Halandri, Attica

Operation Report of the NNGS for the Year 2024

(In accordance with the provisions of paragraph 2.z of Article 68 of the Law 4001/2011 on the operation of Energy Markets Electricity and Natural Gas, for Research, Production and Hydrocarbon Transportation Networks and other regulations)

TABLE OF CONTENTS

1. General description of the National Natural Gas System

The National Natural Gas System (NNGS) transports Natural Gas from the upstream Interconnected Natural Gas Transmission Systems of Bulgaria and Turkey, the Trans Adriatic Pipeline (TAP), the Floating Liquefied Natural Gas (LNG) Storage and Regasification Unit anchored 17.6 km SW of the port of Alexandroupolis, and from the Revithoussa LNG Terminal, which is installed at Revithoussa island at Megara, to consumers connected to the NNGS in the Greek mainland.

The Natural Gas is delivered to five (5) Entry Points to the National Natural Gas Transmission System (NNGTS) and it is off-taken via fifty-two (52) Exit Points in the Greek mainland, including Reverse Flow Exit Point 'SIDIROKASTRO', through which the delivery of Natural Gas quantities to the Interconnected Natural Gas Transmission System of Bulgaria is achieved.

The NNGS consists of:

- The main pipeline, with 512 Km length and 36'' & 30'' diameter, and the branches of total length 959.54 Km (containing (a) the underwater pipeline of Aliveri branch, with 14.20 Km length and 20" diameter and (b) the two (2) underwater pipes, each one a back-up to the other, of 24'' diameter each and of 620m and 630m length, that connect the Revithoussa LNG Station to the mainland), which connect various areas of the country to the main pipeline;
- The Metering Stations of the Entry Points of the NNGTS 'SIDIROKASTRO', 'KIPI', 'NEA MESIMVRIA', 'AGIA TRIADA' and 'AMFITRITI';
- The Liquefied Natural Gas (LNG) Terminal at Revithoussa connected to the Entry Point 'AGIA TRIADA';
- The Compression Station at Nea Mesimvria, Thessaloniki;

- The Natural Gas Metering and Regulating Stations;
- The Control and Dispatching Centers;
- The Operation and Maintenance Centers of South Greece, Central Greece, North Greece and North-East Greece; and
- The Remote Control and Communication System.

The Revithoussa LNG Station consists of:

- Three (3) Liquefied Natural Gas storage tanks of 63,379.931 m^3, 63,379.931 m^3 and of 95,055.815 m^3 LNG storage capacity;
- LNG unloading installations of maximum LNG unloading rate 7,250 m^3 LNG/h;
- LNG gasification installations of sustained maximum sendout rate 1,400 m^3 LNG/h; and
- LNG truck loading facilities with a peak loading capacity of 100 m^3 LNG/h.

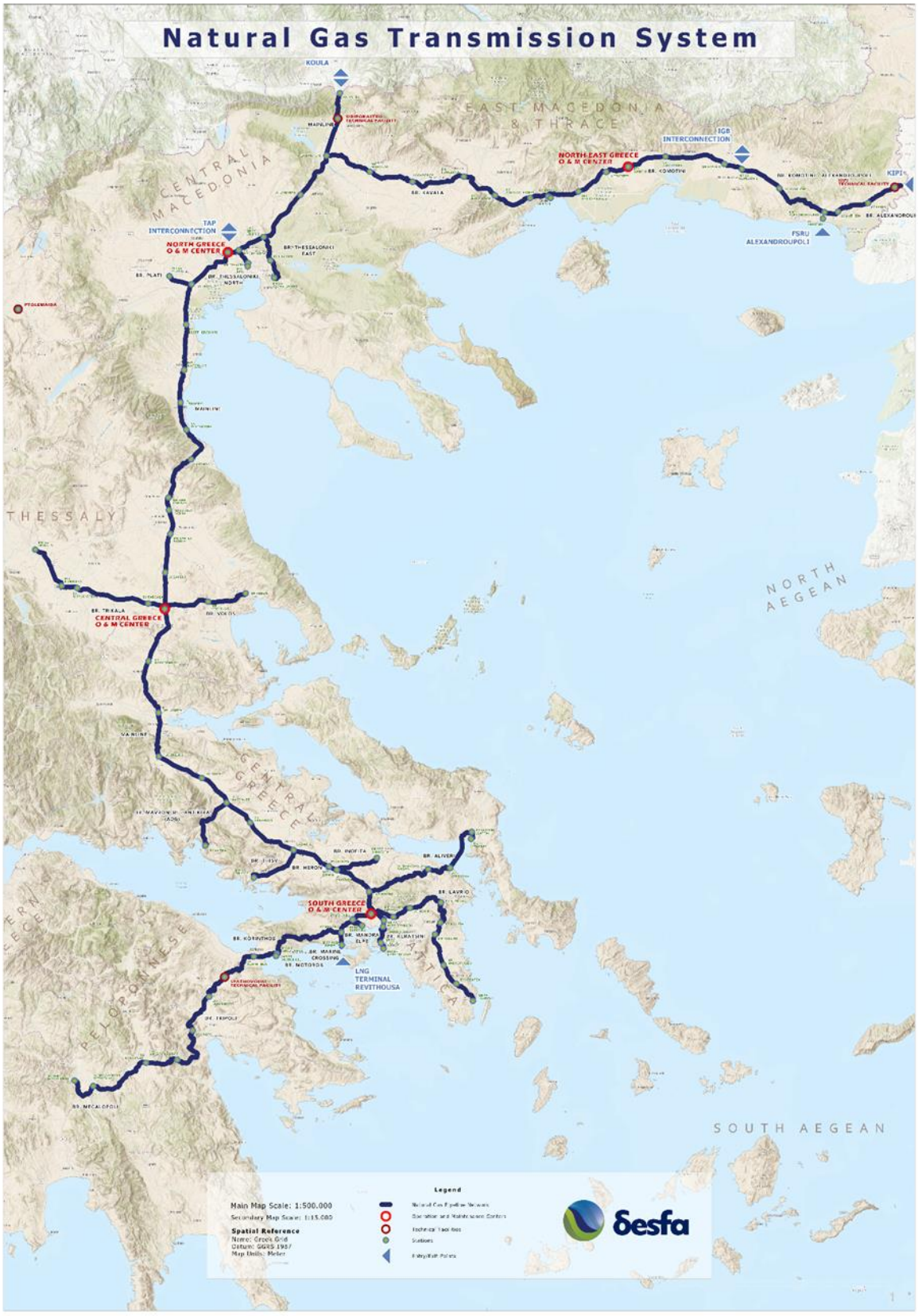

Diagram 1: NNGS Geographical Depiction

2. Report on the operation of NNGS

2.1. Technical Characteristics of the System

Table 1 below shows the diameters and total lengths of the main pipeline and the branches of the NNGTS.

Natural Gas Pipeline	Diameter (inch)	Total Length (Km)
Main Pipeline	36 & 30	**512**
Transmission Branches of NNGTS		
Lavrion Branch	30	100.05
Keratsini Branch	30 & 24	24.48
Oinofyta Branch	10	20.62
Volos Branch	10	40.42
Thessaloniki North - EKO Branch	24 & 10	9.70
Thessaloniki East Branch	24	24.41
Platy Branch	10	10.98
Karperi - Komotini Branch	24	216.79
Komotini - Kipi Branch	36	86.71
Alouminion Branch	20	28.12
Megara - Korinthos Branch	30	52.88
MOTOR OIL Branch	20	1.46
Trikala Branch	10	71.94
Thisvi Branch	20	26.27
Heron Branch	14	0.75
Aliveri Branch	20	73.13
Elefsina (ELPE) Branch	10	6.41
Korinthos - Megalopoli Branch	24	155.43
SALFA - Anthousa Branch	4	0.5
SALFA - Liosia Branch	4	0.23
VFL Branch	12	1.5
TAP Interconnection Branch	24	0.13
High Pressure Pipeline Thrylorio – PP VIPE Komotinis (U-7650)	16	5.38
Revithoussa - Agia Triada Underwater Pipeline		
East Pipeline	24	0.62
West Pipeline	24	0.63
TOTAL (Transmission Branches and Underwater pipelines)		**954.54**

Table 1: Diameters and lengths of the NNGTS Natural Gas pipelines

2.2. Variations in technical characteristics of the System

During the Year 2024, the technical characteristics of the NNGS were changed as follows:

1. The High Pressure Pipeline Thrylorio – PP VIPE Komotinis (U-7650) with a length of 5.38 km and a diameter of 16˝ concerning the connection of the 24˝ Karperi - Komotini branch with the new power generation unit in the Industrial Area of Komotini (THERMOILEKTRIKI KOMOTINIS) has been included in the NNGTS;
2. on 8.08.2024 the Exit Point "THERMOILEKTRIKI KOMOTINIS" with a Technical Capacity of 38,400,000 kWh/Day was included in the NNGTS;
3. on 10.09.2024 the Metering/Regulating Station "LIVADEIA" (U-2710) of DESFA was put into operation at the new Exit Point of the NNGTS "LIVADEIA" with a Technical Capacity of 1,604,112 kWh/Day;
4. on 01.10.2024 the Metering/Regulating Station "AMFITRITI" (U-3660) of DESFA was put into operation at the new Entry Point of the NNGTS "AMFITRITI" with a Technical Capacity of 179,762,000 kWh/Day;
5. on 01.10.2024 the Exit Point "KOMOTINI (DESFA/IGB)" with a Technical Capacity of 124,762,000 kWh/Day was included in the NNGTS; and
6. on 24.12.2024 the Metering/Regulating Station "KORINTHOS" (U-7070) of DESFA was put into operation at the new Exit Point of the NNGTS "KORINTHOS" with Technical Capacity 2,787,840 kWh/day.

2.3. NNGTS Entry/Exit Points Capacity

Table 2 below shows the Technical Capacities of the Entry/Exit Points of the NNGTS, and the Maximum Capacity of the corresponding Metering/Regulating Stations of DESFA.

TECHNICAL CAPACITIES OF THE NNGTS ENTRY/EXIT POINTS				
No.	**ENTRY POINT**	**Technical Capacity [kWh/Day] (1)**	**DESFA' s Metering/Regulating Station**	**Maximum Capacity of DESFA's Metering/Regulating Station [kWh/Day]**
1	AGIA TRIADA	224,592,985	M AGIA TRIADA (U-3020)	233,714,880
2	AMFITRITI	179,762,000	M/R AMFITRITI (U-3660)	242,061,600
2	KIPI	0	M KIPI (U-3900)	232,202,632
3	NEA MESIMVRIA (2)	44,612,000	M/R NEA MESIMVRIA (U-6910)	117,543,960
4	SIDIROKASTRO (3)	120,227,859	M SIDIROKASTRO (U-2010)	180,272,030
No.	**EXIT POINT**	**Technical Capacity [kWh/Day] (1)**	**DESFA' s Metering/Regulating Station**	**Maximum Capacity of DESFA's Metering/Regulating Station [kWh/Day]**
1	ALOYMINION	26,714,340	M AdG (U-2820)	26,714,340
2	ALOYMINION II	20,723,593	M AdG B (U-2830)	20,723,593
3	ALOYMINION III	6,542,964	M/R AdG III (U-2840)	6,542,964
4	ALOYMINION IV	39,675,420	M AdG IV (U-2850)	39,675,420
5	MOTOR OIL	26,714,340	M MOTOR OIL (U-7130)	26,714,340
6	MOTOR OIL II	21,371,472	M MOTOR OIL B (U-7140)	21,371,472
7	AG. THEODOROI	2,992,197	M/R AG, THEODOROI (U-7045)	2,992,197
8	ATHENS	101,876,740	M/R NORTH ATHENS (U-2910)	29,444,279
			M/R EAST ATHENS (U-2940)	29,444,279
			M/R THRIASIO (U-2960)	13,545,506
			M/R WEST ATHENS (U-2990)	29,442,676
9	ALEXANDROUPOLIS	7,480,015	M/R ALEXANDROUPOLIS (U-3630)	7,480,015
10	ALIVERI (PPC)	21,371,472	M PPC ALIVERI (U-6370)	21,371,472
11	VIPE LARISSA	2,671,434	M/R VIPE LARISSA (U-2515)	2,671,434
12	VOLOS	13,796,086	M/R VOLOS (U-2680)	13,796,086
13	VFL	6,493,989	M VFL (U-2170)	6,493,989
14	DRAMA	7,480,015	M/R DRAMA (U-2140)	7,480,015
15	ELPE	4,815,794	M/R EKO (U-2250)	4,815,794
16	ELPE-VEE	12,756,552	M ELPE ELEFSINAS (U-7420)	12,756,552
17	ELPE-HAR	8,014,302	M/R ATHENS ELDA (U-2970)	8,014,302

18	ENERGIAKI THESS. (ELPE)	26,714,340	M ELPE DIAVATA (U-2270)	26,714,340
19	HERONAS	10,685,736	M HERON (U-6020)	10,685,736
20	HERON II	22,441,482	M HERON B (U-6030)	22,707,189
21	THERMOILEKTRIKI KOMOTINIS	38,400,000	M PP VIPE KOMOTINI (U-7620) (4)	
22	THESSALONIKI	77,501,024	M/R THESSALONIKI NORTH (U-2240)	38,750,512
			M/R THESSALONIKI EAST (U-2220)	38,750,512
23	THISVI	23,738,101	M IPP THISVI (U-6650)	23,738,101
24	KAVALA	2,671,434	M/R KAVALA (TM4-A)	2,671,434
25	KAVALA (CITY)	2,477,973	M/R ΚΑΒΑΛΑ (U-2180)	2,477,973
26	KARDITSA	5,342,868	M/R KARDITSA (U-6240)	5,342,868
27	KATERINI	7,480,015	M/R KATERINI (U-2340)	7,480,015
28	KERATSINI (PPC)	27,289,500	M PPC KERATSINI (U-3090)	27,289,500
29	KILKIS	11,754,309	M/R KILKIS (U-2060)	11,754,309
30	KOKKINA	2,671,434	M/R KOKKINA (U-2670)	2,671,434
31	KOMOTINI (PPC)	28,851,488	M/R PPC KOMOTINI (U-3570)	28,851,488
32	KOMOTINI (DESFA/IGB) (5)	124,762,000	-	-
33	KOMOTINI	5,342,868	M/R KOMOTINI (U-3580)	5,342,868
34	KORINTHOS	2,787,840	M/R KORINTHOS (U-7070)	2,787,840
35	KOSMIO	12,159,840	M/R KOSMIO (U-2550)	12,159,840
36	LAMIA	7,480,015	M/R LAMIA (U-2620)	7,480,015
37	LARISSA	13,843,371	M/R NORTH LARISSA (U-2520)	6,921,685
			M/R SOUTH LARISSA (U-2530)	6,921,685
38	LAVRIO (PPC)	64,114,418	M PPC LAVRIO (U-3430)	64,114,418
39	LIVADEIA	1,604,112	M/R LIVADEIA (U-2710)	1,604,112
40	MEGALOPOLI	3,314,880	M/R MEGALOPOLI (TM-6)	3,314,880
41	MEGALOPOLIS (PPC)	42,742,945	M PPC MEGALOPOLIS (U-7320)	42,742,945
42	SPATA	3,072,149	M/R MARKOPOULO (U-3460)	3,072,149
43	XANTHI	11,754,309	M/R XANTHI (U-3530)	11,754,309
44	OINOFYTA	11,836,679	M/R THIVA (U-2740)	4,755,242
			M/R INOFYTA (U-2880)	7,081,437

45	PLATY	5,740,377	M/R PLATY (U-2410)	5,740,377
46	SALFA ANO LIOSSIA	2,671,434	M STATION ANO LIOSSIA (U-5010) (4)	
47	SALFA ANTHOUSSA	1,371,600	M STATION ANTHOUSA (U-5210)	1,371,600
48	SERRES	11,754,309	M/R SERRES (U-2110)	11,754,309
49	TRIKALA	5,342,868	M/R TRIKALA (U-6260)	5,342,868
50	TRIPOLI	5,565,600	M/R TRIPOLI (U-7270)	5,565,600
51	FARSALA	1,870,003	M/R FARSALA (U-6280)	1,870,003
No.	**REVERSE FLOW EXIT POINT**	**Technical Capacity [kWh/Day] (1)**	**DESFA' s Metering/Regulating Station**	**Maximum Capacity of DESFA's Metering/Regulating Station [kWh/Day]**
1	SIDIROKASTRO (3)	66,615,900	M SIDIROKASTRO (U-2010)	184,817,371

Table 2

Comments on Table 2:

1. 'Technical Capacity' is the maximum invariable capacity that DESFA is able to offer to the Transmission Users, considering the integrity and the operational demands of the NNGTS.
2. Until 01.10.2024 the Technical Capacity of the Entry Point "NEA MESIMVRIA" was 53,368,256 kWh/Day.
3. Until 01.10.2024 the Technical Capacity of the Entry Point "SIDIROKASTRO" was 120,362,516 kWh/Day and the Technical Capacity of the Reverse Flow Exit Point "SIDIROKASTRO" was 66,576,000 kWh/Day, due to different Gross Calorific Value used to calculate the energy.
4. Given that DESFA has not completed the installation works of 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, Exit Point will be considered the location of 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.
5. The measurement of Natural Gas quantities is carried out by a station owned by ICGB AD.

Finally, Table 3 depicts the Annual profile of physical Natural Gas Deliveries and Off-takes at the Entry and Exit Points of the NNGTS for the Year 2024.

Annual profile of physical Natural Gas Deliveries/Off-takes and Daily peaks at the NNGTS Entry/Exit Points					
Year 2024					
Entry Point	**Technical Capacity [kWh/Day]**	**Annual Average of Natural Gas Deliveries to the Point [kWh/Day]**	**Daily peak of the Point [kWh/Day]**	**Annual Average of Natural Gas Deliveries to the Point as a percentage of Technical Capacity [%]**	**Daily peak of the Point as a percentage of Technical Capacity [%]**
AGIA TRIADA	224,592,985	50,097,521	200,065,680	22.3	89.1
AMFITRITI	179,762,000	9,697,817	42,001,800	5.4	23.4
KIPI	0	0	0	0.0	0.0
NEA MESIMVRIA (1)	44,612,000	33,233,874	53,468,337	62.3	100.2
SIDIROKASTRO (2)	120,227,859	92,232,978	121,510,382	76.6	101.0
Exit Point	**Technical Capacity [kWh/Day]**	**Annual Average of Natural Gas Off-takes from the Point [kWh/Day]**	**Daily peak of the Point [kWh/Day]**	**Annual Average of Natural Gas Off-takes from the Point as a percentage of Technical Capacity [%]**	**Daily peak of the Point as a percentage of Technical Capacity [%]**
AG. THEODOROI	2,992,197	142,889	255,650	4.8	8.5
ATHENS	101,876,740	9,739,652	39,658,061	9.6	38.9
ALEXANDROUPOLIS	7,480,015	90,014	208,433	1.2	2.8
ALIVERI (PPC)	21,371,472	9,741,342	18,920,406	45.6	88.5
ALOYMINION	26,714,340	10,350,779	15,279,987	38.7	57.2
ALOYMINION II	20,723,593	9,966,018	19,166,301	48.1	92.5
ALOYMINION III	6,542,964	2,185,506	3,298,852	33.4	50.4
ALOYMINION IV	39,675,420	21,536,450	33,756,148	54.3	85.1
VIPE LARISSA	2,671,434	174,985	266,176	6.6	10.0
VOLOS	13,796,086	1,664,155	4,807,658	12.1	34.8
VFL	6,493,989	4,740,932	5,344,967	73.0	82.3
DRAMA	7,480,015	1,460,830	1,701,377	19.5	22.7
ELPE	4,815,794	460,127	2,365,055	9.6	49.1
ELPE-VEE	12,756,552	6,017,040	8,978,584	47.2	70.4
ELPE-HAR	8,014,302	3,008,431	6,685,439	37.5	83.4
ENERGIAKI THESS. (ELPE)	26,714,340	8,741,513	16,838,069	32.7	63.0
HERON II	22,441,482	10,410,256	18,357,344	46.4	81.8
HERONAS	10,685,736	261,262	4,054,585	2.4	37.9

THERMOILEKTRIKI KOMOTINIS	38,400,000	93,092	2,401,611	0.2	6.3
THESSALONIKI	77,501,024	8,146,405	27,205,455	10.5	35.1
THISVI	23,738,101	7,042,163	15,807,379	29.7	66.6
KAVALA	2,671,434	5,456	18,659	0.2	0.7
KAVALA (CITY)	2,477,973	389	9,069	0.0	0.4
KARDITSA	5,342,868	382,374	1,393,118	7.2	26.1
KATERINI	7,480,015	494,734	598,521	6.6	8.0
KERATSINI (PPC)	27,289,500	0	0	0.0	0.0
KILKIS	11,754,309	977,454	1,740,347	8.3	14.8
KOMOTINI (DESFA/ICGB)	124,762,000	5,102,361	11,344,306	4.1	9.1
KOMOTINI (PPC)	28,851,488	4,490,996	19,191,028	15.6	66.5
KOMOTINI	5,342,868	181,123	274,850	3.4	5.1
KOKKINA	2,671,434	288,644	898,838	10.8	33.6
KORINTHOS	2,787,840	67	533	0.0	0.0
KOSMIO	12,159,840	7,301	64,898	0.1	0.5
LAMIA	7,480,015	211,671	405,456	2.8	5.4
LARISSA	13,843,371	2,150,203	6,433,043	15.5	46.5
LAVRIO (PPC)	64,114,418	15,578,372	38,535,149	24.3	60.1
LIVADEIA	1,604,112	391	18,992	0.0	1.2
MEGALOPOLIS (PPC)	42,742,945	16,582,370	34,125,010	38.8	79.8
MEGALOPOLI	3,314,880	36,892	165,034	1.1	5.0
MOTOR OIL	26,714,340	7,926,103	12,515,486	29.7	46.8
MOTOR OIL II	21,371,472	9,453,459	17,919,912	44.2	83.8
XANTHI	11,754,309	159,906	290,572	1.4	2.5
OINOFYTA	11,836,679	3,829,343	5,061,863	32.4	42.8
PLATY	5,740,377	4,376	82,728	0.1	1.4
SALFA ANTHOUSSA	1,371,600	137,963	234,622	10.1	17.1
SALFA ANO LIOSSIA	2,671,434	179,870	240,364	6.7	9.0
SERRES	11,754,309	818,770	1,636,515	7.0	13.9
SPATA	3,072,149	334,201	615,880	10.9	20.0
TRIKALA	5,342,868	599,372	1,924,230	11.2	36.0
TRIPOLI	5,565,600	24,067	132,094	0.4	2.4
FARSALA	1,870,003	111,758	313,255	6.0	16.8

Reverse Flow Exit Point	Technical Capacity [kWh/Day]	Annual Average of Natural Gas Off-takes from the Point [kWh/Day]	Daily peak of the Point [kWh/Day]	Annual Average of Natural Gas Off-takes from the Point as a percentage of Technical Capacity [%]	Daily peak of the Point as a percentage of Technical Capacity [%]
SIDIROKASTRO (2)	66,615,900	0	0	0.0	0.0

Table 3

Comments on Table 3:

1. Until 01.10.2024 the Technical Capacity of the Entry Point "NEA MESIMVRIA" was 53,368,256 kWh/Day. The calculation of the Daily peak of the Point as a percentage of the Technical Capacity was carried out based on the value of the Technical Capacity of the Point on the Day that the Daily peak was observed.

2. Until 01.10.2024 the Technical Capacity of the Entry Point "SIDIROKASTRO" was 120,362,516 kWh/Day and the Technical Capacity of the Reverse Flow Exit Point "SIDIROKASTRO" was 66,576,000 kWh/Day, due to a different value of the Gross Calorific Value used for the calculation of energy. The calculation of the Daily peak of the Point as a percentage of the Technical Capacity was carried out based on the value of the Technical Capacity of the Entry Point "SIDIROKASTRO" on the Day that the Daily peak was observed.

2.4. Load Balancing

Balancing Gas is the Natural Gas required for the load balancing of the NNGTS. The Balancing Gas Quantity that the Operator injects/takes to/from the NNGTS, during a certain period, is set out to create a balance between Natural Gas Deliveries and Off-takes (during the same period) so as in every case the reliable, safe and efficient operation of the NNGS is considered secure. As part of his responsibilities and obligations, DESFA ensures the above balance by undertaking Balancing Actions, taking into account the losses and the stored Natural Gas quantities in the NNGTS.

In accordance with the provisions of Chapter 8 of the NNGS Network Code, during the Year 2024 the Operator could undertake Balancing Actions through (a) purchase and sale of Balancing Gas in the form of Short-Term Standardized Products on the Trading Platform either through continuous

negotiations or through auctions and/or (b) use of Balancing Services through Balancing Services Contracts.

Diagram 2 below shows the Balancing Actions performed by the Operator during the Year 2024.

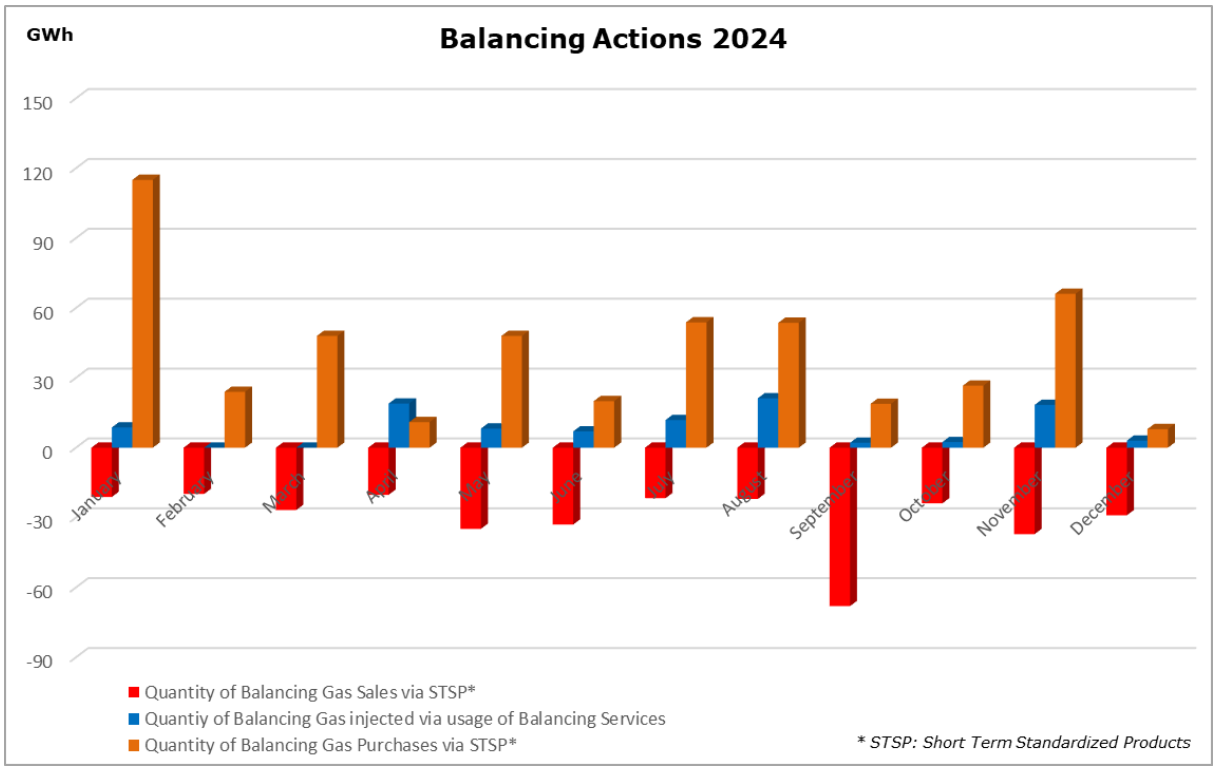

Diagram 2

Table 4 on the next page shows data on the cost/revenue, frequency and quantity of the Balancing Actions undertaken by the Operator during the Year 2024, in accordance with the provisions of paragraph 7 of Article 44[A] of the NNGS Network Code.

2024	Balancing Gas Purchases via usage of LNG Supply Agreements for performing Balancing Services			Balancing Gas Purchases via Short Term Standardized Products			Balancing Gas Sales via Short Term Standardized Products		
	Quantiy of Balancing Gas injected {kWh}	Balancing LNG Supply Cost	Frequency of Balancing Gas injected (number of Days)	Quantity of Balancing Gas Purchases {kWh}	Balancing Gas Purchases Cost	Frequency of Balancing Gas Purchases (number of Days)	Quantity of Balancing Gas Sales {kWh}	Balancing Gas Sales Revenue	Frequency of Balancing Gas Sales (number of Days)
JANUARY	8,685,399	359,000.00 €	1	115,000,000	4,012,267.70 €	13	21,149,000	515,090.40 €	5
FEBRUARY	0	0.00 €	0	24,000,000	719,946.00 €	5	19,863,000	537,298.13 €	6
MARCH	0	0.00 €	0	48,000,000	1,197,510.00 €	9	26,730,000	654,479.50 €	6
APRIL	18,965,007	745,170.00 €	3	11,000,000	324,200.00 €	8	20,220,000	494,170.20 €	4
MAY	8,218,590	817,850.00 €	2	48,000,000	1,370,888.33 €	14	34,834,000	928,862.00 €	9
JUNE	7,009,098	0.00 €	1	20,000,000	645,615.00 €	6	33,000,000	999,500.00 €	9
JULY	11,874,722	409,200.00 €	4	53,817,000	1,817,972.90 €	15	21,677,000	724,893.00 €	8
AUGUST	21,228,400	0.00 €	5	53,647,000	1,974,660.98 €	18	22,000,000	705,685.00 €	3
SEPTEMBER	2,130,752	1,089,545.00 €	1	18,850,000	695,240.00 €	7	68,000,000	2,364,746.76 €	16
OCTOBER	2,417,534	366,000.00 €	1	26,650,000	917,755.60 €	8	23,886,000	736,798.30 €	10
NOVEMBER	18,372,767	0.00 €	3	66,083,000	3,411,008.10 €	13	37,100,000	1,455,298.00 €	9
DECEMBER	3,044,222	479,800.00 €	1	8,000,000	353,187.00 €	5	29,000,000	1,214,789.00 €	7
YEARLY SUM	**101,946,491**	**4,266,565.00 €**	**22**	**493,047,000**	**17,440,251.61 €**	**121**	**357,459,000**	**11,331,610.29 €**	**92**

Table 4

2.5 Maintenance Standard and Quality

Table 5 shows (a) the Maintenance Program of NNGS for the Year 2024, as it was announced in DESFA website, according to the provisions of Article 98 of the NNGS Network Code, and its revisions and (b) the Non-scheduled Maintenance works of NNGS executed in the Year 2024 in order to assure the secure, reliable and efficient operation of the NNGS, according to the provisions of Article 99 of the Network Code. Preventive and repairing maintenance of all electromechanical installations, supervision, management and control of the pipeline row zone as well as the supervision and control of cathodic and lighting protection of the pipeline and the installations were carried out in accordance with the provisions of the maintenance manuals, the current legislation and the experience granted so far by the multiannual operation of the system.

The calibration of the measuring systems was done according to Table 6, with only minor time deviations from the Annual Calibration Program that was uploaded on DESFA website, according to the provisions of Article 27 of the NNGS Metering Regulation.

DESFA is certified with ISO 9001:2008, OHSAS 18001:2004 & EN ISO 14001:2004 for all his activities, including the procedures of preventive and repairing maintenance and calibration of measuring systems. Furthermore, DESFA has a Pressure and Chemical Laboratory and a Chemical Analysis Testing Laboratory certified by the Hellenic Accreditation System (E.SY.D.) with ELOT EN ISO/IEC 17025:2017.

NATIONAL NATURAL GAS TRANSMISSION SYSTEM MAINTENANCE PROGRAM - YEAR 2024 / NON-SCHEDULED MAINTENANCE					
No.	**DESCRIPTION OF WORKS**	**IMPLICATIONS**	**PERIOD OF WORKS**	**MAINTENANCE DAYS**	**REMARKS**
1	i) Tie-in of the Regulating Station at Komotini ii) Recompression works for the connection to the NNGTS of the Amfitriti Metering Station	Transmission Capacity for Delivery at Entry Point 'KIPI': 0 kWh/Day	08.01.2024 07:00 – 17.01.2024 07:00	9	Works were included in the NNGS Maintenance Program for the Year 2024
2	Cold tapping works for the connection of Amfitriti Metering/Regulating Station to the NNGTS	Transmission Capacity for Delivery at Entry Point 'KIPI': 0 kWh/Day	17.01.2024 07:00 – 25.01.2024 07:00	8	Works were included in the NNGS Maintenance Program for the Year 2024
3	i) Maintenance at Nea Mesimvria Compression Station ii) Maintenance at Border Metering Station (BMS) Sidirokastro	Transmission Capacity for Delivery at Entry Point 'SIDIROKASTRO': 0 kWh/Day Transmission Capacity for Delivery at Entry Point 'KIPI': 20,000,000 kWh/Day Transmission Capacity for Reception of Reverse Flow at Exit Point 'SIDIROKASTRO': 0 kWh/Day	23.04.2024 07:00 – 25.04.2024 07:00	2	Works were included in the NNGS Maintenance Program for the Year 2024
4	Repair works for a sudden technical malfunction at the Nea Mesimvria Compressor Station	Transmission Capacity for Delivery at Entry Point 'SIDIROKASTRO': 103,640,752 kWh/Day Transmission Capacity for Delivery at Entry Point 'NEA MESIMVRIA': 38,359,248 kWh/Day	02.09.2024 07:00 – 03.09.2024 07:00	1	Works were not included in the NNGS Maintenance Program for the Year 2024
5	Repair works for a sudden technical malfunction at the Nea Mesimvria Compressor Station	Transmission Capacity for Delivery at Entry Point 'SIDIROKASTRO': 94,158,143 kWh/Day Transmission Capacity for Delivery at Entry Point 'NEA MESIMVRIA': 38,008,154 kWh/Day	10.09.2024 07:00 – 11.09.2024 07:00	1	Works were not included in the NNGS Maintenance Program for the Year 2024

6	i) Upgade of Distributed Control System at Revithoussa LNG Station ii) Maintenance works at LNG Truck loading bay	LNG Injection Rate: 0 m^3 LNG/hour Gasification Capacity of LNG Facility and Transmission Capacity for Delivery at Entry Point 'AGIA TRIADA': 0 kWh/Day	04.10.2024 07:00 – 07.10.2024 07:00	3	Works were included in the LNG Facility Maintenance Program for the Year 2024
7	i) Maintenance at Nea Mesimvria Compression Station ii) Maintenance at Border Metering Station (BMS) Sidirokastro iii) Upgade of Distributed Control System at Nea Mesimvria Compression Station	Transmission Capacity for Delivery at Entry Point 'SIDIROKASTRO': 20,000,000 kWh/Day Transmission Capacity for Delivery at Entry Point 'NEA MESIMVRIA': 30,000,000 kWh/Day Transmission Capacity for Delivery at Entry Point 'AMFITRITI' to VTP: 0 kWh/Day Transmission Capacity for Reception of Reverse Flow at Exit Point 'SIDIROKASTRO': 0 kWh/Day for the Day 16.10.2024	15.10.2024 07:00 – 19.10.2024 07:00	4	Works were included in the NNGS Maintenance Program for the Year 2024
8	Cleaning and in line inspection works in the 'Lavrion branch' of the NNGTS	For the successful execution of works, the flow of Natural Gas at the Exit Point 'LAVRIO (PPC)' was required to be greater than 6,000,000 kWh/Day	29.10.2024 07:00 – 30.10.2024 07:00 05.11.2024 07:00 – 06.11.2024 07:00	2	Works were included in the NNGS Maintenance Program for the Year 2024
9	Cleaning and in line inspection works in the 'Megara - Korinthos branch' of the NNGTS	For the successful execution of works, the flow of Natural Gas at the Exit Point 'MEGALOPOLI (PPC)' was required to be greater than 16,000,000 kWh/Day	01.11.2024 07:00 – 02.11.2024 07:00 07.11.2024 07:00 – 08.11.2024 07:00	2	Works were included in the NNGS Maintenance Program for the Year 2024
10	Cleaning and in line inspection works in the 'Aliveri branch' of the NNGTS	For the successful execution of works, the flow of Natural Gas at the Exit Point 'ALIVERI (PPC)' was required to be greater than 13,000,000 kWh/Day	30.10.2024 07:00 – 31.10.2024 07:00 11.11.2024 07:00 – 12.11.2024 07:00	2	Works were included in the NNGS Maintenance Program for the Year 2024

Table 5

CALIBRATIONS – YEAR 2024

ENTRY POINT STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SIDIROKASTRO / U – 2010				15 – 19 & 22						18 & 21-25		
AGIA TRIADA / U – 3020				17 & 23						16 - 17		
KIPI / U – 3900												
NEA MESIMVRIA / U-6910			15 - 30						9 - 11			
EXIT POINT STATION	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
PPC LAVRIO / U – 3430			11 - 15						16-20			
THRIASSIO / U – 2960				10-11						10		
PPC ALIVERI PPC / U – 6370	11						16					
ATHENS WEST / U – 2990					14-15						11-12	
ATHENS NORTH / U – 2910				17 - 18						15 - 16		
ATHENS EAST / U – 2940			19						12			
STATION ANTHOUSA / U-5210			20						11			
ATHENS HAR / U-2970		12						19				
INOFYTA / U – 2880					09-10						18-19	
HERONAS / U – 6020		8– 9										
HERON B / U – 6030		8 - 9						22				
MARKOPOULO / U-3460					21						14	
PP THISVI / U-6650	9						8					

EXIT POINT STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
AdG / U – 2820						10						10
AdG B / U-2830						11						11
AdG III / TM1/TM5						12						12
ADG IV / U-2840						13						13
THIVA / U-2740	8						3					
ELPE ELEFSINAS / U-7420				15						9		
MOTOR OIL / U – 7130			19 – 20						3 - 4			
MOTOR OIL B / U – 7140			21 - 22						5 - 6			
TRIPOLI / U-7270			13						12			
PPC MEGALOPOLI / U – 7320					22-23						13-14	
MEGALOPOLI / U–TM06					15-16						11-12	
AG. THEODOROI / U – 7045				10 - 11						14 - 15		
VOLOS / U – 2680					20 - 21						13 - 14	
LARISSA NORTH / U – 2520					27 - 28						21 - 22	
LARISSA SOUTH / U – 2530					5 - 6						18 - 19	
VIPE LARISSA / U – 2515					8 - 9						4 - 5	
LAMIA / U–2620						10-11					4 - 5	
KARDITSA / U–6240					13 - 14						6 - 7	
TRIKALA / U-6260					22 -23						11	

EXIT POINT STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
FARSALA / U-6280					3						27 - 28	
KOKKINA / U-2670					29						25 - 26	
THESSALONIKI NORTH / U–2240				1 - 15						10 - 11		
THESSALONIKI EAST / U-2220				1 - 15						8 - 9		
ELPE DIAVATA / U-2270				1 - 15						15		
PLATY / U–2410								22			27	
EKO / U–2250				15 - 30						14		
KILKIS / U–2060								26-27			28 - 29	
KATERINI / U–2340								20-21)			26	
PPC KOMOTINI / U–3570					29 - 31						13 - 15	
KOSMIO / U-2550			12						27			
KOMOTINI / U-3580				23 - 24						1&3		
KAVALA / TM4-A				18						4		
KAVALA / U-2180						7						12 - 13
VFL / U–2170						5 - 6						5 - 6
XANTHI / U–3530			5						30	6		
ALEXANDROUPOLIS / U–3630						6-7					18	5
DRAMA / U–2140			19 – 20						19 - 20			
SERRES / U–2110			21 – 22						16-17			

Table 6

2.6 Congestion and Congestion Management

Congestion occurs when the available Transmission Capacity at an Entry Point or Exit Point or Reverse Flow Entry Point or Reverse Flow Exit Point is not sufficient to fulfill a User's request for booking Transmission Capacity at that Point in order to serve a new Natural Gas Consumer.

Table 7 below presents the Technical Capacities of the NNGTS Entry/Exit/ Reverse Flow Exit Points and the Maximum Booked Transmission Capacity (MBTC) at the Points for Year 2024, in absolute terms and as a percentage of the Technical Capacity.

ENTRY POINT	Technical Capacity [kWh/Day]	Maximum Booked Transmission Capacity at Point [kWh/Day]	Maximum Booked Transmission Capacity at Point as a percentage of Technical Capacity [%]
AGIA TRIADA	224,592,985	224,592,985	100%
AMFITRITI	179,762,000	54,449,777	30%
KIPI	0	0	0%
NEA MESIMVRIA(1)	44,612,000	53,368,256	100%
SIDIROKASTRO(1)	120,227,859	122,707,824	102%
EXIT POINT	Technical Capacity [kWh/Day]	Maximum Booked Transmission Capacity at Point [kWh/Day]	Maximum Booked Transmission Capacity at Point as a percentage of Technical Capacity [%]
AG. THEODOROI	2,992,197	215,005	7%
ATHENS	101,876,740	34,138,950	34%
ALEXANDROUPOLIS	7,480,015	259,342	3%
ALIVERI (PPC)	21,371,472	17,167,000	80%
ALOYMINION	26,714,340	17,000,000	64%
ALOYMINION II	20,723,593	17,500,000	84%
ALOYMINION III	6,542,964	4,250,000	65%
ALOYMINION IV	39,675,420	33,500,000	84%
VIPE LARISSA	2,671,434	288,603	11%
VOLOS	13,796,086	4,158,351	30%
VFL	6,493,989	5,420,000	83%
DRAMA	7,480,015	1,593,704	21%

ELPE	4,815,794	2,350,000	49%
ELPE-VEE	12,756,552	9,000,000	71%
ELPE-HAR	8,014,302	6,600,000	82%
ENERGIAKI THESS. (ELPE)	26,714,340	14,000,000	52%
HERON II	22,441,482	15,800,000	70%
HERONAS	10,685,736	2,400,000	22%
THERMOILEKTRIKI KOMOTINIS	38,400,000	2,500,000	7%
THESSALONIKI	77,501,024	27,293,524	35%
THISVI	23,738,101	12,000,001	51%
KAVALA	2,671,434	35,004	1%
KAVALA (CITY)	2,477,973	2,556	0%
KARDITSA	5,342,868	1,441,909	27%
KATERINI	7,480,015	626,667	8%
KERATSINI (PPC)	27,289,500	0	0%
KILKIS	11,754,309	1,880,812	16%
KOMOTINI (DESFA/IGB)	124,762,000	16,417,553	13%
KOMOTINI (PPC)	28,851,488	19,063,000	66%
KOMOTINI	5,342,868	304,934	6%
KOKKINA	2,671,434	1,253,565	47%
KORINTHOS	2,787,840	0	0%
KOSMIO	12,159,840	17,099	0%
LAMIA	7,480,015	466,635	6%
LARISSA	13,843,371	5,974,818	43%
LAVRIO (PPC)	64,114,418	36,355,000	57%
LIVADEIA	1,604,112	17,321	1%
MEGALOPOLIS (PPC)	42,742,945	33,911,000	79%
MEGALOPOLI	3,314,880	112,354	3%
MOTOR OIL	26,714,340	12,050,000	45%
MOTOR OIL II	21,371,472	17,000,000	80%
XANTHI	11,754,309	227,439	2%
OINOFYTA	11,836,679	4,862,233	41%
PLATY	5,740,377	1,157	0%
SALFA ANTHOUSSA	1,371,600	164,000	12%
SALFA ANO LIOSSIA	2,671,434	214,000	8%
SERRES	11,754,309	1,647,904	14%
SPATA	3,072,149	615,942	20%

TRIKALA	5,342,868	1,700,051	32%
TRIPOLI	5,565,600	97,598	2%
FARSALA	1,870,003	292,035	16%
REVERSE FLOW EXIT POINT	Technical Capacity [kWh/Day]	Maximum Booked Transmission Capacity at Point [kWh/Day]	Maximum Booked Transmission Capacity at Point as a percentage of Technical Capacity [%]
SIDIROKASTRO(1)	66,615,900	66,611,771	100%

Table 7

Comments on Table 7:

1. The percentages of the Entry Points 'NEA MESIMVRIA' and 'SIDIROKASTRO' and the Reverse Flow Exit Point 'SIDIROKASTRO' were calculated based on the sum of the Technical Capacity and the Additional Transmission Delivery Capacity of the pertinent Point on the Day of its Maximum Booked Transmission Capacity booked by the Transmission Users in the Year 2024.

2.7 Emergencies and Dealing with Emergencies

During the Year 2024 there was no Crisis in the National Natural Gas System, as defined in the current Emergency Plan (Government Gazette 6453/B/13.11.2023), in accordance with Articles 8 and 10 of Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing of Regulation (EU) 994/2010, as well as those referred to in Chapter 10 of the NNGS Network Code.

2.8 Operating characteristics of the NNGS

The Minimum Inlet Pressure at NNGTS Entry Point 'SIDIROKASTRO' is 47.75 barg, at Entry Points 'KIPI' and 'NEA MESIMVRIA' it is 50 barg, while at Entry Point 'AMFITRITI' it is 75 barg according to the Interconnection Agreement between DESFA and Gastrade.

During 2024 there was no delivery of Natural Gas to the 'KIPI' Entry Point. Diagram 3 shows the average Daily Inlet Pressure at the NNGTS Entry Points 'AGIA TRIADA', 'SIDIROKASTRO', 'NEA MESIMVRIA' and 'AMFITRITI' throughout the Year 2024.

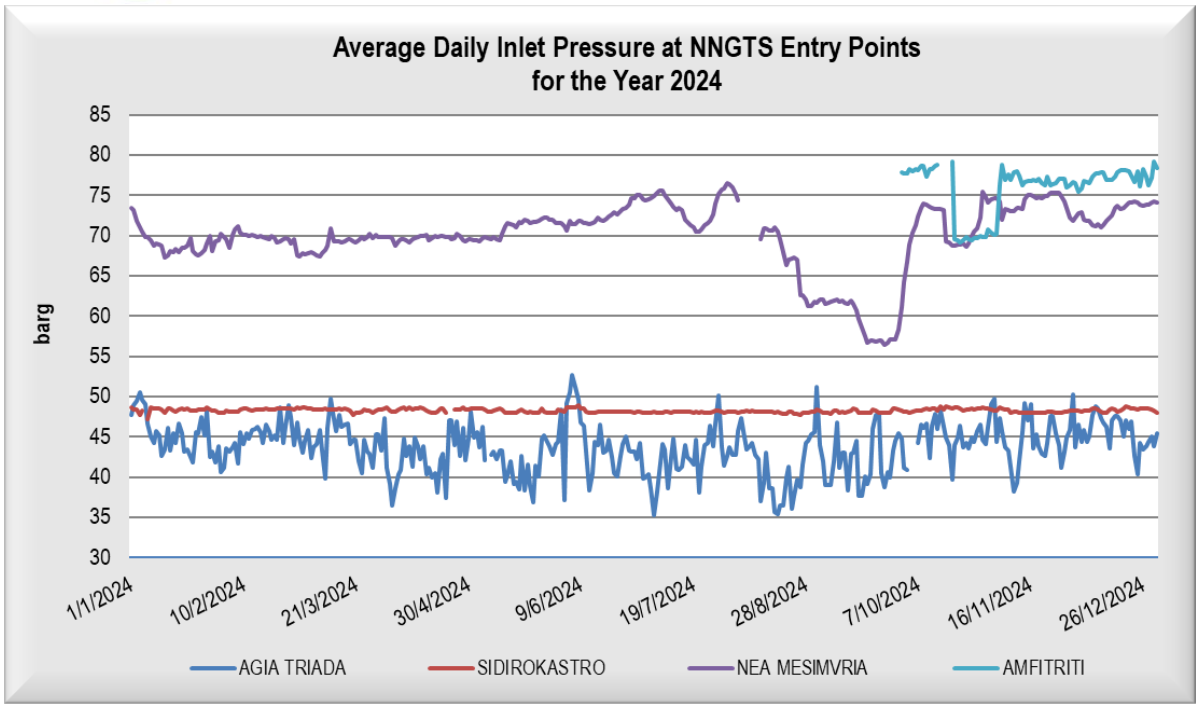

Diagram 3

Furthermore, Diagram 4 shows the average Daily Network Pressure of the NNGTS for the Year 2024, as calculated by data recorded by the NNGTS SCADA system.

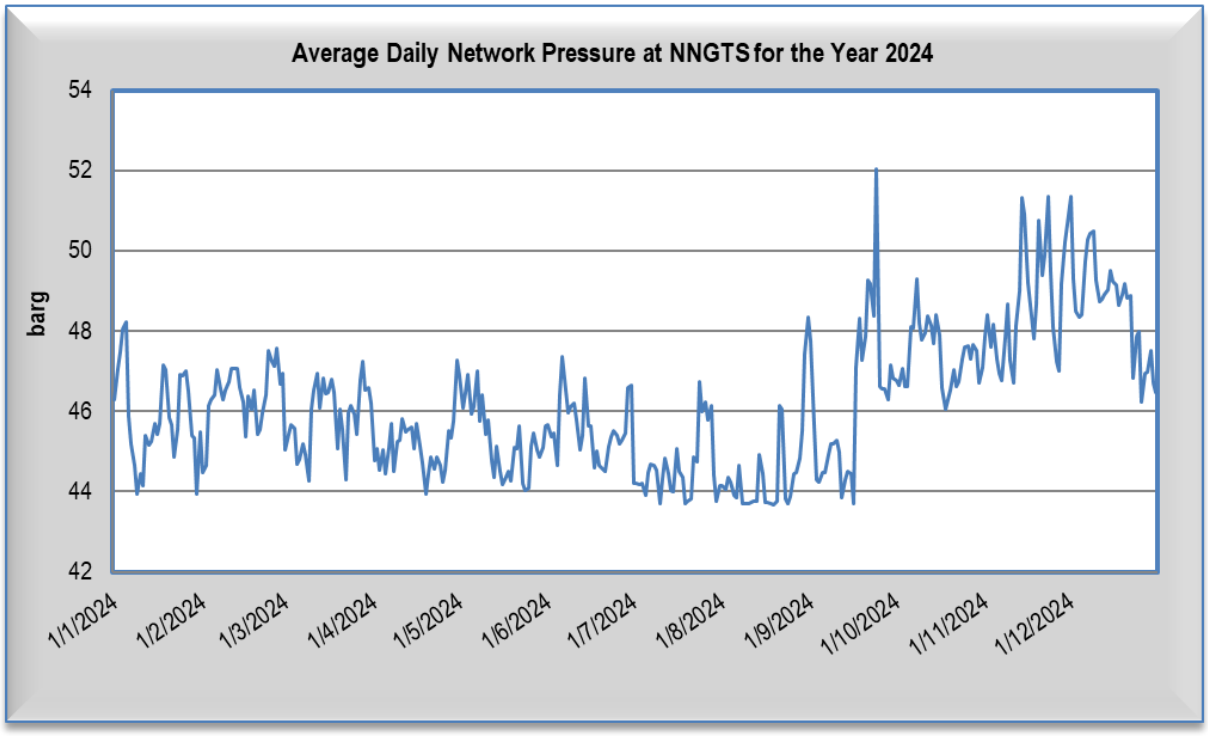

Diagram 4

2.9 Natural Gas Quantities historical data

2.9.1 Daily Natural Gas physical Deliveries/Off-takes

During the Year 2024 the total Natural Gas physical Off-takes at the NNGTS Exit/ Reverse Flow Exit Points was 66,689 mil. kWh (compared to 53,822 mil. kWh during the Year 2023). Diagram 5 shows the Daily Natural Gas physical Off-Takes at the NNGTS Exit/Reverse Flow Exit Points, as a sum, for the Year 2024. It is worth mentioning that the maximum amount of the Natural Gas Off-Takes at the NNGTS Exit/Reverse Flow Exit Points for the Year 2024 was recorded on the Day 03.12.2024, i.e. 304,908,629 kWh.

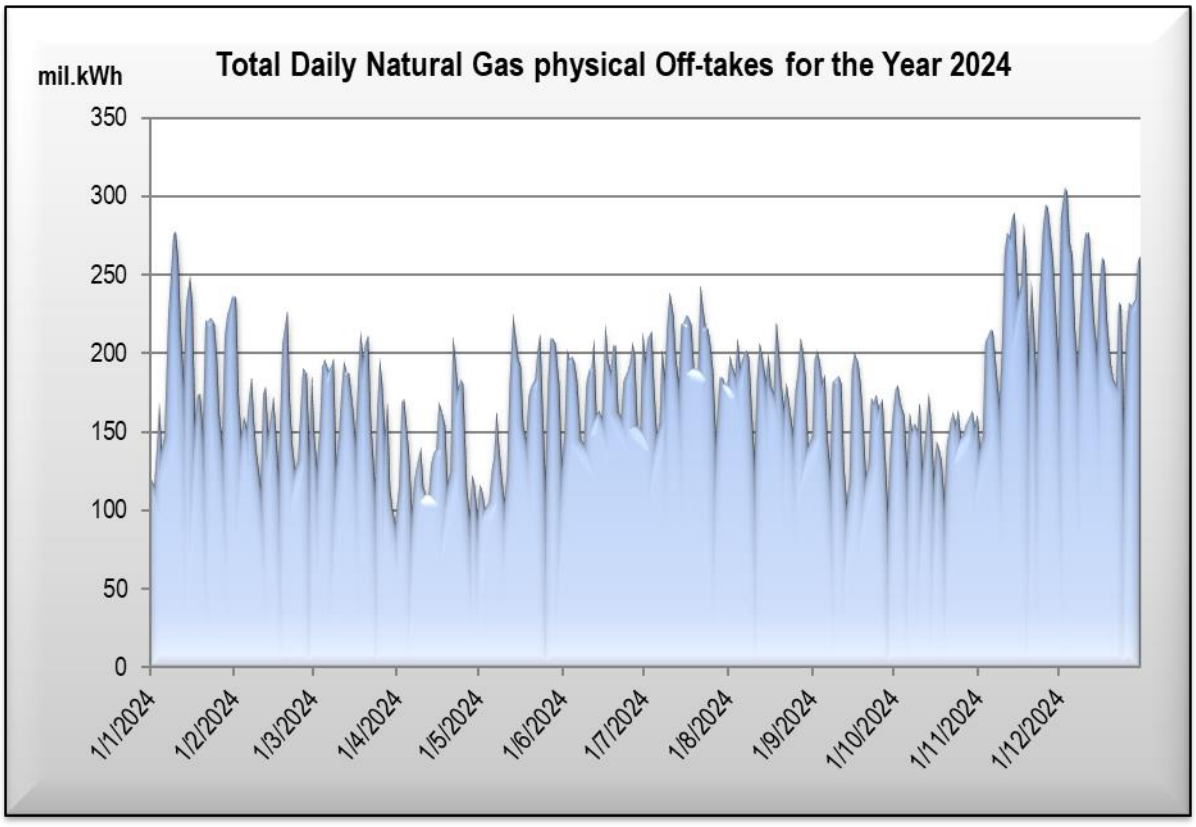

Diagram 5

During the Year 2024 the total Natural Gas physical Deliveries at the NNGTS Entry Points was 66,943 mil. kWh (compared to 53,942 mil. kWh during the Year 2023). Diagram 6 shows the shares of Natural Gas physical Delivery quantities per NNGTS Entry Point for the Year 2024.

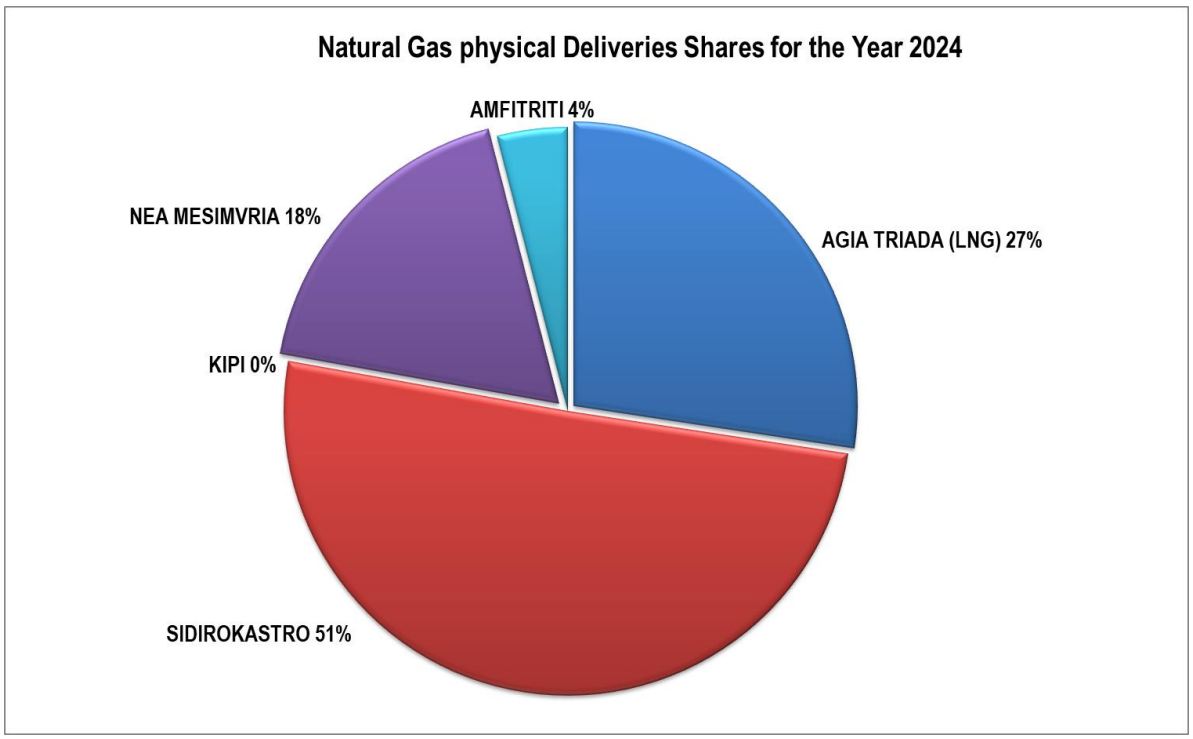

Diagram 6

2.9.2 Daily Natural Gas Quantity stored in the network of NNGTS

The Daily Natural Gas quantity stored in the NNGTS (i.e. Line Pack) varied from 22,000,588 Nm³ (Day 20.08.2024) to 26,309,132 Nm³ (Day 24.11.2024). Diagram 7 shows the Daily variation of the NNGTS Line Pack.

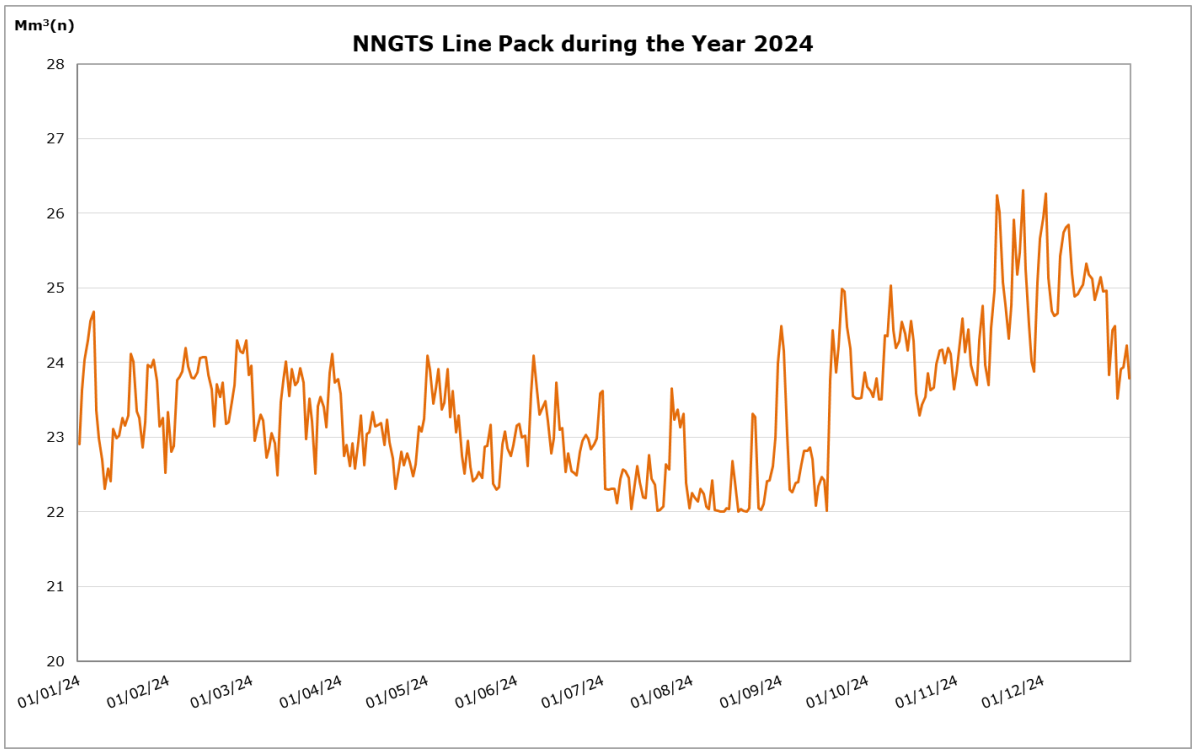

Diagram 7

2.9.3 Total Daily LNG Stock

Through the Entry Point 'AGIA TRIADA' 18,336 mil. kWh of Natural Gas were injected into the NNGTS (compared to 29,494 mil. kWh during the Year 2023), while the LNG unloads led to 18,684 mil. kWh (compared to 28,523 mil. kWh during the Year 2023).

Diagram 8 shows the Daily configuration of the total LNG stock of the LNG Users, including the Balancing Gas that DESFA stored for performing balancing services, during the Year 2024.

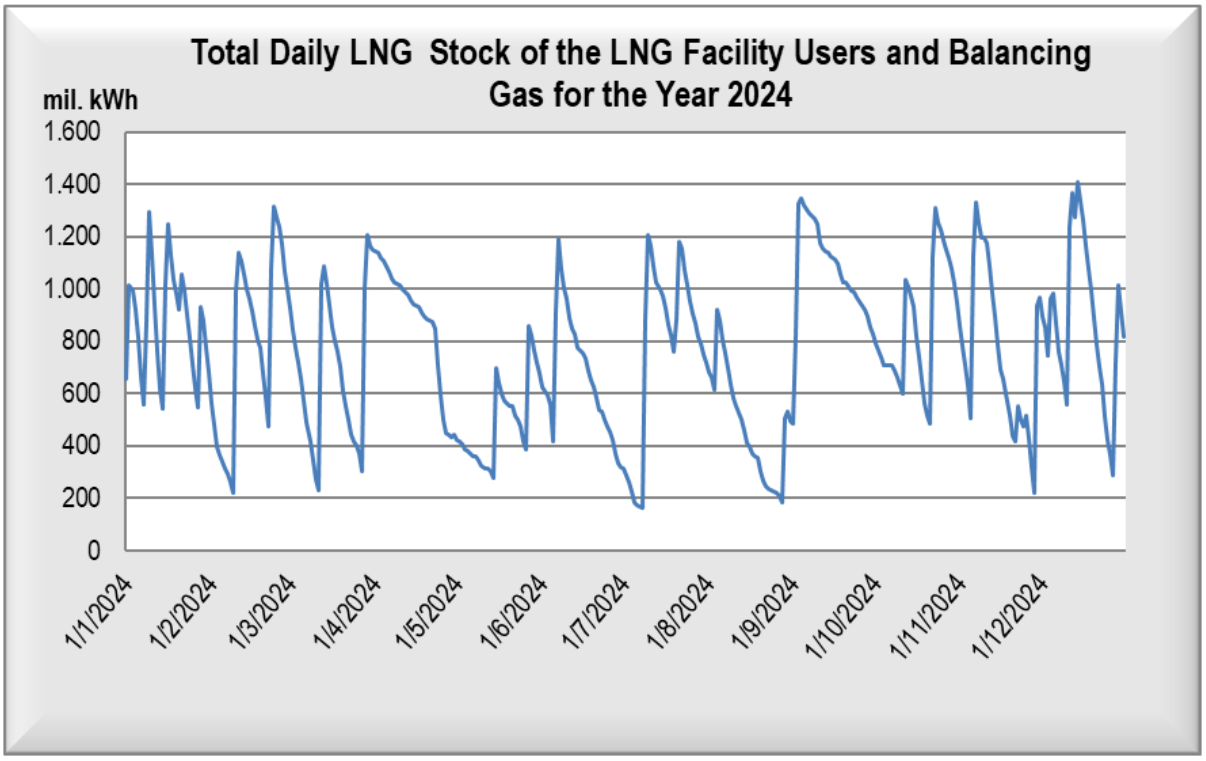

Diagram 8

2.9.4 Historical Operational data of the Compression Station in Nea Mesimvria

The Compression Station in Nea Mesimvria, Thessaloniki, consumed 157,630,640 kWh of Natural Gas as fuel during the Year 2024. The amount corresponds to 96% of the total Operational Gas that was used in the NNGTS during the Year 2024, which amounts to 164,770,548 kWh.

Diagram 9 on the next page shows the Operational Gas used in the NNGTS and the Natural Gas consumed as fuel for the operation of the Compression Station on a Monthly basis during the Year 2024.

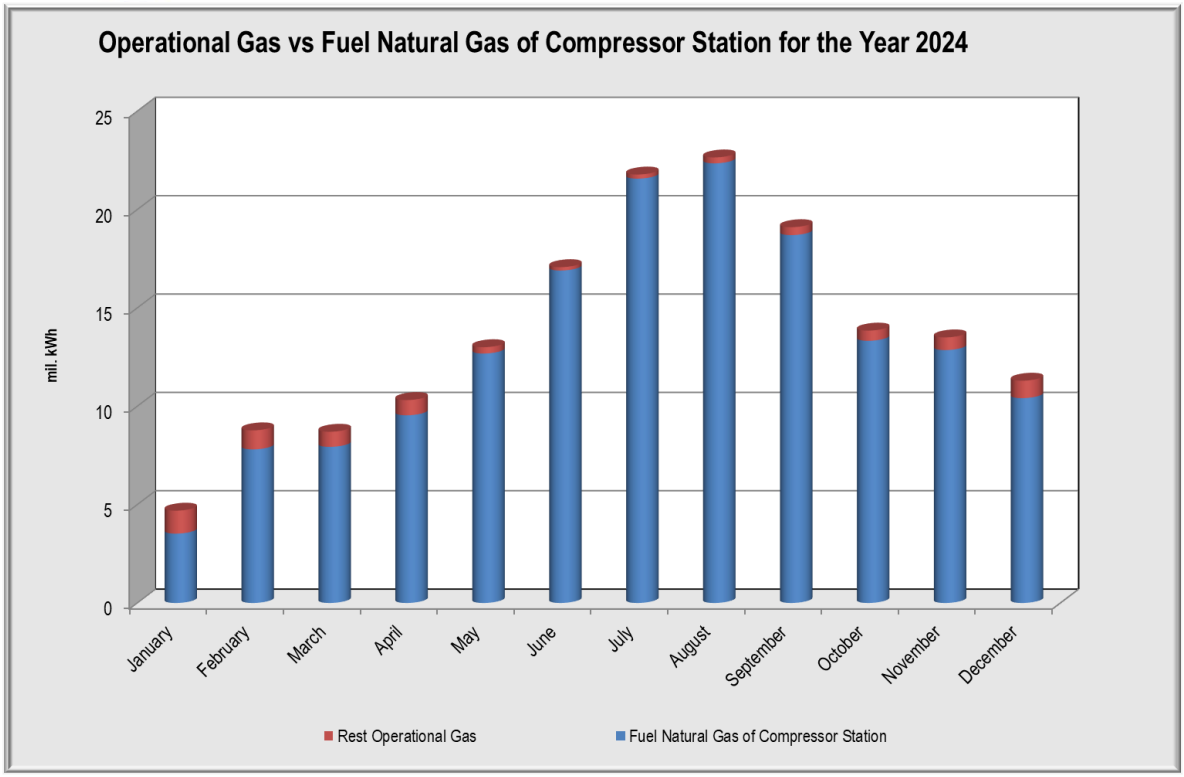

Diagram 9

Diagram 10 below shows the Natural Gas quantity that was handled by the Compression Station on a Monthly basis during the Year 2024.

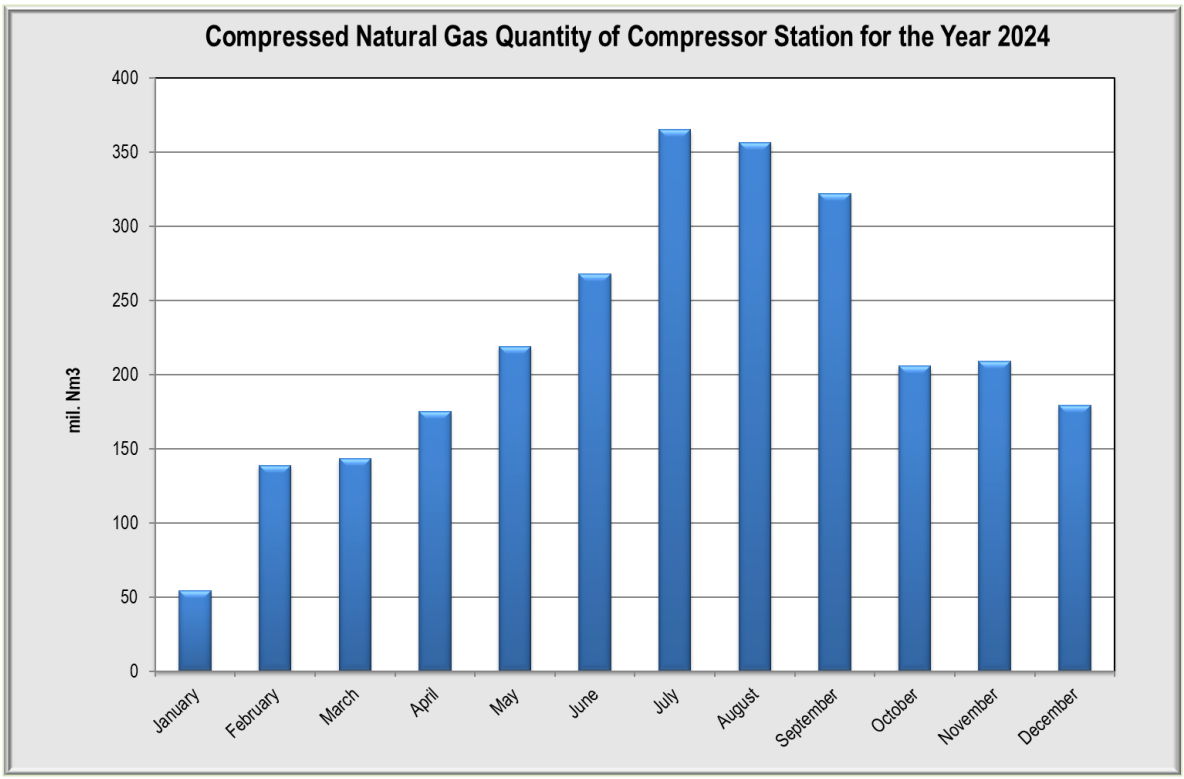

Diagram 10

2.9.5 Natural Gas out of specifications during the Year 2024

During the Year 2024, the average Daily Delivery Pressure at the Entry Point 'SIDIROKASTRO' was lower than the Minimum Entry Pressure (47.75 barg) for two (2) Days and at the Entry Point 'AMFITRITI' it was lower than the Minimum Entry Pressure (75 barg) for sixteen (16) Days. There was no average Daily Delivery Pressure lower than the Minimum Entry Pressure (50 barg) at the Entry Points 'KIPI' and 'NEA MESIMVRIA'.

Finally, during the Year 2024, the following incidents occurred where Natural Gas was out of the quality specifications, as these are specified in Annex I of the NNGS Network Code:

1. The Natural Gas temperature off-taken at the Exit Point 'KATERINI' was for one (1) Day lower than the minimum limit (-5oC).

2. The Natural Gas Water Due Point (WDP) off-taken at the Exit Point 'ALEXANDROUPOLIS' was for forty-seven (47) Days higher than the maximum limit (5^{o}C at 80 barg).

3. The Natural Gas Water Due Point (WDP) off-taken at the Exit Point 'KOMOTINI' was for two (2) Days higher than the maximum limit (5^{o}C at 80 barg).

4. The Natural Gas Water Due Point (WDP) delivered to the Entry Point 'AMFITRITI' was for six (6) Days higher than the maximum limit (5^{o}C at 80 barg).