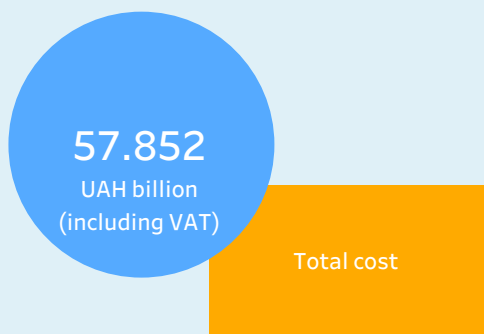
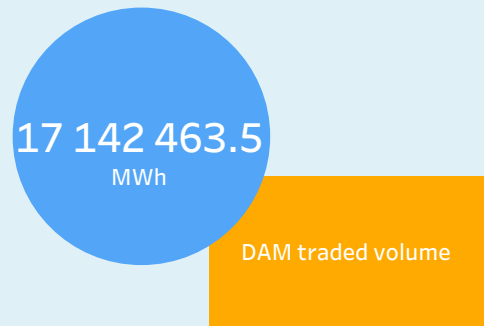
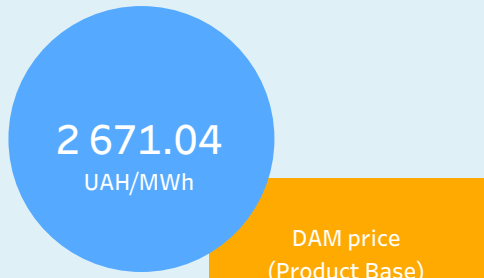




Analysis of the DAM and IDM operation for 2022

1. Legislative changes in the electricity market;
2. Analysis of the day-ahead market (DAM) operation;
3. Analysis of the intraday market (IDM) operation;
4. Comparative analysis of DAM prices in Europe and Ukraine;
5. Comparative analysis of DAM and bilateral contracts market (BCM) prices.

DAM RESULTS IN THE IPS OF UKRAINE



DAM EMPAHASES IN 2022

NEURC's Resolution dated on 30.07.2021 №1227

the **maximum** price caps on the DAM of the IPS of Ukraine was:
for hours of **MAX** load – 4 000,00 UAH/MWh,
for hours of **MIN** load – 2 000,00 UAH/MWh.

NEURC's Resolution dated on 10.02.2022 №239 (with changes)

the **minimum** price level on the DAM of the IPS of Ukraine was not less than 987,47 UAH/MWh from 12.02.2022.

NEURC's Resolution dated on 25.02.2022 №332

the **minimum** price level on the DAM of the IPS of Ukraine from 28.02.2022 was:
for hours of **MAX** load – 2 646,25 UAH/MWh
for hours of **MIN** load – 1 378,97 UAH/MWh.

NEURC's Resolution dated on 24.12.2021 №2969

the **maximum** price caps on the DAM of the BEI of Ukraine from 02.01.2022 was:
for hours of **MAX** load – 3 000,00 UAH/MWh,
for hours of **MIN** load – 1 650,00 UAH/MWh.

NEURC's Resolution dated on 29.12.2021 №2972

during the isolated mode, **one trading zone** "the IPS of Ukraine" has operated within Ukraine (including "Ukraine's BEI") from 24.02.2022.

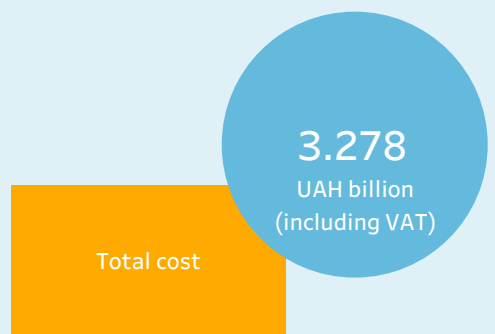
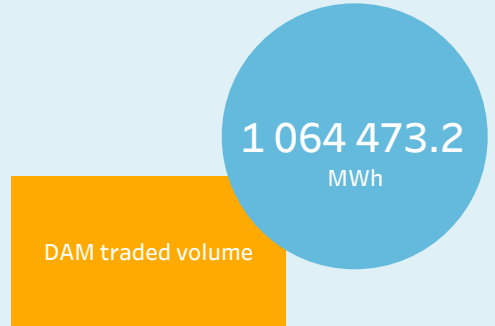
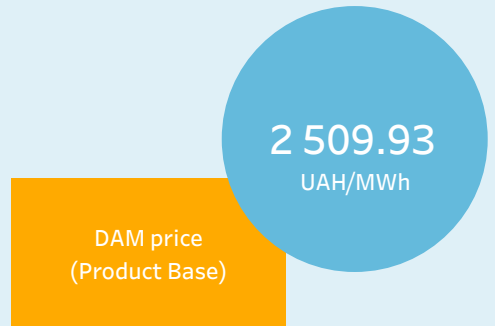
*the isolated mode - is a test of the independent work of the IPS for its synchronization with ENTSO-E

NEURC's Resolution dated on 25.02.2022 №332

during the period of martial law of Ukraine, one trading zone "the IPS of Ukraine" was identified within Ukraine.

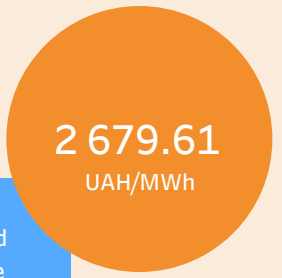
*The hours of MAX load: from 07:00 to 23:00, the hours of MIN load: from 00:00 to 07:00 and from 23:00 to 24:00
**all prices are net of VAT

DAM RESULTS IN THE BEI OF UKRAINE

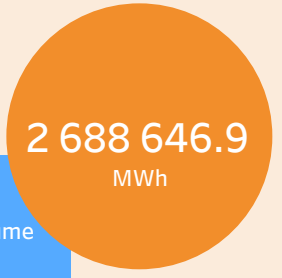


*Ukraine's BEI price was calculated for 01.01.2022 till 23.02.2022

IDM RESULTS IN THE IPS OF UKRAINE



IDM weighted average price



IDM traded volume



Total cost

IDM EMPAHASES IN 2022

NEURC's Resolution dated on 24.12.2021 №2969

the **minimum** price level on the IDM of the IPS Ukraine was defined as at least 105,0% of the DAM price from 06.02.2022.

NEURC's Resolution dated on 07.02.2022 №238

the **minimum** price level on the IDM of the IPS Ukraine was defined as least 115,0% of the DAM price from 09.02.2022.

NEURC's Resolution dated on 10.02.2022 №239

the **minimum** price level on the IDM of the IPS Ukraine was defined as at least 150,0% of the DAM price from 12.02.2022.

NEURC's Resolution dated on 14.02.2022 №299

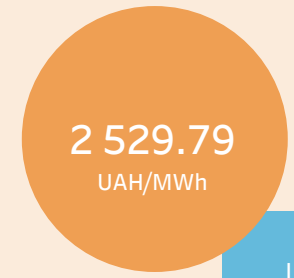
the **minimum** price level on the IDM of the IPS Ukraine was defined as at least 110,0% of the DAM price from 16.02.2022.

NEURC's Resolution dated on 25.02.2022 №332 (with changes)

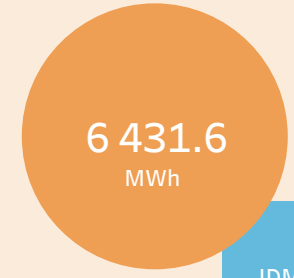
the **minimum** price level on the IDM of the IPS Ukraine was defined as at least 102,0% of the DAM price from 01.06.2022.

*all prices are net of VAT

IDM RESULTS IN THE BEI OF UKRAINE



IDM weighted average price



IDM traded volume



Total cost

*Ukraine's BEI price was calculated for 01.01.2022 till 23.02.2022

LEGISLATIVE CHANGES ON THE DAM and IDM in 2022:

NEURC's Resolution dated on 25.02.2022 №332 "On ensuring the stable operation of the electricity market, including the financial condition of participants in the electricity market during the period of martial law in Ukraine" (with changes):

The maximum volume of electricity sales on BCM, DAM, IDM and on export by energy producers (generating units of type D with a capacity of 75 MW or more) in trading day d determined as 125% of the average traded volume of electricity for the period of d-3 - d-9 of this market participant in accordance with the available commercial accounting data in the market management system and traded volume of auxiliary services, that are traded in accordance with the Temporary procedure for the auxiliary services purchase to ensure of frequency regulation and active power in the IPS of Ukraine, namely, the replacement reserves provision (tertiary regulation) on trading day d at the settlement time.

Order of the Ministry of Energy of Ukraine dated on 28.02.2022 №94 "On stabilization of the electricity market operation":

Temporarily, from March 2, 2022, and for the period of martial law in Ukraine, the NPC UKRENERGO determines the DAM maximum sales volume in the amount of zero MWh (0 MWh) for market participants that are electricity suppliers and/or traders.

NEURC's Resolution dated on 17.05.2022 №488 "On Amendments to the NEURC's Resolution dated on 17.11.2021 №2236":

DAM and IDM new tariff for the purchase and sale was approved.

Order of the Ministry of Energy of Ukraine dated on 26.05.2022 №187 "On stabilization of the electricity market operation" (canceled on 16.06.2022):

Market participants purchase electricity on the DAM in the amount of at least 10% of consumers' consumption within 10-day period, in case of electricity non-purchase in the mentioned amount, such market participant is obliged to purchase additional amounts of electricity on the DAM on the next 10-day period, otherwise such market participant acquires the "Default" status.

Resolution of the Cabinet of Ministers of Ukraine dated on 07.07.2022 № 775 "On imposing the special obligations on the electricity market participants that carry out electricity export operations, to ensure public interest in the functioning of electricity market operation during the martial law period":

The introduction of the mechanism for allocating funds from electricity market participants that carry out electricity export operations, to payment for services to ensure the electricity availability for household consumers during the martial law period in Ukraine.

Law of Ukraine dated on 29.07.2022 № 2479-IX "On the features of regulating relations on the natural gas market and in the heat supply during martial law, and their subsequent restoration":

The electricity producers (except those which have a "green" tariff, and producers that have acquired right to support by the results of the auction) sell electricity exclusively under the bilateral contracts through electronic auctions temporarily, until April 1, 2023.

NEURC's Resolution dated on 27.09.2022 №1221 "On the approval of the Methodology to define significant price fluctuations, and to set the price caps on the "day-ahead" market, the intraday market and the balancing market":

The methodology defines the criteria for a significant fluctuation of prices on the DAM, IDM and the BM, the procedure to set and revise the price caps on the DAM, IDM and the BM. Market operator and Settlements administrator verify for significant price fluctuations on the respective markets in accordance with this Methodology and provide the NEURC with information on the existence or lack of the significant price fluctuations.

Order of the Ministry of Energy of Ukraine dated on 21.10.2022 №94 "On stabilization of the electricity market operation":

Temporarily, for the period of martial law in Ukraine, starting from October 24, 2022, the maximum volume of electricity sales for electricity suppliers and/or traders:

- 1) on the DAM cannot exceed the volume of electricity imported by such participant in the relevant;
- 2) on the IDM cannot exceed the volume, which is defined as the minimum value of the delivery date balanced value of the BCM, DAM, import and export of electricity; as well as the total volume, which is proven by the party responsible for the balance, in accordance with the requirements of Section II of the Market Rules.

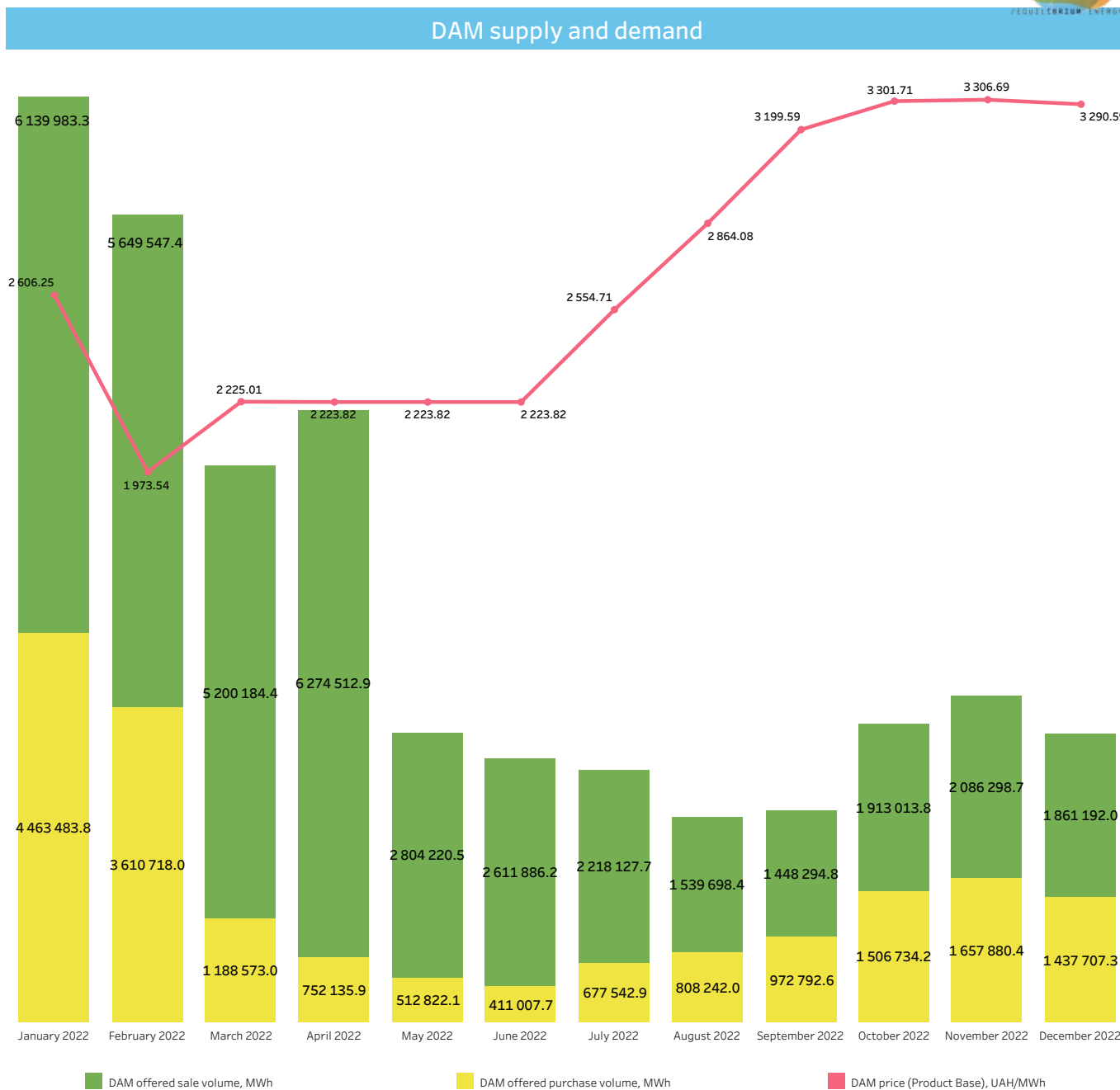
NEURC's Resolution dated on 17.12.2022 № 1689 "On Amendments to the NEURC's Resolution dated on 25.02.2022 № 332":

If the emergency occurs in the IPS of Ukraine:

Transmission system operator (TSO) cancels the registered volumes on the BCM and the accepted proposals on the BM; Market Operator (MO) cancels the results of the auctions on the DAM and IDM on the delivery day, in which the emergency occurred in the IPS of Ukraine, and MO does not conduct auctions on the DAM and IDM. The cancellation starts from the day in which the TSO announced the emergency in the IPS of Ukraine, and valid until 23:00 of the first day (including) after the TSO announcement of the termination of the emergency in the IPS of Ukraine.

2022 in the IPS of Ukraine

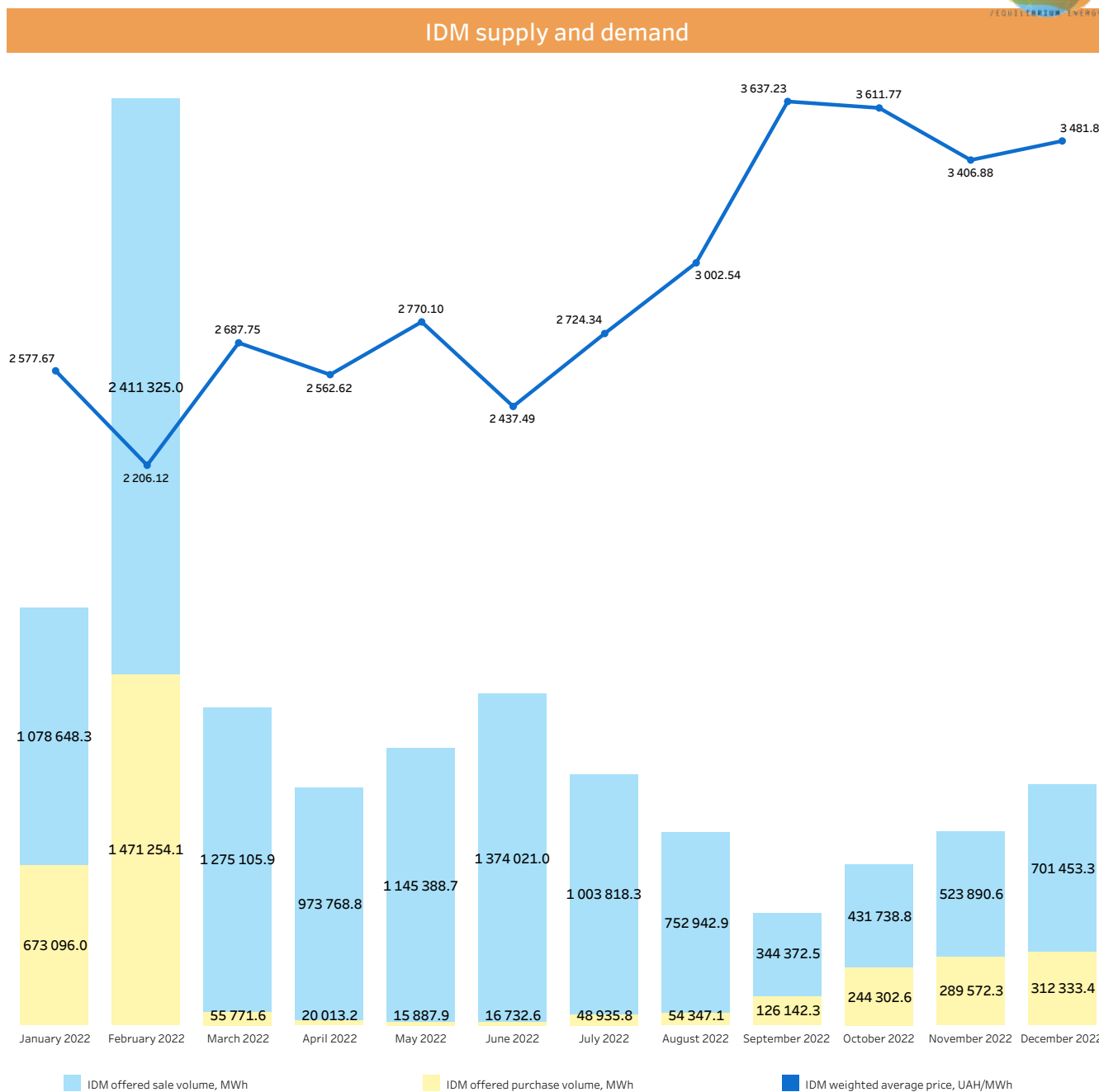
DAM emphases	
DAM price (Product Base)	2 671.04 UAH/MWh
DAM price (Product Base) level	+48.2%
Price increase on DAM	+ 868.86 UAH
DAM traded volume	17 142 463.5 MWh
DAM traded volume level	-45.3%
DAM traded volume decrease	-14 219 266.5 MWh
Demand	17 999 639.9 MWh
Demand level	-44.6%
Decrease of demand	-14 470 808.7 MWh
Supply	39 746 960.1 MWh
Supply level	-16.0%
Decrease of supply	-7 546 885.1 MWh



*Compared with 2021 **all prices are net of VAT

2022 in the IPS of Ukraine

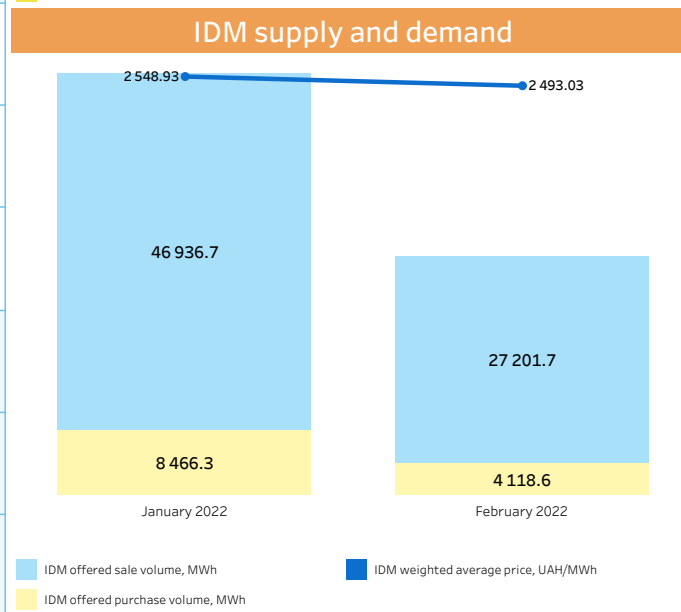
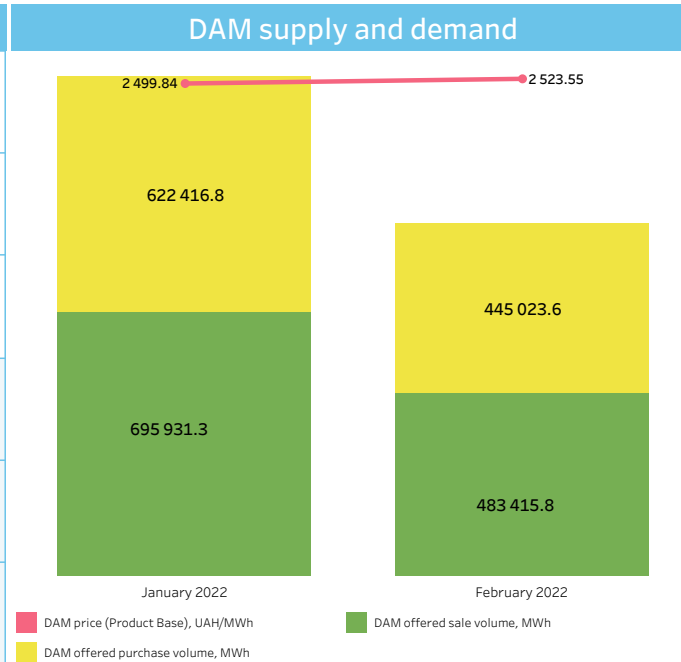
IDM emphases	
IDM weighted average price	2 679.61 UAH/MWh
IDM weighted average price level	+46.1%
Price increase on IDM	+ 845.14 UAH
IDM traded volume	2 688 646.9 MWh
IDM traded volume level	-46.4%
IDM traded volume decrease	-2 325 660.5 MWh
Demand	3 328 388.9 MWh
Demand level	-51.1%
Decrease of demand	-3 483 934.9 MWh
Supply	12 016 474.1 MWh
Supply level	-17.5%
Decrease of supply	-2 549 651.9 MWh



*Compared with 2021 **all prices are net of VAT

2022 in the BEI of Ukraine

DAM emphases	
DAM price (Product Base)	2 509.93 UAH/MWh
DAM price (Product Base) level	+53.4%
Price increase on DAM	+ 874.01 UAH/MWh
DAM traded volume	1 064 473.2 MWh
DAM traded volume level	+95.1%
DAM traded volume increase	+ 518 905.0 MWh
Demand	1 067 440.4 MWh
Demand level	+95.3%
Increase of demand	+ 520 786.6 MWh
Supply	1 179 347.1 MWh
Supply level	+15.1%
Increase of supply	+ 155 029.0 MWh



IDM emphases	
IDM weighted average price	2 529.79 UAH/MWh
IDM weighted average price level	+37.7%
Price increase on IDM	+ 693.20 UAH/MWh
IDM traded volume	6 431.6 MWh
IDM traded volume level	+44.9%
IDM traded volume increase	+ 1 993.3 MWh
Demand	12 584.9 MWh
Demand level	+109.5%
Increase of demand	+ 6 578.9 MWh
Supply	74 138.4 MWh
Supply level	+0.3%
Increase of supply	+ 220.3 MWh

*Ukraine's BEI price was calculated for 01.01.2022 till 23.02.2022 **Compared with January and February 2021 ***all prices are net of VAT

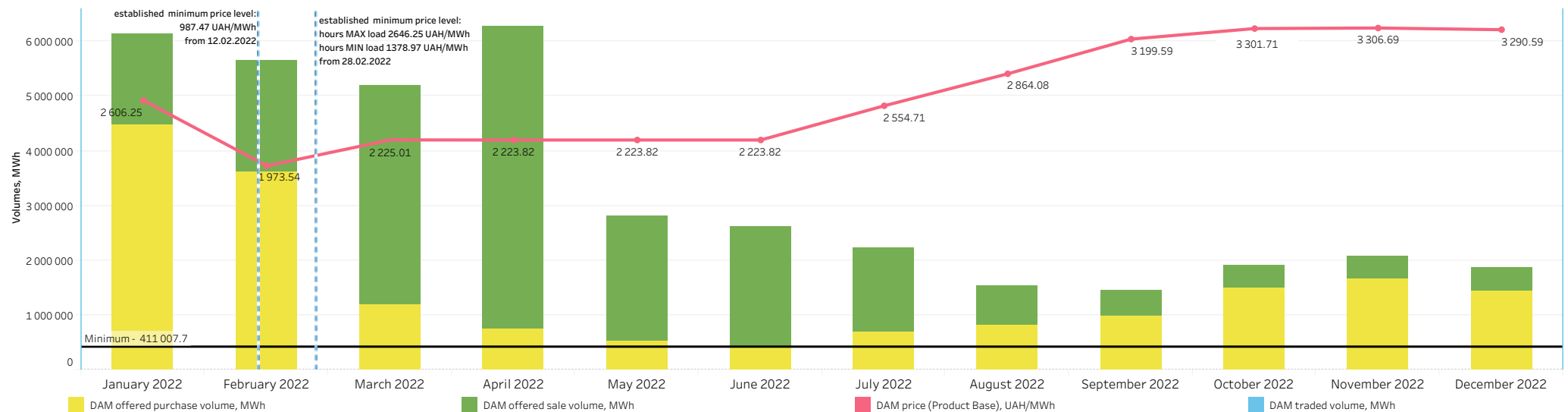
2022 in the IPS of Ukraine

Prices, traded and offered volumes on the DAM

Quarter	Month	DAM price (Product Base), UAH/MWh	DAM traded volume, MWh	DAM offered purchase volume, MWh	DAM offered sale volume, MWh	The difference between the DAM traded and offered purchase volume	The difference between the DAM traded and offered sale volume
I quarter of 2022	January 2022	2 606.25	4 404 796.7	4 463 483.8	6 139 983.3	-1.3%	-28.3%
	February 2022	1 973.54	3 109 733.6	3 610 718.0	5 649 547.4	-13.9%	-45.0%
	March 2022	2 225.01	1 188 573.0	1 188 573.0	5 200 184.4	0.0%	-77.1%
	Indicator for the quarter	2 278.10	8 703 103.3	9 262 774.8	16 989 715.1	-6.0%	-48.8%
II quarter of 2022	April 2022	2 223.82	752 135.9	752 135.9	6 274 512.9	0.0%	-88.0%
	May 2022	2 223.82	512 792.3	512 822.1	2 804 220.5	0.0%	-81.7%
	June 2022	2 223.82	411 007.7	411 007.7	2 611 886.2	0.0%	-84.3%
	Indicator for the quarter	2 223.82	1 675 935.9	1 675 965.7	11 690 619.6	0.0%	-85.7%
III quarter of 2022	July 2022	2 554.71	664 400.7	677 542.9	2 218 127.7	-1.9%	-70.0%
	August 2022	2 864.08	788 429.8	808 242.0	1 539 698.4	-2.5%	-48.8%
	September 2022	3 199.59	914 080.0	972 792.6	1 448 294.8	-6.0%	-36.9%
	Indicator for the quarter	2 869.24	2 366 910.5	2 458 577.5	5 206 120.9	-3.7%	-54.5%
IV quarter of 2022	October 2022	3 301.71	1 408 880.4	1 506 734.2	1 913 013.8	-6.5%	-26.4%
	November 2022	3 306.69	1 607 050.0	1 657 880.4	2 086 298.7	-3.1%	-23.0%
	December 2022	3 290.59	1 380 583.4	1 437 707.3	1 861 192.0	-4.0%	-25.8%
	Indicator for the quarter	3 299.58	4 396 513.8	4 602 321.9	5 860 504.5	-4.5%	-25.0%
Indicator for the year		2 671.04	17 142 463.5	17 999 639.9	39 746 960.1	-4.8%	-56.9%

On the DAM in 2022:

the highest price (Product Base) was fixed in amount of **3 333,33 UAH/MWh** on September 13, October 25 and 26, November 17 and 29, and the lowest one - in amount of **988,76 UAH/MWh** on February 27, the largest traded volume was fixed in amount of **169 738,7 MWh** on January 4, and the smallest one - in amount of **6 550,3 MWh** on May 15.



*all prices are net of VAT **The hours of MAX load: from 07:00 to 23:00, the hours of MIN load: from 00:00 to 07:00 and from 23:00 to 24:00

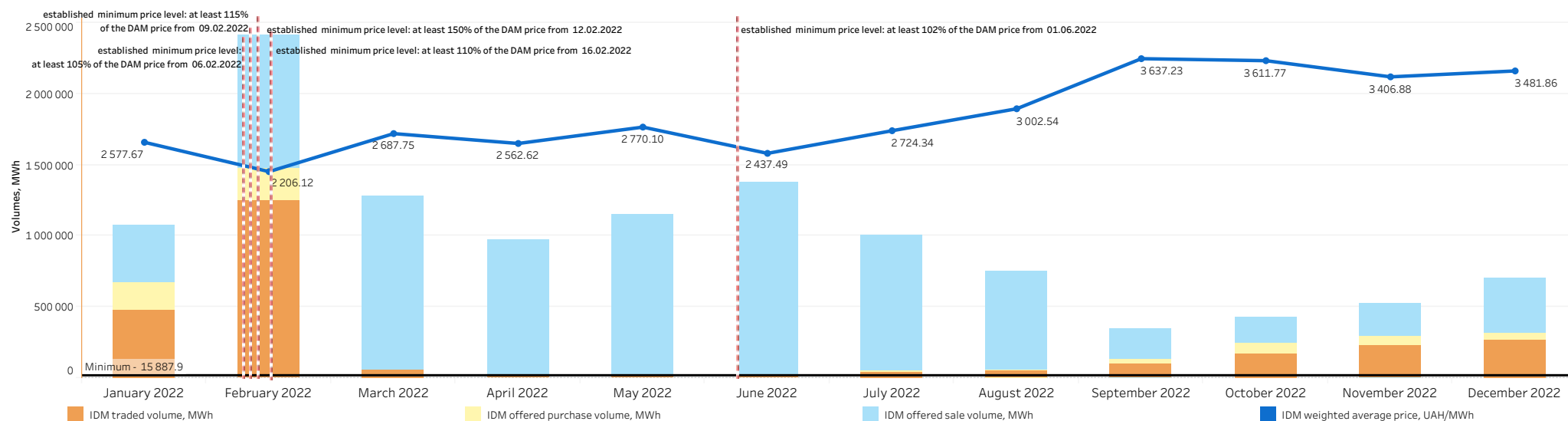
2022 in the IPS of Ukraine

Prices, traded and offered volumes on the IDM

Quarter	Month	IDM weighted average price, UAH/MWh	IDM traded volume, MWh	IDM offered purchase volume, MWh	IDM offered sale volume, MWh	The difference between the IDM traded and offered purchase volume	The difference between the IDM traded and offered sale volume
I quarter of 2022	January 2022	2 577.67	480 375.1	673 096.0	1 078 648.3	-28.6%	-55.5%
	February 2022	2 206.12	1 249 567.2	1 471 254.1	2 411 325.0	-15.1%	-48.2%
	March 2022	2 687.75	55 273.4	55 771.6	1 275 105.9	-0.9%	-95.7%
	Indicator for the quarter	2 321.01	1 785 215.7	2 200 121.7	4 765 079.2	-18.9%	-62.5%
II quarter of 2022	April 2022	2 562.62	20 007.8	20 013.2	973 768.8	0.0%	-97.9%
	May 2022	2 770.10	15 887.9	15 887.9	1 145 388.7	0.0%	-98.6%
	June 2022	2 437.49	16 720.6	16 732.6	1 374 021.0	-0.1%	-98.8%
	Indicator for the quarter	2 585.51	52 616.3	52 633.7	3 493 178.5	0.0%	-98.5%
III quarter of 2022	July 2022	2 724.34	43 798.2	48 935.8	1 003 818.3	-10.5%	-95.6%
	August 2022	3 002.54	49 444.2	54 347.1	752 942.9	-9.0%	-93.4%
	September 2022	3 637.23	94 815.8	126 142.3	344 372.5	-24.8%	-72.5%
	Indicator for the quarter	3 257.75	188 058.2	229 425.2	2 101 133.7	-18.0%	-91.0%
IV quarter of 2022	October 2022	3 611.77	166 858.8	244 302.6	431 738.8	-31.7%	-61.4%
	November 2022	3 406.88	226 578.5	289 572.3	523 890.6	-21.8%	-56.8%
	December 2022	3 481.86	269 319.4	312 333.4	701 453.3	-13.8%	-61.6%
	Indicator for the quarter	3 488.94	662 756.7	846 208.3	1 657 082.7	-21.7%	-60.0%
Indicator for the year		2 679.61	2 688 646.9	3 328 388.9	12 016 474.1	-19.2%	-77.6%

On the IDM in 2022:

the highest weighted average price was fixed in amount of **3 958,91 UAH/MWh** on October 10, and the lowest one - in amount of **1 087,51 UAH/MWh** on February 27, the largest traded volume was fixed in amount of **129 876,3 MWh** on February 2, and the smallest one - in amount of **35,0 MWh** on May 8.

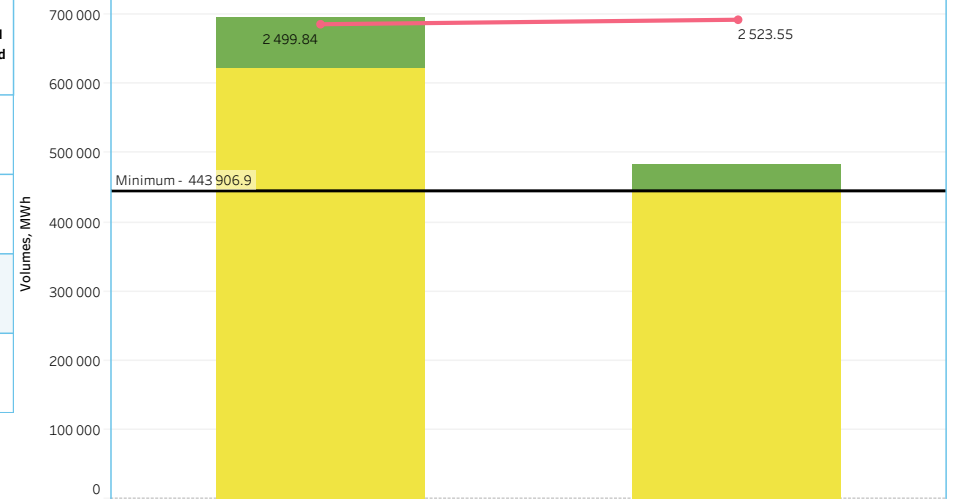


*all prices are net of VAT **Ukraine's IPS price was calculated hourly

2022 in the BEI of Ukraine

Prices, traded and offered volumes on the DAM

Quarter	Month	DAM price (Product Base), UAH/MWh	DAM traded volume, MWh	DAM offered purchase volume, MWh	DAM offered sale volume, MWh	The difference between the DAM traded and offered purchase volume	The difference between the DAM traded and offered sale volume
I quarter of 2022	January 2022	2 499.84	620 566.3	622 416.8	695 931.3	-0.3%	-10.8%
	February 2022	2 523.55	443 906.9	445 023.6	483 415.8	-0.3%	-8.2%
	Indicator for the quarter	2 509.93	1 064 473.2	1 067 440.4	1 179 347.1	-0.3%	-9.7%
Indicator for the year		2 509.93	1 064 473.2	1 067 440.4	1 179 347.1	-0.3%	-9.7%



On the DAM in 2022:

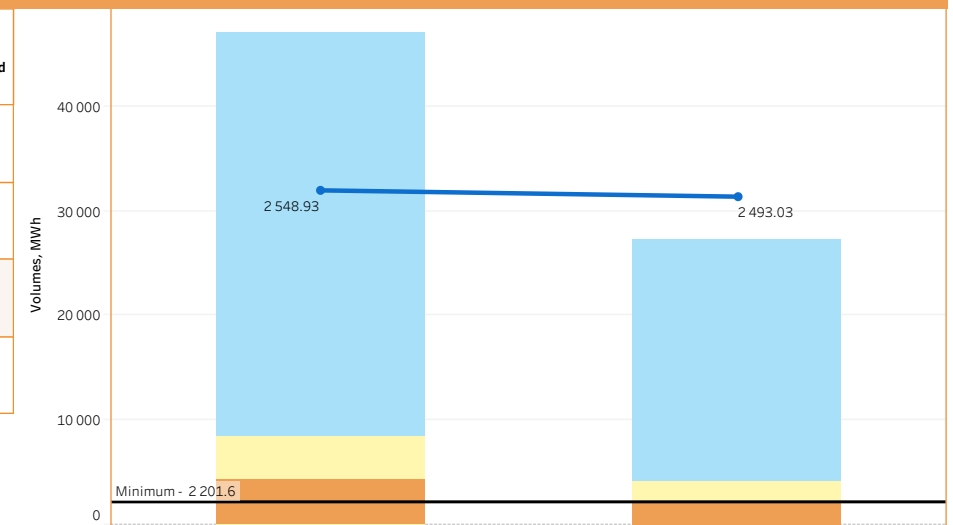
the highest price (Product Base) was fixed in amount of **2 530,77 UAH/MWh** on February 10, and the lowest one - in amount of **2 146,69 UAH/MWh** on January 1,

the largest traded volume was fixed in amount of **21 991,7 MWh** on January 25, and the smallest one - in amount of **17 050,5 MWh** on February 13.

■ DAM offered purchase volume, MWh
■ DAM offered sale volume, MWh
■ DAM price (Product Base), UAH/MWh
■ DAM traded volume, MWh

Prices, traded and offered volumes on the IDM

Quarter	Month	IDM weighted average price, UAH/MWh	IDM traded volume, MWh	IDM offered purchase volume, MWh	IDM offered sale volume, MWh	The difference between the IDM traded and offered purchase volume	The difference between the IDM traded and offered sale volume
I quarter of 2022	January 2022	2 548.93	4 230.0	8 466.3	46 936.7	-50.0%	-91.0%
	February 2022	2 493.03	2 201.6	4 118.6	27 201.7	-46.5%	-91.9%
	Indicator for the quarter	2 529.79	6 431.6	12 584.9	74 138.4	-48.9%	-91.3%
Indicator for the year		2 529.79	6 431.6	12 584.9	74 138.4	-48.9%	-91.3%



On the IDM in 2022:

the highest weighted average price was fixed in amount of **2 996,81 UAH/MWh** on February 10, and the lowest one - in amount of **1 865,81 UAH/MWh** on February 8,

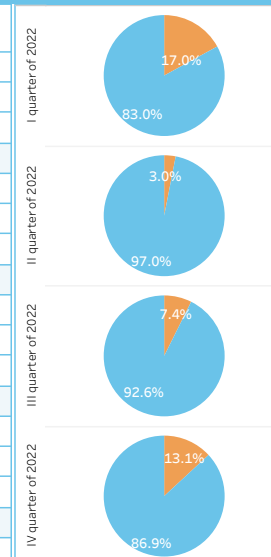
the largest traded volume was fixed in amount of **572,0 MWh** on January 2, and the smallest one - in amount of **3,1 MWh** on February 6.

■ IDM traded volume, MWh
■ IDM offered purchase volume, MWh
■ IDM offered sale volume, MWh
■ IDM weighted average price, UAH/MWh

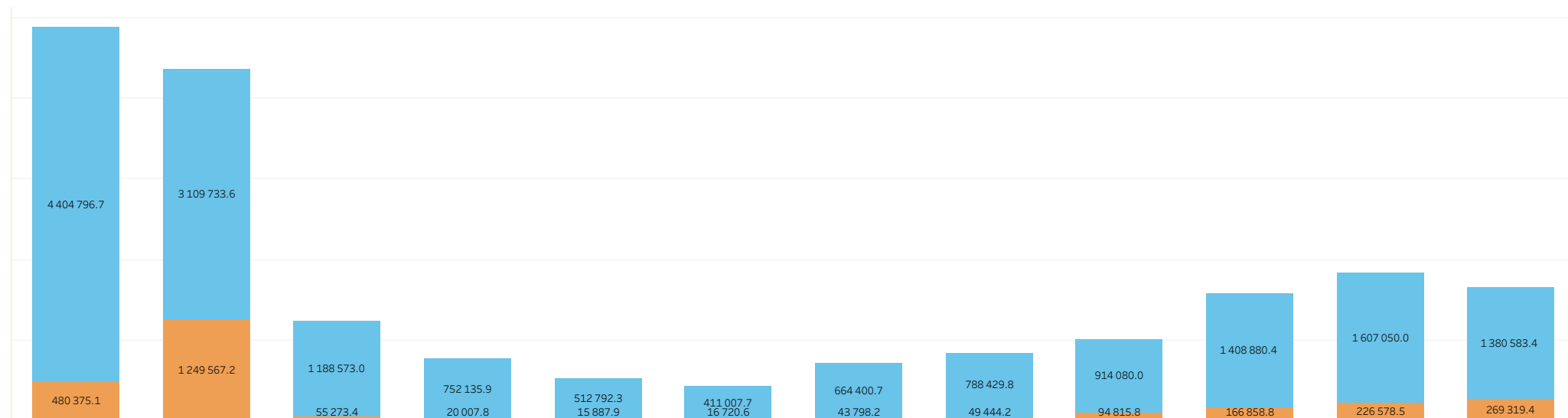
2022 in the IPS of Ukraine

Distribution of the electricity traded volumes on the DAM and IDM

Quarter	Month	Total volume, MWh	DAM traded volume, MWh	The share of the DAM volume in the total volume	IDM traded volume, MWh	The share of the IDM volume in the total volume
I quarter of 2022	January 2022	4 885 171.8	4 404 796.7	90.2%	480 375.1	9.8%
	February 2022	4 359 300.8	3 109 733.6	71.3%	1 249 567.2	28.7%
	March 2022	1 243 846.4	1 188 573.0	95.6%	55 273.4	4.4%
	Indicator for the quarter	10 488 319.0	8 703 103.3	83.0%	1 785 215.7	17.0%
II quarter of 2022	April 2022	772 143.7	752 135.9	97.4%	20 007.8	2.6%
	May 2022	528 680.2	512 792.3	97.0%	15 887.9	3.0%
	June 2022	427 728.3	411 007.7	96.1%	16 720.6	3.9%
	Indicator for the quarter	1 728 552.2	1 675 935.9	97.0%	52 616.3	3.0%
III quarter of 2022	July 2022	708 198.9	664 400.7	93.8%	43 798.2	6.2%
	August 2022	837 874.0	788 429.8	94.1%	49 444.2	5.9%
	September 2022	1 008 895.8	914 080.0	90.6%	94 815.8	9.4%
	Indicator for the quarter	2 554 968.7	2 366 910.5	92.6%	188 058.2	7.4%
IV quarter of 2022	October 2022	1 575 739.2	1 408 880.4	89.4%	166 858.8	10.6%
	November 2022	1 833 628.5	1 607 050.0	87.6%	226 578.5	12.4%
	December 2022	1 649 902.8	1 380 583.4	83.7%	269 319.4	16.3%
	Indicator for the quarter	5 059 270.5	4 396 513.8	86.9%	662 756.7	13.1%
Indicator for the year		19 831 110.4	17 142 463.5	86.4%	2 688 646.9	13.6%



In 2022: the largest **traded volume** within the two market segments was fixed in amount of 222 831,7 MWh on February 2, the **DAM share** was 41,7% or 92 955,4 MWh and the **IDM share** was 58,3% or 129 876,3 MWh in the total volume, as well as the smallest one - in amount of 6 666,0 MWh on May 15, the **DAM share** was 98,3% or 6 550,3 MWh and the **IDM share** was 1,7% or 115,7 MWh in the total volume.



*Ukraine's IPS data

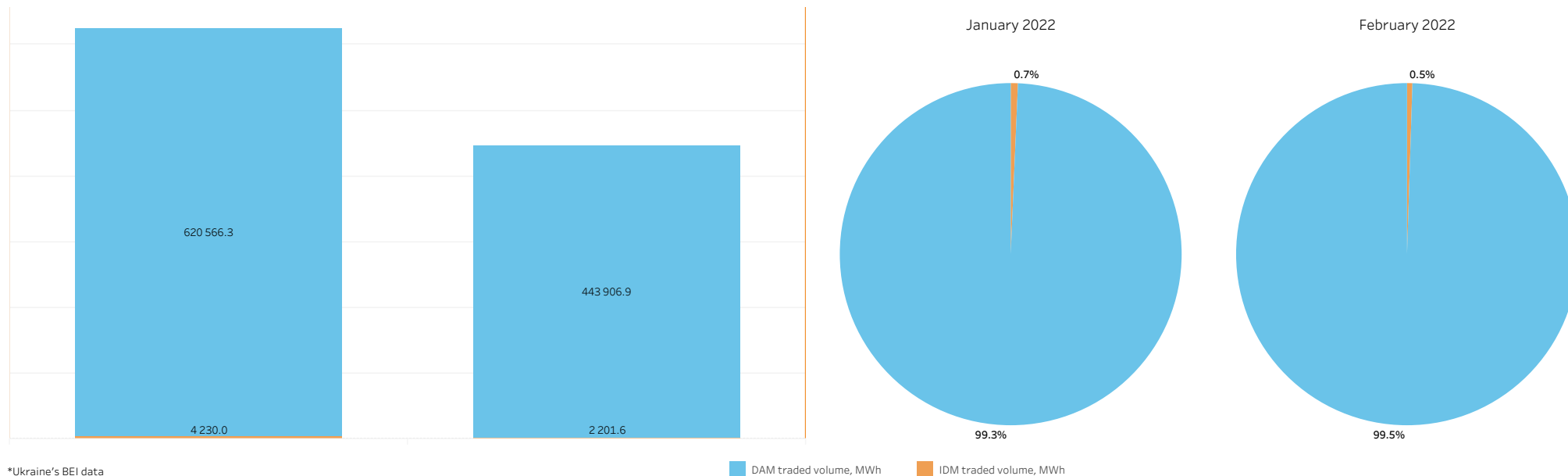
■ DAM traded volume, MWh ■ IDM traded volume, MWh

2022 in the BEI of Ukraine

Distribution of the electricity traded volumes on the DAM and IDM

Quarter	Month	Total volume, MWh	DAM traded volume, MWh	The share of the DAM volume in the total volume	IDM traded volume, MWh	The share of the IDM volume in the total volume
I quarter of 2022	January 2022	624 796.3	620 566.3	99.3%	4 230.0	0.7%
	February 2022	446 108.5	443 906.9	99.5%	2 201.6	0.5%
	Indicator for the quarter	1 070 904.8	1 064 473.2	99.4%	6 431.6	0.6%
Indicator for the year		1 070 904.8	1 064 473.2	99.4%	6 431.6	0.6%

In 2022: the largest **traded volume** within the two market segments was fixed in amount of 22 084,1 MWh on January 25, the **DAM** share was 99,6% or 21 991,7 MWh and the **IDM** share was 0,4% or 92,4 MWh in the total volume, as well as the smallest one - in amount of 17 063,3 MWh on February 13, the **DAM** share was 99,9% or 17 050,5 MWh and the **IDM** share was 0,1% or 12,8 MWh in the total volume.



*Ukraine's BEI data

The difference between offered purchase and sales volumes on the DAM, MWh



2022 in the IPS of Ukraine

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I quarter of 2022	January 2022	56 552	77 296	83 012	88 957	90 002	85 584	71 390	92 511	70 898	62 986	69 448	73 945	76 245	73 822	69 838	66 057	53 824	46 020	50 322	58 027	64 157	67 522	79 396	48 689	
	February 2022	75 005	91 629	95 977	100 801	100 583	93 140	77 616	93 464	81 912	82 863	93 384	102 983	109 469	106 466	100 272	91 667	75 874	59 355	52 047	57 979	65 783	74 244	88 104	68 217	
	March 2022	116 263	124 600	124 727	120 751	129 036	127 012	124 029	175 004	190 507	208 946	224 875	234 321	236 326	233 110	222 223	205 299	183 044	158 295	144 487	142 164	145 260	152 151	160 676	128 507	
II quarter of 2022	April 2022	100 627	114 397	123 227	136 009	132 735	120 823	98 855	290 630	285 957	275 127	285 986	304 414	317 013	319 036	318 004	318 831	308 983	288 451	260 090	254 893	250 962	252 271	275 141	89 916	
	May 2022	52 880	61 745	63 832	66 562	68 360	62 278	59 378	87 456	101 989	118 675	135 425	144 102	148 325	145 805	139 911	129 297	114 115	100 845	94 397	91 070	83 521	78 867	88 825	53 739	
	June 2022	54 333	60 795	63 750	68 352	71 123	64 994	63 041	84 025	96 578	111 799	128 990	138 321	142 321	139 621	133 172	123 459	107 626	90 350	86 380	80 890	80 575	72 394	77 906	60 084	
III quarter of 2022	July 2022	10 944	21 928	22 995	25 994	26 766	24 791	20 122	76 796	90 727	107 282	124 017	133 727	133 299	129 574	123 751	114 047	104 925	84 877	34 974	33 462	33 664	31 781	30 809	-668	
	August 2022	5 677	16 460	15 801	18 853	18 747	17 526	6 696	18 810	26 492	41 393	59 989	70 463	79 048	75 953	68 534	55 487	38 363	30 574	16 841	15 401	13 602	12 173	17 901	-9 327	
	September 2022	8 447	16 149	17 728	18 270	18 091	14 328	3 066	11 641	8 491	17 630	31 584	43 183	51 899	48 615	41 374	30 836	19 273	21 191	16 469	6 015	-566	11 041	26 036	-5 291	
IV quarter of 2022	October 2022	2 143	13 250	13 960	16 489	16 925	11 932	-3 424	6 620	261	10 992	31 807	47 915	59 152	60 826	52 463	37 437	21 707	9 182	2 361	-6 237	-1 872	6 405	9 565	-14 052	474
	November 2022	5 324	9 037	14 674	18 075	17 793	15 460	5 756	23 009	20 749	25 751	30 856	35 018	36 367	29 357	20 512	9 699	10 628	10 840	13 760	16 606	17 955	20 465	20 429	298	
	December 2022	4 956	11 958	18 519	21 826	22 087	17 947	5 322	19 304	12 739	18 825	26 752	33 402	35 469	28 347	19 589	12 828	9 585	12 168	16 373	17 449	18 028	21 408	22 469	-3 862	

2021 in the IPS of Ukraine

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I quarter of 2021	January 2021	71 159	88 254	90 297	93 414	92 902	83 509	63 430	60 025	43 470	36 417	40 407	47 148	50 586	47 971	40 806	45 207	37 059	29 758	31 537	35 694	38 495	45 484	37 607	47 774	
	February 2021	15 425	34 748	44 640	49 477	52 297	40 546	12 448	25 488	14 695	11 239	17 987	24 850	35 773	34 274	28 336	22 349	13 064	1 292	-1 849	4 634	11 839	16 215	24 537	-1 418	
	March 2021	31 356	54 106	65 569	70 127	74 528	61 164	34 555	74 174	69 451	69 155	81 096	96 104	103 630	101 028	94 370	88 998	68 786	52 723	34 716	29 910	36 036	54 775	63 027	20 335	
II quarter of 2021	April 2021	55 116	75 205	91 911	101 512	106 099	104 389	86 328	96 324	92 029	95 022	108 567	119 756	123 863	123 674	127 087	125 355	116 688	97 377	78 231	61 916	38 305	44 090	66 116	51 511	
	May 2021	54 014	73 470	92 053	103 147	110 111	112 014	96 524	127 734	137 889	147 375	159 032	168 066	174 234	174 139	172 236	167 390	156 581	138 262	118 714	105 434	83 453	72 196	88 510	72 363	
	June 2021	41 253	62 304	76 875	87 727	94 982	94 761	82 693	100 330	108 493	114 601	125 454	135 577	140 980	139 188	133 810	127 432	116 341	100 443	87 235	78 352	68 896	54 290	64 734	56 532	
III quarter of 2021	July 2021	28 964	51 627	65 291	71 824	74 668	69 506	53 027	56 517	51 700	51 597	60 638	69 590	73 430	67 969	60 554	50 025	34 430	25 232	16 577	8 907	4 918	-10 076	2 721	-104	
	August 2021	19 463	39 354	48 368	52 552	54 883	50 680	40 384	41 309	37 639	41 826	55 038	65 118	68 722	63 238	55 283	43 675	26 529	14 062	1 650	-2 166	-11 661	-21 553	480	708	
	September 2021	24 038	37 578	41 204	45 205	44 849	37 287	18 730	18 655	18 641	26 971	42 304	55 946	62 528	57 538	49 021	37 712	25 340	12 786	7 014	-3 534	-13 839	-5 799	17 832	8 158	
IV quarter of 2021	October 2021	11 555	32 808	39 112	44 098	43 120	33 042	13 136	12 317	2 330	7 377	24 683	41 661	53 340	50 613	39 806	24 825	4 058	-19 353	-33 808	-48 724	-42 887	-28 638	-8 113	-9 869	1 848
	November 2021	30 321	44 253	47 808	52 236	50 230	38 523	23 009	22 983	10 499	8 977	13 238	15 307	20 098	10 659	1 454	-2 238	-14 438	-26 997	-22 913	-14 089	-7 472	5 627	21 350	15 085	
	December 2021	37 747	58 708	65 746	71 684	71 868	63 013	45 542	50 550	29 945	20 002	21 215	27 610	32 421	29 879	31 392	32 041	21 032	15 941	22 994	31 851	37 111	44 251	54 518	34 042	

Red - an excess of the offered purchase volume over the offered sales volume. Green - an excess of the offered sales volume over the offered purchase volume.

The difference between offered purchase and sales volumes on the IDM, MWh



2022 in the IPS of Ukraine

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I quarter of 2022	January 2022	9 635	15 250	20 944	21 991	22 836	20 267	15 258	24 155	17 218	10 276	13 366	15 657	21 025	16 222	15 474	18 027	10 364	7 300	12 483	17 936	24 196	19 672	27 752	8 250	
	February 2022	25 664	38 251	48 209	50 198	50 274	41 383	28 655	42 045	33 824	37 009	47 714	56 583	56 590	48 916	42 474	38 821	32 546	39 084	33 041	26 972	33 978	34 425	34 441	18 971	
	March 2022	41 316	44 214	40 327	39 708	40 606	40 721	43 758	56 923	62 675	66 736	67 131	66 099	63 660	61 517	59 589	57 902	56 692	48 571	41 977	40 801	42 842	44 388	48 033	43 147	
II quarter of 2022	April 2022	16 246	16 872	15 892	17 413	17 249	16 447	18 398	44 855	46 666	56 521	65 531	68 561	67 522	66 146	62 316	57 779	51 699	44 574	41 374	37 403	35 632	34 729	36 943	16 988	
	May 2022	15 960	21 470	22 320	24 180	24 276	21 442	20 468	35 377	52 333	72 594	90 378	100 935	105 094	102 346	95 429	84 272	67 798	47 314	27 180	25 411	21 811	19 573	20 669	10 871	
	June 2022	23 622	35 628	32 396	35 364	35 565	33 115	33 867	52 157	64 602	80 690	99 758	111 279	116 313	113 099	105 631	94 179	76 899	56 399	37 464	29 129	26 568	24 282	21 813	17 469	
III quarter of 2022	July 2022	7 664	16 340	15 058	18 466	19 355	17 728	13 966	31 886	46 142	63 296	80 700	90 859	93 894	90 617	84 610	73 539	59 981	39 989	25 479	18 393	15 365	14 476	15 026	2 057	
	August 2022	7 256	19 192	18 670	21 251	21 536	19 147	8 462	18 819	23 427	37 825	55 908	64 360	71 547	67 671	61 225	48 299	32 332	22 788	14 601	16 857	16 185	14 895	16 717	-374	
	September 2022	2 184	7 816	8 024	10 298	10 539	6 919	358	5 101	6 477	11 845	17 353	22 412	28 180	25 509	20 784	12 214	6 156	3 808	2 370	2 427	646	2 628	4 741	-556	
IV quarter of 2022	October 2022	-1 264	6 689	8 799	11 993	12 902	6 447	-3 786	2 573	1 792	4 909	16 314	25 827	35 574	33 373	24 459	12 403	1 231	-555	-1 049	-2 058	-1 415	1 285	1 396	-10 703	600
	November 2022	1 389	4 489	8 202	9 481	10 416	9 357	2 550	9 639	10 196	12 961	18 101	20 844	23 206	16 906	7 378	1 635	5 821	5 364	8 118	9 780	11 031	14 469	13 428	-441	
	December 2022	5 273	11 344	18 239	21 605	22 907	20 819	5 708	16 484	11 101	17 011	21 724	27 371	28 608	21 396	17 082	11 741	8 932	11 998	16 586	17 438	16 149	19 579	22 007	-1 980	

2021 in the IPS of Ukraine

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I quarter of 2021	January 2021	5 753	9 362	14 647	17 431	16 371	11 427	5 136	20 663	8 883	5 806	14 225	22 002	30 465	24 885	18 958	19 062	12 391	10 887	12 241	15 678	14 895	15 685	10 413	5 079	
	February 2021	2 678	5 599	7 951	10 549	10 642	6 804	919	6 601	168	-906	5 685	10 146	18 489	20 090	9 642	7 686	2 075	-2 317	-1 335	1 744	1 527	5 520	7 643	-4 275	
	March 2021	17 400	26 064	27 326	36 157	26 898	23 955	10 157	14 262	11 975	12 285	30 762	46 097	56 545	46 208	37 232	18 744	13 237	5 340	-1 957	-4 876	-2 843	-2 621	16 282	3 777	
II quarter of 2021	April 2021	41 559	49 949	52 825	52 813	49 922	44 569	37 155	35 858	32 490	43 417	60 805	79 819	85 060	83 378	77 767	70 898	56 508	37 511	19 962	12 008	353	380	19 968	16 347	
	May 2021	41 897	57 088	74 604	74 338	73 066	70 262	53 954	67 056	83 188	102 952	131 931	150 412	158 142	159 560	152 698	137 756	112 649	88 457	56 143	33 562	17 424	17 330	25 269	12 735	
	June 2021	14 357	28 123	36 059	39 772	39 864	38 347	32 942	17 963	27 604	45 701	76 729	99 771	107 450	100 953	85 987	73 743	50 031	24 750	7 333	7 131	5 691	1 819	4 819	-5 637	
III quarter of 2021	July 2021	15 277	30 665	40 796	46 494	48 773	46 535	36 448	32 378	34 223	39 961	56 576	70 232	77 239	68 119	65 458	59 171	35 570	19 531	9 372	4 491	2 330	-2 799	1 972	-1 932	
	August 2021	4 408	13 031	20 313	24 601	27 081	23 101	14 351	13 362	11 673	17 123	31 773	43 360	49 924	42 528	35 715	26 440	11 238	4 648	-292	1 014	-1 697	-4 845	1 718	-1 928	
	September 2021	17 830	32 291	36 087	41 702	43 277	33 268	9 733	9 438	10 277	21 215	39 264	59 278	69 707	61 557	44 140	28 137	15 140	-502	-6 596	-9 490	-11 608	-8 499	9 190	10 523	
IV quarter of 2021	October 2021	5 295	18 795	24 662	31 906	31 324	20 197	3 503	8 481	3 843	7 296	26 438	43 594	59 465	59 899	4 174	28 652	10 495	-2 344	-5 635	-11 804	-11 726	-9 156	-893	-5 811	687
	November 2021	19 917	36 527	41 865	44 036	42 039	31 296	14 459	15 620	5 537	5 823	10 064	14 190	20 245	10 145	1 075	-2 412	-4 646	-4 750	-4 101	-1 879	-10	7 251	20 461	15 289	
	December 2021	18 113	26 536	32 333	36 544	35 450	28 249	15 740	19 011	5 734	1 829	1 874	5 876	8 552	7 166	10 365	7 833	1 322	1 757	4 952	7 844	10 156	14 209	18 929	9 477	

Red - an excess of the offered purchase volume over the offered sales volume. Green - an excess of the offered sales volume over the offered purchase volume.

The difference between offered purchase and sales volumes on the DAM, MWh



2022 in the BEI of Ukraine

Дата		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
I quarter of 2022	January 2022	1746	2976	2894	3180	3231	3550	3943	4252	3906	2998	2985	3083	3496	3560	3445	3275	3022	2858	2572	2542	2495	2423	2564	2522
	February 2022	460	1243	1232	1443	1638	1978	2228	2175	1780	1655	1800	1833	2206	2087	1960	1704	1369	1675	1316	1230	1277	1303	1411	1392

2021 in the BEI of Ukraine

Дата		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
I quarter of 2021	January 2021	12878	13372	13569	14781	14839	15534	15644	13324	13594	12682	12277	12356	12664	12699	12680	12678	12173	11357	10861	10914	10966	11131	11495	14283
	February 2021	4279	5281	6579	8006	7827	8151	8223	6978	6888	7046	7131	7634	7696	7636	7661	7644	7224	6790	6902	6750	6605	6116	6603	7263

The difference between offered purchase and sales volumes on the IDM, MWh

2022 in the BEI of Ukraine

Дата		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
I quarter of 2022	January 2022	-214	12	-1	38	58	40	44	3659	3114	2202	2139	2241	2662	2749	2605	2511	2449	2338	2120	1950	1958	1852	1971	-25
	February 2022	-68	-2	11	13	15	15	9	1998	1648	1511	1701	1698	2123	1921	1738	1500	1101	1398	972	966	890	892	995	39

2021 in the BEI of Ukraine

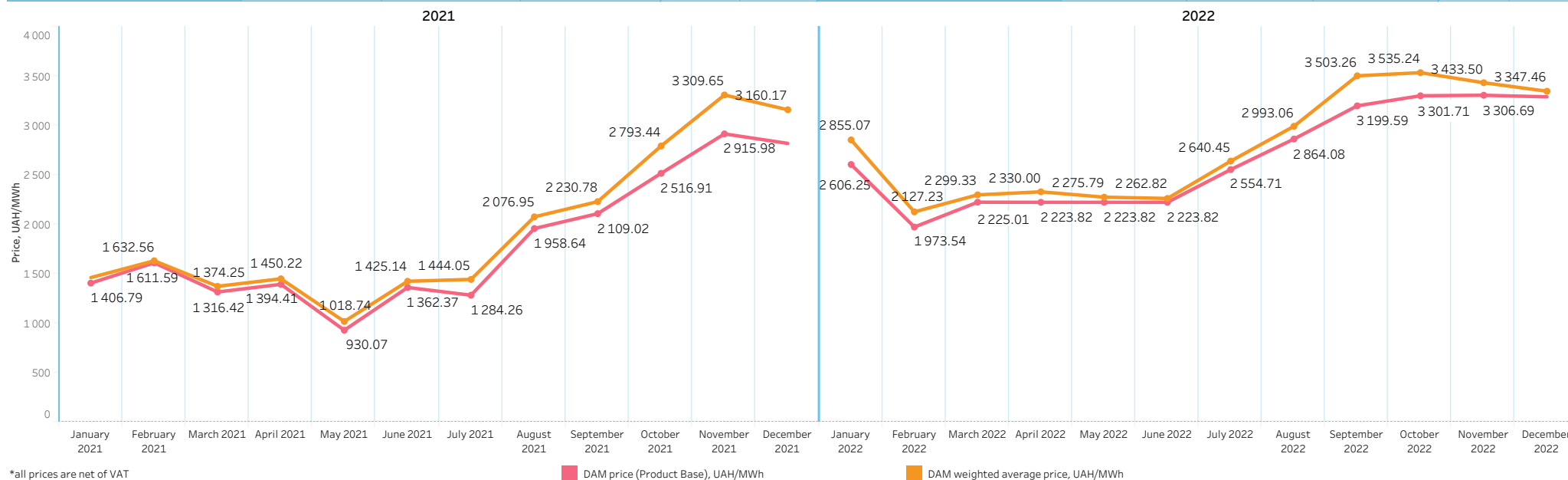
Дата		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
I quarter of 2021	January 2021	79	26	97	174	170	195	86	1911	2889	2554	2521	2643	2896	3157	3157	3210	2671	2311	2161	2224	2319	2493	2236	120
	February 2021	-47	6	18	103	141	142	75	1410	1532	1398	1490	1600	1640	1756	1757	1763	1579	1605	1592	1543	1542	1340	1560	71

Red - an excess of the offered purchase volume over the offered sales volume. Green - an excess of the offered sales volume over the offered purchase volume.

2022 in the IPS of Ukraine

DAM prices

2021							2022						
Quarter	Month	DAM price (Product Base), UAH/MWh	DAM weighted average price, UAH/MWh	The difference between the DAM weighted average price and price (Product Base), UAH/MWh	DAM price (Product Peak), UAH/MWh	DAM price (Product OffPeak), UAH/MWh	Quarter	Month	DAM price (Product Base), UAH/MWh	DAM weighted average price, UAH/MWh	The difference between the DAM weighted average price and price (Product Base), UAH/..	DAM price (Product Peak), UAH/MWh	DAM price (Product OffPeak), UAH/MWh
I quarter of 2021	January 2021	1 406.79	1 462.52	55.73	1 613.05	1 200.53	I quarter of 2022	January 2022	2 606.25	2 855.07	248.82	3 415.59	1 796.90
	February 2021	1 611.59	1 632.56	20.97	1 793.30	1 429.87		February 2022	1 973.54	2 127.23	153.69	2 532.77	1 414.31
	March 2021	1 316.42	1 374.25	57.83	1 457.54	1 175.67		March 2022	2 225.01	2 299.33	74.32	2 646.25	1 802.64
	Indicator for the quarter	1 439.51	1 487.41	47.90	1 615.63	1 263.23		Indicator for the quarter	2 278.10	2 519.10	241.00	2 875.94	1 679.70
II quarter of 2021	April 2021	1 394.41	1 450.22	55.81	1 512.54	1 276.28	II quarter of 2022	April 2022	2 223.82	2 330.00	106.18	2 646.25	1 801.40
	May 2021	930.07	1 018.74	88.67	986.14	874.01		May 2022	2 223.82	2 275.79	51.97	2 646.25	1 801.40
	June 2021	1 362.37	1 425.14	62.77	1 524.02	1 200.72		June 2022	2 223.82	2 262.82	39.00	2 646.25	1 801.40
	Indicator for the quarter	1 225.67	1 315.35	89.68	1 337.00	1 114.33		Indicator for the quarter	2 223.82	2 296.94	73.12	2 646.25	1 801.40
III quarter of 2021	July 2021	1 284.26	1 444.05	159.79	1 424.33	1 144.20	III quarter of 2022	July 2022	2 554.71	2 640.45	85.74	2 782.25	2 327.18
	August 2021	1 958.64	2 076.95	118.31	2 181.46	1 735.83		August 2022	2 864.08	2 993.06	128.98	3 157.95	2 570.22
	September 2021	2 109.02	2 230.78	121.76	2 255.39	1 962.65		September 2022	3 199.59	3 503.26	303.67	3 795.30	2 603.87
	Indicator for the quarter	1 780.44	1 921.07	140.63	1 950.45	1 610.44		Indicator for the quarter	2 869.24	3 091.12	221.88	3 239.19	2 499.30
IV quarter of 2021	October 2021	2 516.91	2 793.44	276.53	2 884.28	2 150.44	IV quarter of 2022	October 2022	3 301.71	3 535.24	233.53	3 956.80	2 648.41
	November 2021	2 915.98	3 309.65	393.67	3 813.94	2 018.03		November 2022	3 306.69	3 433.50	126.81	3 973.29	2 640.09
	December 2021	2 819.75	3 160.17	340.42	3 701.23	1 938.28		December 2022	3 290.59	3 347.46	56.87	3 954.82	2 626.37
	Indicator for the quarter	2 748.98	3 110.93	361.95	3 461.71	2 036.90		Indicator for the quarter	3 299.58	3 439.08	139.50	3 961.51	2 638.25
Indicator for the year		1 802.18	2 062.95	260.61	2 095.87	1 508.81	Indicator for the year		2 671.04	2 812.31	141.16	3 183.86	2 158.45



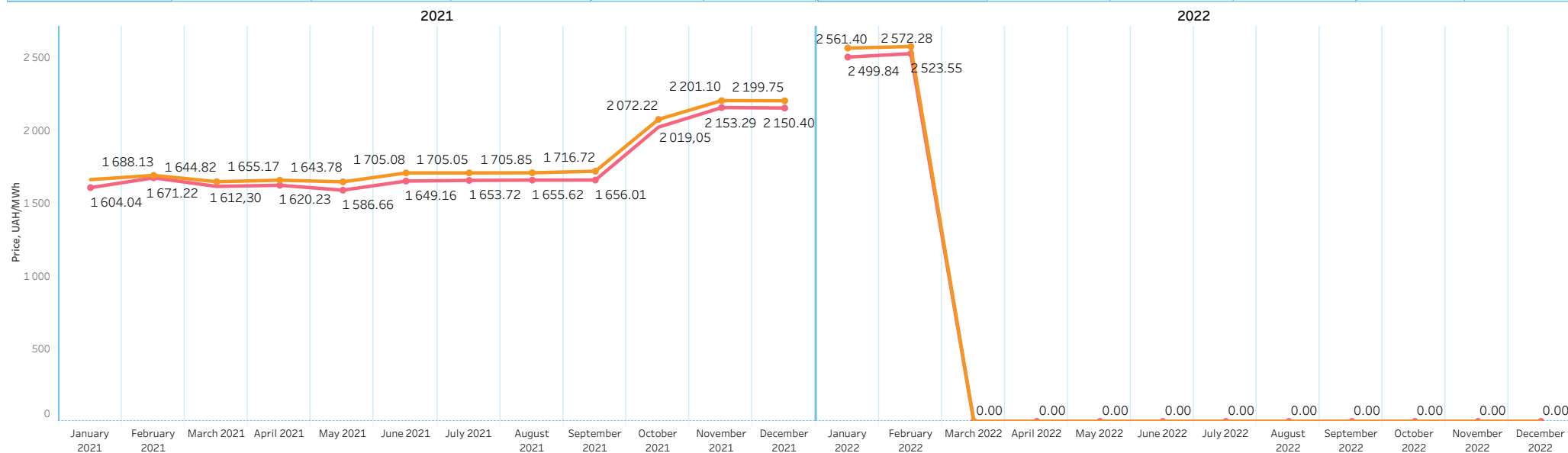
*all prices are net of VAT

■ DAM price (Product Base), UAH/MWh ■ DAM weighted average price, UAH/MWh

2022 in the BEI of Ukraine

DAM prices

2021							2022						
Quarter	Month	DAM price (Product Base), UAH/MWh	DAM weighted average price, UAH/MWh	The difference between the DAM weighted average price and price (Product Base), UAH/MWh	DAM price (Product Peak), UAH/MWh	DAM price (Product OffPeak), UAH/MWh	Quarter	Month	DAM price (Product Base), UAH/MWh	DAM weighted average price, UAH/MWh	The difference between the DAM weighted average price and price (Product Base), UAH/MWh	DAM price (Product Peak), UAH/MWh	DAM price (Product OffPeak), UAH/MWh
I quarter of 2021	January 2021	1 604.04	1 658.97	54.93	1 927.41	1 280.67	I quarter of 2022	January 2022	2 499.84	2 561.40	61.56	2 927.23	2 072.44
	February 2021	1 671.22	1 688.13	16.91	2 023.81	1 318.64		February 2022	2 523.55	2 572.28	48.73	2 960.58	2 086.51
	Indicator for the quarter	1 635.92	1 674.19	38.27	1 973.16	1 298.69		Indicator for the quarter	2 509.93	2 565.93	56.00	2 941.44	2 078.43
Indicator for the quarter		1 635.92	1 674.19	38.27	1 973.16	1 298.69	Indicator for the quarter		2 509.93	2 565.93	56.00	2 941.44	2 078.43

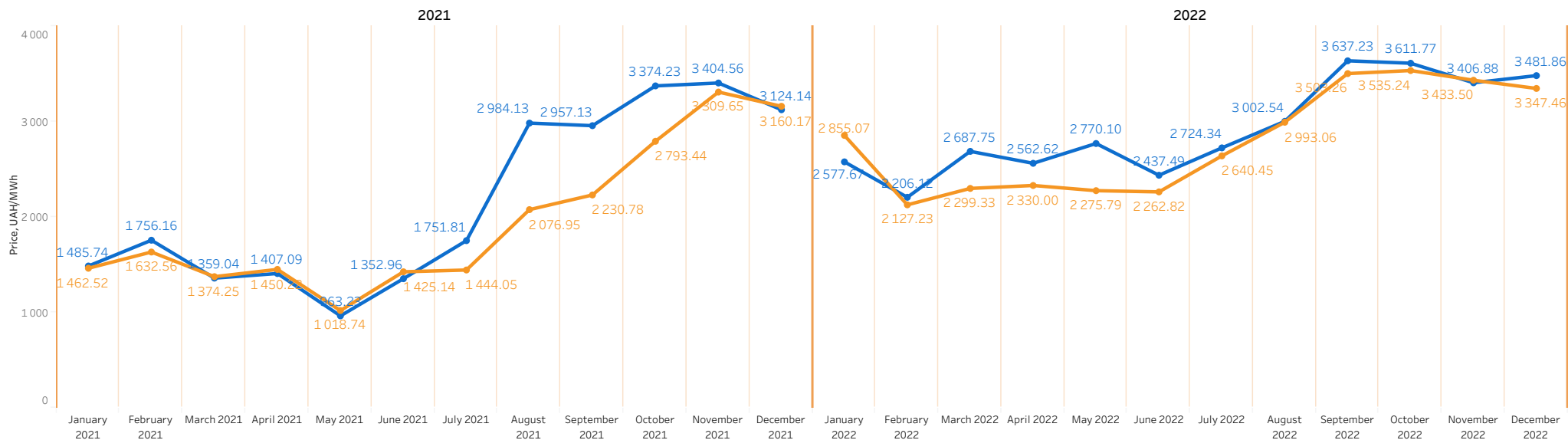


*all prices are net of VAT **Ukraine's BEI price was calculated for 01.01.2022 till 23.02.2022

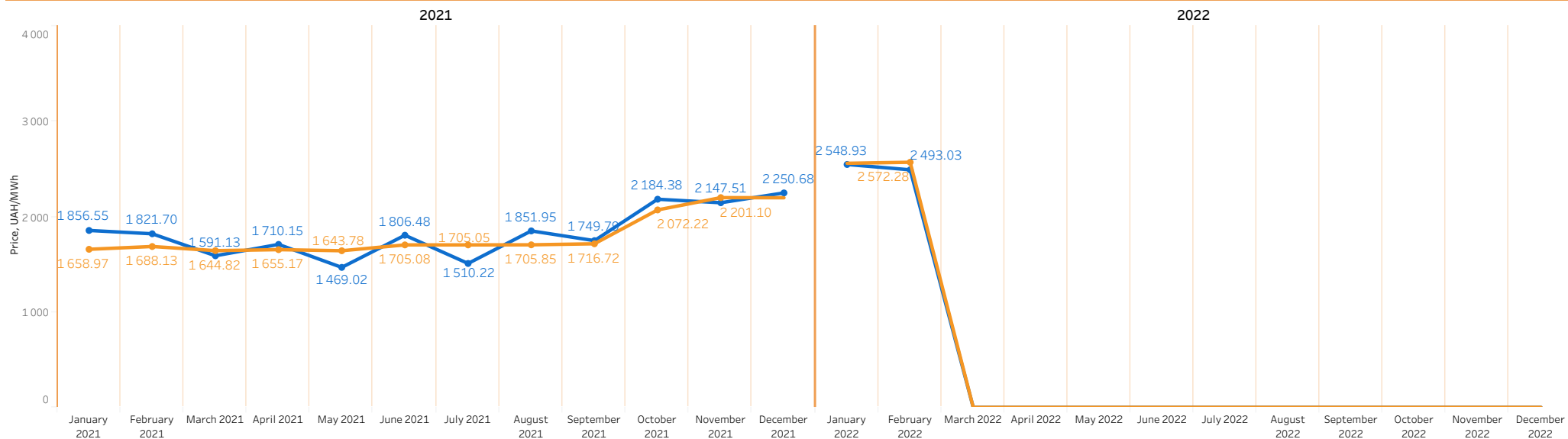
■ DAM price (Product Base), UAH/MWh ■ DAM weighted average price, UAH/MWh

Weighted average prices comparison for 2021 and 2022

Weighted average prices comparison on the DAM and IDM in Ukraine's IPS



Weighted average prices comparison on the DAM and IDM in Ukraine's BEI



*all prices are net of VAT

■ DAM weighted average price, UAH/MWh ■ IDM weighted average price, UAH/MWh

The difference between hourly prices on the DAM and IDM, UAH/MWh

2022 in the IPS of Ukraine



Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I quarter of 2022	January 2022	7.30	7.57	10.91	12.04	11.01	10.54	7.09	40.49	33.35	25.76	13.51	29.74	37.00	37.55	38.07	43.08	44.99	36.93	44.81	48.91	54.46	49.92	55.58	16.48	
	February 2022	-127.44	-124.26	-121.89	-121.04	-120.53	-123.36	-127.87	-327.34	-334.35	-330.56	-324.36	-319.94	-313.39	-316.27	-323.64	-336.41	-342.36	-328.82	-330.31	-330.25	-336.14	-342.00	-338.08	-126.93	
	March 2022	-137.90	-137.90	-137.90	-137.90	-137.90	-137.90	-141.99	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.68	-264.68	-264.69	-264.68	-264.68	-264.68	-264.67	-264.67	-260.59	-137.92	
	Quarter indicator	-84.63	-83.55	-81.66	-81.01	-81.20	-82.25	-86.24	-177.38	-183.69	-185.12	-187.41	-180.44	-175.90	-176.61	-178.74	-180.99	-182.19	-180.75	-178.49	-177.06	-176.98	-180.37	-175.80	-80.68	
II quarter of 2022	April 2022	-137.90	-137.90	-137.90	-137.90	-137.90	-137.90	-137.90	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-137.90	
	May 2022	-137.90	-137.90	-137.90	-137.90	-137.90	-137.90	-137.90	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-264.63	-137.90	
	June 2022	-31.26	-31.26	-27.58	-27.58	-27.58	-27.58	-27.58	-60.23	-60.49	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-59.99	-31.26	
	Quarter indicator	-100.70	-100.70	-102.44	-102.01	-102.01	-101.13	-102.01	-195.70	-196.58	-194.06	-196.42	-196.42	-197.17	-197.17	-197.17	-197.17	-197.17	-197.17	-197.17	-197.17	-197.17	-197.17	-197.17	-102.35	
III quarter of 2022	July 2022	-18.00	-22.17	-22.08	-22.14	-22.14	-23.02	-22.52	-52.93	-52.93	-52.93	-52.93	-52.93	-52.93	-52.93	-52.93	-52.93	-52.93	-52.93	-65.88	-74.97	-58.05	-58.79	-66.08	-4.88	
	August 2022	-0.32	-0.65	-0.58	-0.32	-0.74	-1.50	-0.32	-61.67	-61.62	-59.81	-59.17	-59.28	-59.06	-59.23	-58.62	-58.61	-59.05	-65.23	-80.67	-66.76	-59.05	-55.07	-67.36	0.00	
	September 2022	-3.66	-7.60	-9.03	-8.61	-9.89	-6.67	-3.95	-33.78	-27.81	-32.10	-42.10	-69.55	-69.02	-69.29	-75.30	-56.51	-34.75	-34.95	-19.06	-11.90	-8.06	-12.48	-29.22	-0.92	
	Quarter indicator	-7.41	-10.17	-10.58	-10.38	-10.93	-10.44	-8.89	-49.60	-47.61	-48.46	-51.50	-60.49	-60.24	-60.39	-62.14	-56.01	-49.06	-51.21	-55.59	-51.64	-42.08	-42.43	-54.49	-1.95	
IV quarter of 2022	October 2022	-1.81	-9.22	-11.93	-17.21	-16.15	-10.85	-2.02	-5.83	-4.96	-9.50	-23.85	-36.82	-44.64	-45.31	-48.38	-39.14	-26.60	-0.40	-0.55	0.00	0.00	-1.13	-1.74	-0.18	0.00
	November 2022	-5.98	-6.06	-8.99	-10.19	-9.62	-8.88	-4.33	-15.55	-15.70	-14.50	-10.46	-13.72	-18.67	-15.28	-11.87	-6.51	-9.56	-15.59	-16.20	-20.01	-24.24	-25.23	-30.24	-2.50	
	December 2022	-5.56	-7.05	-9.50	-11.82	-11.68	-9.12	-3.39	-11.38	-9.28	-12.02	-18.99	-25.38	-30.70	-23.82	-14.20	-16.74	-9.46	-12.76	-14.11	-14.81	-15.58	-16.50	-18.44	-1.55	
	Quarter indicator	-4.42	-7.46	-10.15	-13.11	-12.52	-9.63	-3.24	-10.87	-9.92	-11.98	-17.85	-25.43	-31.48	-28.28	-24.96	-20.95	-15.27	-9.52	-10.22	-11.51	-13.15	-14.17	-16.66	-1.40	0.00

2021 in the IPS of Ukraine

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I quarter of 2021	January 2021	-0.72	2.30	4.10	1.52	2.27	0.29	-4.19	25.08	22.02	39.53	40.33	40.57	46.01	46.03	60.21	57.93	65.89	67.51	66.48	62.35	53.30	40.29	38.62	-0.60	
	February 2021	10.29	2.66	3.66	3.96	4.06	2.54	10.76	50.50	51.05	48.84	47.08	41.12	30.16	29.77	31.98	50.13	58.87	59.47	56.97	59.26	52.36	51.57	52.48	6.86	
	March 2021	17.84	15.39	16.14	15.91	17.72	17.91	2.74	62.20	46.57	43.22	36.74	15.52	17.06	17.64	14.55	19.91	45.04	55.79	52.35	50.93	49.84	38.07	39.57	2.43	
	Quarter indicator	9.10	6.92	8.11	7.24	8.15	7.06	2.85	45.78	39.51	43.70	41.19	32.11	31.11	31.20	35.70	42.41	56.52	60.97	58.66	57.45	51.81	43.03	43.25	2.77	
II quarter of 2021	April 2021	37.47	35.68	31.12	33.34	34.94	35.83	40.83	97.67	92.65	70.77	63.49	58.67	54.38	54.44	53.59	55.31	63.08	79.40	96.22	92.57	70.06	71.73	92.75	12.24	
	May 2021	30.40	35.33	37.14	38.05	37.39	42.18	34.84	75.61	92.28	89.20	76.04	77.54	78.35	79.19	78.71	75.77	75.57	86.09	108.01	114.59	126.21	132.57	126.39	37.46	
	June 2021	19.31	24.35	29.12	29.14	28.30	26.35	24.33	40.22	39.54	42.63	45.93	50.33	50.76	50.28	48.40	51.89	49.16	42.32	47.89	42.63	36.03	12.60	42.63	6.88	
	Quarter indicator	29.08	31.82	32.51	33.56	33.58	34.87	33.35	71.22	75.02	67.77	61.98	62.35	61.35	61.50	60.44	61.15	62.75	69.45	84.30	83.61	77.97	72.96	87.69	19.06	
III quarter of 2021	July 2021	-4.73	-3.46	-3.38	-3.34	-3.35	-3.36	-3.46	-4.43	-7.95	-11.36	-5.26	-5.26	-5.27	-5.32	-5.83	-8.89	-9.63	-6.21	-16.32	-22.34	-7.66	-2.54	-3.94	-12.74	
	August 2021	-55.55	-30.49	-4.07	-6.58	-3.64	-3.68	-48.90	-97.99	-257.71	-121.88	-75.63	-24.18	-7.08	-11.33	-70.58	-57.02	-38.51	-19.74	-30.45	-26.84	-25.20	-18.80	-28.93	-28.38	
	September 2021	-7.13	-4.85	-4.84	-4.67	-4.77	-13.01	-20.33	-43.36	-36.99	-18.16	-35.99	-53.35	-44.46	-58.02	-67.26	-54.58	-30.33	-42.68	-44.37	-41.50	-29.89	-33.78	-30.15	-5.03	
	Quarter indicator	-22.64	-13.02	-4.09	-4.86	-3.91	-6.62	-24.27	-48.65	-101.58	-50.82	-38.99	-27.32	-18.66	-24.53	-47.68	-40.00	-26.11	-22.66	-30.23	-30.11	-20.82	-18.20	-20.91	-15.50	
IV quarter of 2021	October 2021	10.13	7.24	9.91	9.91	7.58	0.61	1.75	4.62	5.16	0.65	-8.08	-26.16	1.70	-7.58	-28.20	6.11	-8.74	0.92	-0.14	0.29	0.68	1.05	3.51	3.52	-2.71
	November 2021	23.54	41.63	47.19	52.09	41.92	37.35	8.61	42.64	50.93	46.73	14.26	-6.86	11.69	16.41	11.10	10.21	3.87	3.71	5.80	4.90	9.92	11.35	25.77	9.35	
	December 2021	20.64	6.07	16.66	18.34	15.94	6.29	-0.75	43.96	-7.42	-7.03	-32.80	-6.35	-0.91	-0.35	-1.19	10.35	2.95	6.55	9.51	10.69	8.66	5.18	16.67	-15.40	
	Quarter indicator	18.04	18.06	24.34	26.50	21.59	14.51	3.15	30.27	15.85	13.09	-9.12	-13.19	4.08	2.68	-6.28	8.87	-0.69	3.73	5.05	5.30	6.39	5.80	15.20	-0.96	-2.71

*all prices are net of VAT

The difference between hourly prices on the DAM and IDM, UAH/MWh



2022 in the BEI of Ukraine

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
January 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-14.22	-17.19	-15.40	-15.36	-19.22	-17.89	-18.45	-18.90	-18.71	-20.96	-21.93	-21.05	-20.72	-20.19	-21.15	-19.17	0.00
February 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-12.88	-21.78	-8.35	-13.32	-8.20	-12.57	-13.53	-14.66	-11.60	-14.96	-14.58	-18.00	-14.45	-10.19	-10.72	-14.13	0.00
Quarter indicator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-13.78	-18.79	-12.46	-14.68	-14.93	-15.73	-16.23	-17.13	-15.93	-18.46	-18.95	-19.93	-18.16	-16.10	-16.98	-16.98	0.00

2021 in the BEI of Ukraine

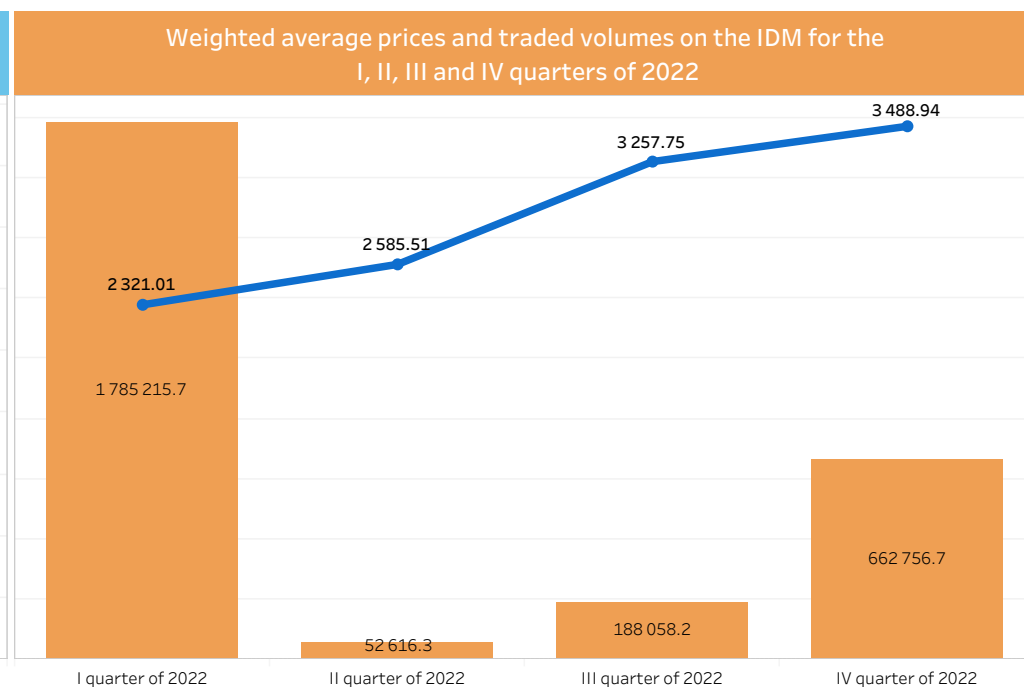
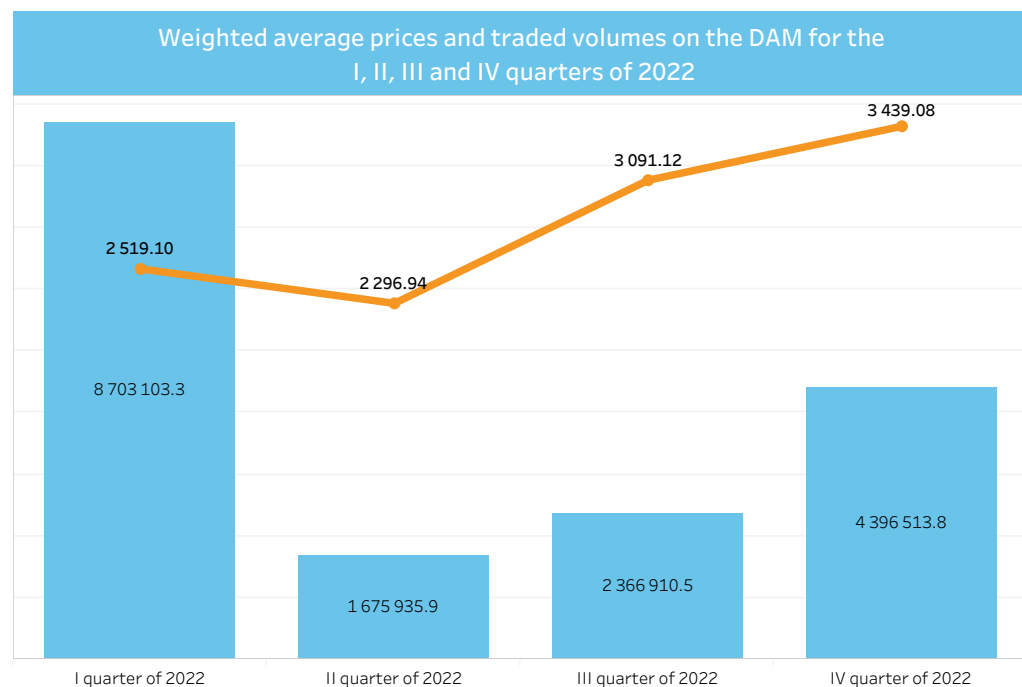
Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
January 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-37.65	-23.03	-24.30	-15.73	-14.45	-13.56	-16.04	-14.91	-21.06	-23.86	-25.41	-18.35	-7.17	3.93	24.31	7.28	0.00
February 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-8.52	-3.46	69.89	43.53	-1.26	4.39	-2.23	-5.75	10.29	13.77	17.71	31.36	34.21	36.26	48.68	32.79	0.56
Quarter indicator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-19.72	-13.24	33.26	15.88	-8.24	-4.37	-9.30	-10.43	-5.39	-5.05	-5.43	2.58	10.87	16.86	35.14	18.31	0.27

*all prices are net of VAT

Weighted average prices and traded volumes on the DAM and IDM of the IPS of Ukraine



	Period	DAM weighted average price, UAH/MWh	DAM traded volume, MWh	IDM weighted average price, UAH/MWh	IDM traded volume, MWh
I quarter of 2022	January 2022	2 855.07	4 404 796.7	2 577.67	480 375.1
	February 2022	2 127.23	3 109 733.6	2 206.12	1 249 567.2
	March 2022	2 299.33	1 188 573.0	2 687.75	55 273.4
	Indicator for the quarter	2 519.10	8 703 103.3	2 321.01	1 785 215.7
II quarter of 2022	April 2022	2 330.00	752 135.9	2 562.62	20 007.8
	May 2022	2 275.79	512 792.3	2 770.10	15 887.9
	June 2022	2 262.82	411 007.7	2 437.49	16 720.6
	Indicator for the quarter	2 296.94	1 675 935.9	2 585.51	52 616.3
III quarter of 2022	July 2022	2 640.45	664 400.7	2 724.34	43 798.2
	August 2022	2 993.06	788 429.8	3 002.54	49 444.2
	September 2022	3 503.26	914 080.0	3 637.23	94 815.8
	Indicator for the quarter	3 091.12	2 366 910.5	3 257.75	188 058.2
IV quarter of 2022	October 2022	3 535.24	1 408 880.4	3 611.77	166 858.8
	November 2022	3 433.50	1 607 050.0	3 406.88	226 578.5
	December 2022	3 347.46	1 380 583.4	3 481.86	269 319.4
	Indicator for the quarter	3 439.08	4 396 513.8	3 488.94	662 756.7



*all prices are net of VAT **Ukraine's IPS data

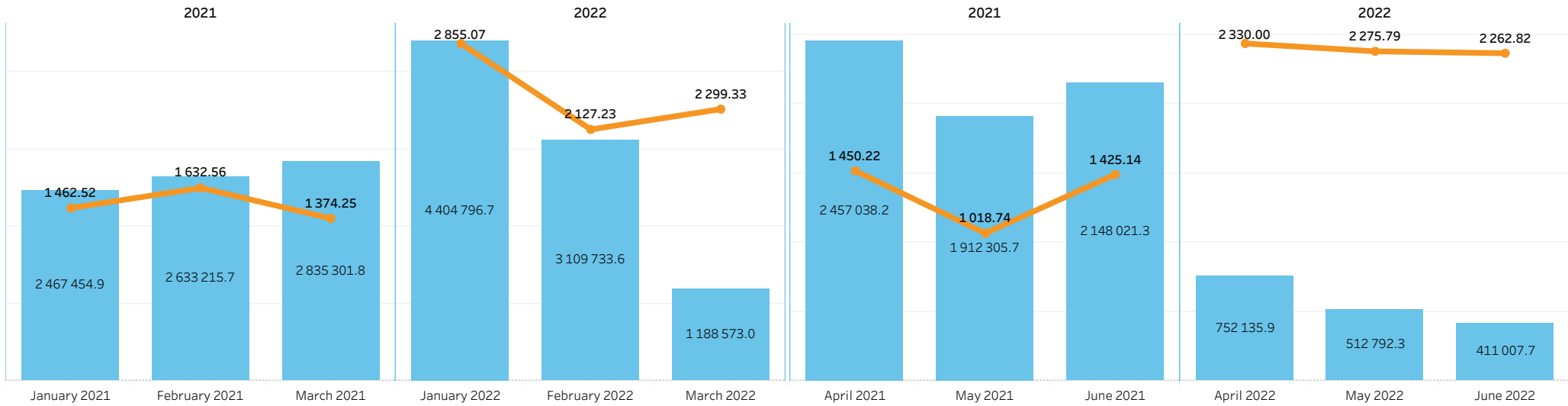
Weighted average prices and traded volumes on the DAM of the IPS of Ukraine for 2021 and 2022 | 22 |



HALF-YEAR I

DAM I quarter

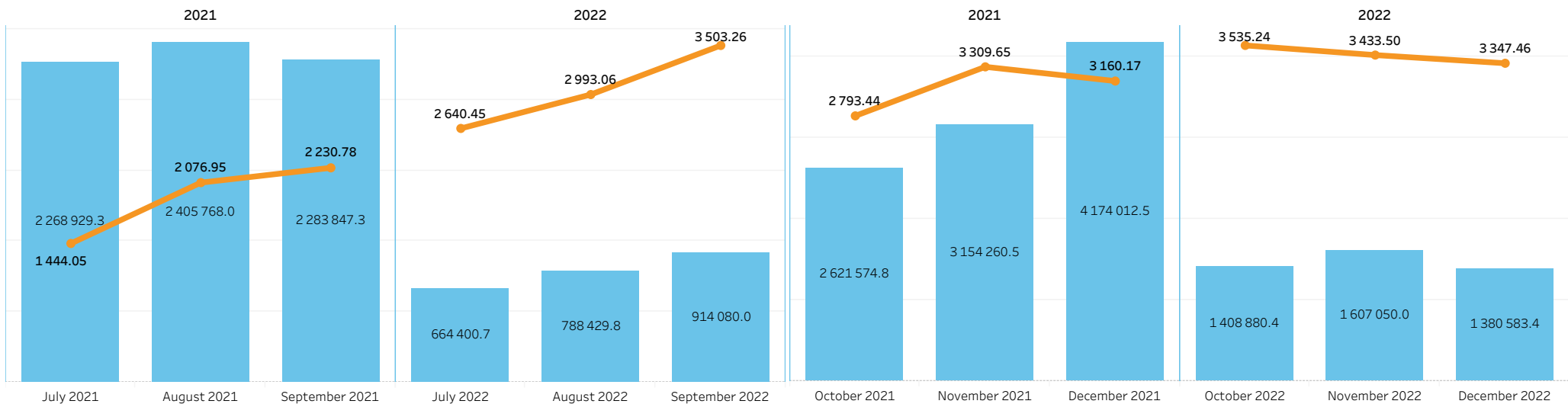
DAM II quarter



HALF-YEAR II

DAM III quarter

DAM IV quarter



*all prices are net of VAT **Ukraine's IPS data

DAM traded volume, MWh

DAM weighted average price, UAH/MWh

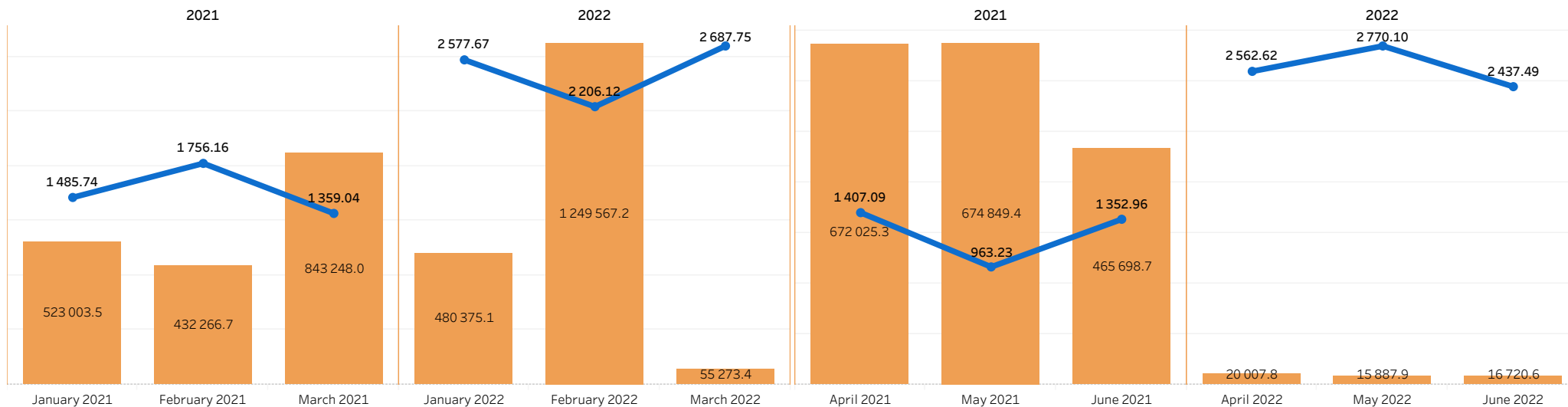
Weighted average prices and traded volumes on the IDM of the IPS of Ukraine for 2021 and 2022²³



HALF-YEAR I

IDM I quarter

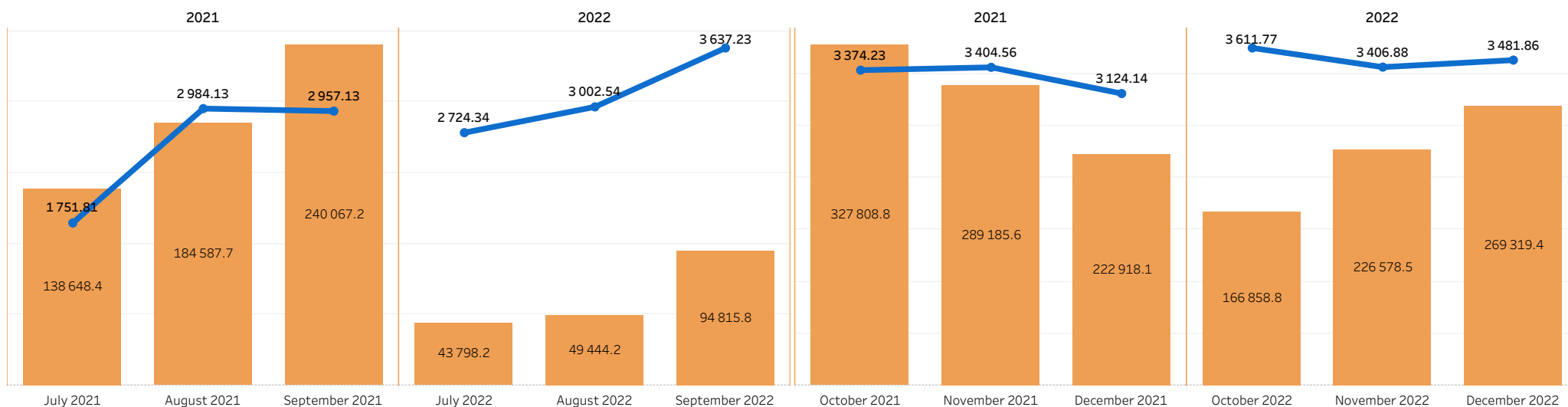
IDM II quarter



HALF-YEAR II

IDM III quarter

IDM IV quarter



*all prices are net of VAT **Ukraine's IPS data

IDM traded volume, MWh

IDM weighted average price, UAH/MWh

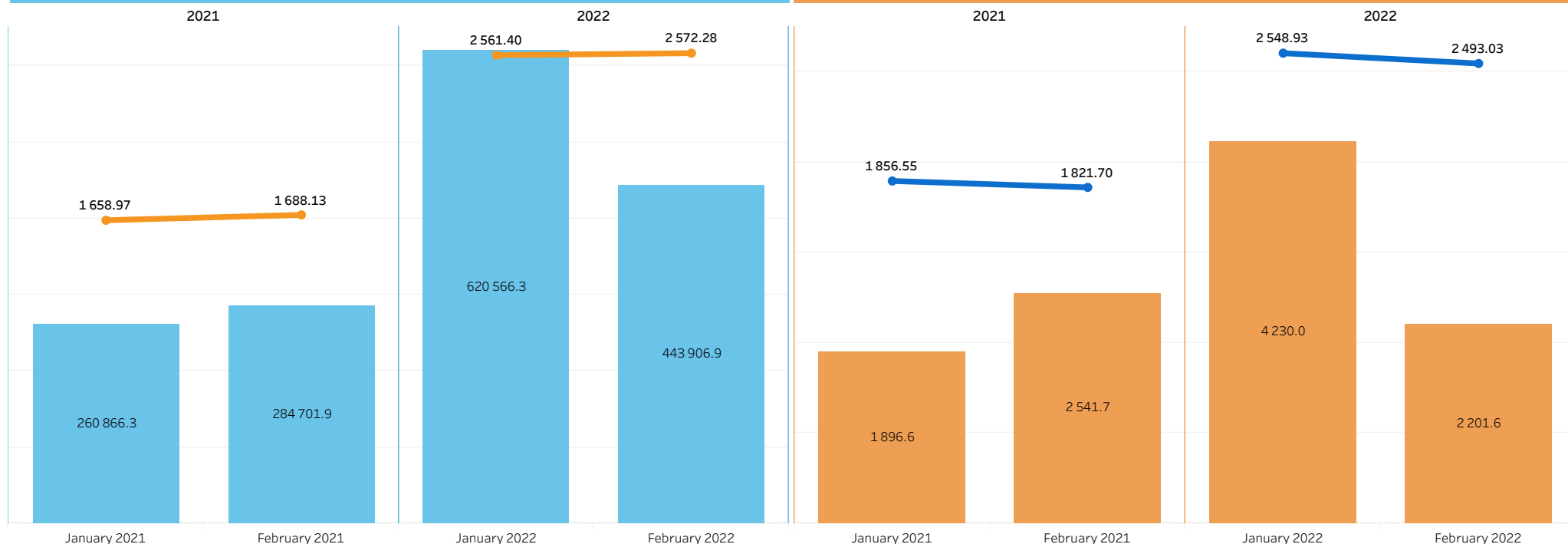
Weighted average prices and traded volumes on the DAM and IDM of the BEI of Ukraine



Indicator	I quarter of 2021			I quarter of 2022		
	January 2021	February 2021	Indicator for the quarter	January 2022	February 2022	Indicator for the quarter
DAM weighted average price, UAH/MWh	1 658.97	1 688.13	1 662.12	2 561.40	2 572.28	2 565.93
DAM traded volume, MWh	260 866.3	284 701.9	925 877.7	620 566.3	443 906.9	1 064 473.2
IDM weighted average price, UAH/MWh	1 856.55	1 821.70	1 703.72	2 548.93	2 493.03	2 529.79
IDM traded volume, MWh	1 896.6	2 541.7	9 675.8	4 230.0	2 201.6	6 431.6

Weighted average prices and traded volumes on the DAM for the I quarter of 2021 and 2022

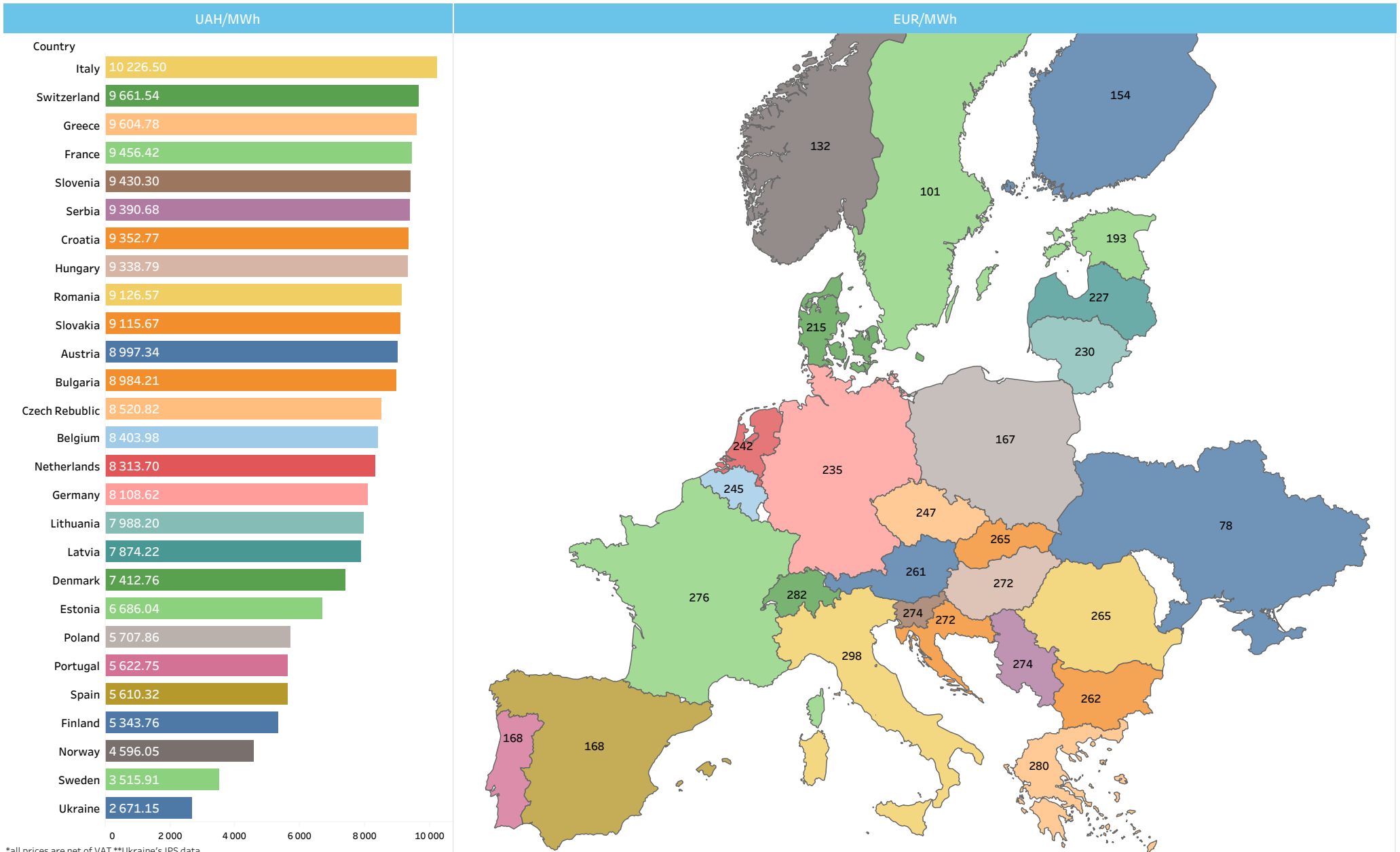
Weighted average prices and traded volumes on the IDM for the I quarter of 2021 and 2022



*all prices are net of VAT **Ukraine's BEI data

Europe 2022

DAM year average prices of Europe spot markets



*all prices are net of VAT **Ukraine's IPS data

Europe 2022

DAM average hourly prices of Europe spot markets, UAH/MWh

Country	Hour																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Austria	8 032	7 450	7 230	6 967	7 034	7 664	9 038	10 040	10 269	9 723	9 169	9 007	8 815	8 551	8 524	8 732	9 155	10 003	10 765	11 311	10 753	9 882	9 371	8 452
Belgium	7 962	7 400	7 146	6 853	6 871	7 308	8 575	9 702	9 985	9 237	8 328	7 771	7 096	6 784	6 864	7 241	7 849	9 328	10 570	11 110	10 553	9 651	9 202	8 310
Bulgaria	7 685	6 863	6 391	6 197	6 523	7 731	9 040	10 264	10 262	9 274	8 449	8 042	8 137	7 916	8 207	9 008	10 039	11 127	12 033	12 558	11 770	10 218	9 584	8 304
Croatia	8 115	7 422	7 121	6 849	6 990	7 798	9 285	10 417	10 725	10 050	9 482	9 362	9 193	8 904	8 943	9 348	9 871	10 660	11 571	12 247	11 551	10 329	9 645	8 588
Czech Republic	7 567	7 059	6 806	6 609	6 712	7 283	8 766	9 790	9 977	9 201	8 545	8 200	7 845	7 521	7 496	7 962	8 587	9 679	10 570	11 204	10 626	9 633	8 966	7 895
Denmark	6 597	6 209	6 011	5 869	5 906	6 308	7 549	8 725	9 036	8 303	7 571	7 088	6 541	6 192	6 124	6 476	7 085	8 415	9 334	9 789	9 288	8 528	7 954	7 008
Estonia	4 919	4 398	3 987	3 838	4 181	5 533	7 029	8 320	8 512	7 899	7 494	7 124	6 871	6 533	6 588	6 879	7 267	8 382	8 885	9 051	8 061	7 598	6 339	4 776
Finland	2 863	2 606	2 436	2 443	2 725	3 978	5 363	6 665	7 249	7 031	6 849	6 585	6 327	5 965	5 869	6 005	6 286	6 907	7 367	7 025	5 966	5 733	4 738	3 272
France	8 723	8 088	7 857	7 389	7 285	7 798	9 090	10 471	10 981	10 505	9 800	9 600	9 476	8 933	8 929	8 873	9 070	10 091	11 097	11 873	11 329	10 380	9 952	9 366
Germany	7 440	6 936	6 690	6 507	6 584	7 094	8 386	9 461	9 705	8 899	8 068	7 557	6 996	6 610	6 605	7 052	7 715	9 147	10 204	10 803	10 193	9 313	8 811	7 830
Greece	8 894	8 501	7 921	7 652	7 836	8 726	9 814	10 543	10 250	9 388	8 761	8 461	8 500	8 146	8 421	9 271	10 396	11 440	12 165	12 774	12 164	10 813	10 284	9 395
Hungary	8 093	7 394	7 105	6 894	7 028	7 823	9 331	10 488	10 684	9 910	9 278	9 073	8 880	8 594	8 650	9 267	10 014	10 886	11 770	12 447	11 764	10 457	9 710	8 593
Italy	9 760	9 191	8 877	8 662	8 670	9 059	10 117	11 100	11 379	10 764	9 950	9 573	9 280	8 930	9 157	9 595	10 322	11 190	12 098	12 966	12 514	11 507	10 763	10 013
Latvia	6 147	5 399	5 136	4 960	5 275	6 553	8 309	9 656	9 871	9 214	8 630	8 286	8 145	7 563	7 690	8 001	8 265	9 608	9 851	10 273	9 437	8 650	7 695	6 367
Lithuania	6 355	5 656	5 401	5 206	5 477	6 684	8 433	9 745	9 965	9 261	8 672	8 328	8 173	7 594	7 712	8 032	8 345	9 700	9 960	10 456	9 611	8 744	7 773	6 435
Netherlands	8 013	7 410	7 162	6 899	6 891	7 310	8 519	9 635	9 948	9 218	8 210	7 517	6 752	6 373	6 489	7 009	7 733	9 392	10 406	10 986	10 558	9 689	9 202	8 208
Norway	4 264	4 079	3 969	3 884	3 903	4 096	4 395	4 911	5 198	5 110	4 957	4 778	4 588	4 480	4 428	4 530	4 711	4 995	5 143	5 135	5 029	4 808	4 606	4 308
Poland	5 214	4 851	4 719	4 676	4 737	4 912	5 773	5 833	6 135	5 695	5 149	5 024	4 947	4 898	4 940	5 208	5 699	6 400	7 258	8 053	8 058	6 949	6 552	5 308
Portugal	5 925	5 465	5 199	5 023	4 987	5 148	5 577	6 105	6 244	6 009	5 555	5 231	5 122	5 038	4 851	4 726	4 837	5 217	5 775	6 414	6 979	7 018	6 535	5 965
Romania	7 681	6 923	6 571	6 352	6 638	7 771	9 116	10 391	10 574	9 688	8 929	8 634	8 586	8 338	8 433	9 120	10 003	11 000	11 963	12 549	11 735	10 238	9 543	8 263
Serbia	8 278	7 514	7 104	6 880	6 954	7 681	9 048	10 251	10 599	10 037	9 579	9 441	9 310	9 114	9 132	9 433	9 968	10 748	11 565	12 130	11 582	10 461	9 757	8 809
Slovakia	7 841	7 216	6 955	6 752	6 861	7 582	9 156	10 265	10 518	9 756	9 106	8 942	8 721	8 400	8 446	9 038	9 797	10 632	11 414	12 059	11 402	10 183	9 414	8 319
Slovenia	8 301	7 677	7 406	7 116	7 188	7 895	9 343	10 482	10 791	10 126	9 543	9 428	9 239	8 949	8 977	9 348	9 832	10 583	11 520	12 248	11 529	10 340	9 706	8 760
Spain	5 918	5 458	5 192	5 017	4 979	5 146	5 577	6 115	6 257	5 989	5 522	5 181	5 092	5 007	4 821	4 695	4 808	5 207	5 767	6 411	6 976	7 017	6 535	5 960
Sweden	2 254	2 054	1 970	1 933	2 034	2 414	3 320	4 385	4 818	4 674	4 431	4 167	3 858	3 647	3 576	3 682	3 909	4 472	4 711	4 603	4 210	3 700	3 157	2 404
Switzerland	8 967	8 534	8 269	8 026	7 990	8 417	9 550	10 498	10 754	10 390	10 001	9 782	9 435	9 175	9 100	9 237	9 603	10 336	11 043	11 546	11 198	10 482	10 056	9 490
Ukraine	1 639	1 587	1 571	1 569	1 568	1 576	1 631	3 114	3 155	3 163	3 129	3 117	3 102	3 107	3 115	3 142	3 190	3 261	3 359	3 366	3 356	3 338	3 281	1 671

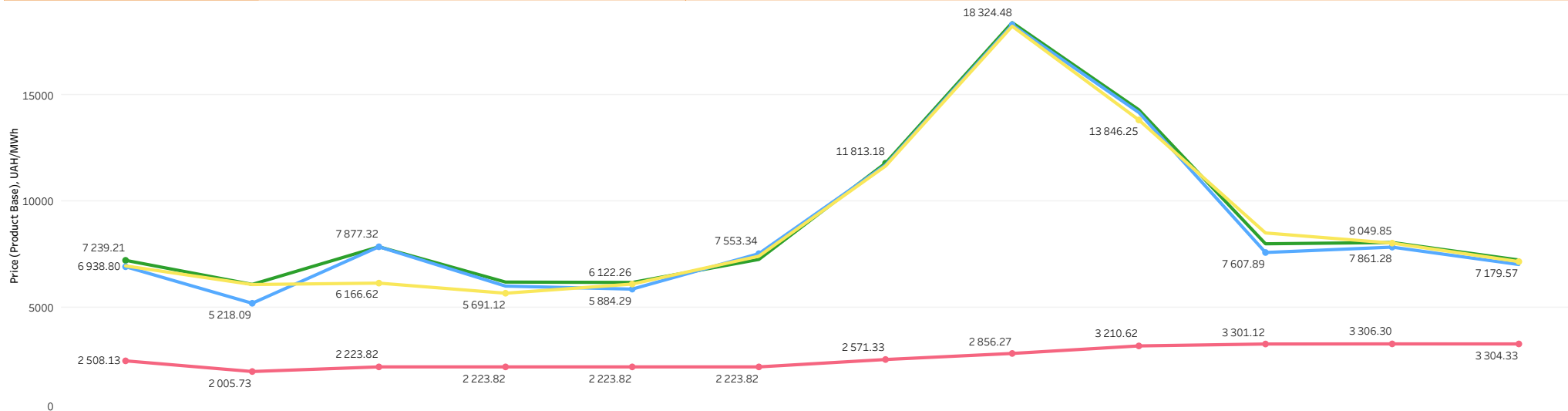
*all prices are net of VAT **Ukraine's IPS data

Yellow - price lower Blue - price higher

Europe 2022

The DAM prices* of Ukraine, Romania, Slovak Republic and Hungary

Quarter	Month	2022				Day				Night			
		Ukraine DAM price, UAH/MWh	Romania DAM price, UAH/MWh	Slovak Republic DAM price, UAH/MWh	Hungary DAM price, UAH/MWh	Ukraine DAM price, UAH/MWh	Romania DAM price, UAH/MWh	Slovak Republic DAM price, UAH/MWh	Hungary DAM price, UAH/MWh	Ukraine DAM price, UAH/MWh	Romania DAM price, UAH/MWh	Slovak Republic DAM price, UAH/MWh	Hungary DAM price, UAH/MWh
I quarter of 2022	January 2022	2 508.13	6 976.63	6 938.80	7 239.21	3 365.75	8 017.43	7 895.62	8 102.00	1 650.51	5 935.82	5 981.98	6 376.43
	February 2022	2 005.73	6 100.13	5 218.09	6 106.89	2 639.35	6 657.46	5 865.27	6 604.44	1 372.12	5 542.81	4 570.91	5 609.35
	March 2022	2 223.82	6 166.62	7 877.32	7 877.32	2 646.25	7 426.15	8 518.49	8 518.49	1 801.40	4 907.09	7 236.16	7 236.16
	Indicator for the quarter	2 245.90	6 414.46	6 678.07	7 074.48	2 883.78	7 367.02	7 426.46	7 741.64	1 608.01	5 461.91	5 929.68	6 407.31
II quarter of 2022	April 2022	2 223.82	5 691.12	6 026.74	6 216.27	3 957.02	9 342.69	8 272.57	8 780.84	2 645.22	7 712.10	6 943.21	7 254.46
	May 2022	2 223.82	6 122.26	5 884.29	6 197.69	3 974.71	9 517.96	9 241.74	9 401.75	2 637.89	6 581.74	6 480.83	6 755.54
	June 2022	2 223.82	7 434.22	7 553.34	7 282.17	3 967.52	9 324.91	8 592.63	8 966.18	2 641.15	5 034.24	5 490.95	5 544.64
	Indicator for the quarter	2 223.82	6 415.87	6 488.12	6 565.38	3 966.41	9 395.19	8 702.31	9 049.59	2 641.42	6 442.69	6 304.99	6 518.21
III quarter of 2022	July 2022	2 571.33	11 676.94	11 726.44	11 813.18	2 646.25	5 656.83	6 270.11	6 310.15	1 801.40	5 725.41	5 783.36	6 122.38
	August 2022	2 856.27	18 259.32	18 324.48	18 427.89	2 646.25	5 909.42	5 769.36	6 002.43	1 801.40	6 335.11	5 999.22	6 392.96
	September 2022	3 210.62	13 846.25	14 196.38	14 324.16	2 646.25	7 510.86	7 630.93	7 406.32	1 801.40	7 357.59	7 475.75	7 158.02
	Indicator for the quarter	2 879.41	14 594.17	14 749.10	14 855.07	2 646.25	6 359.04	6 556.80	6 572.97	1 801.40	6 472.70	6 419.44	6 557.79
IV quarter of 2022	October 2022	3 301.12	8 527.40	7 607.89	8 017.65	2 867.53	11 967.43	11 949.95	12 063.08	2 275.12	11 386.45	11 502.94	11 563.27
	November 2022	3 306.30	8 049.85	7 861.28	8 078.64	3 199.33	18 766.68	18 762.37	18 883.43	2 513.21	17 751.97	17 886.59	17 972.35
	December 2022	3 304.33	7 179.57	7 041.79	7 255.41	3 826.52	14 675.59	15 254.50	15 454.67	2 594.71	13 016.92	13 138.26	13 193.65
	Indicator for the quarter	3 303.92	7 918.94	7 503.65	7 783.90	3 297.80	15 136.57	15 322.27	15 467.06	2 461.02	14 051.78	14 175.93	14 243.09
Indicator for the year		2 663.26	8 835.86	8 854.74	9 069.71	3 198.56	9 564.45	9 501.96	9 707.81	2 127.96	8 107.27	8 207.51	8 431.60



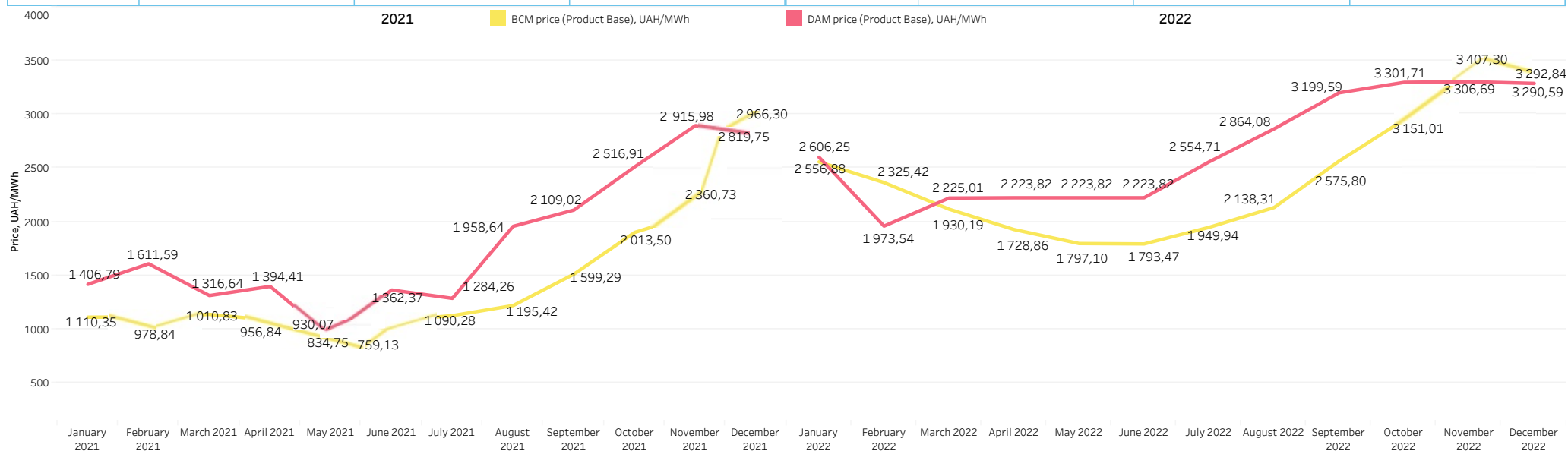
■ Ukraine DAM price (Product Base), UAH/MWh
 ■ Romania DAM price (Product Base), UAH/MWh
 ■ Slovak Republic DAM price (Product Base), UAH/MWh
 ■ Hungary DAM price (Product Base), UAH/MWh

*the calculation was made according to the unified Central European Time (CET)
 all prices are net of VAT *Ukraine's IPS data

2022 in the IPS of Ukraine

The DAM and BCM prices

Month	DAM price (Product Base), UAH/MWh	BCM price (Product Base), UAH/MWh	Price difference, UAH/MWh	Month	DAM price (Product Base), UAH/MWh	BCM price (Product Base), UAH/MWh	Price difference, UAH/MWh
January 2021	1 406.79	1 110.35	-296.44	January 2022	2 606.25	2 556.88	-49.37
February 2021	1 611.59	978.84	-632.75	February 2022	1 973.54	2 325.42	+351.88
March 2021	1 316.42	1 010.83	-305.59	March 2022	2 225.01	1 930.19	-294.82
April 2021	1 394.41	956.84	-437.57	April 2022	2 223.82	1 728.86	-494.96
May 2021	930.07	834.75	-95.32	May 2022	2 223.82	1 797.10	-426.72
June 2021	1 362.37	759.13	-603.24	June 2022	2 223.82	1 793.47	-430.35
July 2021	1 284.26	1 090.28	-193.98	July 2022	2 554.71	1 949.94	-604.77
August 2021	1 958.64	1 195.42	-763.22	August 2022	2 864.08	2 138.31	-725.77
September 2021	2 109.02	1 599.29	-509.73	September 2022	3 199.59	2 575.80	-623.79
October 2021	2 516.91	2 013.50	-503.41	October 2022	3 301.71	3 151.01	-150.70
November 2021	2 915.98	2 360.73	-555.26	November 2022	3 306.69	3 407.30	+100.61
December 2021	2 819.75	2 966.30	+146.55	December 2022	3 290.59	3 292.84	+2.25



*The BCM price was calculated according to the results of UEB auctions for the sale of electricity under bilateral contracts held in the previous month and the month of supply, for the purchase and sale of base load electricity for the month of supply **all prices are net of VAT ***Ukraine's IPS data