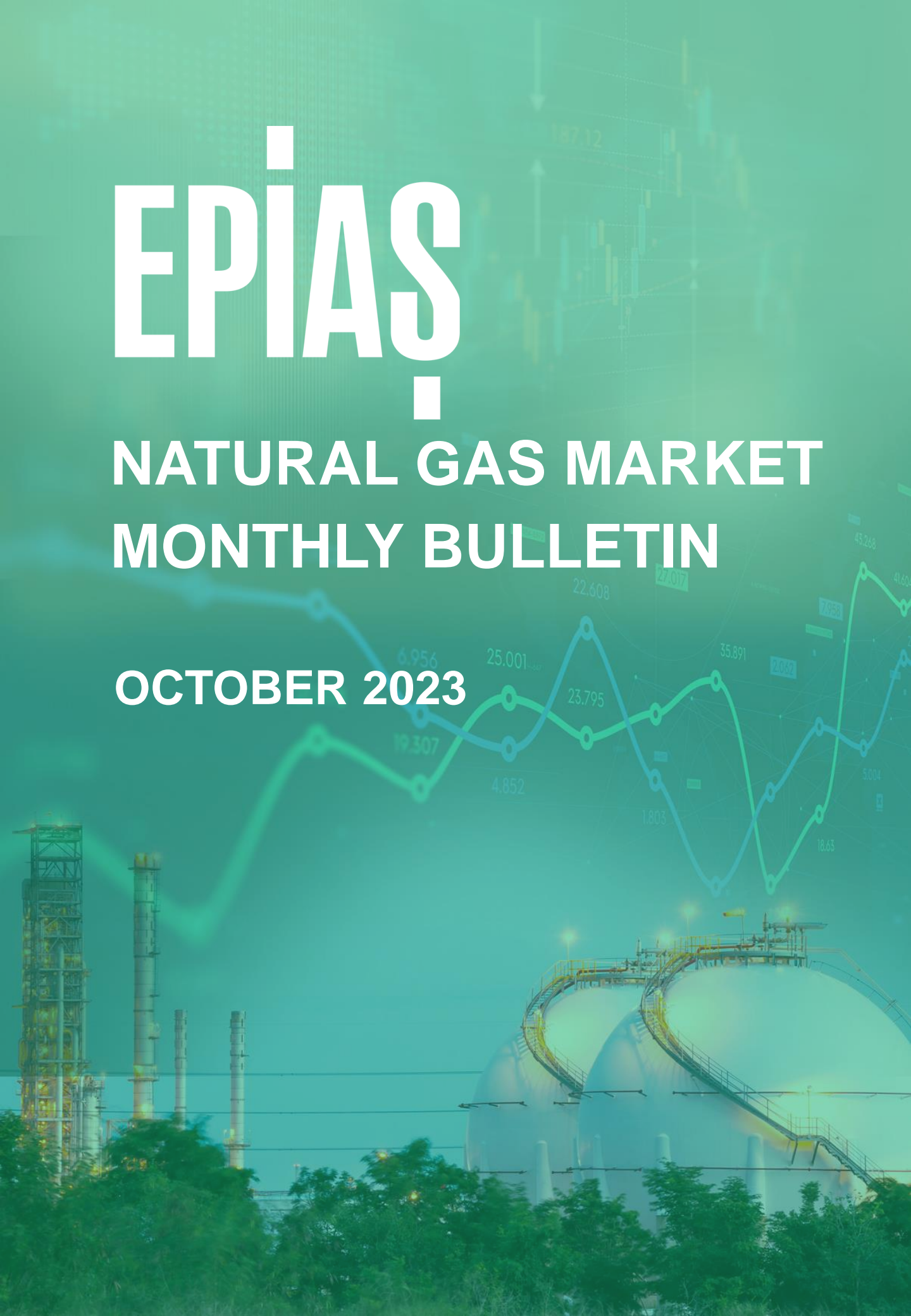


EPIAS

NATURAL GAS MARKET MONTHLY BULLETIN

OCTOBER 2023



SUMMARY DATA (1/2)

Arithmetic Means

	October 2023	September 2023	Monthly Change	October 2022	Annual Change
Number of Ordered Participants	6	9	-31.0%	7	-11.9%
Number of Trades	7	10	-36.1%	5	28.0%
Number of Orders	18	28	-34.7%	11	66.6%
BGSP (TL/'000 Sm ³)	10.410	9.204	13.1%	24.722	-57.9%
DRP (TL/'000 Sm ³)	10.958	9.688	13.1%	25.493	-57.0%
BGPP (TL/'000 Sm ³)	11.512	10.201	12.9%	26.258	-56.2%
Traded Volume (mio.Sm ³)	1,61	1,43	12.3%	4,40	-63.4%
Transaction Volume (TL)	17.638.867	13.922.252	26.7%	111.942.449	-84.2%
Gas Entry Volume (mio.Sm ³)	108,63	107,75	0.8%	103,50	5.0%
Gas Exit Volume (mio.Sm ³)	108,60	107,80	0.7%	104,00	4.4%
WRP (TL/'000 Sm ³)	-	-	-	-	-

Maximum / Minimum Levels

	October 2023		September 2023		October 2022	
	Max	Min	Max	Min	Max	Min
Number of Trades	11	3	19	4	8	2
Number of Ordered Participants	8	5	12	8	9	4
Number of Orders	34	11	49	19	18	4
BGSP (TL/'000 Sm ³)	10.639	10.298	10.038	8.837	25.317	22.795
DRP (TL/'000 Sm ³)	11.199	10.840	10.566	9.302	26.100	23.500
BGPP (TL/'000 Sm ³)	11.759	11.382	11.095	9.767	26.883	24.205
Traded Volume (mio.Sm ³)	3,65	0,42	3,54	0,26	16,09	0,08
Transaction Volume (TL)	39.751.534	4.567.893	37.414.784	2.496.814	419.871.325	1.832.975
Gas Exit Volume (mio.Sm ³)	137,82	78,73	130,52	92,00	126,90	70,31
Gas Entry Volume (mio.Sm ³)	137,91	77,78	132,58	90,75	129,11	74,19
WRP (TL/'000 Sm ³)	-	-	-	-	-	-

SUMMARY DATA (2/2)

Totals

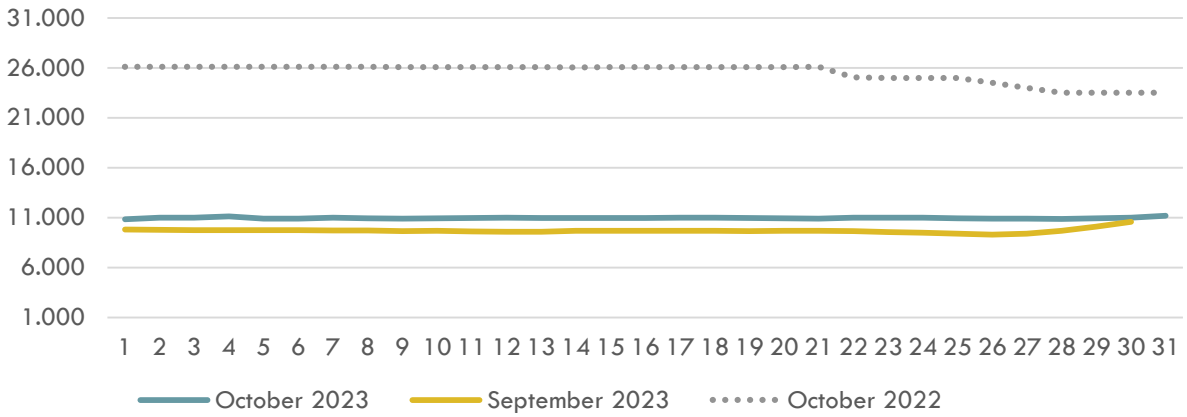
	October 2023	September 2023	Monthly Change	October 2022	Annual Change
Ratio of Natural Gas Based Generation to Total Electricity Generation (%)	21	24	-12.2%	19	7.5%
Total Production of Natural Gas Based Power Plants (MWh)	4.907.070	6.209.927	-21.0%	4.454.998	10.1%
Total Electricity Generation (MWh)	23.664.200	26.295.606	-10.0%	23.097.059	2.5%
Number of Trades	206	312	-34.0%	161	28.0%
Number of Orders	563	834	-32.5%	338	66.6%
Traded Volume (mio.Sm ³)	49,92	43,00	16.1%	136,33	-63.4%
Transaction Volume (TL)	546.804.880	417.667.547	30.9%	3.470.215.904	-84.2%
Gas Entry Volume (mio.Sm ³)	3.367,47	3.232,42	4.2%	3.208,49	5.0%
Gas Exit Volume (mio.Sm ³)	3.366,60	3.234,08	4.1%	3.223,96	4.4%

Brent Oil and TTF Prices

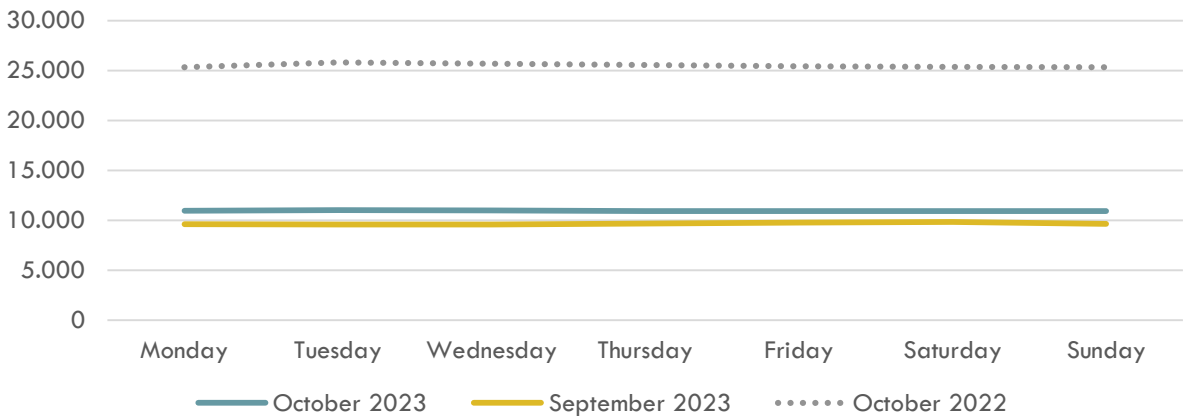
	October 2023	September 2023	Aylık Değişim	October 2022 Yıllık Değişim
Brent Oil (\$/bl)	0,00	92,59	-100.0%	93,64
TTF (€/MWh)	0,00	36,46	-100.0%	71,90

PRICES (1/2)

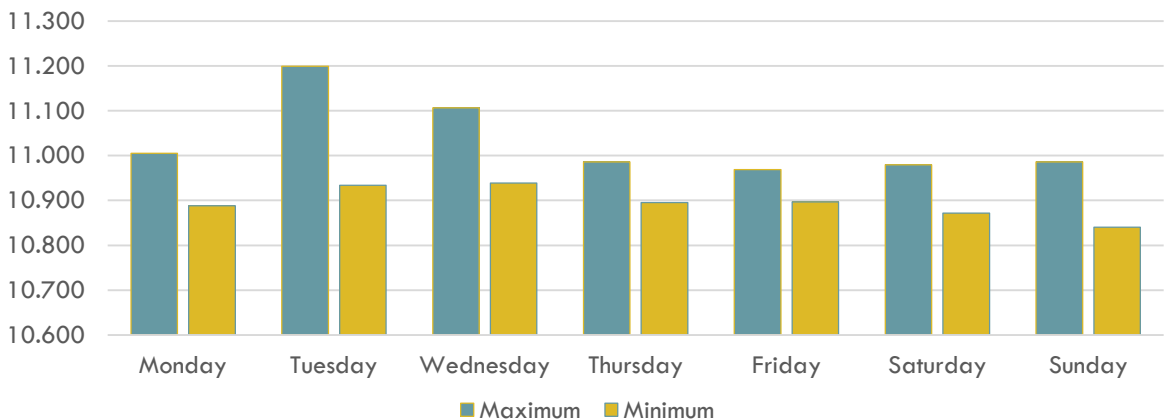
Natural Gas Market DRP (TL/'000 Sm³)



Natural Gas Market By Days DRP (TL/'000 Sm³)

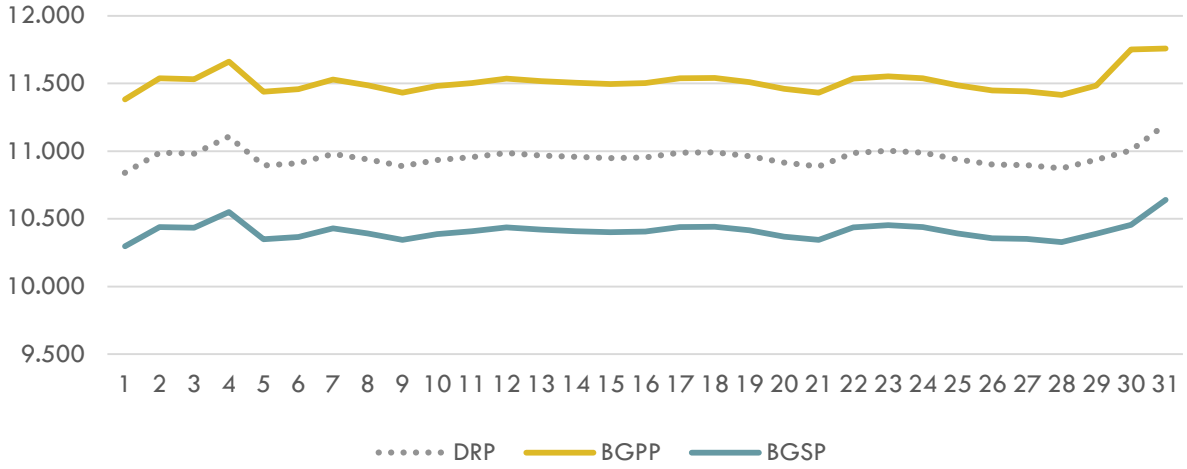


October 2023 Natural Gas Market By Days Max / Min DRP (TL/'000 Sm³)



PRICES (2/2)

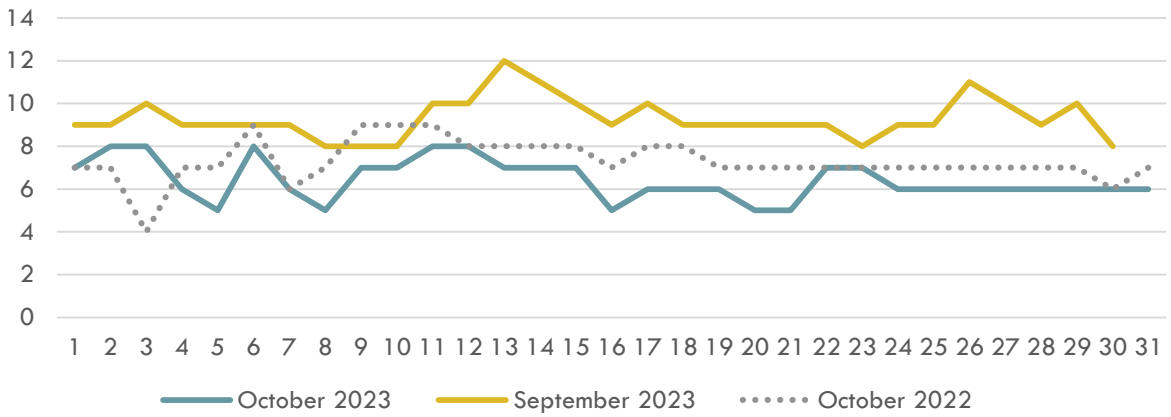
October 2023 DRP - BGPP - BGSP (TL/'000 Sm³)



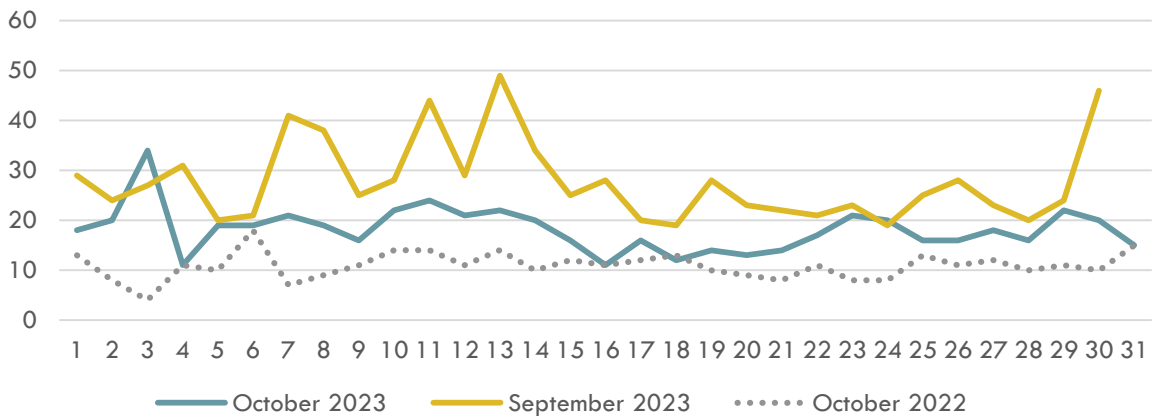
- ✓ The maximum DRP was 11.199 TL on 31 October 2023 Tue; the minimum DRP was realized at the level of 10.840 TL on 01 October 2023 Sun.
- ✓ The Maximum BGPP was 11.759 on 31 October 2023 Tue; the minimum BGPP was realized at the level of 11.382 TL on 01 October 2023 Sun.
- ✓ The maximum BGSP was 10.639 on 31 October 2023 Tue; the minimum BGSP was realized at the level of 10.298 TL on 01 October 2023 Sun.

ORDERS, TRADES, VOLUMES (1/3)

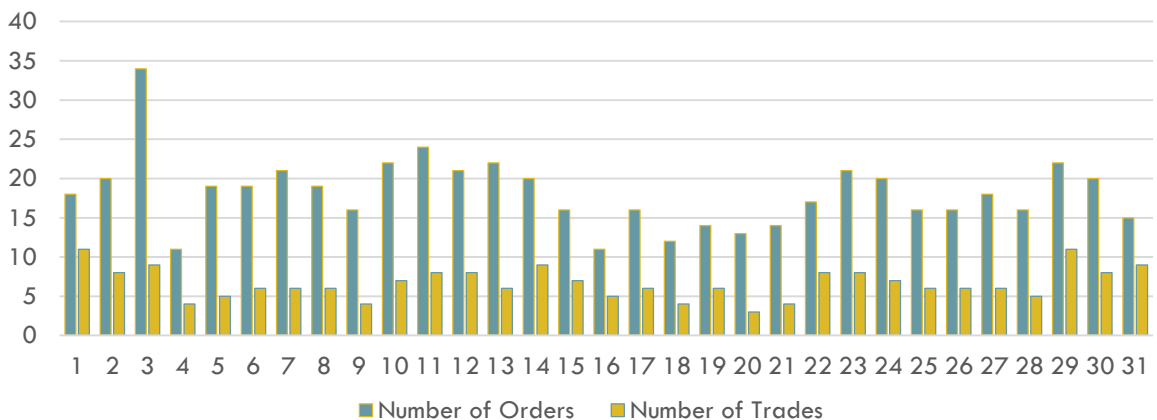
Natural Gas Market Number of Ordered Participants



Natural Gas Market Number of Orders

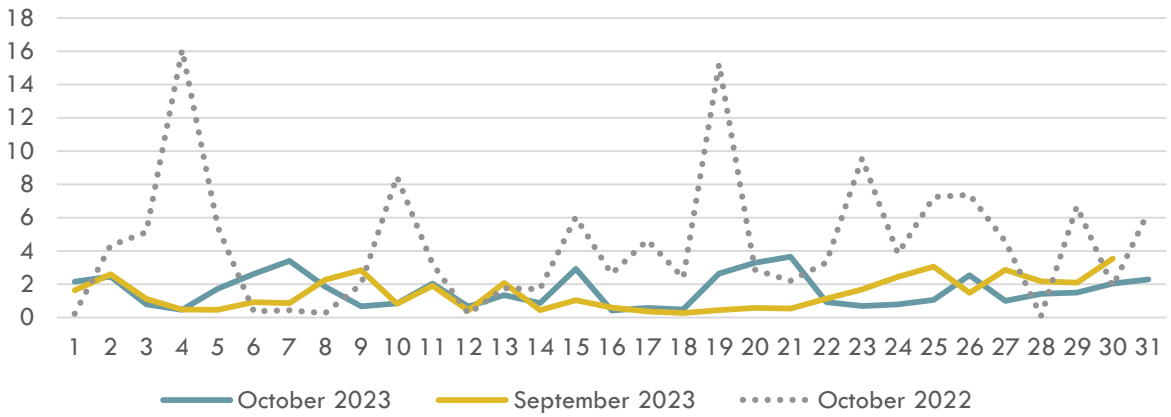


October 2023 Natural Gas Market Number of Orders and Trades

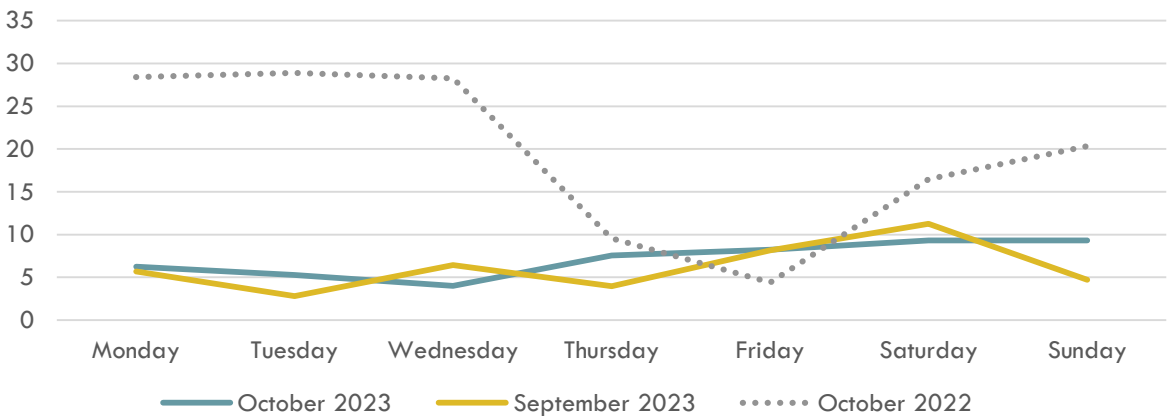


ORDERS, TRADES, VOLUMES (2/3)

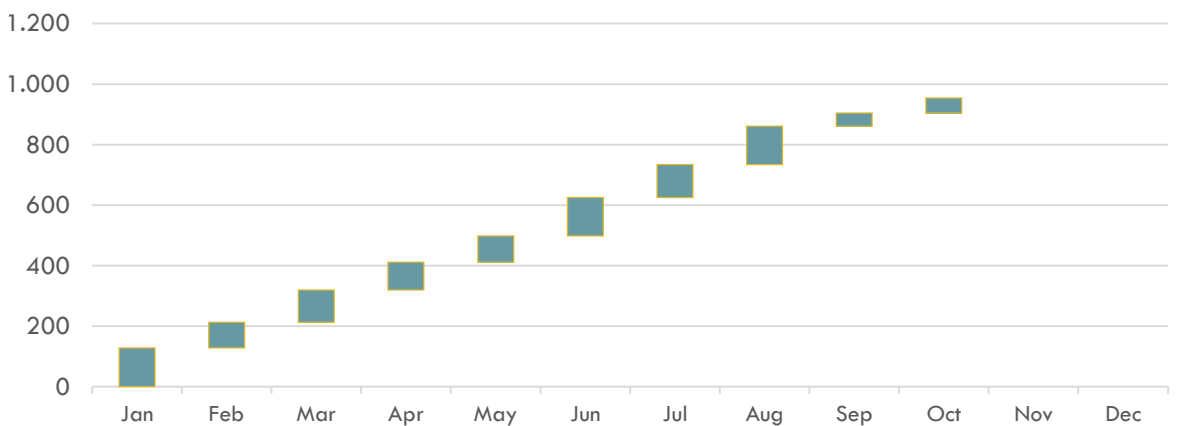
Natural Gas Market Trade Volume (mio.Sm³)



Natural Gas Market By Days Trade Volume (mio.Sm³)

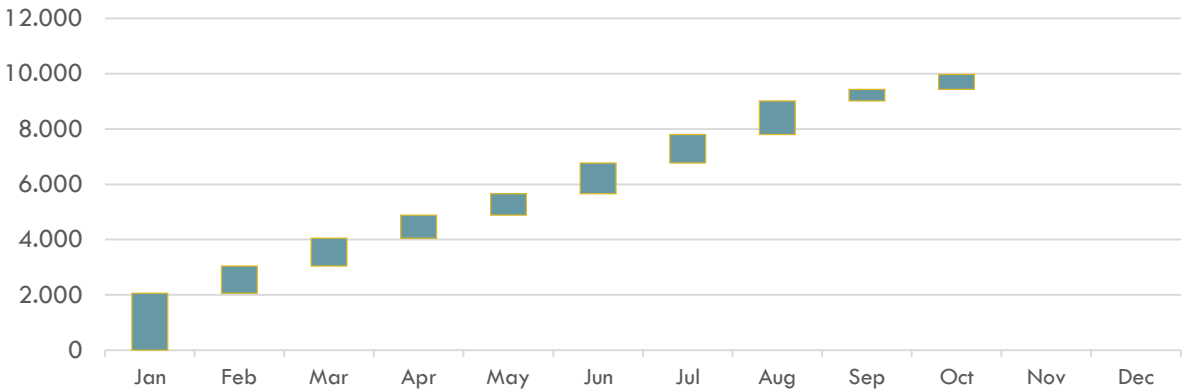


Natural Gas Market Annual Accumulated Trade Volume for 2023 (mio.Sm³)

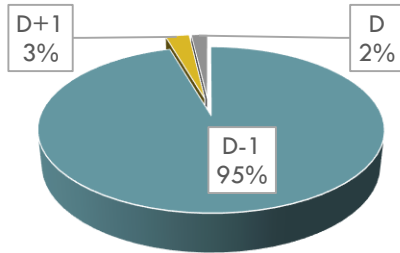


ORDERS, TRADES, VOLUMES (3/3)

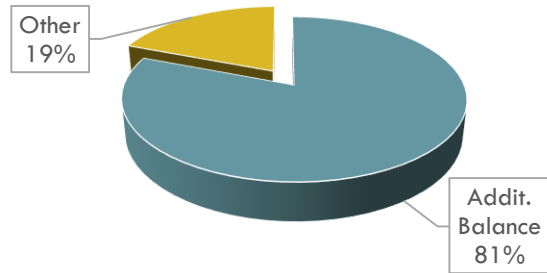
Natural Gas Market Annual Accumulated Transaction Volume for 2023 (Million TL)



Traded Volume of Daily Contracts for October 2023 Period by Sessions



Additional Balancing Traded Volume for October 2023 Period



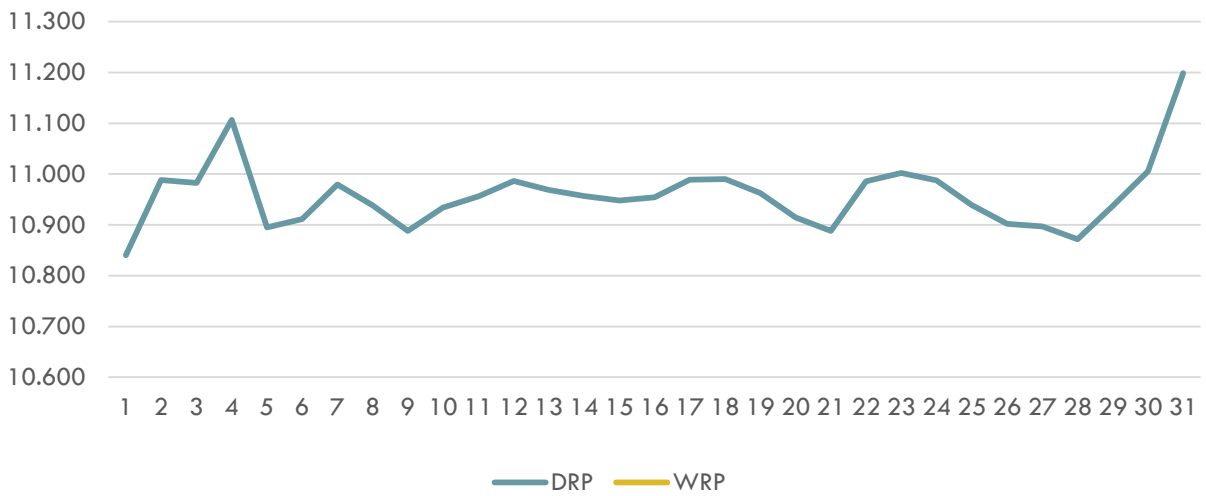
- ✓ The maximum total traded volume was 3.651 sm³ on 21 October 2023 Sat; the minimum total traded volume was realized at the level of 417 sm³ on 16 October 2023 Mon.
- ✓ The maximum total transaction volume was 39.751.534 TL on 21 October 2023 Sat; the minimum total transaction volume was realized at the level of 4.567.893 TL on 16 October 2023 Mon.
- ✓ The maximum d-1 traded volume was 3.651.000 sm³ on 21 October 2023 Sat; the minimum d-1 traded amount was realized at the level of 383.000 sm³ on 18 October 2023 Wed.
- ✓ The maximum d-1 traded volume was 39.751.534 TL on 21 October 2023 Sat; the minimum d-1 traded amount was realized at the level of 4.209.180 TL on 18 October 2023 Wed.
- ✓ The maximum d traded volume was 205.000 sm³ on 31 October 2023 Tue; the minimum d traded amount was realized at the level of 0 sm³ on 01 October 2023 Sun.
- ✓ The maximum d traded volume was 2.316.500 TL on 31 October 2023 Tue; the minimum d traded amount was realized at the level of 0 TL on 01 October 2023 Sun.
- ✓ The maximum d+1 traded volume was 117.000 sm³ on 31 October 2023 Tue; the minimum d+1 traded amount was realized at the level of 0 sm³ on 05 October 2023 Thu.
- ✓ The maximum d+1 traded volume was 1.316.400 TL on 31 October 2023 Tue; the minimum d+1 traded amount was realized at the level of 0 TL on 05 October 2023 Thu.
- ✓ The ratio of sgm compared to total consumption was realized at the level of 1,4% in October 2023.
- ✓ Sgm share in virtual trade was realized at 4,6% in October 2023.

WEEKLY PRODUCTS (1/2)

October 2023 WRP - WD - WE - WW (TL/'000 Sm³)

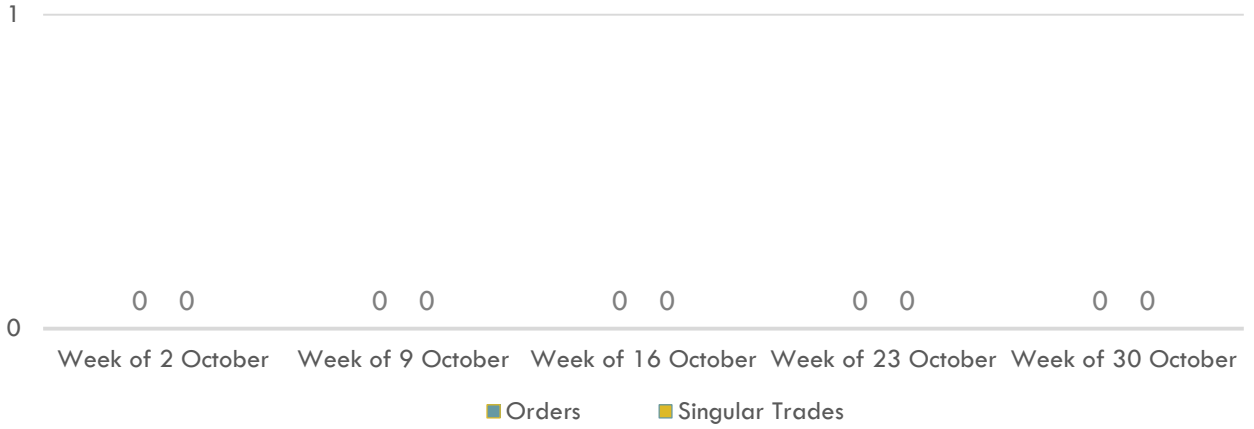


October 2023 DRP - WRP (TL/'000 Sm³)

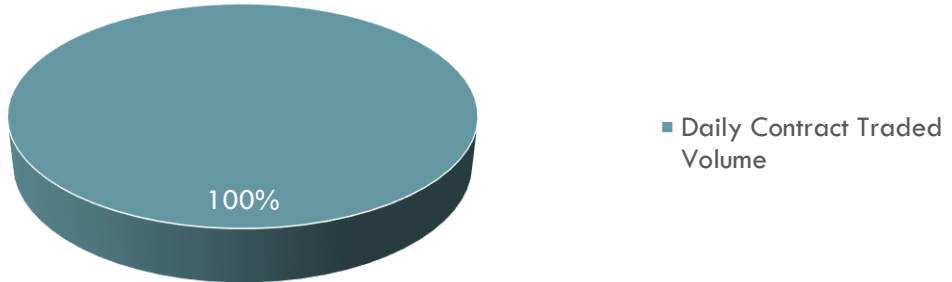


WEEKLY PRODUCTS (2/2)

October 2023 Weekly Products Number of Orders and Trades



October 2023 Traded Volume Distribution by Contract Type



SGM

Last 1 Year Trades

Period	Traded Volume (mio.Sm ³)	Traded Amount (TL)
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
Apr 2023	92,20	837.217.599
May 2023	86,47	781.158.942
Jun 2023	126,96	1.107.152.226
Jul 2023	108,57	1.026.101.711
Aug 2023	127,13	1.223.183.039
Sep 2023	43,00	417.667.547
Oct 2023	49,92	546.804.880

SGM's share in Total Cons. and Virtual Trade

Period	Total Consumption (%)	Virtual Trade (%)
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%
Apr 2023	2,2%	27,1%
May 2023	2,3%	27,4%
Jun 2023	4,7%	48,3%
Jul 2023	3,5%	33,4%
Aug 2023	2,8%	13,2%
Sep 2023	1,2%	3,7%
Oct 2023	1,4%	4,6%

GAS FUTURES MARKET (1/1)

Daily Indicator Price For Contracts (TL)

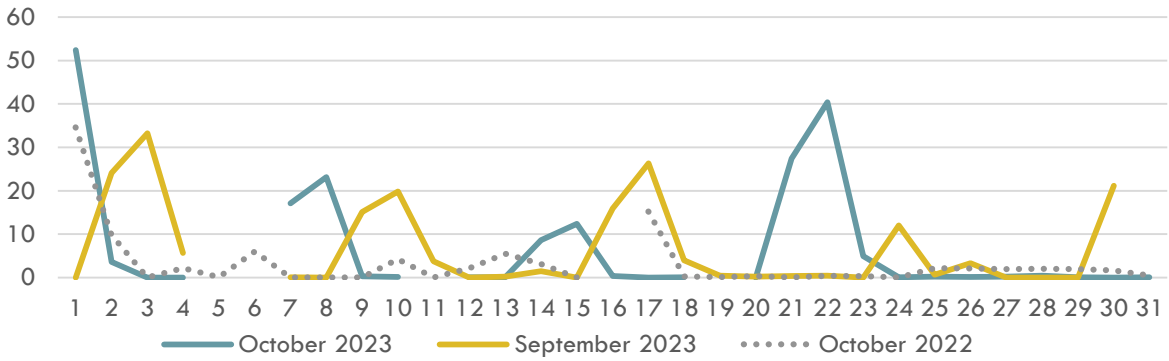
Contract Name	Average Daily Indicator Price (TL)	Minimum Daily Indicator Price (TL)	Maximum Daily Indicator Price (TL)
GM2311	26.284	26.284	26.284
GM2312	15.500	15.500	15.500
GM2401	21.094	21.094	21.094
GM2402	19.244	19.244	19.244
GM2403	23.432	23.432	23.432
GM2404	13.823	13.823	13.823
GM2405	12.804	12.804	12.804
GM2406	15.829	15.829	15.829
GM2407	14.022	14.022	14.022
GM2408	14.478	14.478	14.478
GM2409	14.592	14.592	14.592
GM2410	16.322	16.322	16.322
GM2411	17.173	17.173	17.173
GQ2401	21.301	21.301	21.301
GQ2402	14.137	14.137	14.137
GQ2403	14.362	14.362	14.362
GQ2404	40.458	40.458	40.458
GY24	22.591	22.591	22.591

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

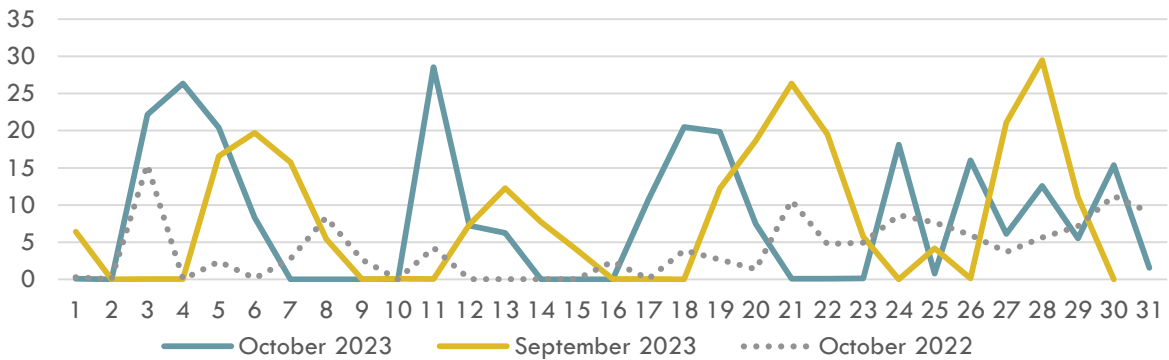
Contract Name	Traded Volume (mio.Sm3)	Traded Amount (TL)	Average Price (TL)
-	0	0	0

TRANSMISSION SYSTEM DATA (1/2)

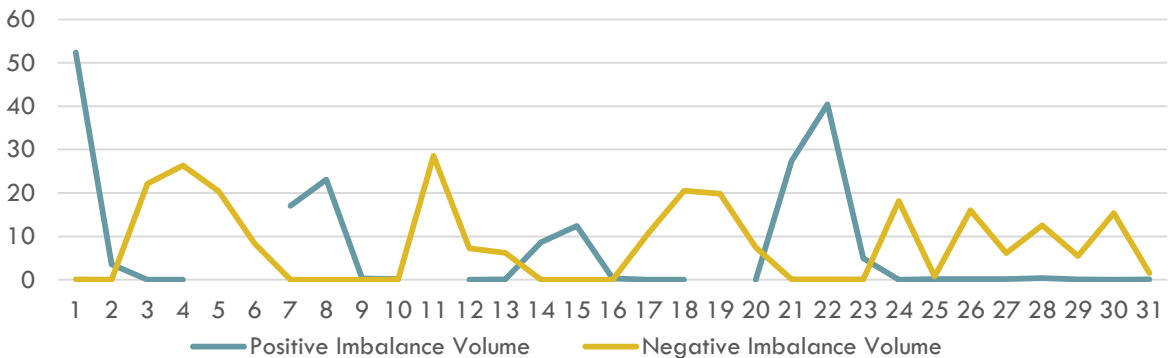
Natural Gas Market Positive Imbalance Volume (mio.Sm³)



Natural Gas Market Negative Imbalance Volume (mio.Sm³)



October 2023 Period Negative and Positive Imbalance Volume (mio.Sm³)

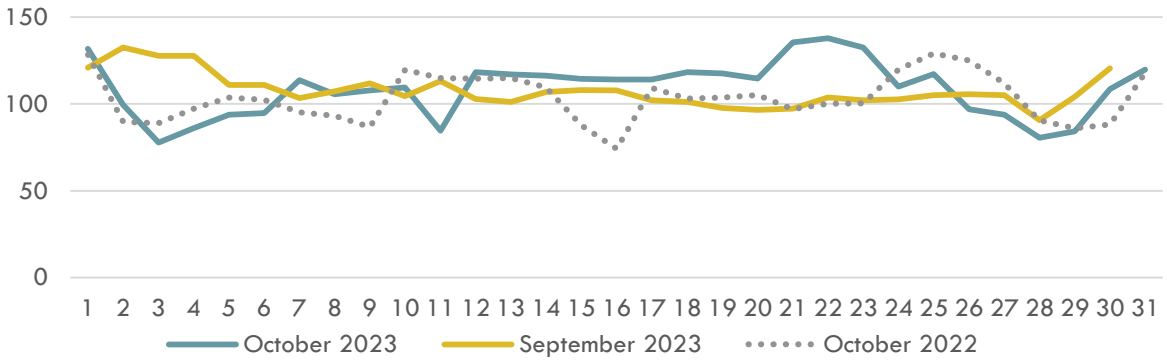


✓ The maximum positive imbalance volume was 52.400.505 sm³ on 01 October 2023 Sun; the minimum positive imbalance volume was realized at the level of 0 sm³ on 05 October 2023 Thu.

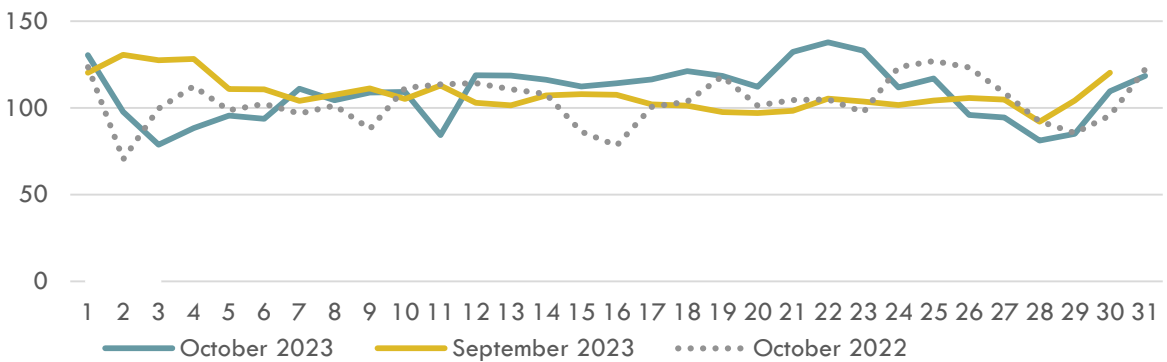
✓ The maximum negative imbalance volume was 28.548.549 sm³ on 11 October 2023 Wed; the minimum negative imbalance volume was realized at the level of 3.330 sm³ on 09 October 2023 Mon.

TRANSMISSION SYSTEM DATA (2/2)

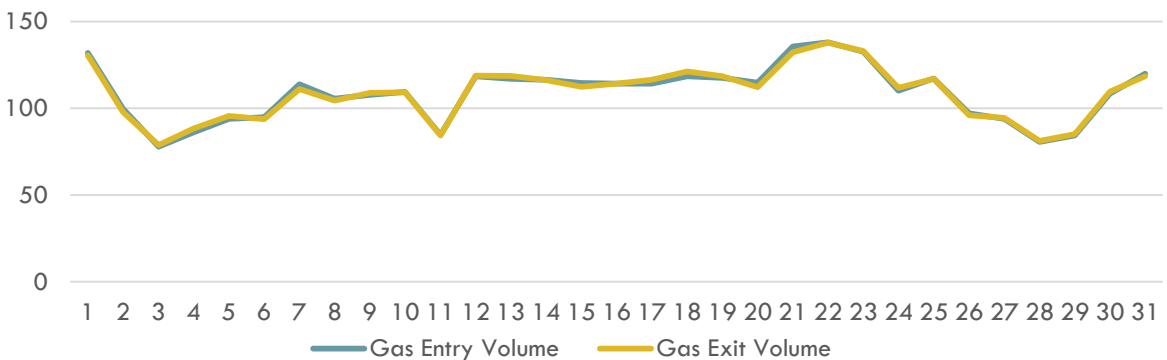
Natural Gas Market Gas Entry Volume (mio.Sm³)



Natural Gas Market Gas Exit Volume (mio.Sm³)



February 2021 Gas Entry and Exit Volume (mio.Sm³)



- ✓ Maximum gas entry volume realized on 22 October 2023 Sun was 137.912.226 sm³; minimum gas entry volume on 03 October 2023 Tue was 77.778.057 sm³ levels.
- ✓ Maximum gas exit volume realized on 22 October 2023 Sun was 137.817.358 sm³; minimum gas exit volume 03 October 2023 Tue was 78.729.952 sm³ levels.
- ✓ Maximum gas volume in stocks realized on 16 October 2023 Mon was 419.303.676 sm³; minimum stok gas volume 19 October 2023 Thu was 413.352.954 sm³ levels.

ADDITIONAL BALANCING TRANSACTIONS

Transactions with 1 Code

Contract Day	Transaction Volume ('000 Sm ³)	WAP (TL/'000 Sm ³)	Direction
01.10.2023	1.950	10.826	Purchase
02.10.2023	2.124	10.997	Purchase
03.10.2023	455	10.989	Purchase
04.10.2023	284	11.145	Purchase
05.10.2023	1.407	10.897	Purchase
06.10.2023	2.594	10.911	Purchase
07.10.2023	3.108	10.981	Purchase
08.10.2023	1.490	10.941	Purchase
09.10.2023	409	10.886	Purchase
10.10.2023	320	10.943	Purchase
11.10.2023	1.426	10.960	Purchase
12.10.2023	98	10.989	Purchase
13.10.2023	974	10.970	Purchase
14.10.2023	502	10.959	Purchase
15.10.2023	2.523	10.947	Purchase
16.10.2023	315	10.954	Purchase
17.10.2023	415	10.989	Purchase
18.10.2023	281	10.990	Purchase
19.10.2023	2.587	10.962	Purchase
20.10.2023	3.108	10.915	Purchase
21.10.2023	3.539	10.887	Purchase
22.10.2023	514	10.984	Purchase
23.10.2023	372	10.963	Purchase
24.10.2023	419	10.974	Purchase
25.10.2023	820	10.935	Purchase
26.10.2023	2.100	10.894	Purchase
27.10.2023	515	10.889	Purchase
28.10.2023	1.033	10.862	Purchase
29.10.2023	1.060	10.941	Purchase
30.10.2023	1.647	11.014	Purchase
31.10.2023	1.953	11.188	Purchase

Transactions with 2 Code

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

Transactions with 3 Code

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

Transactions with 4 Code

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

- ✓ Additional balancing transactions with a maximum code of 1 were 3.539.000 sm³ on 21 October 2023 Sat; additional balancing transactions with a minimum code of 1 were realized at the level of 98.000 sm³ on 12 October 2023 Thu.
- ✓ In October, no additional balancing transaction code of 2 was realized.
- ✓ In October, no additional balancing transaction code of 3 was realized.
- ✓ In October, no additional balancing transaction code of 4 was realized.