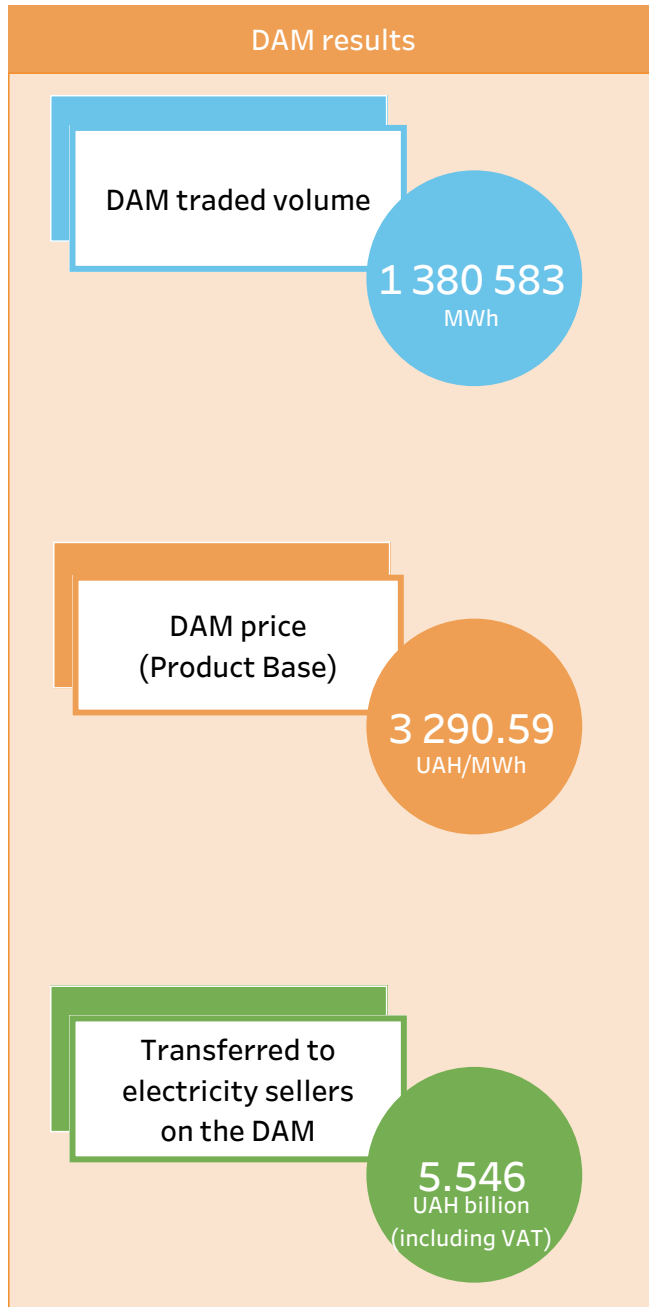




BRAVERY 
TO THINK ABOUT TOMORROW

**EMPHASES
OF DAM AND IDM
DECEMBER 2022**



Legislative changes in the electricity market, extended in December:

NEURC's Resolution №332 dated on 25.02.2022 (with changes as of 27.02.2022)
 «On ensuring the stable operation of the electric energy market, including the financial condition of participants in the electric energy market during the period of martial law in Ukraine»:

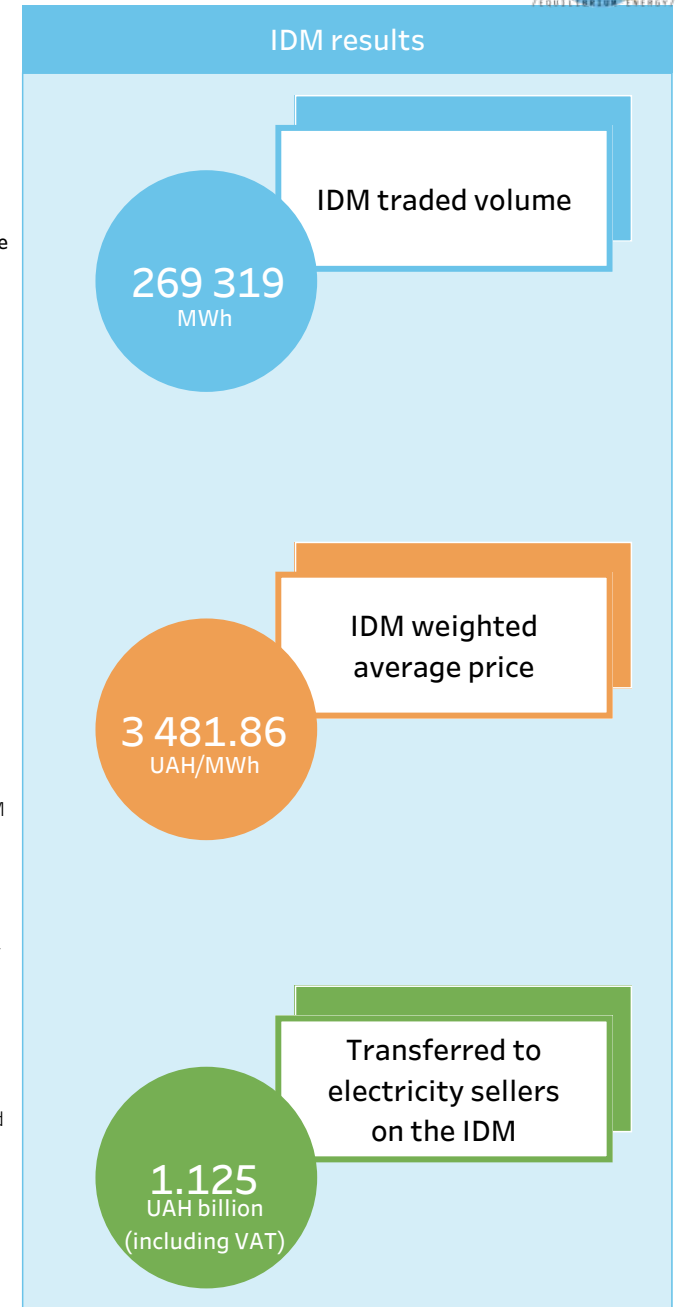
There are minimum price caps on the DAM:
 2 646,25 UAH/MWh (net of VAT)
 for hours of max. load (from 07:00 to 23:00),
 1 378,97 UAH/MWh (net of VAT)
 for hours of min. load (from 00:00 to 07:00 and from 23:00 to 24:00).

There are maximum price caps on the DAM:
 4 000 UAH/MWh (net of VAT)
 for hours of max. load (from 07:00 to 23:00),
 2 000 UAH/MWh (net of VAT)
 for hours of min. load (from 00:00 to 07:00 and from 23:00 to 24:00).

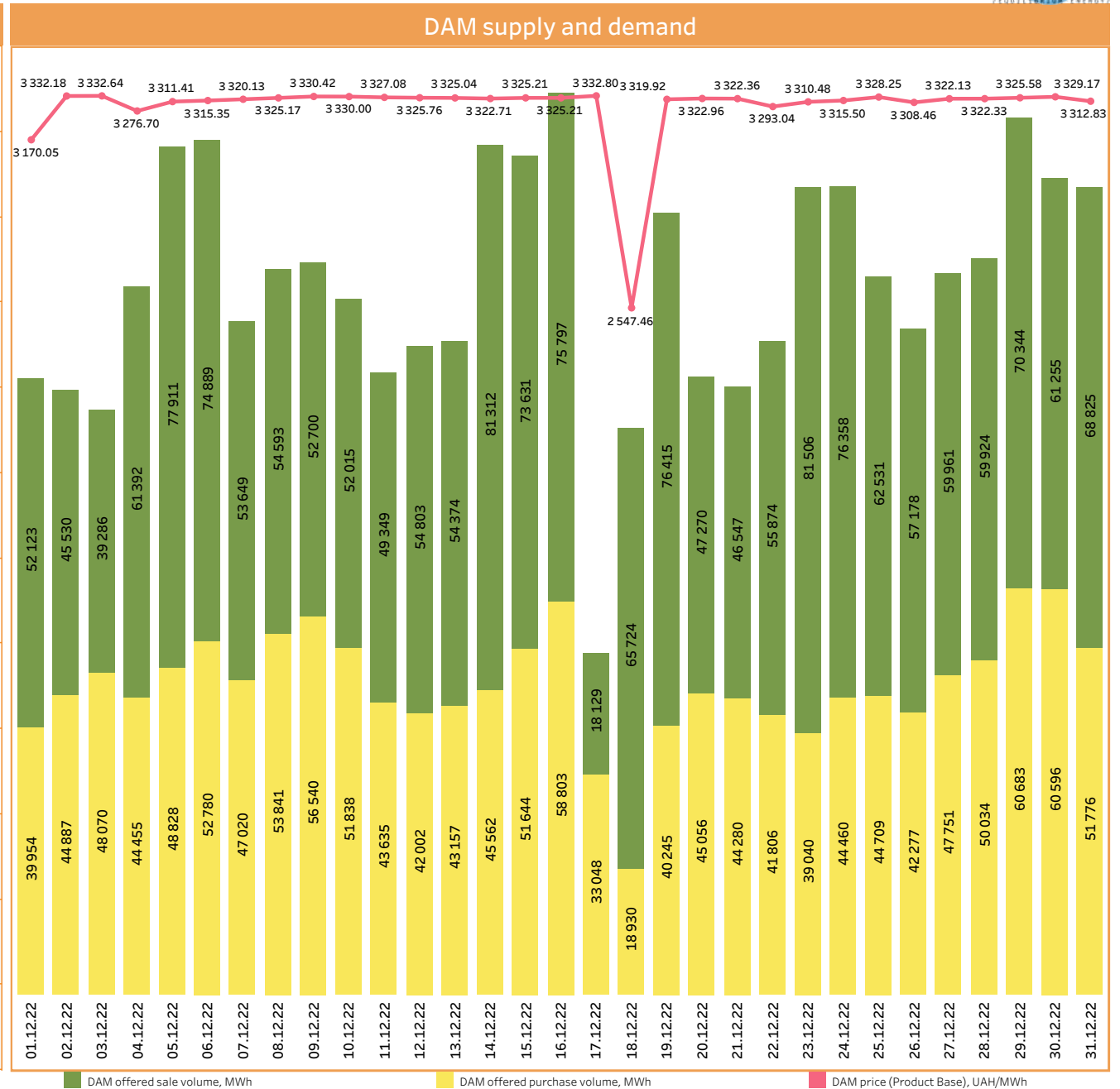
NEURC's Resolution № 1689 dated on 17.12.2022
 «On Amendments to the NEURC's Resolution № 332 dated on 25.02.2022»:

If the emergency occurs in the IPS of Ukraine:
 Transmission system operator (TSO) cancels the registered volumes on BCM and the accepted proposals on BM;
 Market Operator (MO) cancels the results of the auctions on DAM and on IDM on the day of supply, in which the emergency occurred in the IPS of Ukraine, and MO does not conduct auctions on DAM and on 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.

TSO announced the emergency in the IPS of Ukraine from 09:00 on December 16, and at 23:00 on December 16 the emergency in the IPS of Ukraine terminated in accordance with the Market Rules (Chapter 9).

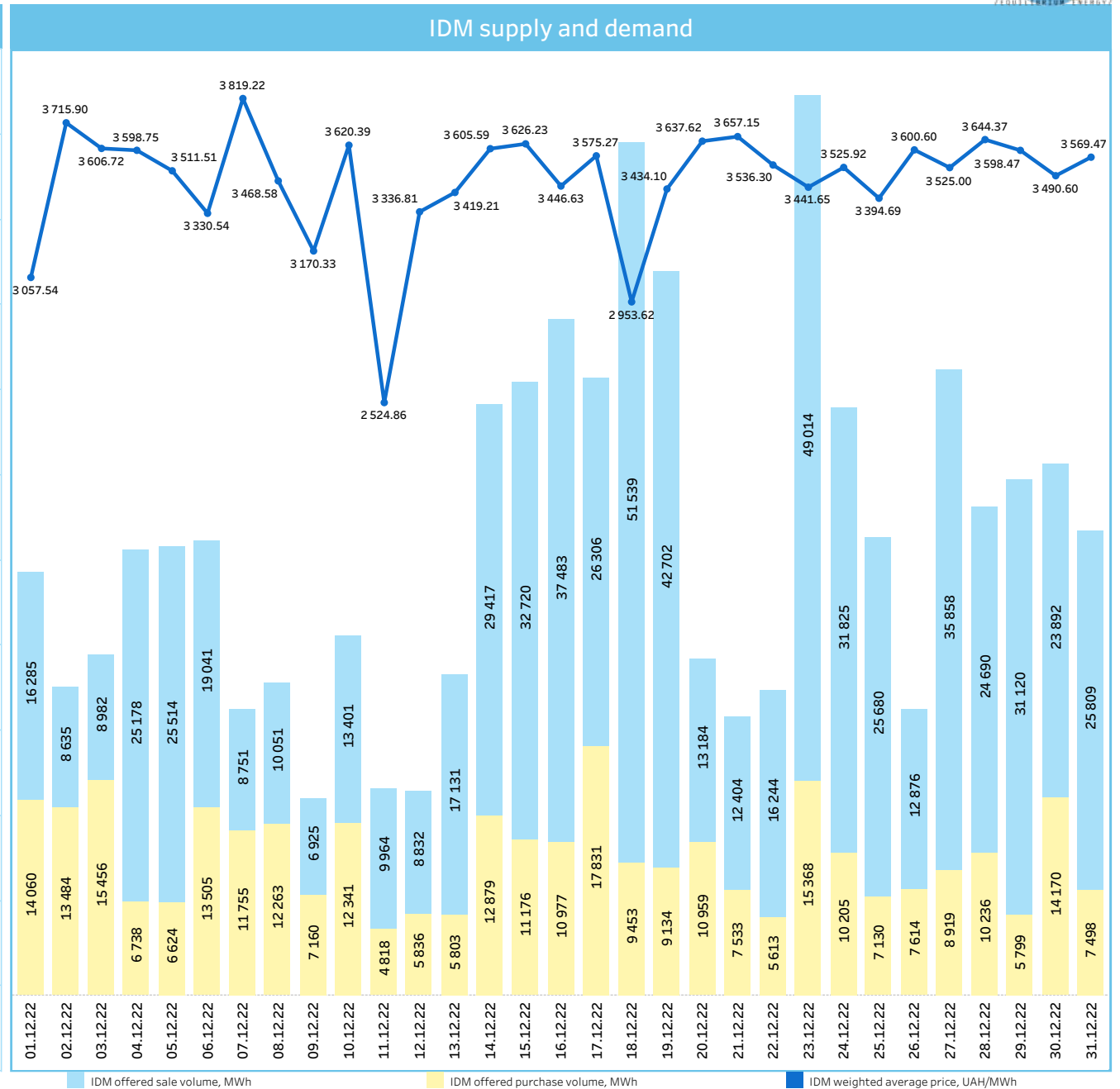


DAM emphases	
DAM price (Product Base)	3 290.59 UAH/MWh
DAM price (Product Base) change	-0.5%
	- 16.10 UAH/MWh
DAM traded volume	1 380 583 MWh
DAM traded volume change	-14.1%
	-226 467 MWh
Demand	1 437 707 MWh
Demand change	-13.3%
	-220 173 MWh
Supply	1 861 192 MWh
Supply change	-10.8%
	-225 107 MWh



*Compared with November 2022 **all prices are net of VAT ***Ukraine's IPS data

IDM emphases	
IDM weighted average price	3 481.86 UAH/MWh
IDM weighted average price change	2.2%
	+74.98 UAH/MWh
IDM traded volume	269 319 MWh
IDM traded volume change	+18.9%
	+42 741 MWh
Demand	312 333 MWh
Demand change	+7.9%
	+22 761 MWh
Supply	701 453 MWh
Supply change	+33.9%
	+177 563 MWh



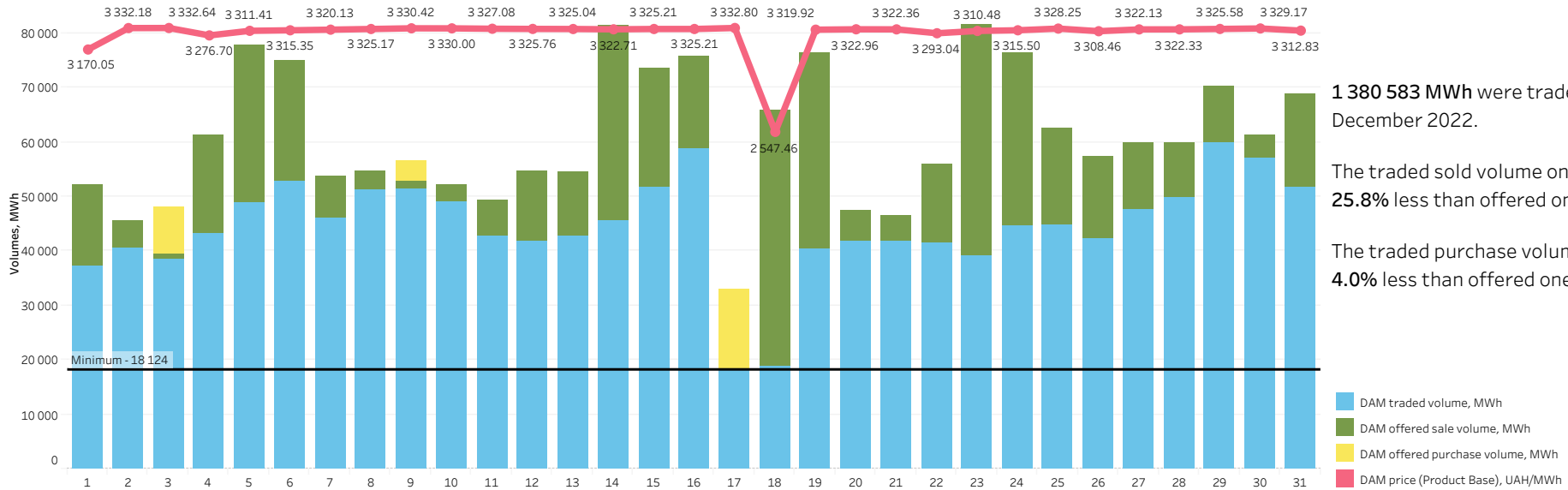
*Compared with November 2022 **all prices are net of VAT ***Ukraine's IPS data

IDM offered sale volume, MWh

IDM offered purchase volume, MWh

IDM weighted average price, UAH/MWh

Prices, traded and offered volumes on the DAM



1 380 583 MWh were traded on the DAM in December 2022.

The traded sold volume on the DAM was 25.8% less than offered one for the December.

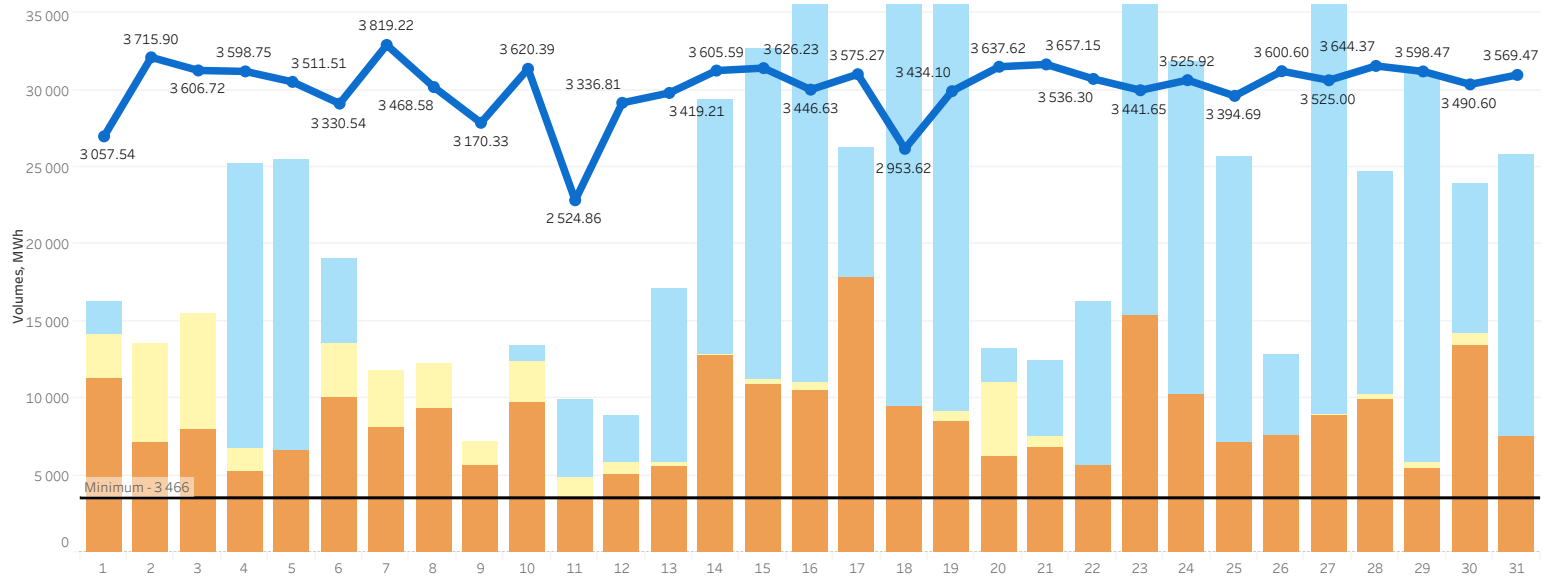
The traded purchase volume on the DAM was 4.0% less than offered one.

Prices, traded and offered volumes on the IDM

269 319 MWh were traded on the IDM in December 2022.

The traded sold volume on the IDM was 61.6% less than offered one for December.

The traded purchase volume on the IDM was 13.8% less than offered one.



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

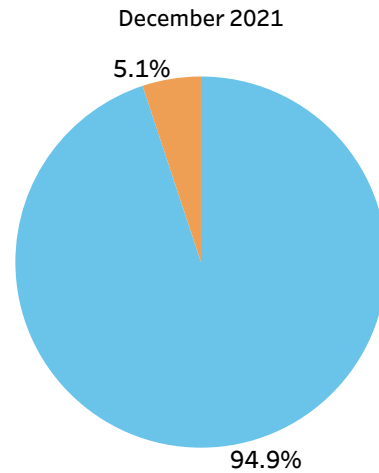
Comparison of the electricity traded volumes on the DAM and IDM for December 2021 and December 2022



The total traded volume of electricity within the two market segments amounted to **4 396 931 MWh** in **December 2021**.

The share of the DAM was **94.9%** or **4 174 931 MWh** in the total volume.

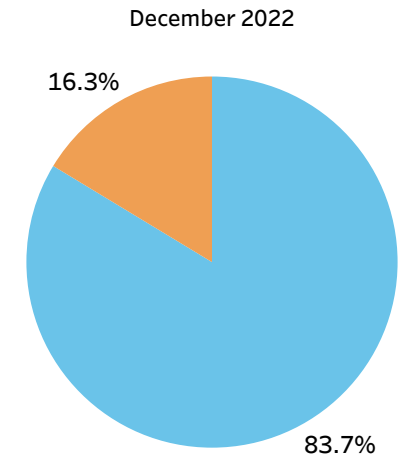
The share of the IDM was **5.1%** or **222 918 MWh** in the total volume.



The total traded volume of electricity within the two market segments amounted to **1 649 903 MWh** in **December 2022**.

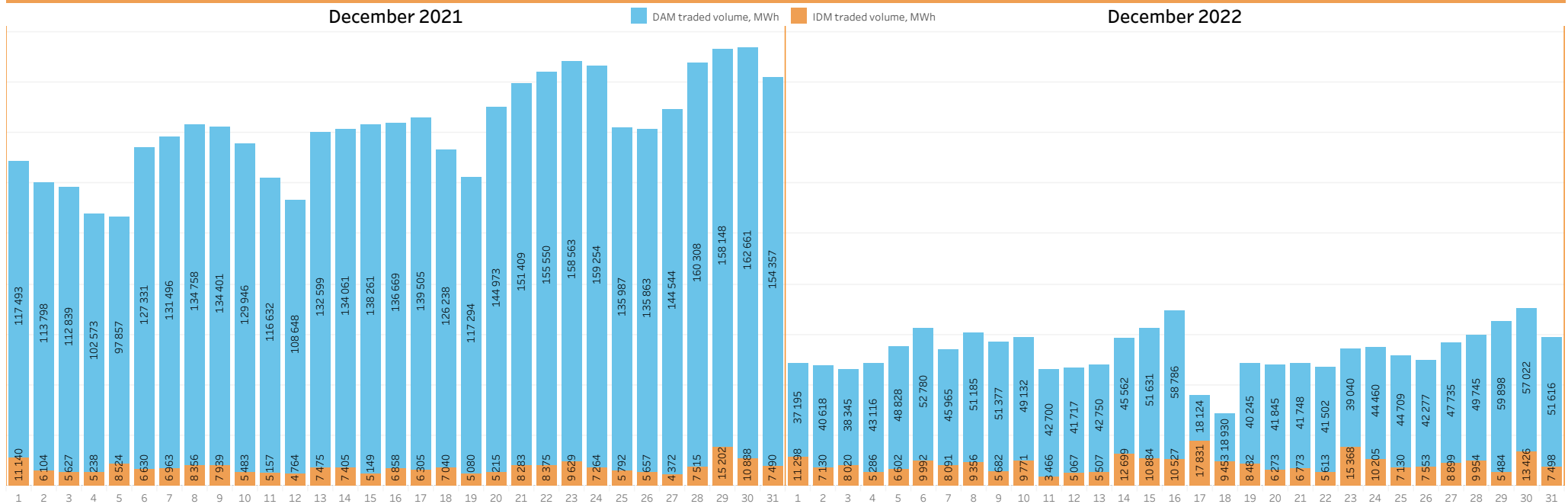
The share of the DAM was **83.7%** or **1 380 583 MWh** in the total volume.

The share of the IDM was **16.3%** or **269 319 MWh** in the total volume.



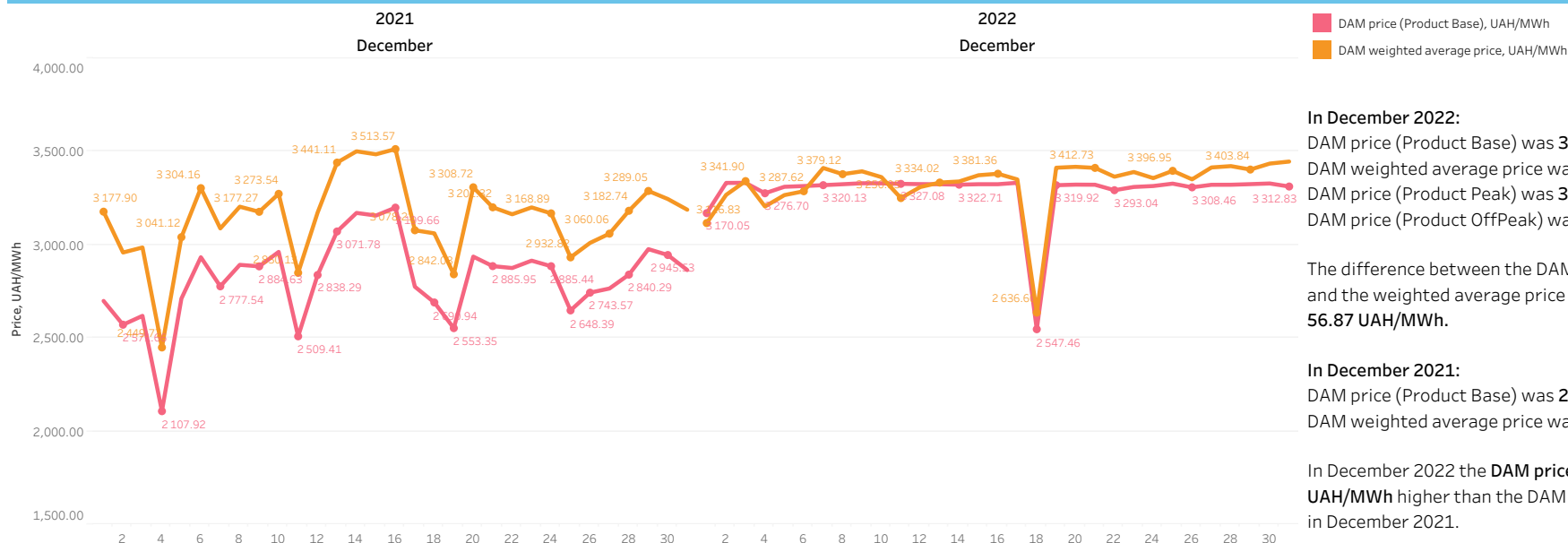
In December 2022 the total traded volume was **62.5%** or **2 747 028 MWh** less than the total traded volume in December 2021: on the DAM traded volume was **66.9%** or **2 793 429 MWh** lower, on the IDM traded volume was **20.8%** or **46 401 MWh** lower.

Distribution of traded volumes



*IPS Ukraine data

DAM prices comparison: price (Product Base) and weighted average price



In December 2022:

DAM price (Product Base) was 3 290.59 UAH/MWh;
 DAM weighted average price was 3 347.46 UAH/MWh;
 DAM price (Product Peak) was 3 954.82 UAH/MWh;
 DAM price (Product OffPeak) was 2 626.37 UAH/MWh.

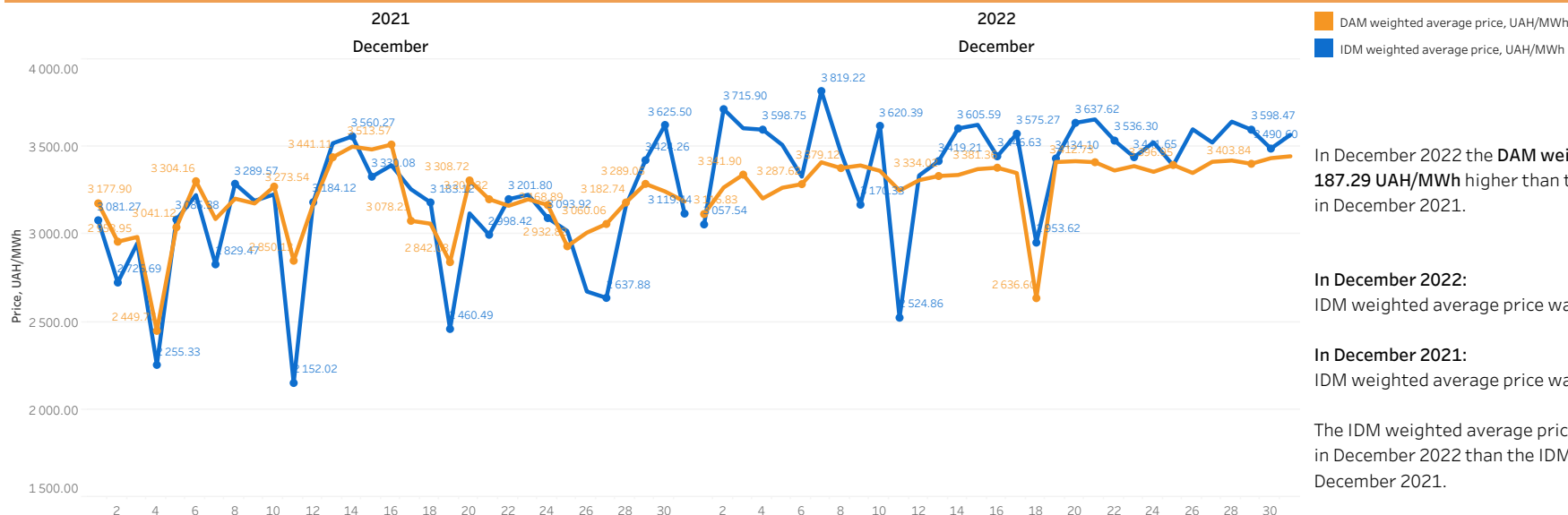
The difference between the DAM price (Product Base) and the weighted average price on the DAM was 56.87 UAH/MWh.

In December 2021:

DAM price (Product Base) was 2 819.75 UAH/MWh;
 DAM weighted average price was 3 160.17 UAH/MWh.

In December 2022 the DAM price (Product Base) was 470.84 UAH/MWh higher than the DAM price (Product Base) in December 2021.

Weighted average prices comparison : on the DAM and IDM



In December 2022 the DAM weighted average price was 187.29 UAH/MWh higher than the DAM weighted average price in December 2021.

In December 2022:

IDM weighted average price was 3 481.86 UAH/MWh.

In December 2021:

IDM weighted average price was 3 124.14 UAH/MWh.

The IDM weighted average price was 357.72 UAH/MWh higher in December 2022 than the IDM weighted average price in December 2021.

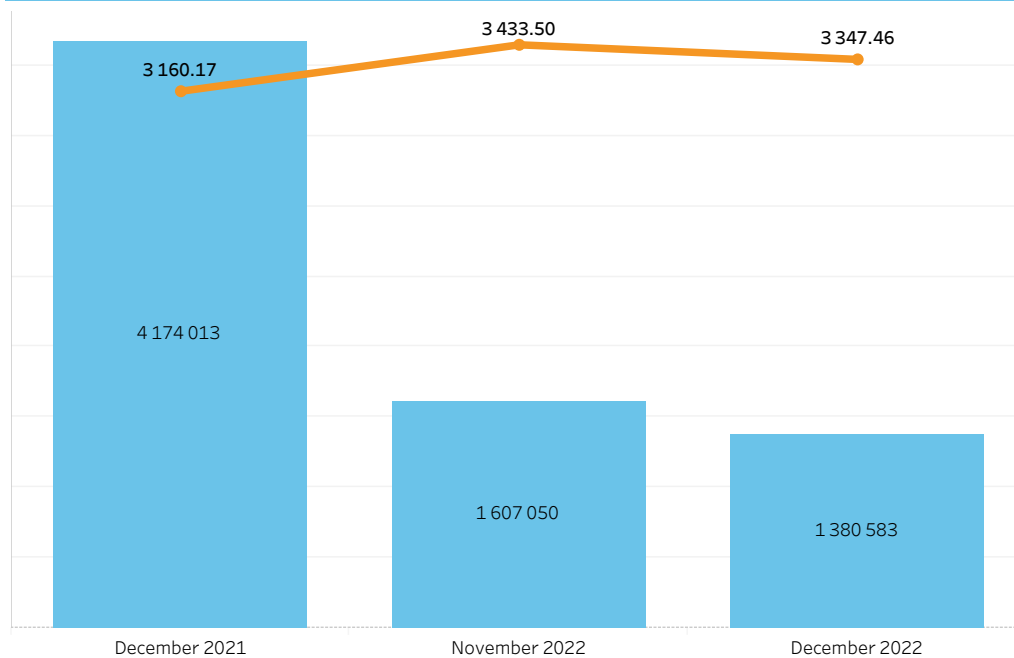
*all prices are net of VAT **IPS Ukraine data

Weighted average prices and traded volumes on the DAM and on the IDM compared with the previous periods

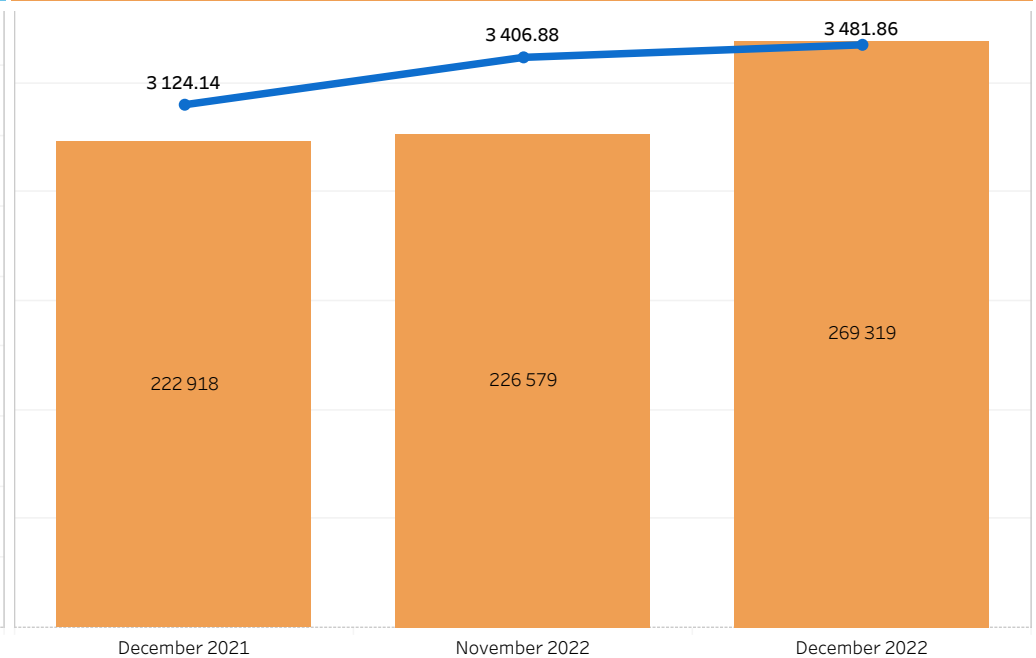


Indicator	December 2021	November 2022	December 2022	1 decade of December 2022	2 decade of December 2022	3 decade of December 2022
DAM weighted average price, UAH/MWh	3 160.17	3 433.50	3 347.46	3 309.39	3 320.03	3 402.26
DAM traded volume, MWh	4 174 013	1 607 050	1 380 583	458 542	402 289	519 752
IDM weighted average price, UAH/MWh	3 124.14	3 406.88	3 481.86	3 474.06	3 433.29	3 533.09
IDM traded volume, MWh	222 918	226 579	269 319	81 228	90 188	97 903

Weighted average prices and traded volumes on the DAM for the periods: December 2021, November 2022 and December 2022

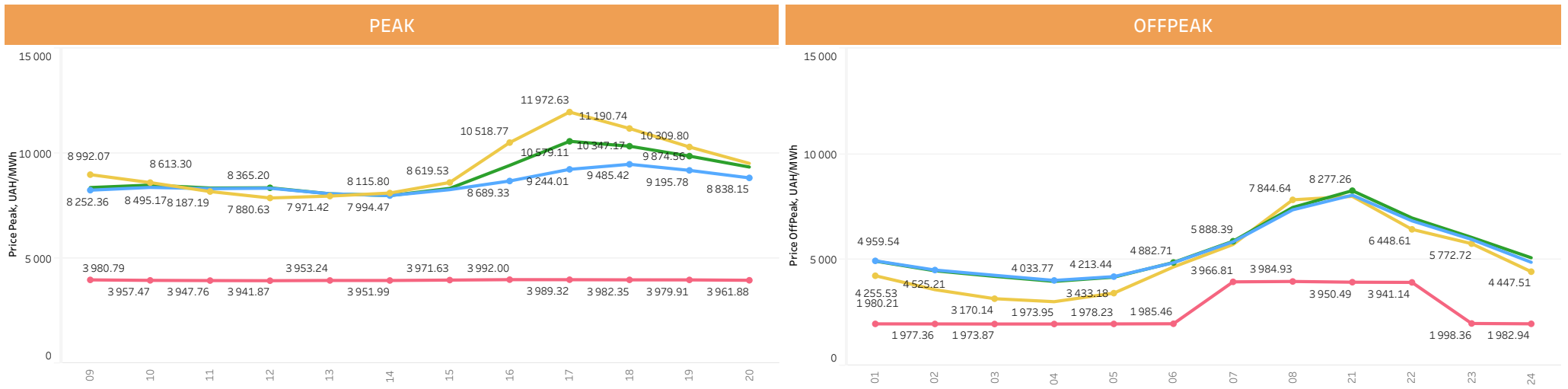


Weighted average prices and traded volumes on the IDM for the periods: December 2021, November 2022 and December 2022



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

DAM hourly prices (Peak Product and OffPeak Product)*: Ukraine, Romania, Slovak Republic and Hungary

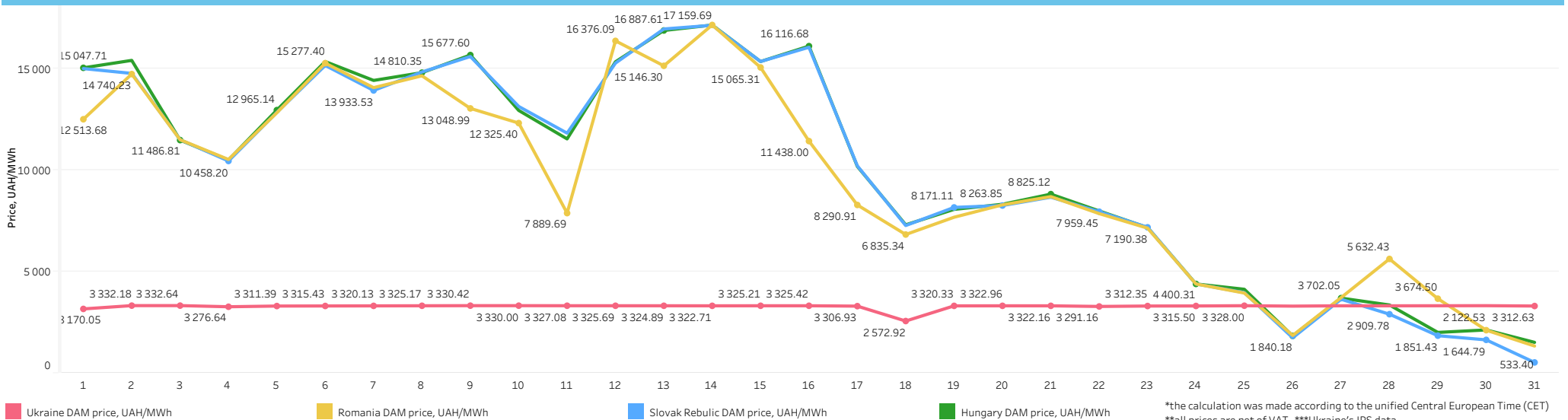


DAM prices (Product Base) were amounted to*:
 Ukraine: 3 290.58 UAH/MWh;
 Romania: 7 287.69 UAH/MWh;
 Slovak Republic: 9 947.72 UAH/MWh;
 Hungary: 10 066.54 UAH/MWh.

DAM prices (Product Peak) were amounted to*:
 Ukraine: 3 951.75 UAH/MWh;
 Romania: 12 101.28 UAH/MWh;
 Slovak Republic: 11 957.46 UAH/MWh;
 Hungary: 12 175.88 UAH/MWh.

DAM prices (Product OffPeak) were amounted to*:
 Ukraine: 2 629.42 UAH/MWh;
 Romania: 7 002.95 UAH/MWh;
 Slovak Republic: 7 937.99 UAH/MWh;
 Hungary: 7 957.19 UAH/MWh.

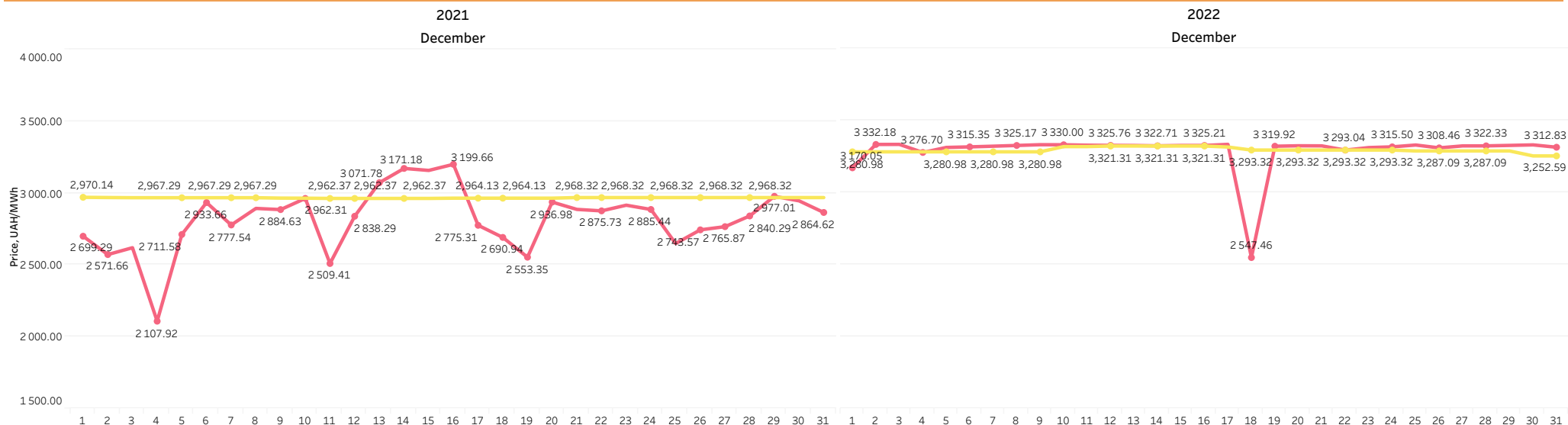
The DAM prices (Product Base) of Ukraine, Romania, Slovak Republic and Hungary



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

DAM and BCM prices comparison for December 2021 and December 2022

The DAM and the BCM prices



■ BCM price (Product Base), UAH/MWh ■ DAM price (Product Base), UAH/MWh

In December 2021:

DAM price (Product Base) was **2 819.75 UAH/MWh**;
 BCM price (Product Base) was **2 966.30 UAH/MWh**.

The BCM price was **146.54 UAH/MWh** higher than the DAM price.

In December 2022:

DAM price (Product Base) was **3 290.59 UAH/MWh**;
 BCM price (Product Base) was **3 292.84 UAH/MWh**.

The BCM price was **2.25 UAH/MWh** higher than the DAM price.

Day	2021			2022		
	DAM price (Product Base), UAH/MWh	BCM price (Product Base), UAH/MWh	Price difference, UAH/MWh	DAM price (Product Base), UAH/MWh	BCM price (Product Base), UAH/MWh	Price difference, UAH/MWh
1	2 699.29	2 970.14	+270.85	3 170.05	3 280.98	+110.93
2	2 571.66	2 968.60	+396.94	3 332.18	3 280.98	-51.20
3	2 619.26	2 967.37	+348.11	3 332.64	3 280.98	-51.66
4	2 107.92	2 967.29	+859.37	3 276.70	3 280.98	+4.28
5	2 711.58	2 967.29	+255.71	3 311.41	3 280.98	-30.43
6	2 933.66	2 967.29	+33.63	3 315.35	3 280.98	-34.37
7	2 777.54	2 967.29	+189.75	3 320.13	3 280.98	-39.15
8	2 892.80	2 967.29	+74.49	3 325.17	3 280.98	-44.19
9	2 884.63	2 964.55	+79.92	3 330.42	3 280.98	-49.44
10	2 962.31	2 964.03	+1.72	3 330.00	3 317.31	-12.69
11	2 509.41	2 962.37	+452.96	3 327.08	3 317.31	-9.77
12	2 838.29	2 962.37	+124.08	3 325.76	3 321.31	-4.45
13	3 071.78	2 962.37	-109.41	3 325.04	3 321.31	-3.72
14	3 171.18	2 962.37	-208.81	3 322.71	3 321.31	-1.40
15	3 157.20	2 962.37	-194.83	3 325.21	3 321.31	-3.90
16	3 199.66	2 964.13	-235.53	3 325.21	3 321.31	-3.90
17	2 775.31	2 964.13	+188.83	3 332.80	3 314.20	-18.60
18	2 690.94	2 964.13	+273.19	2 547.46	3 293.32	+745.86
19	2 553.35	2 964.13	+410.78	3 319.92	3 293.32	-26.60
20	2 936.98	2 964.13	+27.15	3 322.96	3 293.32	-29.64
21	2 885.95	2 968.32	+82.37	3 322.36	3 293.32	-29.04
22	2 875.73	2 968.32	+92.59	3 293.04	3 293.32	+0.28
23	2 915.24	2 968.32	+53.08	3 310.48	3 293.32	-17.16
24	2 885.44	2 968.32	+82.88	3 315.50	3 293.32	-22.18
25	2 648.39	2 968.32	+319.93	3 328.25	3 287.09	-41.16
26	2 743.57	2 968.32	+224.75	3 308.46	3 287.09	-21.37
27	2 765.87	2 968.32	+202.45	3 322.13	3 287.09	-35.04
28	2 840.29	2 968.32	+128.03	3 322.33	3 287.09	-35.24
29	2 977.01	2 968.32	-8.69	3 325.58	3 287.09	-38.49
30	2 945.53	2 968.32	+22.79	3 329.17	3 252.59	-76.58
31	2 864.62	2 968.32	+103.70	3 312.83	3 252.59	-60.24
Average indicator	2 819.75	2 966.30	+146.54	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(November) and the month of supply (December), for the purchase and sale of base load electricity for the month of supply (December 2021 and December 2022, respectively)

all prices are net of VAT *IPS Ukraine data