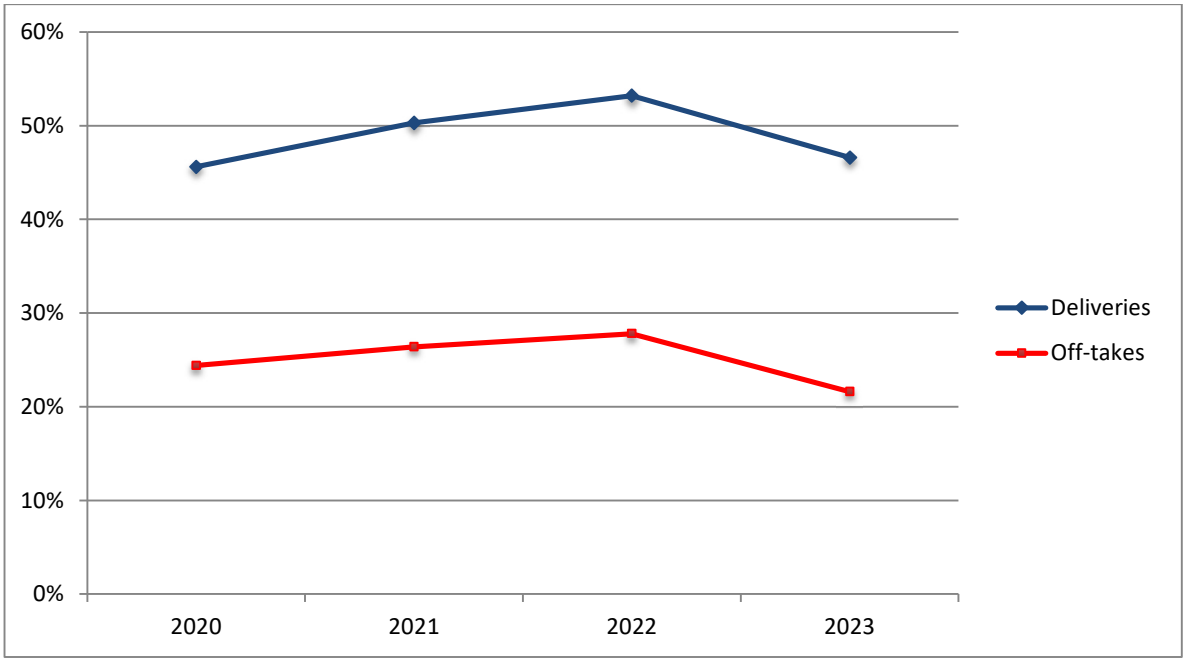


Table 4. Natural gas deliveries and off-takes at entry-exit points of the NNGS in relation to their technical capacity, 2020-2023

	2020	2021	2022	2023
Technical capacity of entry points (MWh/day)	424,246.4	423,707.8	444,046.8	398,323.8
Annual average deliveries at entry points (MWh/day)	193,559.1	212,977.9	236,048.7	185,543.4
Share of deliveries at entry points to their technical capacity (%)	45.6	50.3	53.2	46.6
Technical capacity of exit points (MWh/day)	792,856.1	804,719.5	849,606.6	857,799.7
Annual average off-takes at exit points (MWh/day)	193,080.0	212,500.8	236,098.7	185,222.2
Share of off-takes at exit points to their technical capacity (%)	24.4	26.4	27.8	21.6

Graph 3. Percentage share of natural gas deliveries and off-takes at entry-exit points of the NNGS in relation to their technical capacity (%), 2020-2023



B) INDEPENDENT NATURAL GAS SYSTEM

The following data concern the operation and characteristics of the pipelines of the Independent Natural Gas System (INGS) in Greece.

B.1 TRANS ADRIATIC PIPELINE - TAP

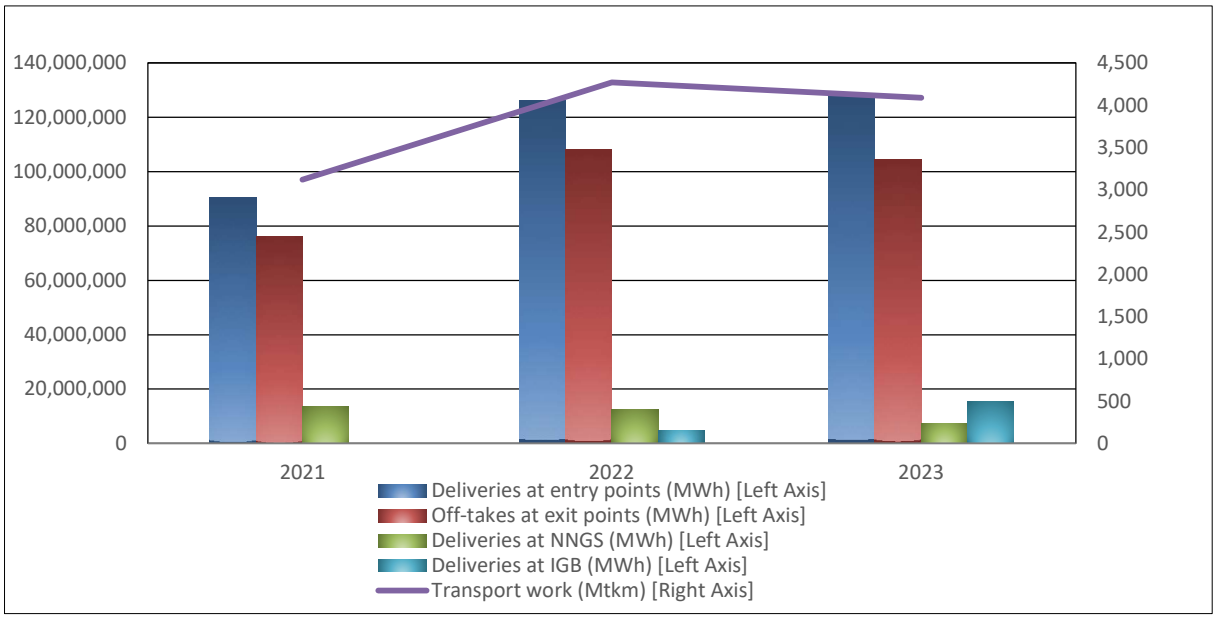
The following table presents data on the deliveries of natural gas at TAP's entry points and natural gas deliveries from TAP to the National Natural Gas System (NNGS) and the Greece-Bulgaria interconnection pipeline (IGB). In addition, data regarding the technical capacity of its entry and exit points are presented.

Table 5. Natural gas transport via TAP and technical capacity of entry and exit points, 2021-2023

TRANSPORTATION	2021	2022	2023	Change % 2022/2021	Change % 2023/2022
Deliveries at entry points (MWh)	90,483,085	126,239,076	127,902,146	39.5	1.3
Off-takes at exit points (MWh)	76,311,953	108,161,587	104,643,609	41.7	-3.3
Deliveries at NNGS (MWh) (at Nea Mesimvria[1])	13,617,600	12,596,353	7,436,839	-7.5	-41.0
Deliveries at IGB (MWh) (at Komotini[2])	-	[3]4,872,894	15,422,089	-	216.5
Transport work (Mtkm)	3,118	4,272	4,086	37.0	-4.3
TECHNICAL CAPACITY	**2021**	**2022**	**2023**	**Change % 2022/2021**	**Change % 2023/2022**
Maximum technical capacity of enty point (Kipi) (MWh/day)	373,601.1	402,500.0	400,000.0	7.7	-0.6
Technical capacity at Nea Mesimvria exit point[1] (MWh/day)	83,368.3	88,368.3	88,368.3	6.0	0.0
Technical capacity at Komotini exit point[2] (MWh/day)	-	[3]96,662.2	106,483.9	-	10.2

[1] connection point to NNGS
[2] connection point to IGB
[3] the operation of IGB pipeline started in October 2022

Graph 4. Natural gas transport via TAP, 2021 - 2023



B.2 GREECE – BULGARIA INTERCONNECTION PIPELINE – IGB

The following table presents the deliveries and off-takes of natural gas through the IGB pipeline since October 2022, when its operation began, as well as the technical capacity of the entry and exit points.

Table 6. Natural gas transport in IGB and technical capacity of entry and exit points, 2022-2023

TRANSPORTATION	**2022**	**2023**	**Change % 2023/2022**
Deliveries at entry points (MWh)	18,495	0	-100.0
Off-takes at exit points (MWh)	4,875,908	15,540,771	218.7
Deliveries at NNGS (MWh)	0	0	-
Transport work (Mtkm)	10	32	2.2
TECHNICAL CAPACITY	**2022**	**2023**	**Change % 2023/2022**
Technical capacity of enty points (MWh/day)	124,762.0	124,762.0	0.0
Technical capacity of exit points (MWh/day)	124,762.0	124,762.0	0.0

Explanatory Note

Transport of natural gas via pipelines in Greece

The survey for the Transport of Natural Gas via Pipelines, is conducted since 2015 on a yearly basis aiming to monitor the transportation performance via the national network of natural gas pipelines of Greece.

Legal Framework

Law 3832/2010

Reference period

The data refer to the year 2023 in comparison to the data from previous years 2022, 2021 and 2020.

Methodology

The data are provided by the Hellenic Natural Gas Transmission System Operator S.A. (DESFA AE) as well as the operators of TAP and IGB and are checked by the Transport Statistics Section in terms of completeness and correctness, and then are tabulated.

Definitions

Gas pipeline

All parts of the pipe, including all its equipment such as valves, compressor stations, communications systems, and meters for the transportation of natural and/or supplemental gas from one point to another, usually from a point within the production or processing plant or at a distance therefrom in another pipeline or points of use.

Enterprise for transport via pipelines

An enterprise created to provide, in one or more places, transport services via oil or gas pipelines and whose main activity, on the basis of value added, is the transport of goods via oil or gas pipelines.

Investment expenditure on infrastructure

Expenditure for the construction of new infrastructure or the extension of existing infrastructure, including reconstruction, major repairs and renovations. Including expenditure on pumping and compression facilities.

Expenditure on the maintenance of infrastructure

Expenditure for keeping infrastructure operational. Such expenditure also includes maintenance expenditure for pumping and compression facilities.

Technical capacity

The maximum firm capacity that the National Natural Gas Transmission Operator can offer to the system users, taking into account the system integrity and the operational requirements of the National Natural Gas Transmission System.

Exit points

The last insulating joint weld on the pipeline which supplies the receiving natural gas installation within the plot land already purchased by DESFA for the construction of the relevant metering facilities, given that DESFA S.A. has not completed the installation works for the metering facilities through which gas shall be supplied from the transmission system to the relative receiving natural gas installation and until the completion of these metering facilities.

Independent Natural Gas System (INGS)

It is a Natural Gas System that is not part of the National Natural Gas System (NNGS), regardless of the interconnection with this System.

References

More information on Transport via Natural Gas Pipelines in Greece can be found on the website of the Hellenic Statistics Authority at the following link:

http://www.statistics.gr/en/statistics/-/publication/SME28/-