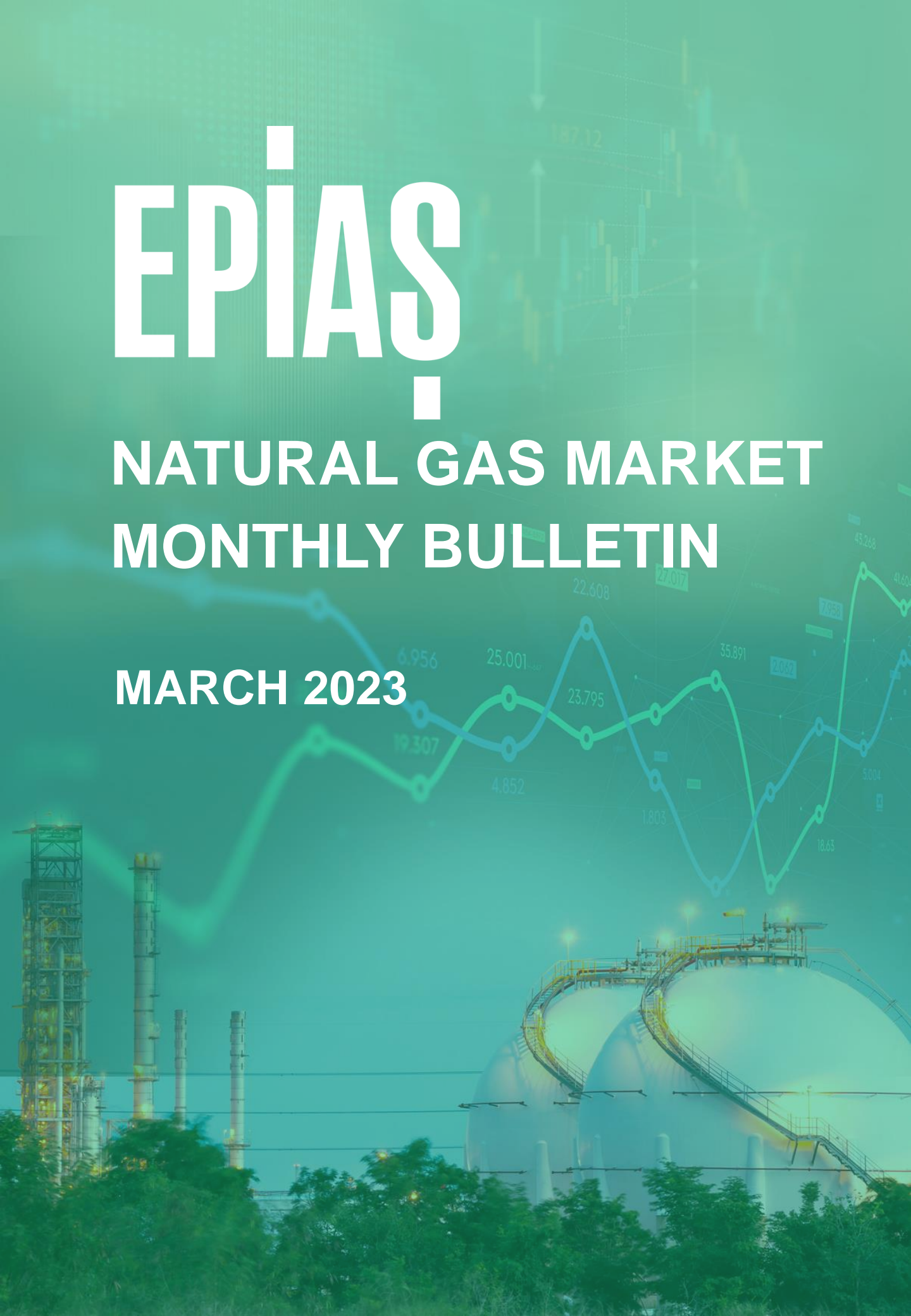


# EPIAS

## NATURAL GAS MARKET MONTHLY BULLETIN

MARCH 2023



## SUMMARY DATA (1/2)

### Arithmetic Means

	March 2023	February 2023	Monthly Change	March 2022	Annual Change
Number of Ordered Participants	<b>9</b>	9	-7.3%	12	-29.7%
Number of Trades	<b>9</b>	9	0.0%	12	-22.3%
Number of Orders	<b>20</b>	22	-5.8%	32	-36.3%
BGSP (TL/'000 Sm <sup>3</sup> )	<b>8.900</b>	11.114	-19.9%	9.379	-5.1%
DRP (TL/'000 Sm <sup>3</sup> )	<b>9.368</b>	11.698	-19.9%	9.669	-3.1%
BGPP (TL/'000 Sm <sup>3</sup> )	<b>9.837</b>	12.283	-19.9%	10.022	-1.8%
Traded Volume (mio.Sm <sup>3</sup> )	<b>3,46</b>	2,99	15.8%	16,62	-79.2%
Transaction Volume (TL)	<b>32.510.596</b>	34.887.597	-6.8%	161.043.020	-79.8%
Gas Entry Volume (mio.Sm <sup>3</sup> )	<b>164,70</b>	220,53	-25.3%	225,70	-27.0%
Gas Exit Volume (mio.Sm <sup>3</sup> )	<b>164,65</b>	220,89	-25.5%	225,16	-26.9%
WRP (TL/'000 Sm <sup>3</sup> )	-	-	-	-	-

### Maximum / Minimum Levels

	March 2023		February 2023		March 2022	
	Max	Min	Max	Min	Max	Min
Number of Trades	<b>17</b>	<b>5</b>	16	5	18	6
Number of Ordered Participants	<b>9</b>	<b>7</b>	11	8	16	9
Number of Orders	<b>32</b>	<b>11</b>	37	15	52	20
BGSP (TL/'000 Sm <sup>3</sup> )	<b>9.606</b>	<b>8.147</b>	13.106	9.733	9.464	9.245
DRP (TL/'000 Sm <sup>3</sup> )	<b>10.112</b>	<b>8.575</b>	13.796	10.245	9.757	9.531
BGPP (TL/'000 Sm <sup>3</sup> )	<b>10.618</b>	<b>9.004</b>	14.485	10.757	11.990	9.817
Traded Volume (mio.Sm <sup>3</sup> )	<b>8,71</b>	<b>0,41</b>	7,54	0,29	55,90	3,32
Transaction Volume (TL)	<b>87.135.590</b>	<b>3.580.428</b>	81.389.790	3.091.876	544.687.690	32.305.802
Gas Exit Volume (mio.Sm <sup>3</sup> )	<b>205,10</b>	<b>123,74</b>	259,61	127,99	257,46	178,22
Gas Entry Volume (mio.Sm <sup>3</sup> )	<b>201,55</b>	<b>123,85</b>	257,77	132,35	257,83	186,53
WRP (TL/'000 Sm <sup>3</sup> )	<b>0</b>	<b>0</b>	0	0	0	0

## SUMMARY DATA (2/2)

### Totals

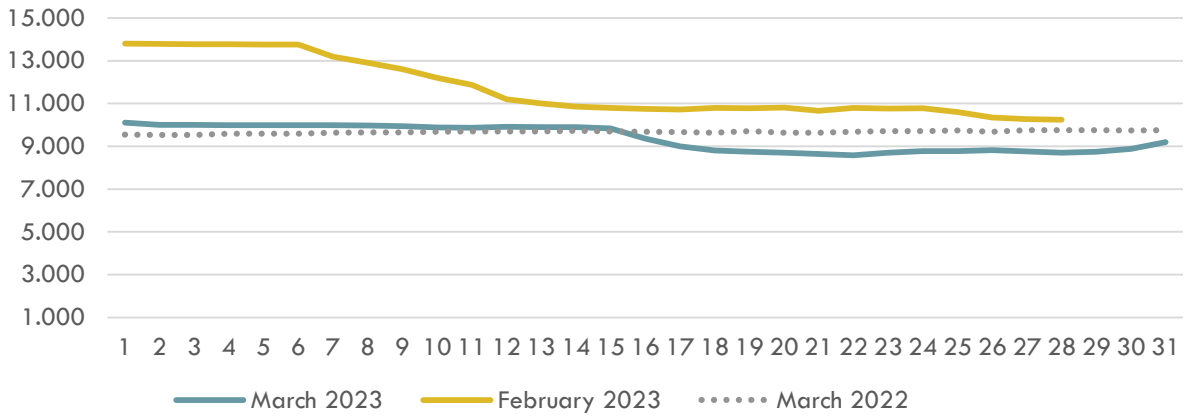
	March 2023	February 2023	Monthly Change	March 2022	Annual Change
Ratio of Natural Gas Based Generation to Total Electricity Generation (%)	<b>19</b>	28	-32.8%	20	-3.2%
Total Production of Natural Gas Based Power Plants (MWh)	<b>4.588.993</b>	6.304.620	-27.2%	5.181.687	-11.4%
Total Electricity Generation (MWh)	<b>24.224.058</b>	22.354.012	8.4%	26.478.744	-8.5%
Number of Trades	<b>290</b>	262	10.7%	373	-22.3%
Number of Orders	<b>629</b>	603	4.3%	988	-36.3%
Traded Volume (mio.Sm <sup>3</sup> )	<b>107,25</b>	83,64	28.2%	515,31	-79.2%
Transaction Volume (TL)	<b>1.007.828.484</b>	976.852.724	3.2%	4.992.333.624	-79.8%
Gas Entry Volume (mio.Sm <sup>3</sup> )	<b>5.105,70</b>	6.174,74	-17.3%	6.996,58	-27.0%
Gas Exit Volume (mio.Sm <sup>3</sup> )	<b>5.104,07</b>	6.184,79	-17.5%	6.979,86	-26.9%

### Brent Oil and TTF Prices

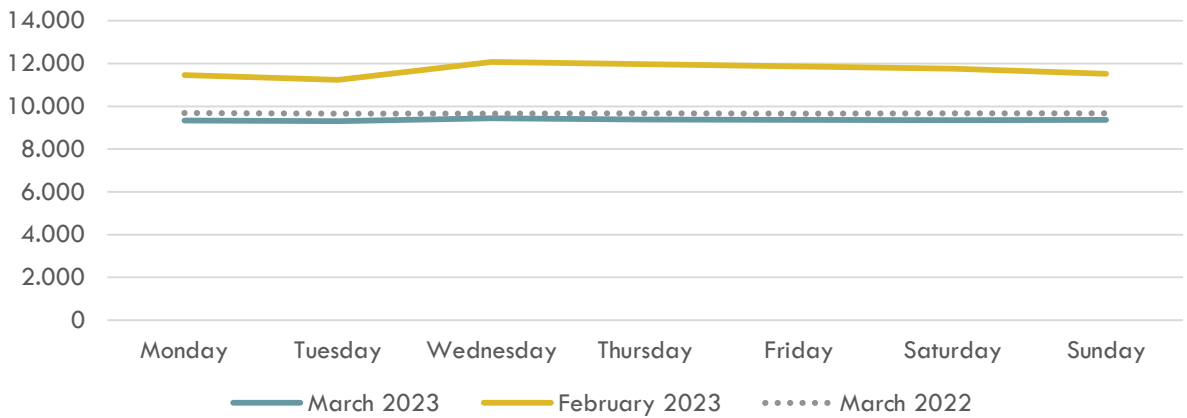
	March 2023	February 2023	Monthly Change	March 2022	Annual Change
Brent Oil(\$/bl)	<b>79,21</b>	83,54	-5,18%	112,46	-29,57%
TTF (€/MWh)	<b>44,86</b>	53,26	-15,77%	127,43	-64,80%

PRICES (1/2)

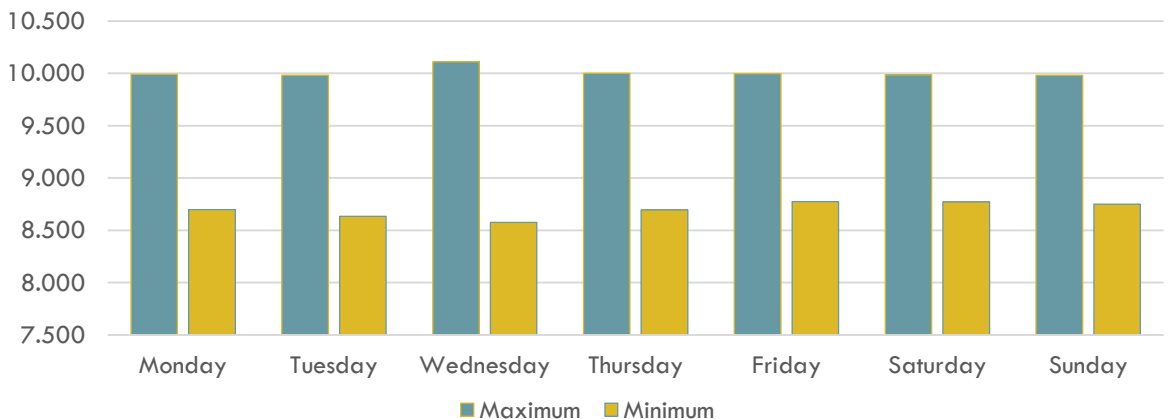
Natural Gas Market DRP (TL/'000 Sm<sup>3</sup>)



Natural Gas Market By Days DRP (TL/'000 Sm<sup>3</sup>)

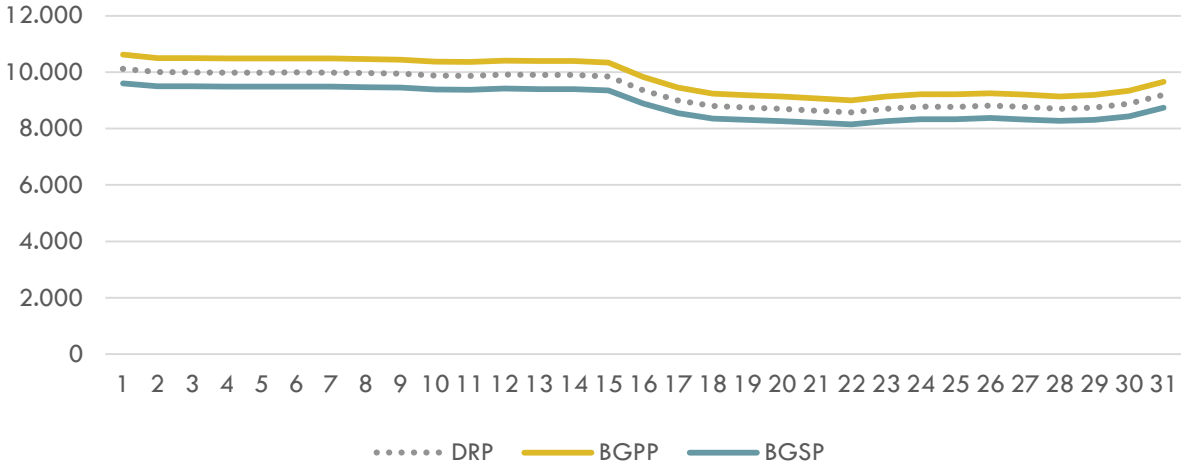


March 2023 Natural Gas Market By Days Max / Min DRP (TL/'000 Sm<sup>3</sup>)



**PRICES (2/2)**

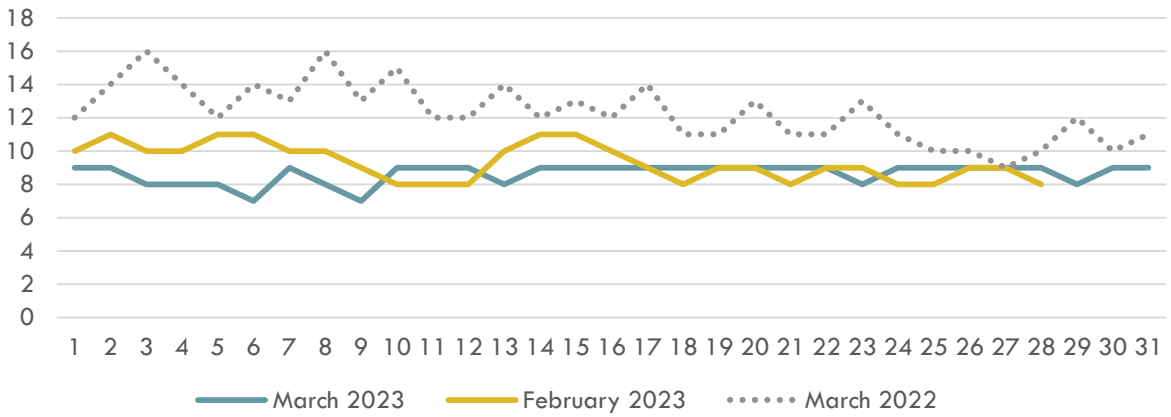
March 2023 DRP - BGPP - BGSP (TL/‘000 Sm<sup>3</sup>)



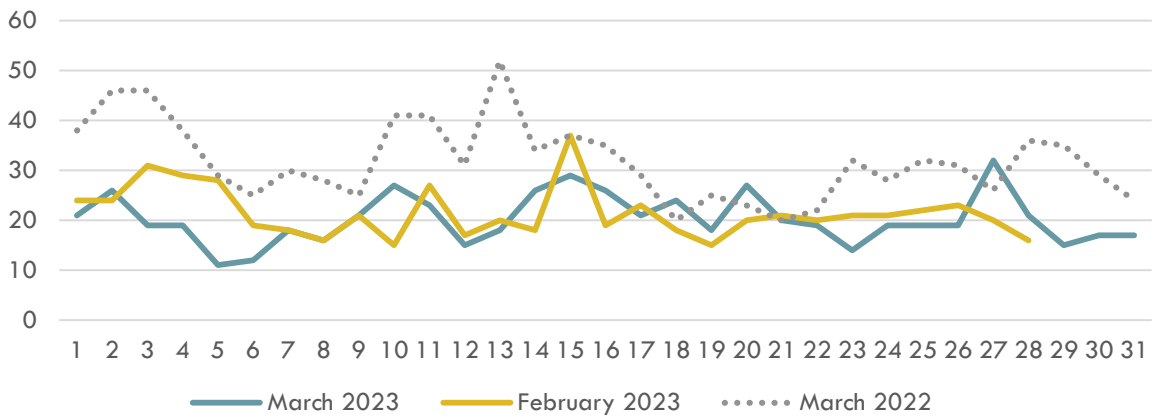
- ✓ The maximum DRP was 10.112 TL on 01 March 2023 Wed; the minimum DRP was realized at the level of 8.575 TL on 22 March 2023 Wed.
- ✓ The Maximum BGPP was 10.618 on 01 March 2023 Wed; the minimum BGPP was realized at the level of 9.004 TL on 22 March 2023 Wed.
- ✓ The maximum BGSP was 9.606 on 01 March 2023 Wed; the minimum BGSP was realized at the level of 8.147 TL on 22 March 2023 Wed.

**ORDERS, TRADES, VOLUMES (1/3)**

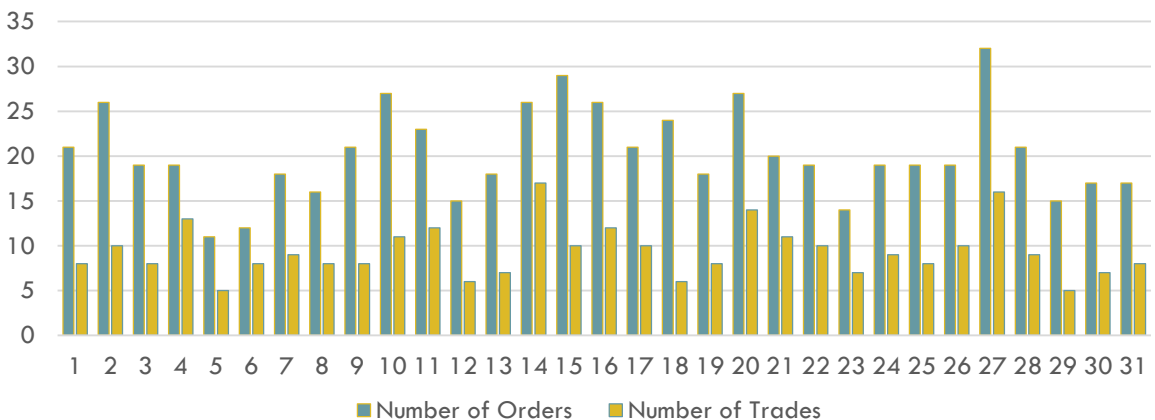
Natural Gas Market Number of Ordered Participants



Natural Gas Market Number of Orders

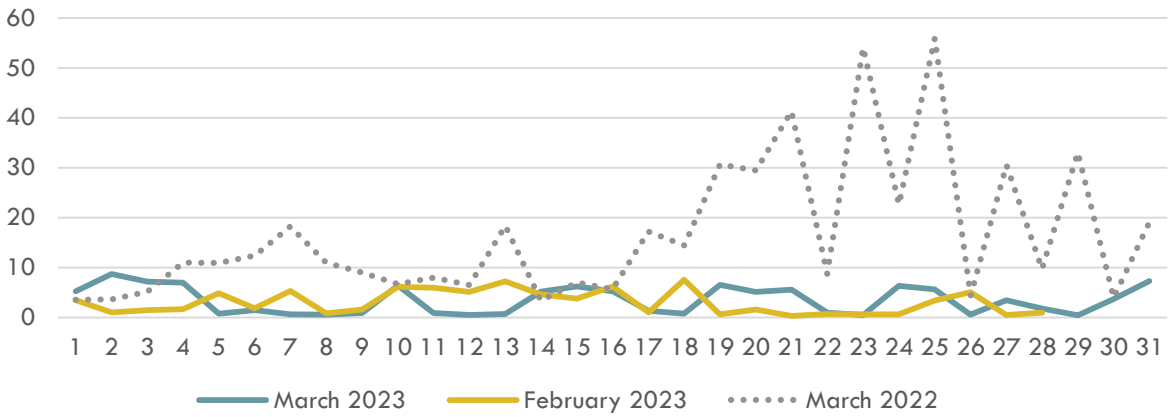


March 2023 Natural Gas Market Number of Orders and Trades

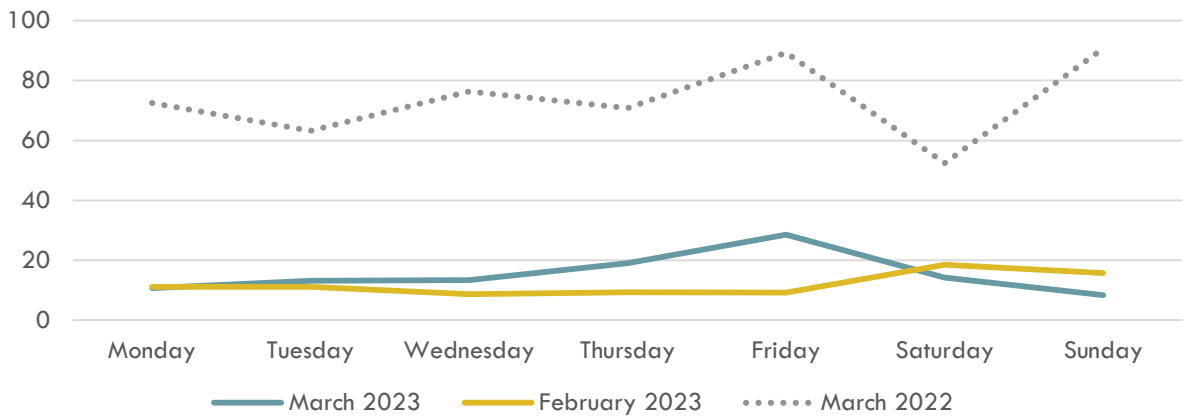


### ORDERS, TRADES, VOLUMES (2/3)

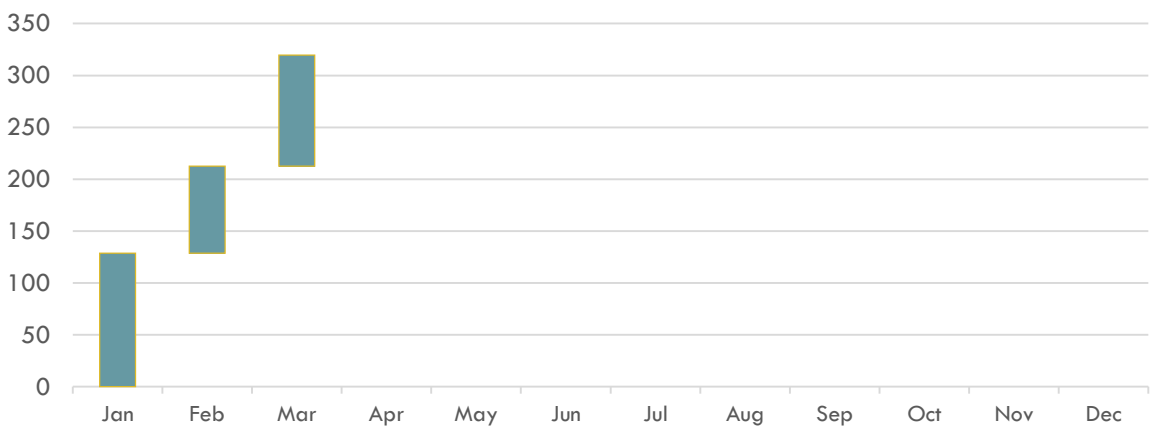
Natural Gas Market Trade Volume (mio.Sm<sup>3</sup>)



Natural Gas Market By Days Trade Volume (mio.Sm<sup>3</sup>)

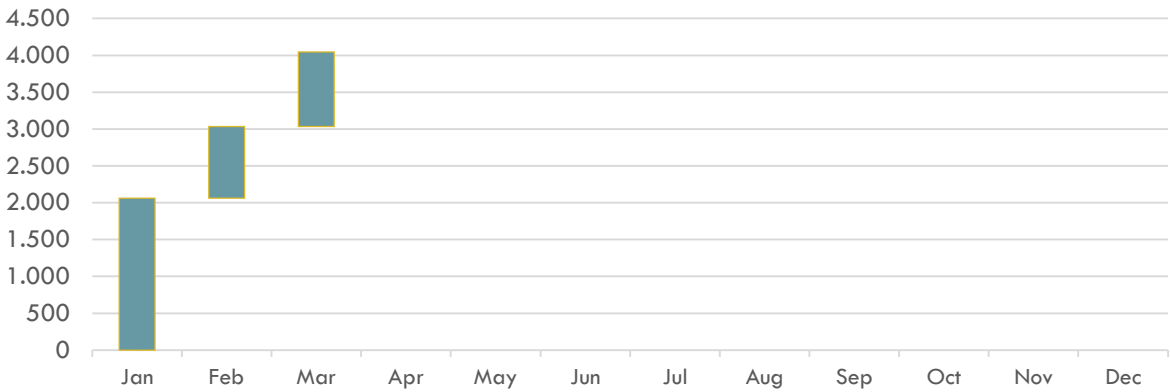


Natural Gas Market Annual Accumulated Trade Volume for 2023 (mio.Sm<sup>3</sup>)

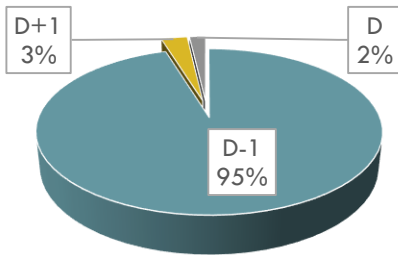


### ORDERS, TRADES, VOLUMES (3/3)

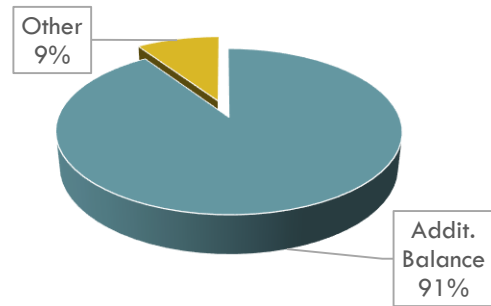
Natural Gas Market Annual Accumulated Transaction Volume for 2023 (Million TL)



Traded Volume of Daily Contracts for March 2023 Period by Sessions



Additional Balancing Traded Volume for March 2023 Period



- ✓ The maximum total traded volume was 8.714 sm<sup>3</sup> on 02 March 2023 Thu; the minimum total traded volume was realized at the level of 409 sm<sup>3</sup> on 29 March 2023 Wed.
- ✓ The maximum total transaction volume was 87.135.590 TL on 02 March 2023 Thu; the minimum total transaction volume was realized at the level of 3.580.428 TL on 29 March 2023 Wed.
- ✓ The maximum d-1 traded volume was 8.475.000 sm<sup>3</sup> on 02 March 2023 Thu; the minimum d-1 traded amount was realized at the level of 219.000 sm<sup>3</sup> on 23 March 2023 Thu.
- ✓ The maximum d-1 traded volume was 84.746.900 TL on 02 March 2023 Thu; the minimum d-1 traded amount was realized at the level of 1.892.567 TL on 23 March 2023 Thu.
- ✓ The maximum d traded volume was 250.000 sm<sup>3</sup> on 23 March 2023 Thu; the minimum d traded amount was realized at the level of 0 sm<sup>3</sup> on 05 March 2023 Sun.
- ✓ The maximum d traded volume was 2.185.750 TL on 23 March 2023 Thu; the minimum d traded amount was realized at the level of 0 TL on 05 March 2023 Sun.
- ✓ The maximum d+1 traded volume was 297.000 sm<sup>3</sup> on 17 March 2023 Fri; the minimum d+1 traded amount was realized at the level of 0 sm<sup>3</sup> on 03 March 2023 Fri.
- ✓ The maximum d+1 traded volume was 2.668.310 TL on 17 March 2023 Fri; the minimum d+1 traded amount was realized at the level of 0 TL on 03 March 2023 Fri.
- ✓ The ratio of sgm compared to total consumption was realized at the level of 2,0% in March 2023.
- ✓ Sgm share in virtual trade was realized at 30,3% in March 2023.

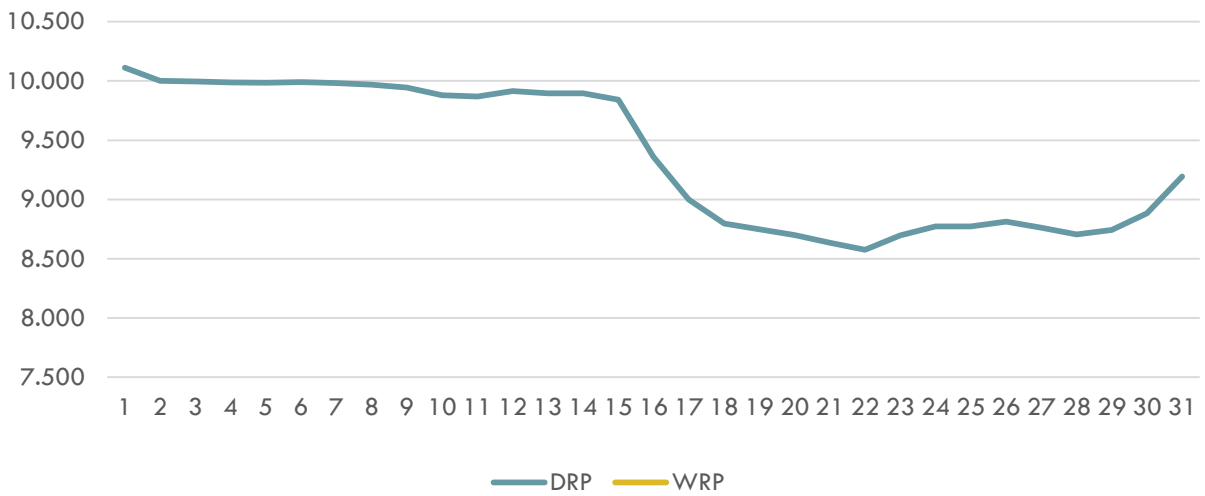


### WEEKLY PRODUCTS (1/2)

March 2023 WRP - WD - WE - WW (TL/'000 Sm<sup>3</sup>)

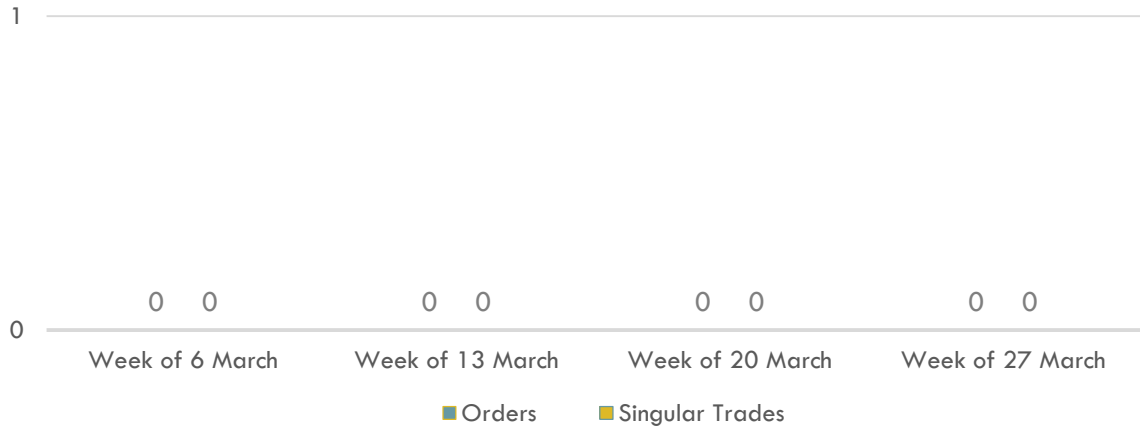


March 2023 DRP - WRP (TL/'000 Sm<sup>3</sup>)

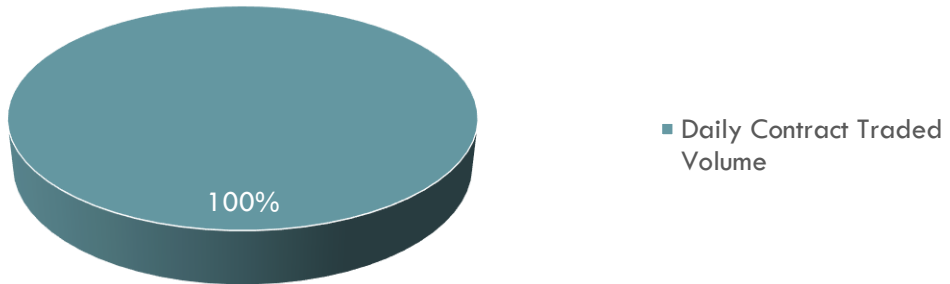


### WEEKLY PRODUCTS (2/2)

March 2023 Weekly Products Number of Orders and Trades



March 2023 Traded Volume Distribution by Contract Type



## SGM

Last 1 Year Trades

Period	Traded Volume (mio.Sm <sup>3</sup> )	Traded Amount (TL)
Mar 2022	515,31	1.692.333.624
Apr 2022	216,42	1.565.597.680
May 2022	144,42	1.116.289.688
Jun 2022	136,23	1.412.791.812
Jul 2022	114,06	1.161.807.407
Aug 2022	137,21	1.642.536.310
Sep 2022	61,47	812.459.966
Oct 2022	136,33	1.370.215.904
Nov 2022	80,68	840.078.378
Dec 2022	29,45	570.471.982
Jan 2023	128,85	1.259.193.549
Feb 2023	83,64	976.852.724
Mar 2023	107,25	1.007.828.484

SGM's share in Total Cons. and Virtual Trade

Period	Total Consumption (%)	Virtual Trade (%)
Mar 2022	7,3%	38,6%
Apr 2022	5,1%	40,5%
May 2022	3,9%	29,9%
Jun 2022	3,7%	28,2%
Jul 2022	3,4%	22,0%
Aug 2022	3,4%	29,6%
Sep 2022	1,9%	19,7%
Oct 2022	4,2%	27,9%
Nov 2022	1,9%	20,9%
Dec 2022	0,5%	5,1%
Jan 2023	2,0%	16,8%
Feb 2023	1,3%	11,3%
Mar 2023	2,0%	30,3%

**GAS FUTURES MARKET (1/1)**

Daily Indicator Price For Contracts (TL)

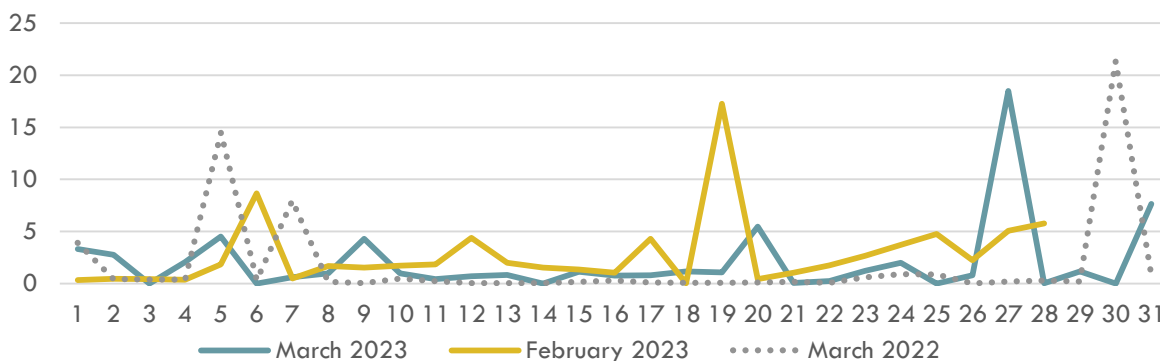
Contract Name	Average Daily Indicator Price (TL)	Minimum Daily Indicator Price (TL)	Maximum Daily Indicator Price (TL)
GM2304	20.270	19.574	21.131
GM2305	20.740	20.090	21.688
GM2306	21.292	20.625	22.266
GM2307	20.566	19.015	21.600
GM2308	20.828	19.257	21.875
GM2309	21.875	20.225	22.975
GM2310	21.981	20.371	23.071
GM2311	28.129	26.069	29.524
GM2312	17.727	16.429	18.606
GM2401	22.069	21.094	22.167
GM2402	20.134	19.244	20.223
GM2403	24.516	23.432	24.624
GM2404	13.823	13.823	13.823
GQ2302	20.811	20.096	21.695
GQ2303	21.081	19.491	22.141
GQ2304	22.553	20.901	23.671
GQ2401	22.286	21.301	22.385
GQ2402	14.137	14.137	14.137
GY24	23.239	22.591	23.779

Traded Volumes (mio.Sm3) and Traded Amounts (TL) For Contracts

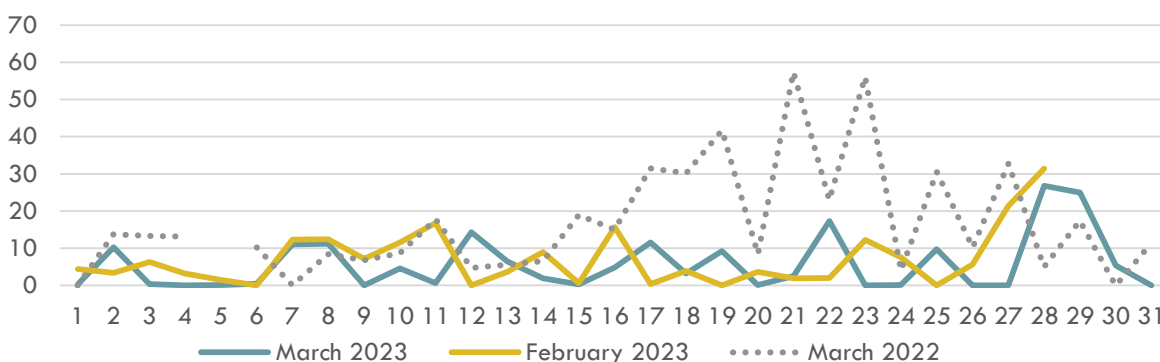
Contract Name	Traded Volume (mio.Sm3)	Traded Amount (TL)	Average Price (TL)
-	-	-	-

## TRANSMISSION SYSTEM DATA (1/2)

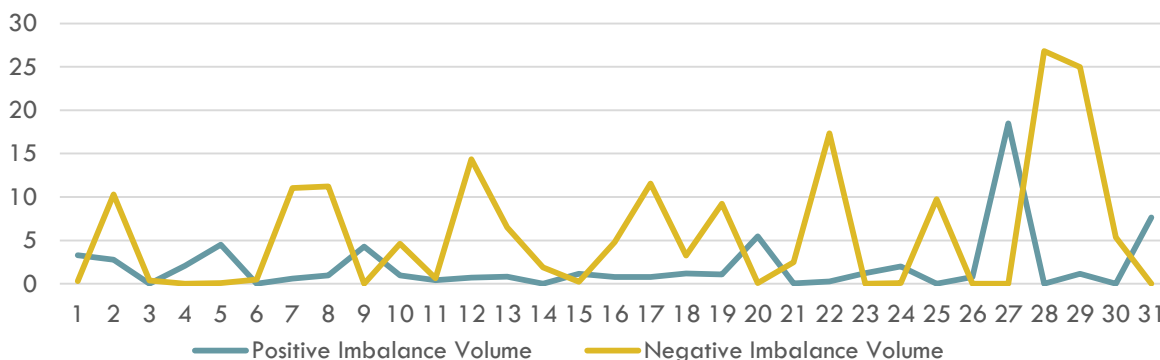
Natural Gas Market Positive Imbalance Volume (mio.Sm<sup>3</sup>)



Natural Gas Market Negative Imbalance Volume (mio.Sm<sup>3</sup>)



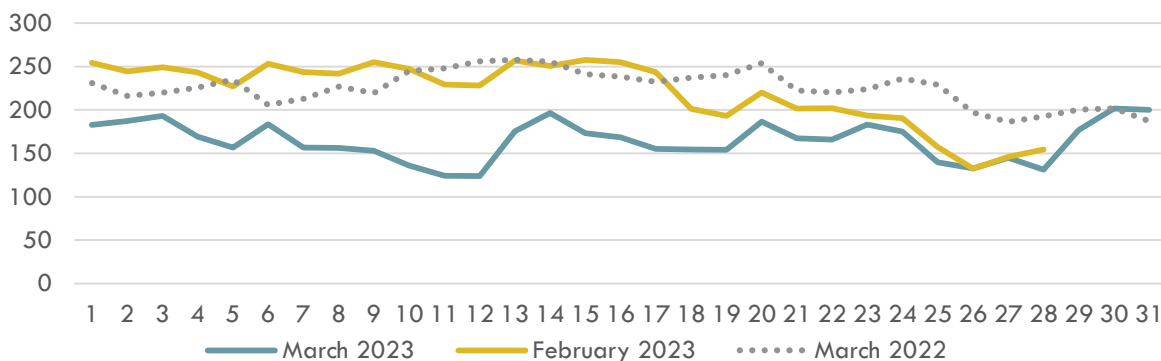
March 2023 Period Negative and Positive Imbalance Volume (mio.Sm<sup>3</sup>)



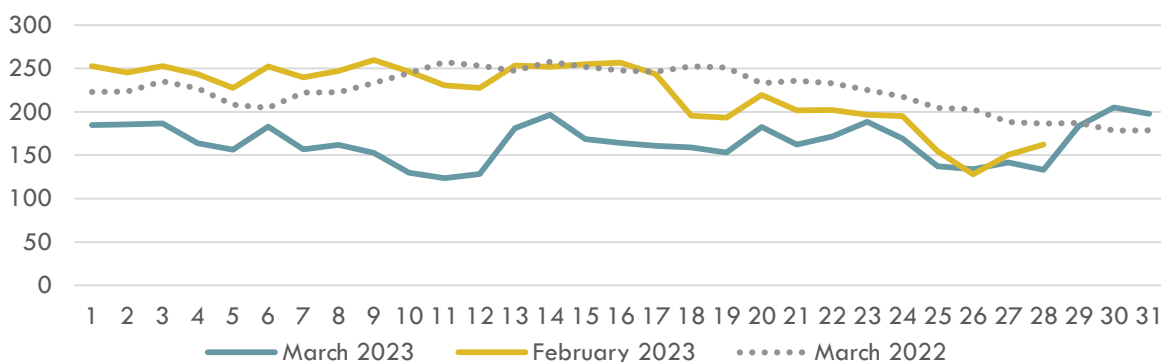
- ✓ The maximum positive imbalance volume was 18.493.600 sm<sup>3</sup> on 27 March 2023 Mon; the minimum positive imbalance volume was realized at the level of 217 sm<sup>3</sup> on 14 March 2023 Tue.
- ✓ The maximum negative imbalance volume was 26.809.464 sm<sup>3</sup> on 28 March 2023 Tue; the minimum negative imbalance volume was realized at the level of 1.657 sm<sup>3</sup> on 04 March 2023 Sat.

## TRANSMISSION SYSTEM DATA (2/2)

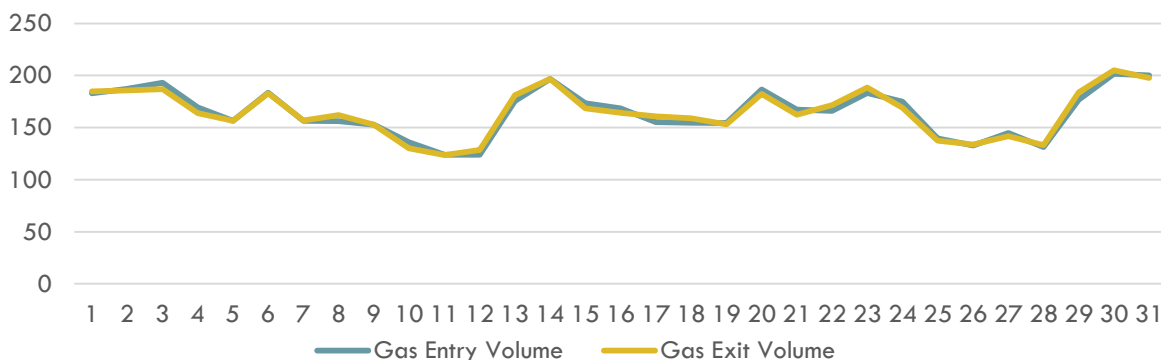
Natural Gas Market Gas Entry Volume (mio.Sm<sup>3</sup>)



Natural Gas Market Gas Exit Volume (mio.Sm<sup>3</sup>)



February 2021 Gas Entry and Exit Volume (mio.Sm<sup>3</sup>)



- ✓ Maximum gas entry volume realized on 30 March 2023 Thu was 201.550.718 sm<sup>3</sup>; minimum gas entry volume on 12 March 2023 Sun was 123.854.416 sm<sup>3</sup> levels.
- ✓ Maximum gas exit volume realized on 30 March 2023 Thu was 205.101.999 sm<sup>3</sup>; minimum gas exit volume 11 March 2023 Sat was 123.740.927 sm<sup>3</sup> levels.
- ✓ Maximum gas volume in stocks realized on 11 March 2023 Sat was 419.530.213 sm<sup>3</sup>; minimum stok gas volume 01 March 2023 Wed was 404.957.346 sm<sup>3</sup> levels.

## ADDITIONAL BALANCING TRANSACTIONS

### Transactions with 1 Code

Contract Day	Transaction Volume ('000 Sm <sup>3</sup> )	WAP (TL/'000 Sm <sup>3</sup> )	Direction
01.03.2023	4.965	10.112	Purchase
02.03.2023	8.275	10.000	Purchase
03.03.2023	6.768	9.997	Purchase
04.03.2023	6.673	9.986	Purchase
05.03.2023	504	9.984	Purchase
06.03.2023	1.053	9.988	Purchase
07.03.2023	297	9.984	Purchase
08.03.2023	235	9.970	Purchase
09.03.2023	589	9.948	Purchase
10.03.2023	6.094	9.879	Purchase
11.03.2023	600	9.869	Purchase
12.03.2023	183	9.915	Purchase
13.03.2023	287	9.898	Purchase
14.03.2023	4.789	9.893	Purchase
15.03.2023	5.725	9.843	Purchase
16.03.2023	4.757	9.358	Purchase
17.03.2023	769	9.000	Purchase
18.03.2023	472	8.800	Purchase
19.03.2023	6.236	8.750	Purchase
20.03.2023	4.759	8.700	Purchase
21.03.2023	5.234	8.634	Purchase
22.03.2023	551	8.543	Purchase
23.03.2023	219	8.642	Purchase
24.03.2023	6.088	8.771	Purchase
25.03.2023	5.374	8.771	Purchase
26.03.2023	325	8.775	Purchase
27.03.2023	3.070	8.763	Purchase
28.03.2023	1.461	8.700	Purchase
29.03.2023	202	8.749	Purchase
30.03.2023	3.479	8.879	Purchase
31.03.2023	7.140	9.193	Purchase

### Transactions with 2 Code

Contract Day	Transaction Volume ('000 Sm <sup>3</sup> )	WAP (TL/'000 Sm <sup>3</sup> )	Direction
-	-	-	-

### Transactions with 3 Code

Contract Day	Transaction Volume ('000 Sm <sup>3</sup> )	WAP (TL/'000 Sm <sup>3</sup> )	Direction
-	-	-	-

### Transactions with 4 Code

Contract Day	Transaction Volume ('000 Sm <sup>3</sup> )	WAP (TL/'000 Sm <sup>3</sup> )	Direction
-	-	-	-

- ✓ Additional balancing transactions with a maximum code of 1 were 8.275.000 sm<sup>3</sup> on 02 March 2023 Thu; additional balancing transactions with a minimum code of 1 were realized at the level of 183.000 sm<sup>3</sup> on 12 March 2023 Sun.
- ✓ In March, no additional balancing transaction code of 2 was realized.
- ✓ In March, no additional balancing transaction code of 3 was realized.
- ✓ In March, no additional balancing transaction code of 4 was realized.