

EPIAS

NATURAL GAS MARKET MONTHLY BULLETIN

NOVEMBER 2022



SUMMARY DATA (1/2)

Arithmetic Means

	November 2022	October 2022	Monthly Change	November 2021	Annual Change
DRP (TL/'000 Sm ³)	20.518	25.493	-19.5%	4.622	343.9%
WRP (TL/'000 Sm ³)	0	0	-	5.183	-100.0%
BGPP (TL/'000 Sm ³)	21.319	26.258	-18.8%	4.902	334.9%
BGSP (TL/'000 Sm ³)	19.349	24.722	-21.7%	4.483	331.6%
Traded Volume (mio.Sm ³)	2,69	4,40	-38.8%	1,65	63.1%
Transaction Volume (TL)	54.669.279	111.942.449	-51.2%	7.587.283	620.5%
Gas Entry Volume (mio.Sm ³)	137,87	103,50	33.2%	178,51	-22.8%
Gas Exit Volume (mio.Sm ³)	137,27	104,00	32.0%	178,57	-23.1%
Number of Ordered Participants	10	7	35.8%	15	-31.7%
Number of Orders	23	11	109.1%	44	-48.4%
Number of Trades	7	5	31.6%	22	-68.6%

Maximum / Minimum Levels

	November 2022		October 2022		November 2021	
	Max	Min	Max	Min	Max	Min
DRP (TL/'000 Sm ³)	22.732	13.994	26.100	23.500	4.649	4.556
WRP (TL/'000 Sm ³)	0	0	0	0	6.924	4.600
BGPP (TL/'000 Sm ³)	23.414	19.377	26.883	24.205	6.923	4.693
BGSP (TL/'000 Sm ³)	22.050	4.488	25.317	22.795	4.510	4.419
Traded Volume (mio.Sm ³)	10,39	0,23	16,09	0,08	4,17	0,04
Transaction Volume (TL)	235.337.893	4.709.250	419.871.325	1.832.975	23.581.723	176.662
Gas Entry Volume (mio.Sm ³)	194,05	94,70	129,11	74,19	228,86	128,49
Gas Exit Volume (mio.Sm ³)	191,41	94,44	126,90	70,31	229,58	128,67
Number of Ordered Participants	11	8	9	4	18	10
Number of Orders	29	14	18	4	90	12
Number of Trades	16	3	8	2	38	2

SUMMARY DATA (2/2)

Totals

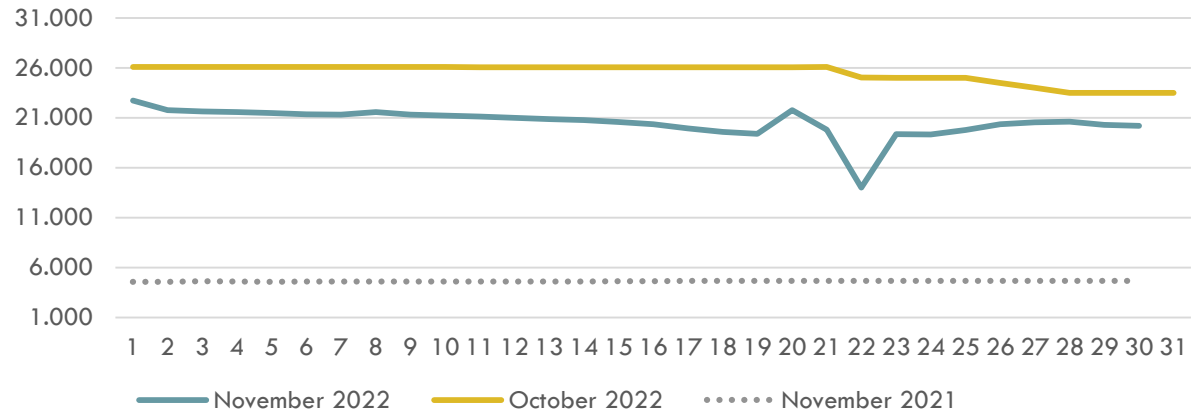
	November 2022	October 2022	Monthly Change	November 2021	Annual Change
Traded Volume (mio.Sm ³)	80,68	136,33	-40.8%	49,46	63.1%
Transaction Volume (TL)	1.640.078.378	3.470.215.904	-52.7%	227.618.483	620.5%
Gas Entry Volume (mio.Sm ³)	4.136,18	3.208,49	28.9%	5.355,34	-22.8%
Gas Exit Volume (mio.Sm ³)	4.118,03	3.223,96	27.7%	5.357,05	-23.1%
Number of Orders	684	338	102.4%	1.326	-48.4%
Number of Trades	205	161	27.3%	583	-64.8%
Total Production of Natural Gas Based Power Plants (MWh)	4.214.075	4.454.998	-5.4%	7.948.022	-47.0%
Total Electricity Generation (MWh)	22.519.251	23.103.658	-2.5%	24.507.044	-8.1%
Ratio of Natural Gas Based Generation to Total Electricity Generation (%)	19	19	-3.0%	32	-42.3%

Brent Oil and TTF Prices

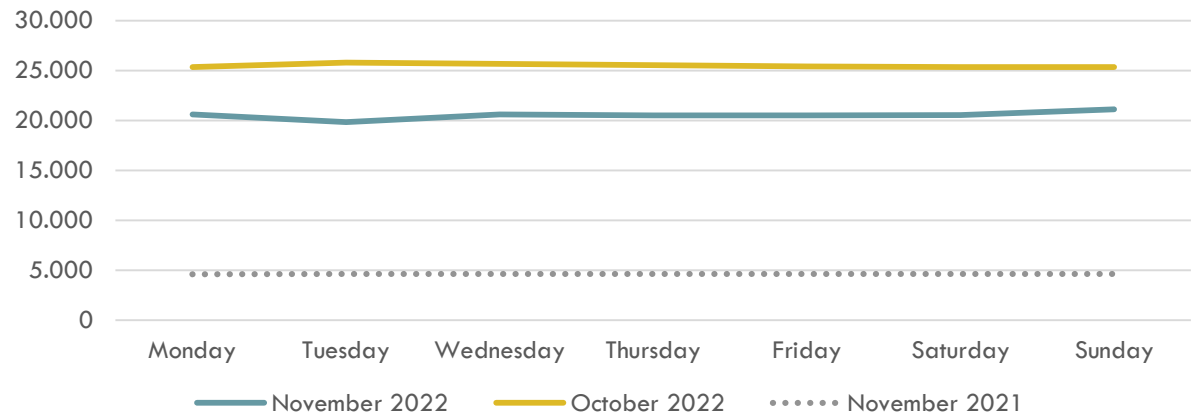
	November 2022	October 2022	Monthly Change	November 2021	Annual Change
Brent Oil(\$/bl)	90,85	93,59	-2,93%	80,85	12,37%
TTF (€/MWh)	93,27	71,90	29,71%	81,30	14,71%

PRICES (1/2)

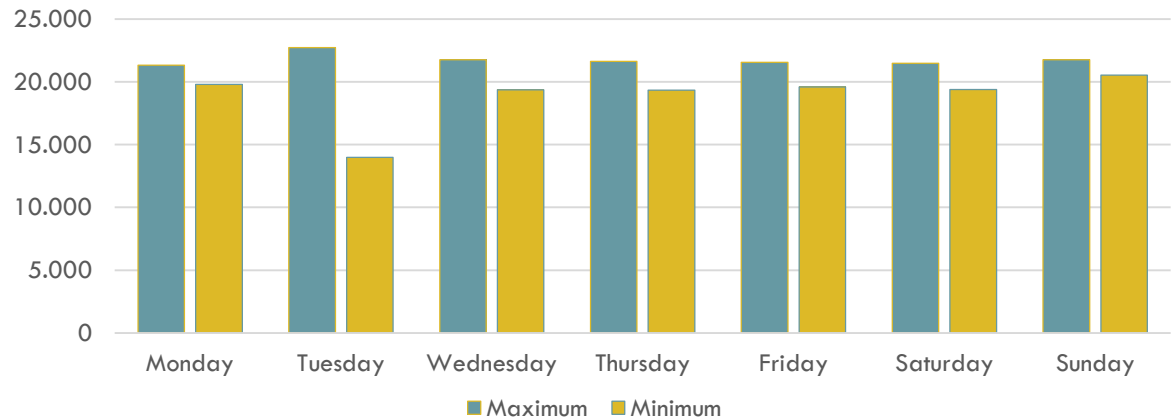
Natural Gas Market DRP (TL/'000 Sm³)



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

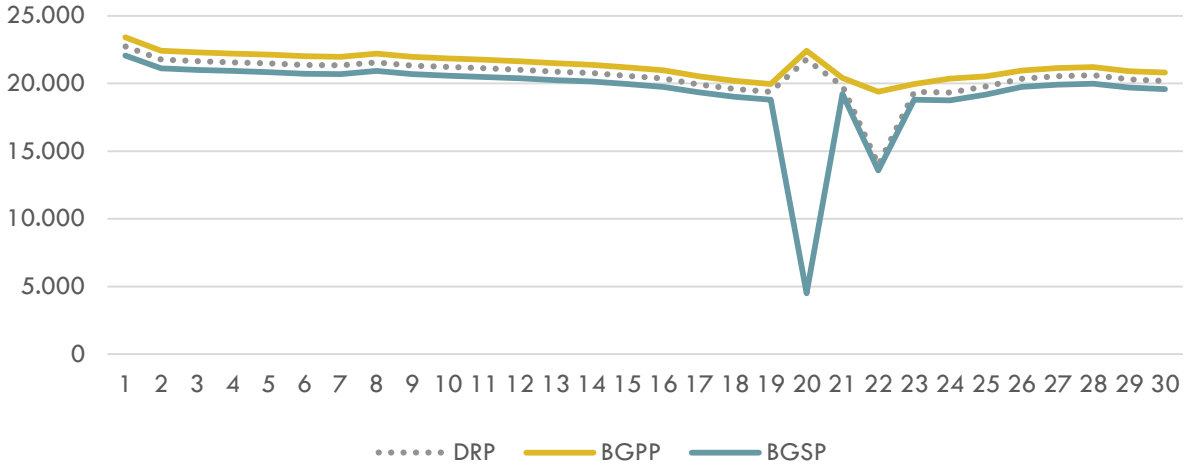


November 2022 Natural Gas Market By Days Max / Min DRP (TL/'000 Sm³)



PRICES (2/2)

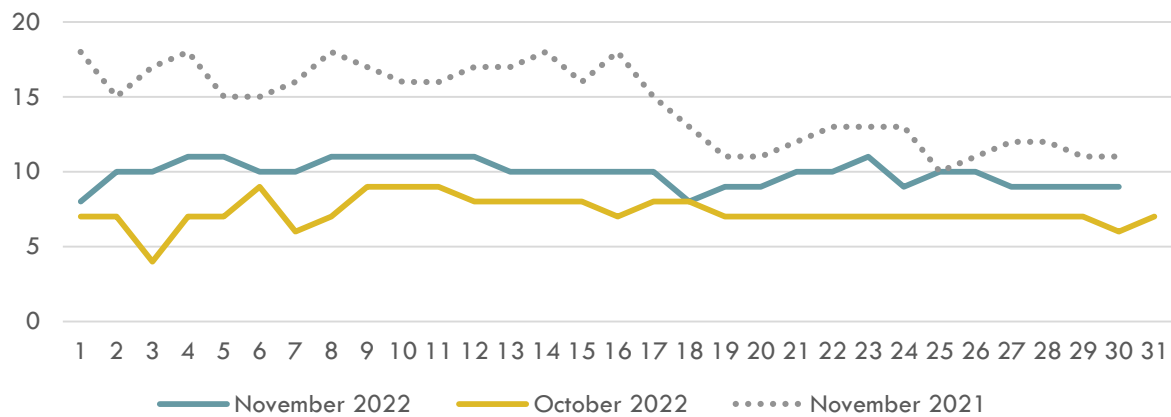
November 2022 DRP - BGPP - BGSP (TL/‘000 Sm³)



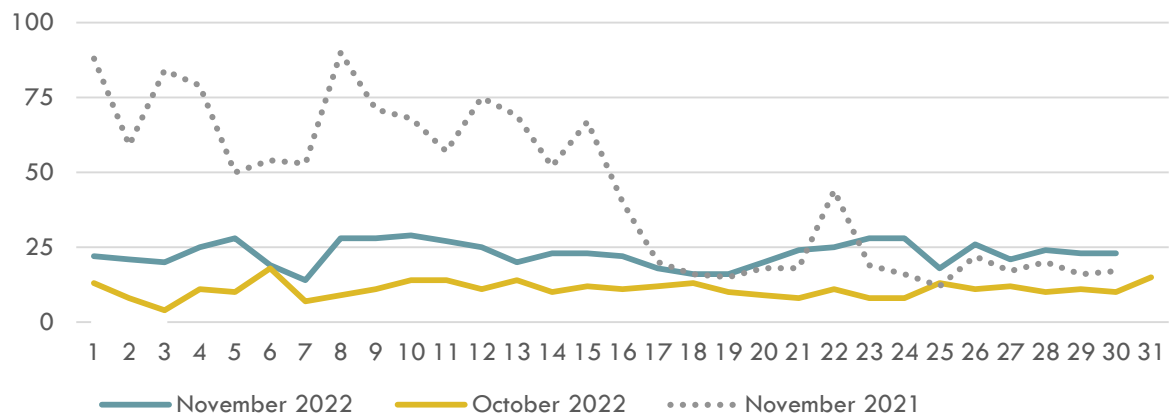
- ✓ The maximum DRP was 22.732 TL on 01 November 2022 Tue; the minimum DRP was realized at the level of 13.994 TL on 22 November 2022 Tue.
- ✓ The Maximum BGPP was 23.414 on 01 November 2022 Tue; the minimum BGPP was realized at the level of 19.377 TL on 22 November 2022 Tue.
- ✓ The maximum BGSP was 22.050 on 01 November 2022 Tue; the minimum BGSP was realized at the level of 4.488 TL on 20 November 2022 Sun.

ORDERS, TRADES, VOLUMES (1/3)

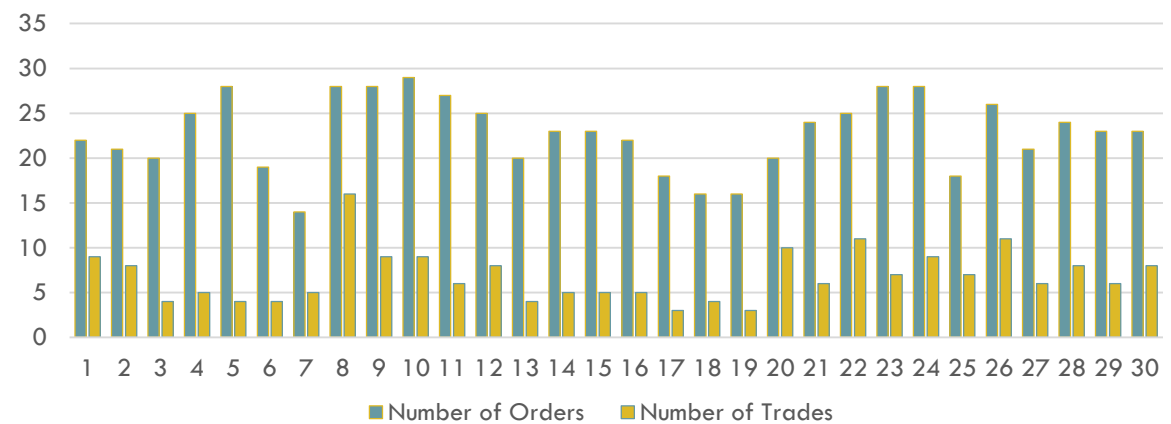
Natural Gas Market Number of Ordered Participants



Natural Gas Market Number of Orders

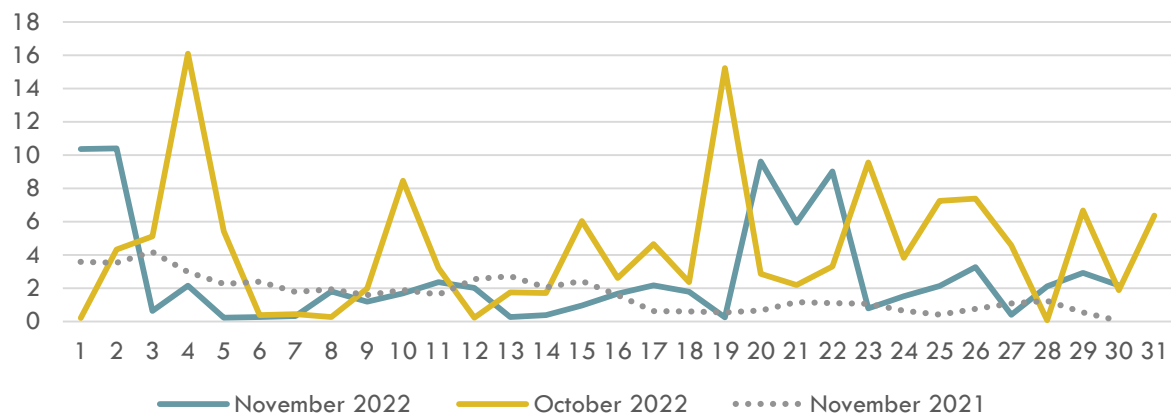


November 2022 Natural Gas Market Number of Orders and Trades

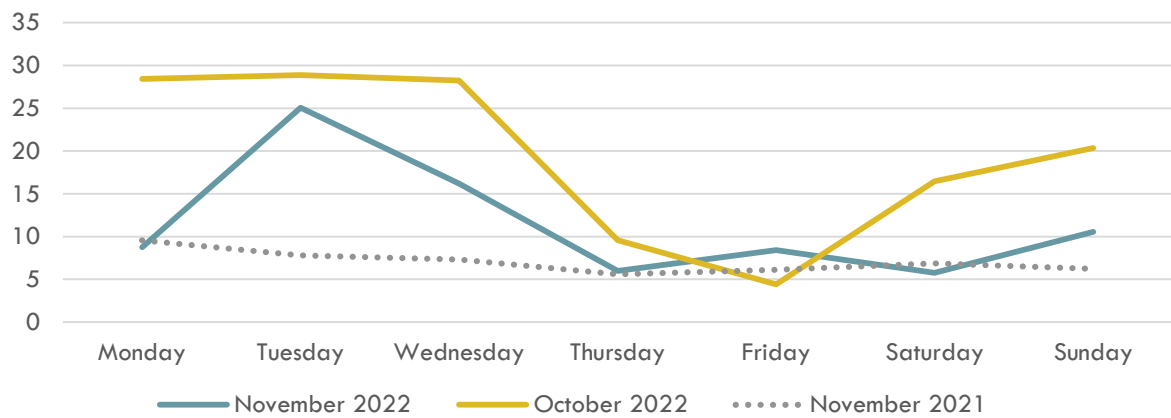


ORDERS, TRADES, VOLUMES (2/3)

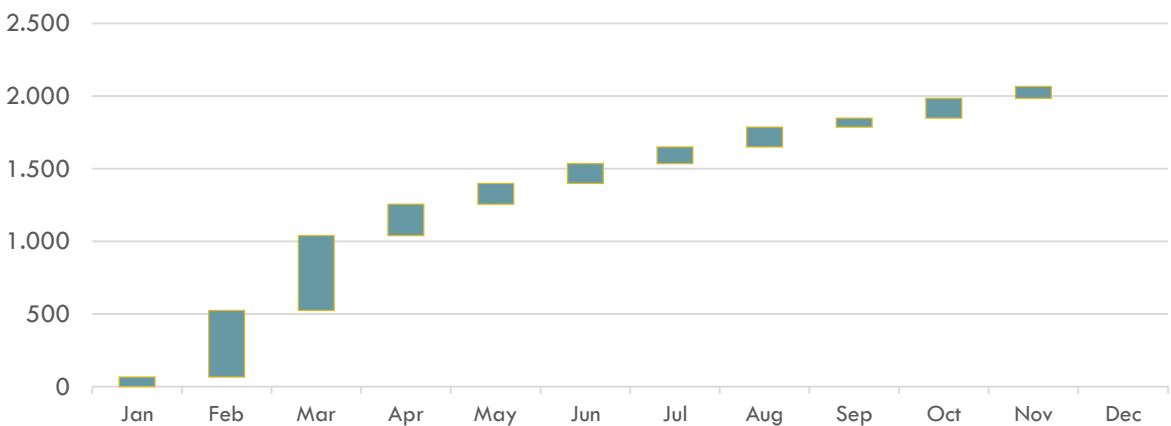
Natural Gas Market Trade Volume (mio.Sm³)



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

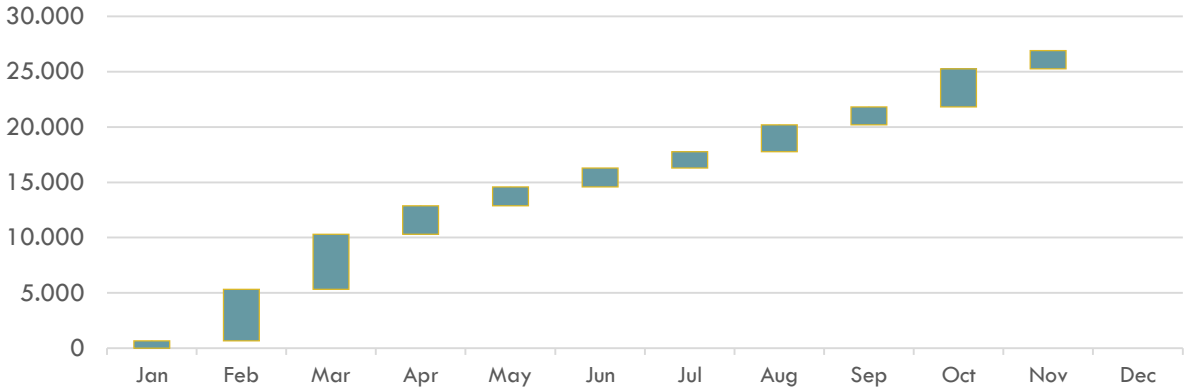


Natural Gas Market Annual Accumulated Trade Volume for 2022 (mio.Sm³)

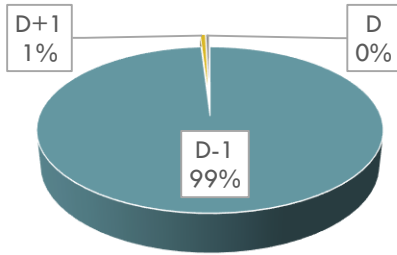


ORDERS, TRADES, VOLUMES (3/3)

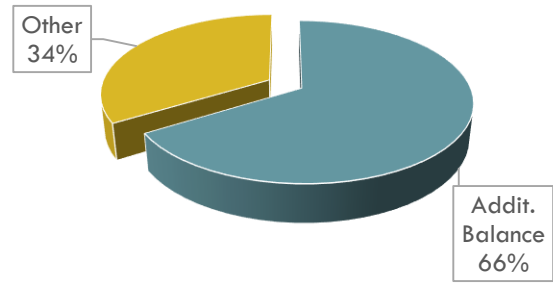
Natural Gas Market Annual Accumulated Transaction Volume for 2022 (Million TL)



Traded Volume of Daily Contracts for November 2022 Period by Sessions

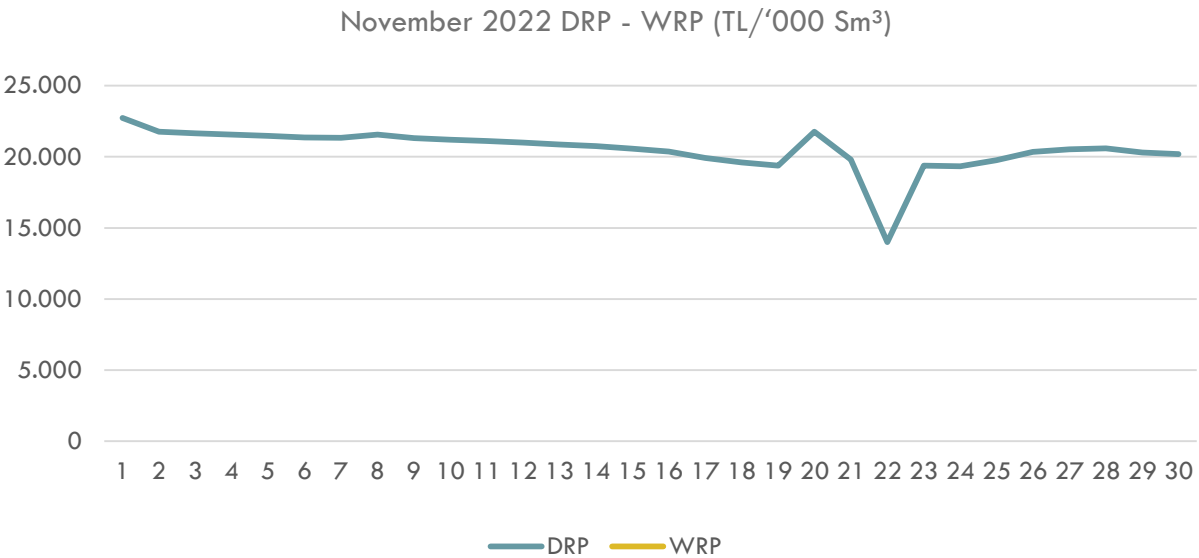
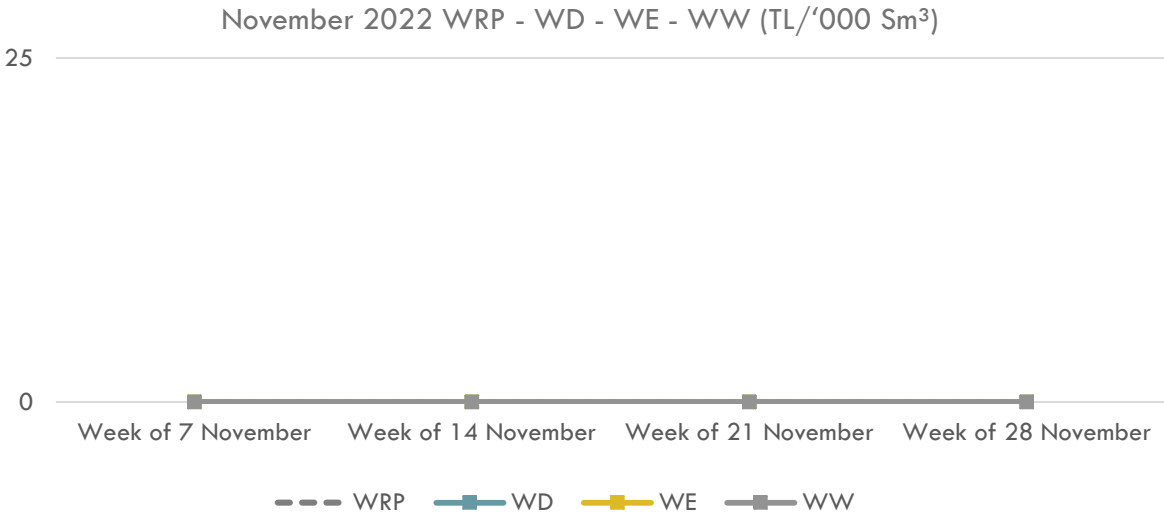


Additional Balancing Traded Volume for November 2022 Period



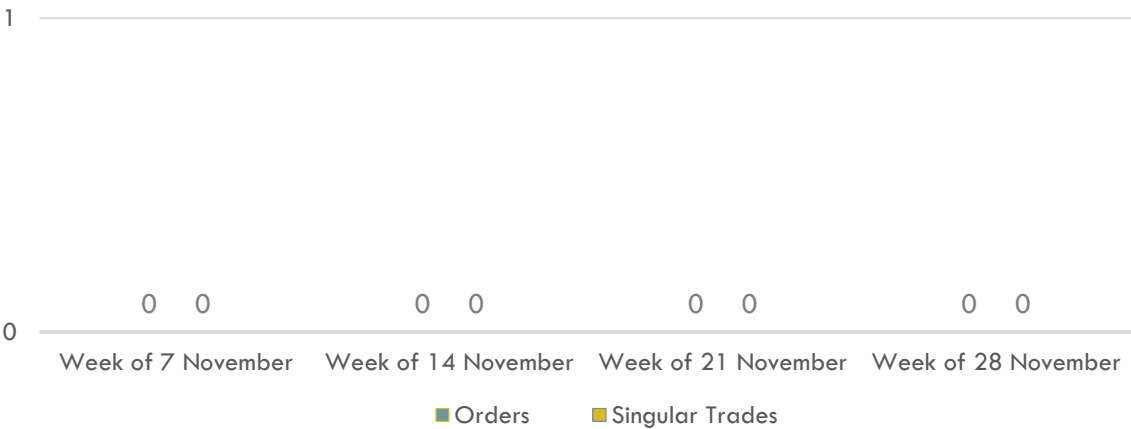
- ✓ The maximum total traded volume was 10.391 sm³ on 02 November 2022 Wed; the minimum total traded volume was realized at the level of 227 sm³ on 05 November 2022 Sat.
- ✓ The maximum total transaction volume was 235.337.893 TL on 01 November 2022 Tue; the minimum total transaction volume was realized at the level of 4.709.250 TL on 19 November 2022 Sat.
- ✓ The maximum d-1 traded volume was 10.348.000 sm³ on 02 November 2022 Wed; the minimum d-1 traded amount was realized at the level of 222.000 sm³ on 05 November 2022 Sat.
- ✓ The maximum d-1 traded volume was 234.727.400 TL on 01 November 2022 Tue; the minimum d-1 traded amount was realized at the level of 4.709.250 TL on 19 November 2022 Sat.
- ✓ The maximum d traded volume was 120.000 sm³ on 28 November 2022 Mon; the minimum d traded amount was realized at the level of 0 sm³ on 01 November 2022 Tue.
- ✓ The maximum d traded volume was 2.471.800 TL on 28 November 2022 Mon; the minimum d traded amount was realized at the level of 0 TL on 01 November 2022 Tue.
- ✓ The maximum d+1 traded volume was 55.000 sm³ on 29 November 2022 Tue; the minimum d+1 traded amount was realized at the level of 0 sm³ on 03 November 2022 Thu.
- ✓ The maximum d+1 traded volume was 1.020.040 TL on 26 November 2022 Sat; the minimum d+1 traded amount was realized at the level of 0 TL on 03 November 2022 Thu.
- ✓ The ratio of sgm compared to total consumption was realized at the level of 1,9% in November 2022.
- ✓ Sgm share in virtual trade was realized at 20,9% in November 2022.

WEEKLY PRODUCTS (1/2)

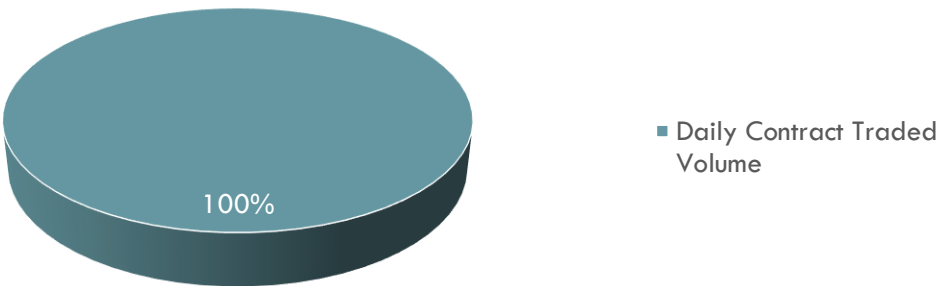


WEEKLY PRODUCTS (2/2)

November 2022 Weekly Products Number of Orders and Trades



November 2022 Traded Volume Distribution by Contract Type



SGM

Last 1 Year Trades

Period	Traded Volume (mio.Sm ³)	Traded Amount (TL)
Nov 2021	49,46	227.618.483
Dec 2021	76,85	327.403.990
Jan 2022	66,36	559.271.803
Feb 2022	458,09	1.044.258.193
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

SGM's share in Total Cons. and Virtual Trade

Period	Total Consumption (%)	Virtual Trade (%)
Nov 2021	0,9%	5,4%
Dec 2021	1,1%	8,4%
Jan 2022	0,9%	7,2%
Feb 2022	7,2%	31,9%
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%

GAS FUTURES MARKET (1/1)

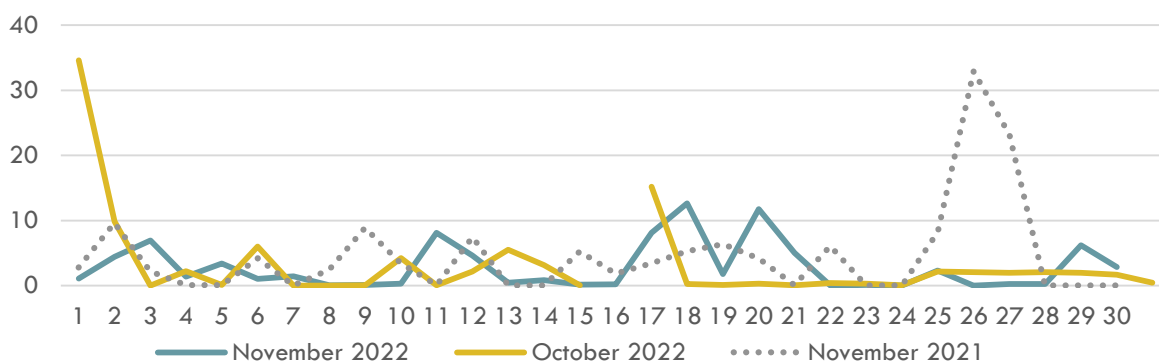
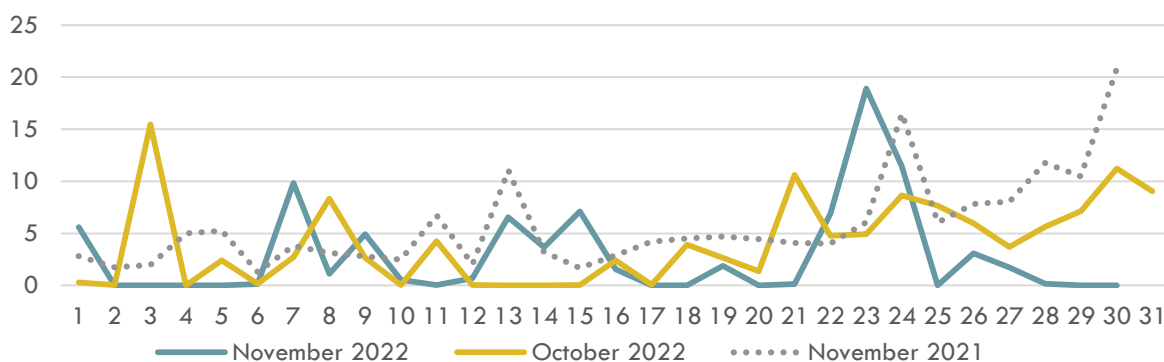
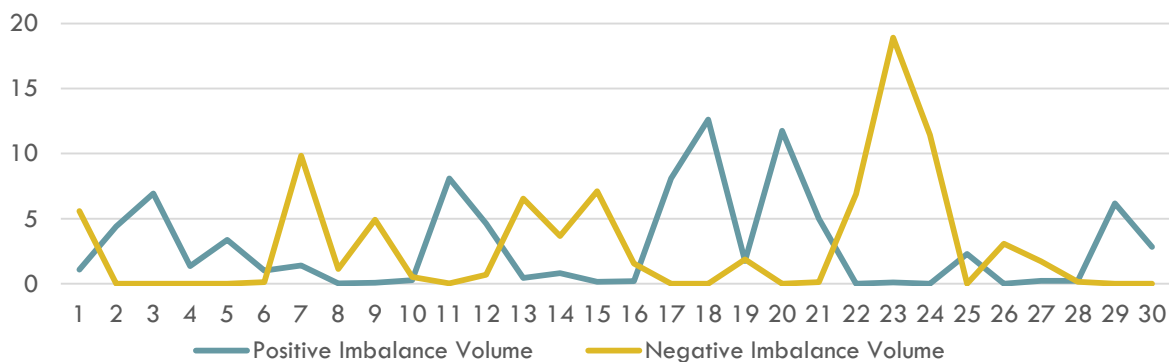
Daily Indicator Price For Contracts (TL)

Contract Name	Average Daily Indicator Price (TL)	Minimum Daily Indicator Price (TL)	Maximum Daily Indicator Price (TL)
GM2212	22.389	22.389	22.389
GM2301	22.381	22.381	22.381
GM2302	22.819	22.819	22.819
GM2303	23.397	23.397	23.397
GM2304	21.174	21.174	21.174
GM2305	21.732	21.732	21.732
GM2306	22.312	22.312	22.312
GM2307	21.644	21.644	21.644
GM2308	21.920	21.920	21.920
GM2309	23.022	23.022	23.022
GM2310	23.119	23.119	23.119
GM2311	29.585	29.585	29.585
GM2312	18.645	18.645	18.645
GQ2301	22.867	22.867	22.867
GQ2302	21.739	21.739	21.739
GQ2303	22.187	22.187	22.187
GQ2304	23.720	23.720	23.720
GY23	22.629	22.629	22.629

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

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

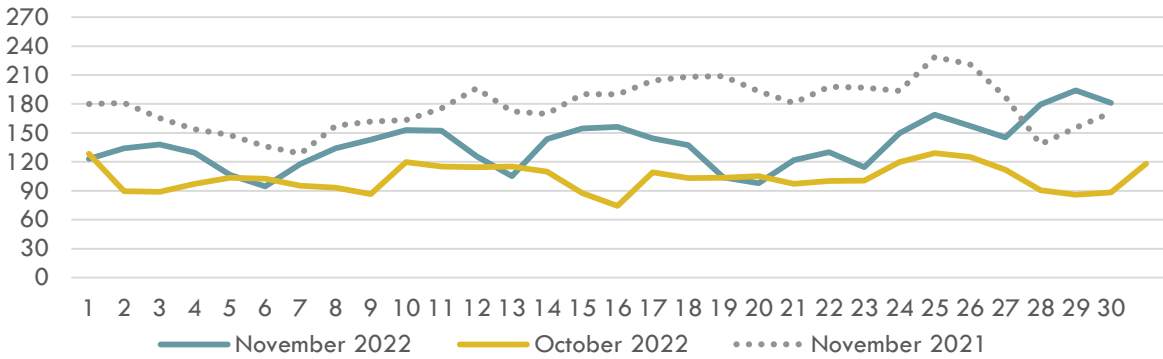
TRANSMISSION SYSTEM DATA (1/2)

Natural Gas Market Positive Imbalance Volume (mio.Sm³)Natural Gas Market Negative Imbalance Volume (mio.Sm³)November 2022 Period Negative and Positive Imbalance Volume (mio.Sm³)

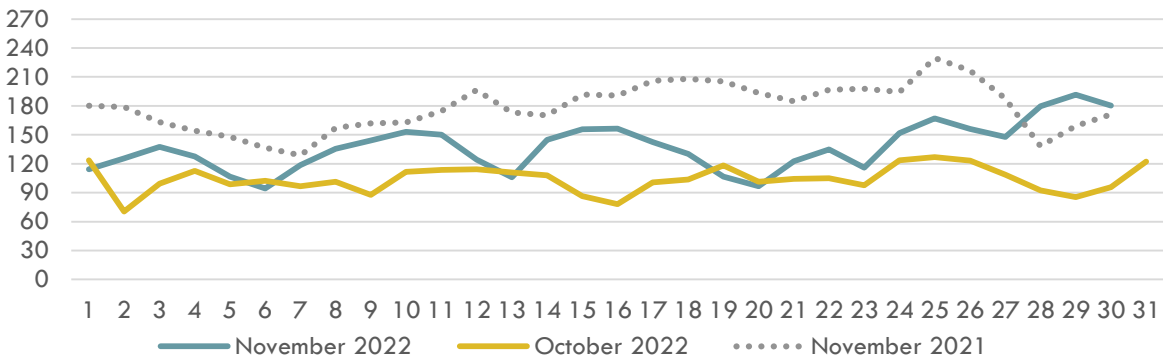
- ✓ The maximum positive imbalance volume was 12.617.436 sm³ on 18 November 2022 Fri; the minimum positive imbalance volume was realized at the level of 6.056 sm³ on 22 November 2022 Tue.
- ✓ The maximum negative imbalance volume was 18.900.028 sm³ on 23 November 2022 Wed; the minimum negative imbalance volume was realized at the level of 3.602 sm³ on 20 November 2022 Sun.

TRANSMISSION SYSTEM DATA (2/2)

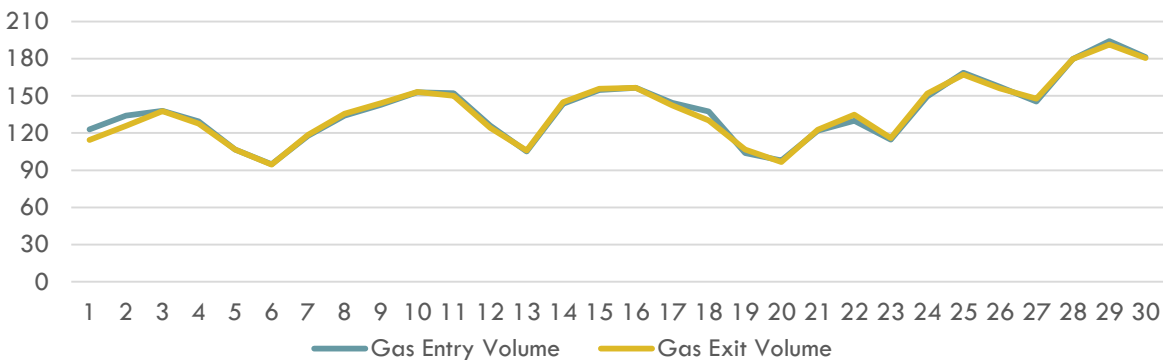
Natural Gas Market Gas Entry Volume (mio.Sm³)



Natural Gas Market Gas Exit Volume (mio.Sm³)



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



- ✓ Maximum gas entry volume realized on 29 November 2022 Tue was 194.046.114 sm³; minimum gas entry volume on 06 November 2022 Sun was 94.697.499 sm³ levels.
- ✓ Maximum gas exit volume realized on 29 November 2022 Tue was 191.414.618 sm³; minimum gas exit volume 06 November 2022 Sun was 94.438.290 sm³ levels.
- ✓ Maximum gas volume in stocks realized on 18 November 2022 Fri was 415.410.242 sm³; minimum stok gas volume 01 November 2022 Tue was 399.246.785 sm³ levels.

ADDITIONAL BALANCING TRANSACTIONS

Transactions with 1 Code

Contract Day	Transaction Volume ('000 Sm ³)	WAP (TL/ '000 Sm ³)	Direction
01.11.2022	9.206	22.884	Purchase
02.11.2022	10.247	21.770	Purchase
03.11.2022	506	21.644	Purchase
04.11.2022	2.013	21.562	Purchase
05.11.2022	96	21.487	Purchase
06.11.2022	153	21.386	Purchase
07.11.2022	194	21.360	Purchase
08.11.2022	107	21.755	Sales
09.11.2022	996	21.313	Purchase
10.11.2022	1.541	21.217	Purchase
11.11.2022	2.223	21.125	Purchase
12.11.2022	1.876	21.012	Purchase
13.11.2022	136	20.897	Purchase
14.11.2022	240	20.794	Purchase
15.11.2022	816	20.578	Purchase
16.11.2022	1.527	20.374	Purchase
17.11.2022	2.047	19.949	Purchase
18.11.2022	1.647	19.606	Purchase
19.11.2022	128	19.400	Purchase
22.11.2022	4.000	4.488	Sales
23.11.2022	644	19.400	Sales
24.11.2022	881	19.377	Sales
25.11.2022	2.006	19.767	Purchase
26.11.2022	3.205	20.346	Purchase
27.11.2022	278	20.533	Purchase
28.11.2022	1.986	20.598	Purchase
29.11.2022	2.751	20.300	Purchase
30.11.2022	2.028	20.193	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 10.247.000 sm³ on 02 November 2022 Wed; additional balancing transactions with a minimum code of 1 were realized at the level of 96.000 sm³ on 05 November 2022 Sat.
- ✓ In November, no additional balancing transaction code of 2 was realized.
- ✓ In November, no additional balancing transaction code of 3 was realized.
- ✓ In November, no additional balancing transaction code of 4 was realized.