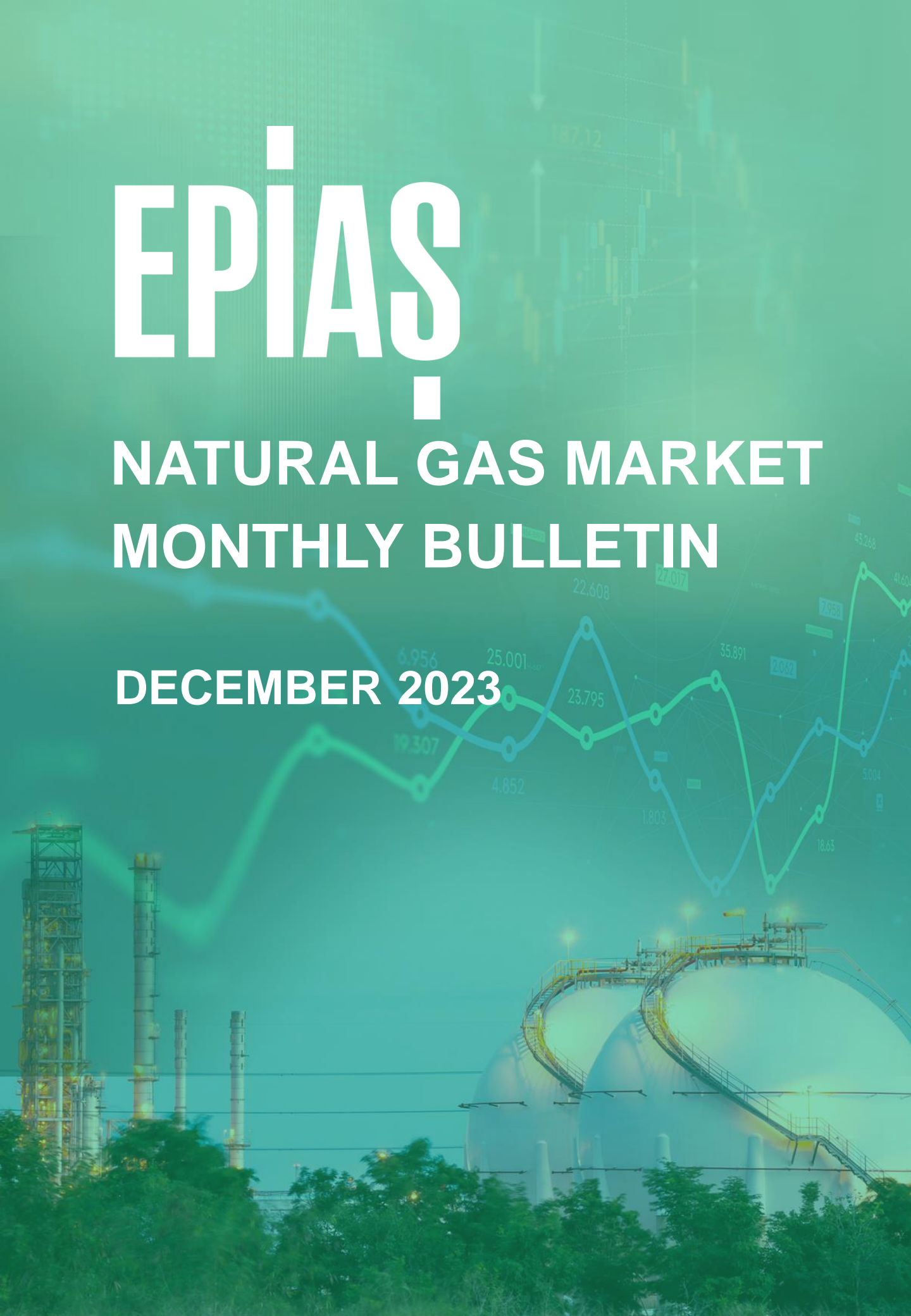


EPIAS

NATURAL GAS MARKET MONTHLY BULLETIN

DECEMBER 2023



SUMMARY DATA (1/2)

Arithmetic Means

	December 2023	November 2023	Monthly Change	December 2022	Annual Change
Number of Ordered Participants	12	6	90.4%	10	20.7%
Number of Trades	8	6	40.9%	6	43.1%
Number of Orders	30	16	84.4%	18	68.5%
BGSP (TL/'000 Sm ³)	11.949	11.031	8.3%	18.765	-36.3%
DRP (TL/'000 Sm ³)	12.578	11.611	8.3%	19.345	-35.0%
BGPP (TL/'000 Sm ³)	13.207	12.222	8.1%	19.945	-33.8%
Traded Volume (mio.Sm ³)	1,34	1,33	0.9%	0,95	40.9%
Transaction Volume (TL)	16.774.222	15.272.062	9.8%	18.402.322	-8.8%
Gas Entry Volume (mio.Sm ³)	192,62	150,76	27.8%	182,89	5.3%
Gas Exit Volume (mio.Sm ³)	192,65	150,61	27.9%	182,94	5.3%
WRP (TL/'000 Sm ³)	0	0	-	0	-

Maximum / Minimum Levels

	December 2023		November 2023		December 2022	
	Max	Min	Max	Min	Max	Min
Number of Trades	23	2	12	2	13	2
Number of Ordered Participants	14	9	8	5	12	7
Number of Orders	49	17	24	11	31	9
BGSP (TL/'000 Sm ³)	12.344	11.507	12.196	10.201	19.612	18.434
DRP (TL/'000 Sm ³)	12.994	12.112	12.838	10.738	20.218	19.005
BGPP (TL/'000 Sm ³)	13.643	12.718	13.480	11.705	20.825	19.575
Traded Volume (mio.Sm ³)	2,98	0,17	2,97	0,20	3,68	0,13
Transaction Volume (TL)	37.411.151	2.202.610	33.131.046	2.414.991	71.627.317	2.494.760
Gas Exit Volume (mio.Sm ³)	227,08	133,45	217,12	91,12	230,03	124,02
Gas Entry Volume (mio.Sm ³)	226,83	132,46	216,98	91,26	231,92	124,33
WRP (TL/'000 Sm ³)	0	0	0	0	0	0

SUMMARY DATA (2/2)

Totals

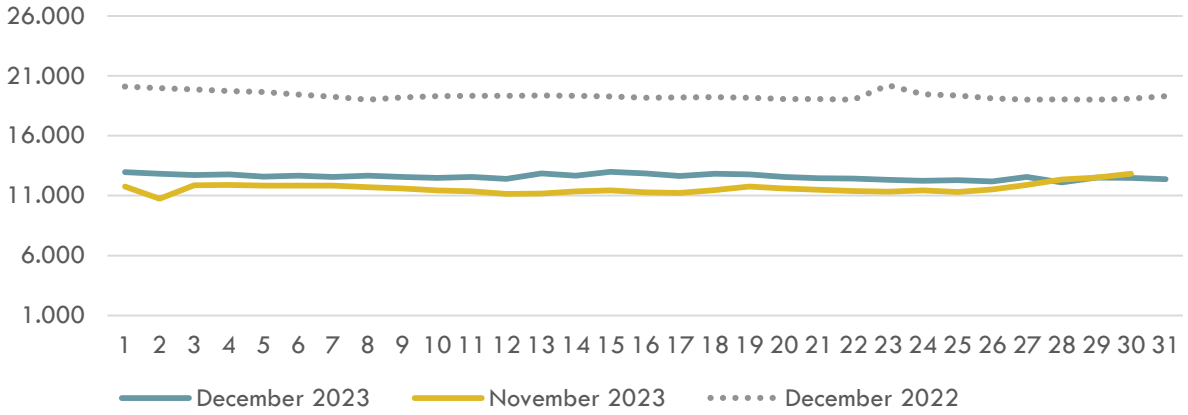
	December 2023	November 2023	Monthly Change	December 2022	Annual Change
Ratio of Natural Gas Based Generation to Total Electricity Generation (%)	15	18	-14.6%	25	-38.4%
Total Production of Natural Gas Based Power Plants (MWh)	3.886.704	4.201.340	-7.5%	5.988.283	-35.1%
Total Electricity Generation (MWh)	25.682.594	23.710.715	8.3%	24.367.949	5.4%
Number of Trades	249	171	45.6%	174	43.1%
Number of Orders	932	489	90.6%	553	68.5%
Traded Volume (mio.Sm ³)	41,50	39,81	4.2%	29,45	40.9%
Transaction Volume (TL)	520.000.877	458.161.852	13.5%	570.471.982	-8.8%
Gas Entry Volume (mio.Sm ³)	5.971,32	4.522,79	32.0%	5.669,65	5.3%
Gas Exit Volume (mio.Sm ³)	5.972,09	4.518,39	32.2%	5.671,13	5.3%

Brent Oil and TTF Prices

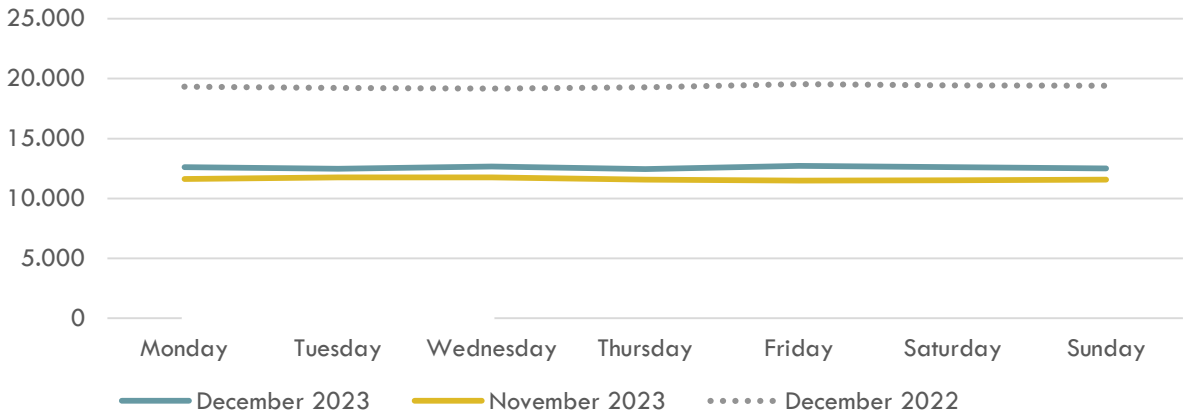
	December 2023	November 2023	Aylık Değişim	December 2022	Yıllık Değişim
Brent Oil (\$/bl)	0,00	82,03	-100.0%	81,34	-100.0%
TTF (€/MWh)	0,00	43,27	-100.0%	112,73	-100.0%

PRICES (1/2)

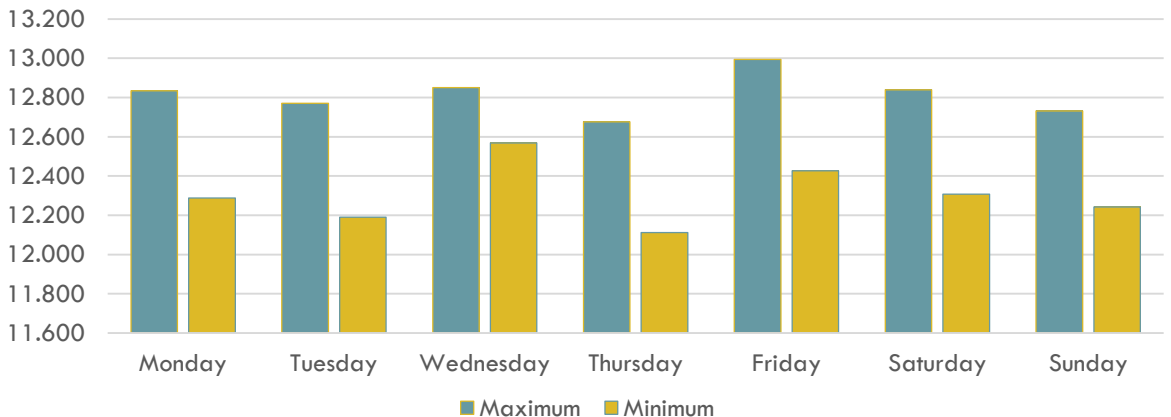
Natural Gas Market DRP (TL/'000 Sm³)



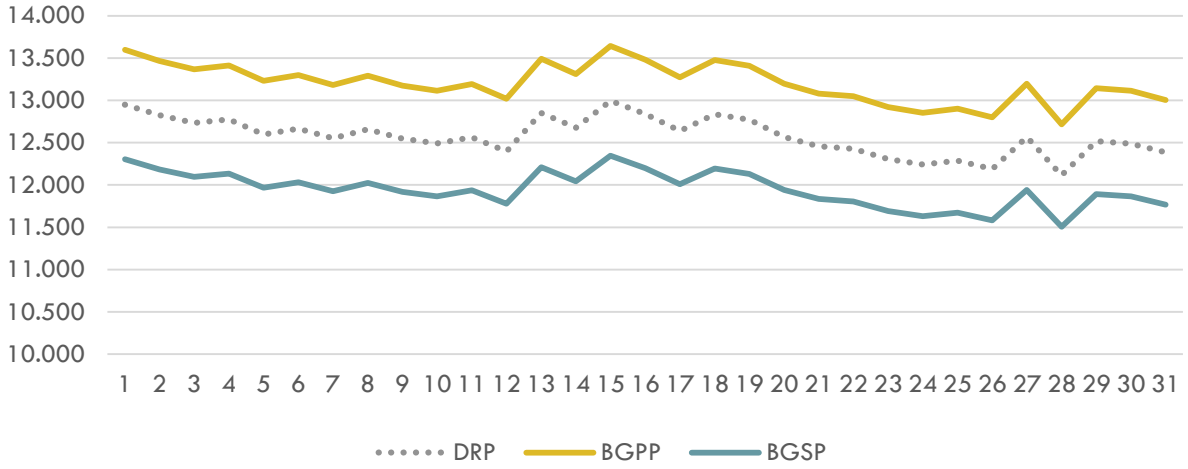
Natural Gas Market By Days DRP (TL/'000 Sm³)



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



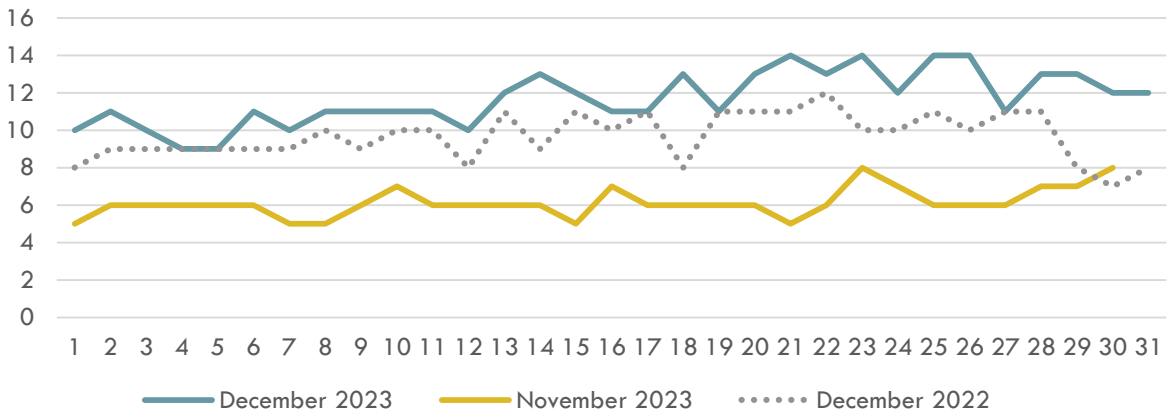
PRICES (2/2)

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

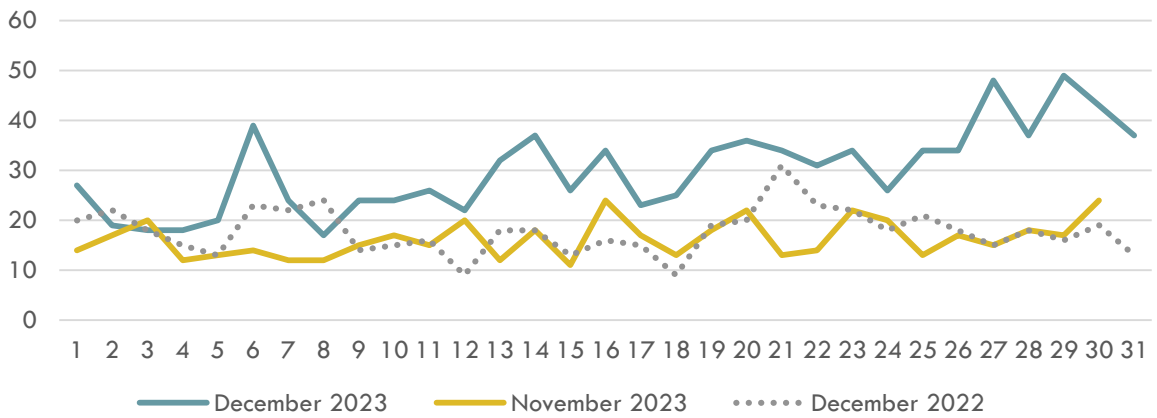
- ✓ The maximum DRP was 12.994 TL on 15 December 2023 Fri; the minimum DRP was realized at the level of 12.112 TL on 28 December 2023 Thu.
- ✓ The Maximum BGPP was 13.643 on 15 December 2023 Fri; the minimum BGPP was realized at the level of 12.718 TL on 28 December 2023 Thu.
- ✓ The maximum BGSP was 12.344 on 15 December 2023 Fri; the minimum BGSP was realized at the level of 11.507 TL on 28 December 2023 Thu.

ORDERS, TRADES, VOLUMES (1/3)

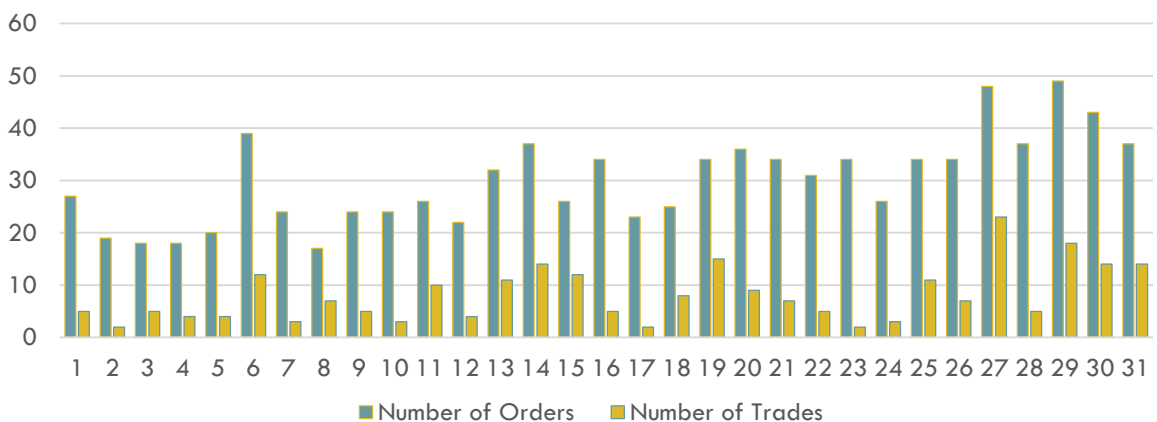
Natural Gas Market Number of Ordered Participants



Natural Gas Market Number of Orders

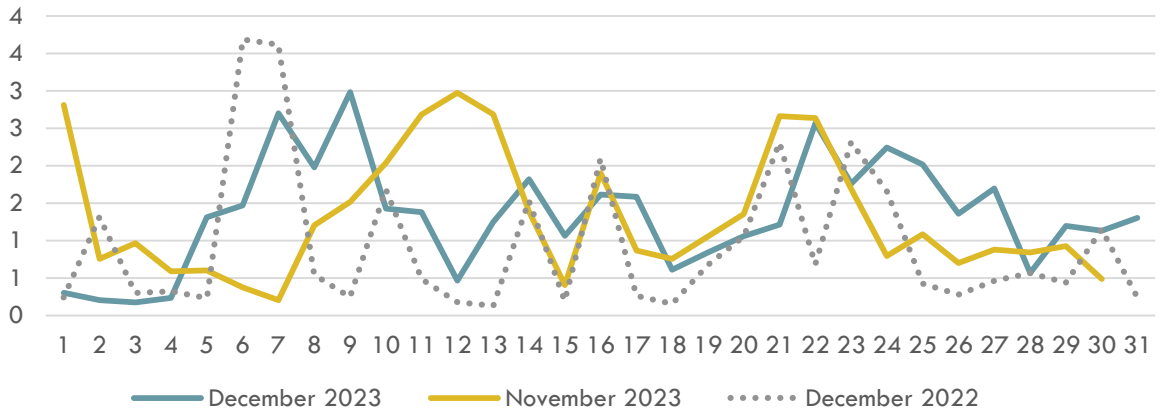


December 2023 Natural Gas Market Number of Orders and Trades

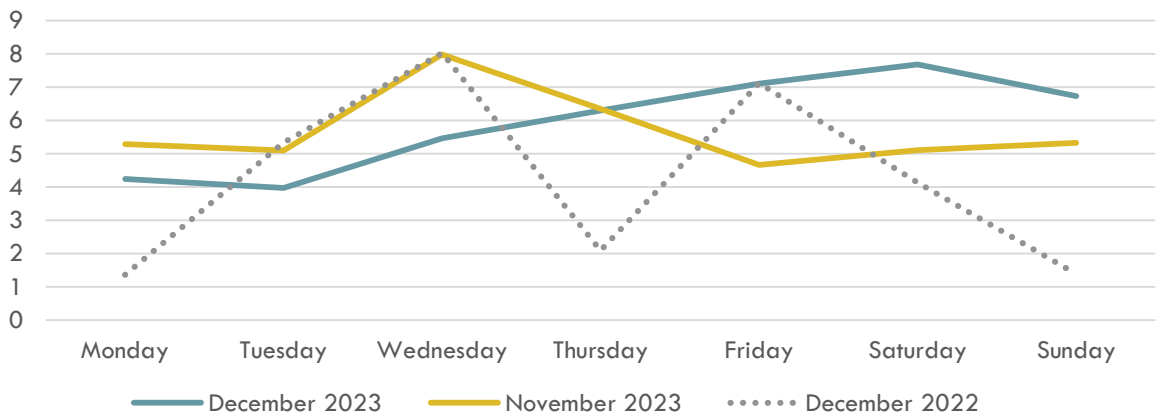


ORDERS, TRADES, VOLUMES (2/3)

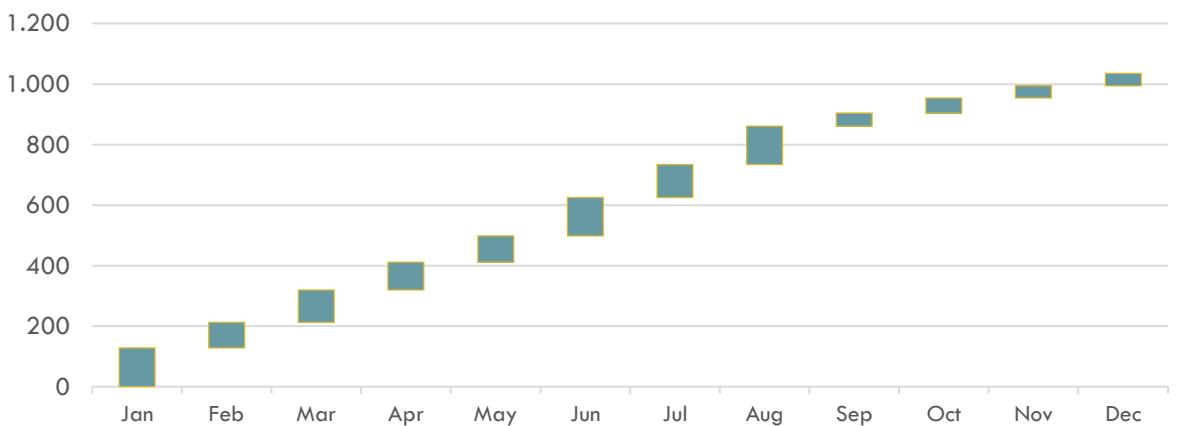
Natural Gas Market Trade Volume (mio.Sm³)



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

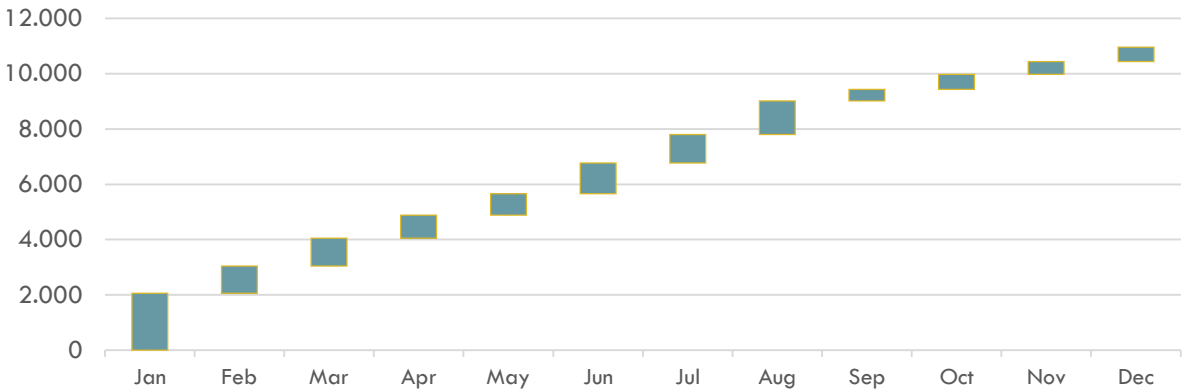


Natural Gas Market Annual Accumulated Trade Volume for 2023 (mio.Sm³)

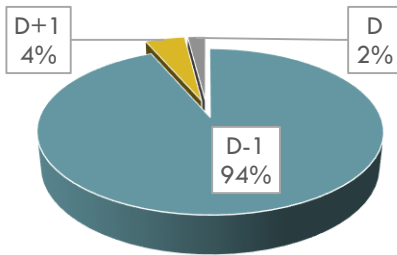


ORDERS, TRADES, VOLUMES (3/3)

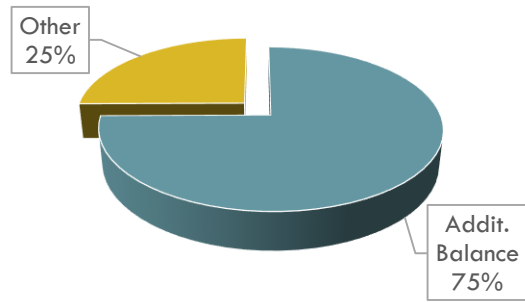
Natural Gas Market Annual Accumulated Transaction Volume for 2023 (Million TL)



Traded Volume of Daily Contracts for December 2023 Period by Sessions



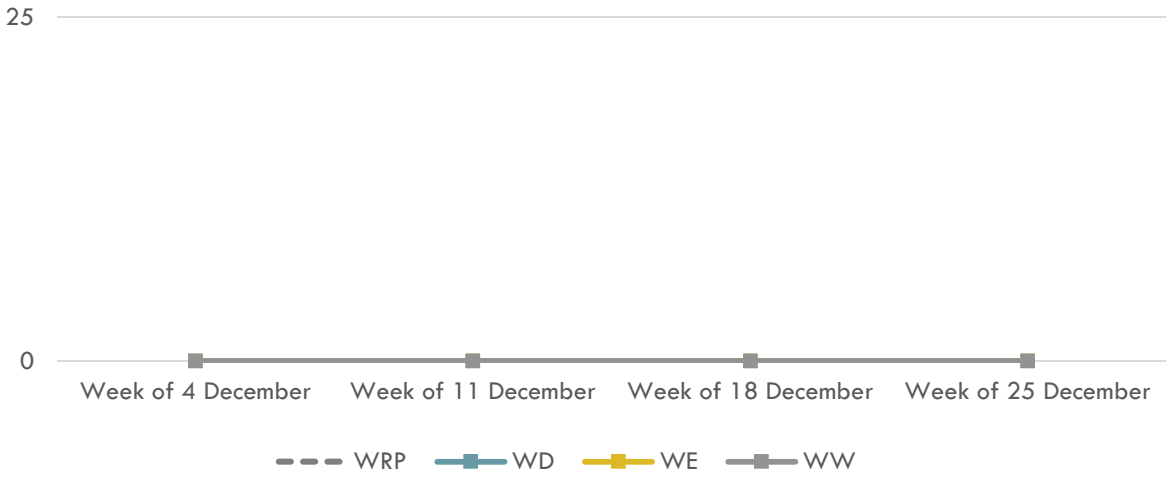
Additional Balancing Traded Volume for December 2023 Period



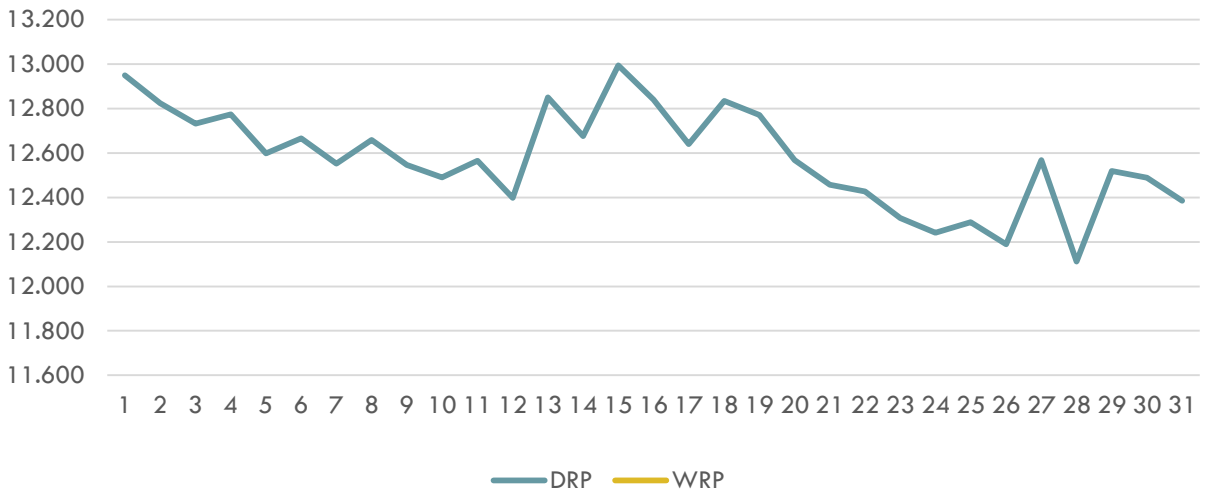
- ✓ The maximum total traded volume was 2.982 sm³ on 09 December 2023 Sat; the minimum total traded volume was realized at the level of 173 sm³ on 03 December 2023 Sun.
- ✓ The maximum total transaction volume was 37.411.151 TL on 09 December 2023 Sat; the minimum total transaction volume was realized at the level of 2.202.610 TL on 03 December 2023 Sun.
- ✓ The maximum d-1 traded volume was 2.942.000 sm³ on 09 December 2023 Sat; the minimum d-1 traded amount was realized at the level of 168.000 sm³ on 03 December 2023 Sun.
- ✓ The maximum d-1 traded volume was 36.911.561 TL on 09 December 2023 Sat; the minimum d-1 traded amount was realized at the level of 2.138.910 TL on 03 December 2023 Sun.
- ✓ The maximum d traded volume was 314.000 sm³ on 29 December 2023 Fri; the minimum d traded amount was realized at the level of 0 sm³ on 01 December 2023 Fri.
- ✓ The maximum d traded volume was 3.925.000 TL on 29 December 2023 Fri; the minimum d traded amount was realized at the level of 0 TL on 01 December 2023 Fri.
- ✓ The maximum d+1 traded volume was 480.000 sm³ on 14 December 2023 Thu; the minimum d+1 traded amount was realized at the level of 0 sm³ on 02 December 2023 Sat.
- ✓ The maximum d+1 traded volume was 6.130.600 TL on 14 December 2023 Thu; the minimum d+1 traded amount was realized at the level of 0 TL on 02 December 2023 Sat.
- ✓ The ratio of sgm compared to total consumption was realized at the level of 0,7% in December 2023.
- ✓ Sgm share in virtual trade was realized at 5,0% in December 2023.

WEEKLY PRODUCTS (1/2)

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

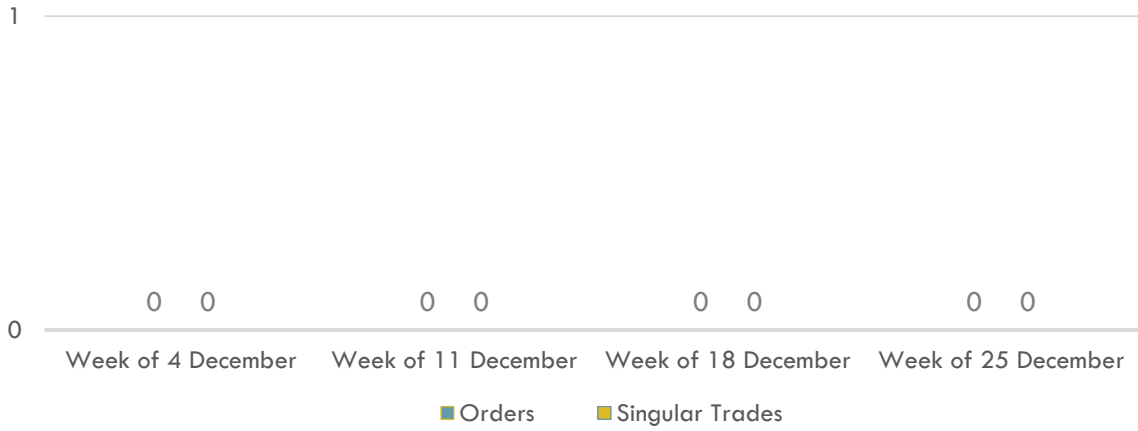


December 2023 DRP - WRP (TL/'000 Sm³)

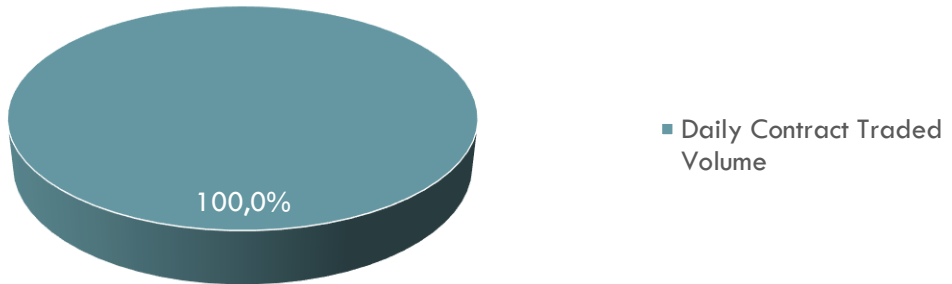


WEEKLY PRODUCTS (2/2)

December 2023 Weekly Products Number of Orders and Trades



December 2023 Traded Volume Distribution by Contract Type



SGM

Last 1 Year Trades

Period	Traded Volume (mio.Sm ³)	Traded Amount (TL)
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
Nov 2023	39,81	458.161.852
Dec 2023	41,50	520.000.877

SGM's share in Total Cons. and Virtual Trade

Period	Total Consumption (%)	Virtual Trade (%)
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%
Nov 2023	0,8%	4,1%
Dec 2023	0,7%	5,0%

GAS FUTURES MARKET (1/1)

Daily Indicator Price For Contracts (TL)

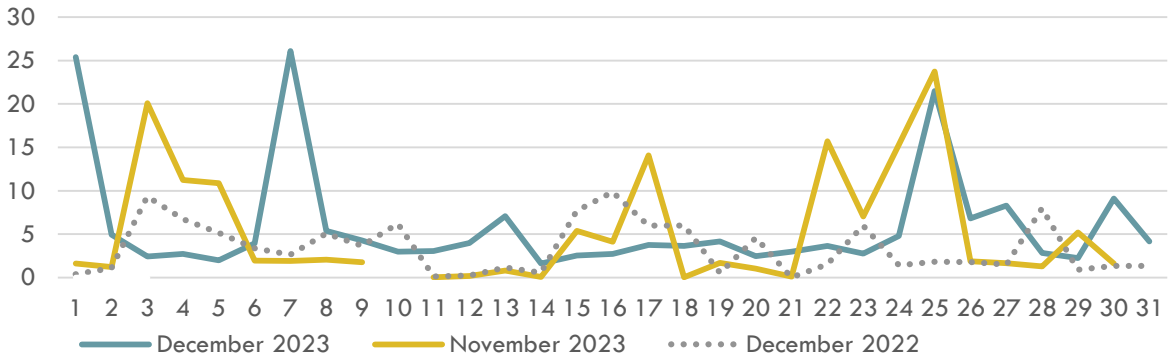
Contract Name	Average Daily Indicator Price (TL)	Minimum Daily Indicator Price (TL)	Maximum Daily Indicator Price (TL)
GM2401	21.094	21.094	21.094
GM2402	19.244	19.244	19.244
GM2403	23.432	23.432	23.432
GM2404	13.823	13.823	13.823
GM2405	12.804	12.804	12.804
GM2406	15.829	15.829	15.829
GM2407	14.022	14.022	14.022
GM2408	14.478	14.478	14.478
GM2409	14.592	14.592	14.592
GM2410	16.267	15.740	16.322
GM2411	17.115	16.561	17.173
GM2412	76.926	15.531	87.127
GM2501	16.554	16.554	16.554
GQ2401	21.301	21.301	21.301
GQ2402	14.137	14.137	14.137
GQ2403	14.362	14.362	14.362
GQ2404	36.927	15.347	40.458
GQ2501	16.801	16.801	16.801
GY24	22.591	22.591	22.591
GY25	18.329	18.329	18.329

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

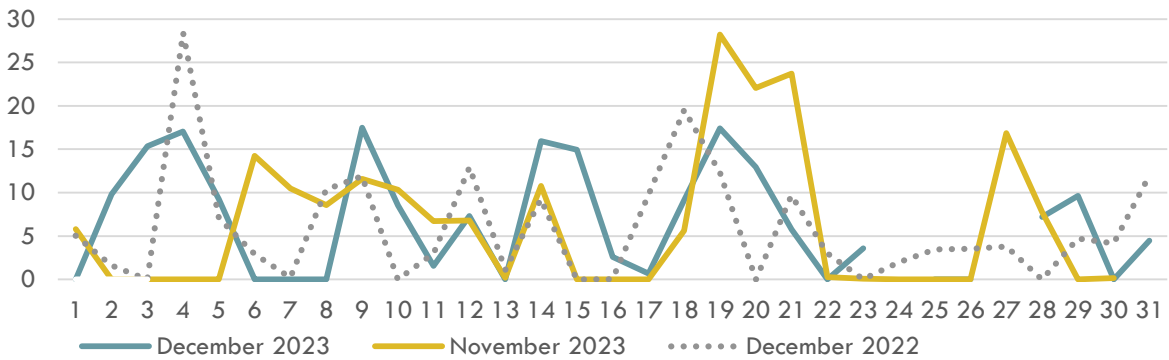
Contract Name	Traded Volume (mio.Sm3)	Traded Amount (TL)	Average Price (TL)
-	0	0	0

TRANSMISSION SYSTEM DATA (1/2)

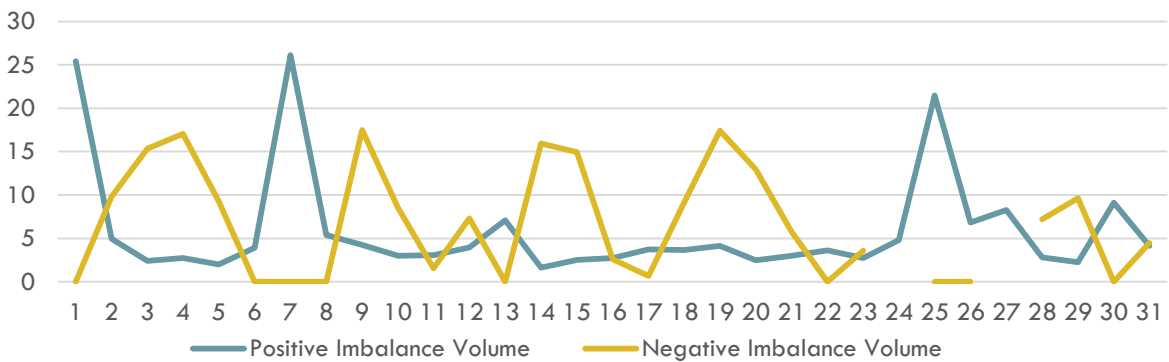
Natural Gas Market Positive Imbalance Volume (mio.Sm³)



Natural Gas Market Negative Imbalance Volume (mio.Sm³)



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

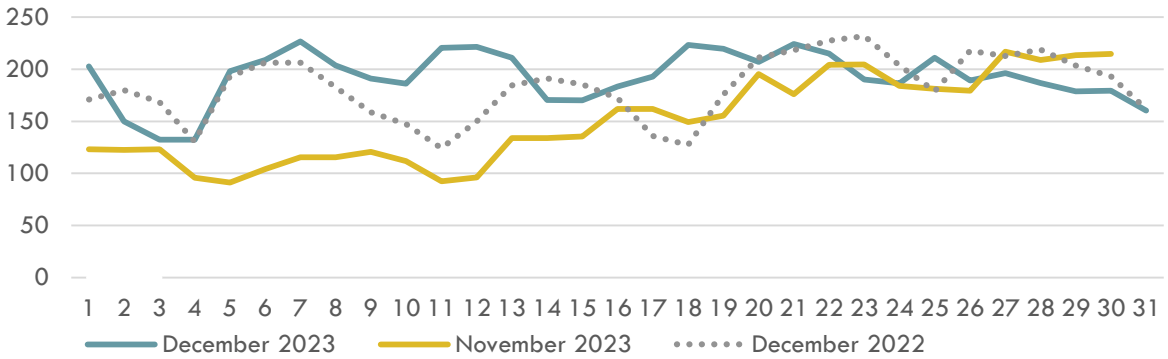


✓ The maximum positive imbalance volume was 26.113.277 sm³ on 07 December 2023 Thu; the minimum positive imbalance volume was realized at the level of 1.623.490 sm³ on 14 December 2023 Thu.

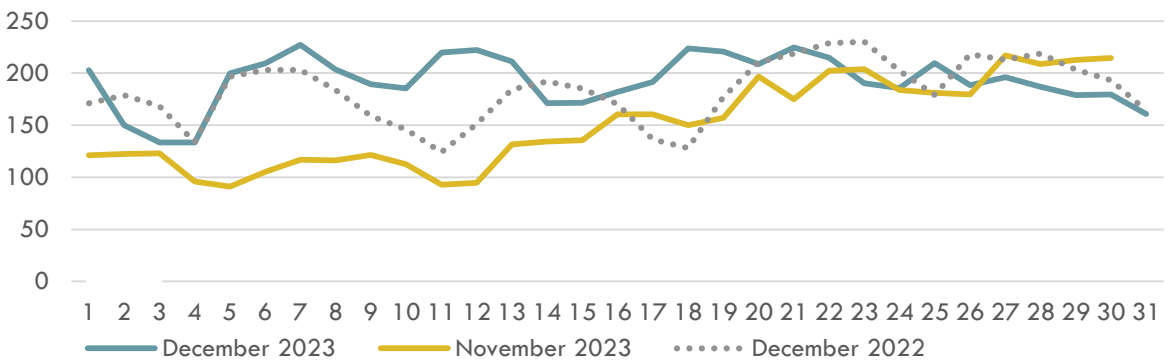
✓ The maximum negative imbalance volume was 17.494.918 sm³ on 09 December 2023 Sat; the minimum negative imbalance volume was realized at the level of 0 sm³ on 24 December 2023 Sun.

TRANSMISSION SYSTEM DATA (2/2)

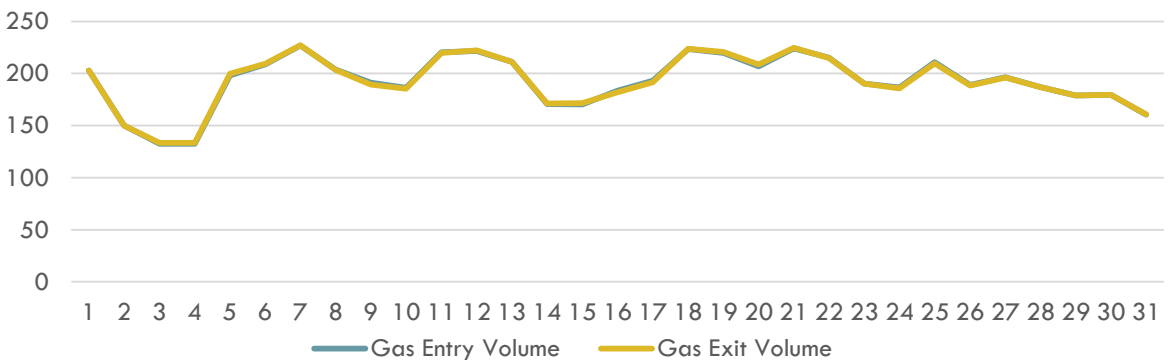
Natural Gas Market Gas Entry Volume (mio.Sm³)



Natural Gas Market Gas Exit Volume (mio.Sm³)



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



- ✓ Maximum gas entry volume realized on 07 December 2023 Thu was 226.833.210 sm³; minimum gas entry volume on 03 December 2023 Sun was 132.463.227 sm³ levels.
- ✓ Maximum gas exit volume realized on 07 December 2023 Thu was 227.077.488 sm³; minimum gas exit volume 04 December 2023 Mon was 133.449.874 sm³ levels.
- ✓ Maximum gas volume in stocks realized on 01 December 2023 Fri was 419.760.017 sm³; minimum stok gas volume 07 December 2023 Thu was 415.388.007 sm³ levels.

ADDITIONAL BALANCING TRANSACTIONS

Transactions with 1 Code

Contract Day	Transaction Volume ('000 Sm ³)	WAP (TL/'000 Sm ³)	Direction
01.12.2023	136	12.950	Purchase
02.12.2023	127	12.824	Purchase
03.12.2023	113	12.731	Purchase
04.12.2023	158	12.780	Purchase
05.12.2023	1.230	12.599	Purchase
06.12.2023	1.145	12.714	Purchase
07.12.2023	2.623	12.552	Purchase
08.12.2023	1.745	12.703	Purchase
09.12.2023	2.867	12.548	Purchase
10.12.2023	1.372	12.490	Purchase
11.12.2023	1.287	12.571	Purchase
12.12.2023	296	12.398	Purchase
13.12.2023	493	12.361	Purchase
14.12.2023	871	12.822	Purchase
15.12.2023	339	13.000	Purchase
16.12.2023	1.519	12.845	Purchase
17.12.2023	1.530	12.640	Purchase
18.12.2023	252	12.384	Purchase
19.12.2023	238	12.533	Purchase
20.12.2023	847	12.568	Purchase
21.12.2023	1.097	12.464	Purchase
22.12.2023	2.457	12.430	Purchase
23.12.2023	1.659	12.308	Purchase
24.12.2023	2.172	12.246	Purchase
25.12.2023	1.633	12.288	Purchase
26.12.2023	1.184	12.201	Purchase
27.12.2023	428	12.450	Purchase
28.12.2023	384	12.197	Purchase
29.12.2023	224	12.050	Purchase
30.12.2023	293	12.300	Purchase
31.12.2023	354	12.132	

Transactions with 2 Code

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

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 2.867.000 sm³ on 09 December 2023 Sat; additional balancing transactions with a minimum code of 1 were realized at the level of 113.000 sm³ on 03 December 2023 Sun.
- ✓ In December, no additional balancing transaction code of 2 was realized.
- ✓ In December, no additional balancing transaction code of 3 was realized.
- ✓ In December, no additional balancing transaction code of 4 was realized.