Emphases of DAM and IDM April 2022



April 2022

DAM RESULTS in the IPS of UKRAINE

Legislative changes in the electricity market, which were extended in April:

✓ NEURC's Resolution №413 dated on 26 April, 2022

on amendments to the NEURC's Resolution №332 dated on 25 February, 2022 and invalidation of the NEURC's Resolution № 766 dated on 08 April, 2020:

- one trading zone «the IPS of Ukraine» within Ukraine is defined for the period of the martial law in Ukraine;
 - ☐ there are restrictions on the minimum declared prices on the DAM in the IPS:
 - ✓ for hours of maximum load (from 07:00 to 23:00) 2 646,25 UAH/MWh (net of VAT),
 - \checkmark for hours of minimum load (from 00:00 to 07:00 and from 23:00 to 24:00) 1 378,97 UAH/MWh (net of VAT);
- for electricity producers using type D generating units, regardless of other licenses availability, except the electricity producers using hydro or renewable energy sources, the maximum volume of sales under bilateral contracts, on the DAM, IDM and electricity export, for the trading day "d" is defined as 125% of the total energy volume produced for "d-3" of this market participant in accordance with the available commercial accounting data in the market management system at the time of the TSO calculation. The TSO brings the maximum sales volume on their bilateral contracts for the trading day "d" to such producers, and the maximum volume of sales on the DAM to the MO. For all other producers, the maximum sales volume on the DAM for the trading day "d" is defined as the minimum value between the value, proved by the party responsible for balance and the value is defined as the difference between the nominal installed capacity of the equipment available, multiplied by the number of hours per trading day, and the registered volumes of this market participant under bilateral contracts for sale and export as of 10:00 of d-1;
- the market participants (except producers and the Guaranteed buyer) when carrying out transactions for the electricity purchase and sale under bilateral contracts, on the DAM and electricity import/export should avoid transactions resulting in a negative balance (the difference between the total purchase volume of the market participant under bilateral contracts, on the DAM, and electricity imports and the total sales volume of the market participant under bilateral contracts, on the DAM, and electricity exports for each settlement period) more than 1 MWh for the settlement period;
- from the trading day of April 28, 2022, market participants must indicate a price, not exceeding 120% of the DAM price for this settlement period, in their orders for balancing electricity.

The volume of electricity accepted

752,1 GWh

Index **BASE** 2 223.

2 223,82 UAH/MWh

159

of active participants

UAH 2,103 billion (including VAT) was transferred to electricity sellers on the DAM

DAM in the IPS in APRIL 2022

Emphases:

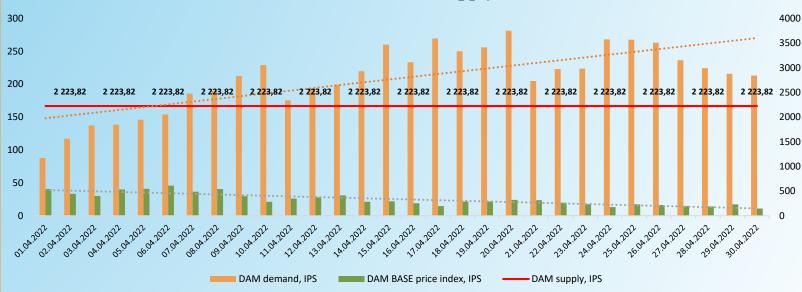
- ✓ The DAM BASE index in the IPS remained at the level of March 2022, a decrease was -0,05% (-1,19 UAH)
- ✓ Decrease in demand by -36,7% (-436,4 GWh, demand in April amounted to 752,1 GWh) from market participants. Insignificant volumes for purchase were observed from traders (in March volumes from traders were absent)
- ✓ Increase in supply by +20,7% (+1 074,3 GWh, supply in April amounted to 6 274,5 GWh) from producers while reducing from suppliers.

Traders did not declare sales volumes

- ✓ Lack of unaccepted volumes on the DAM
- √ The BASE index on European markets was higher than the IPS base load price index



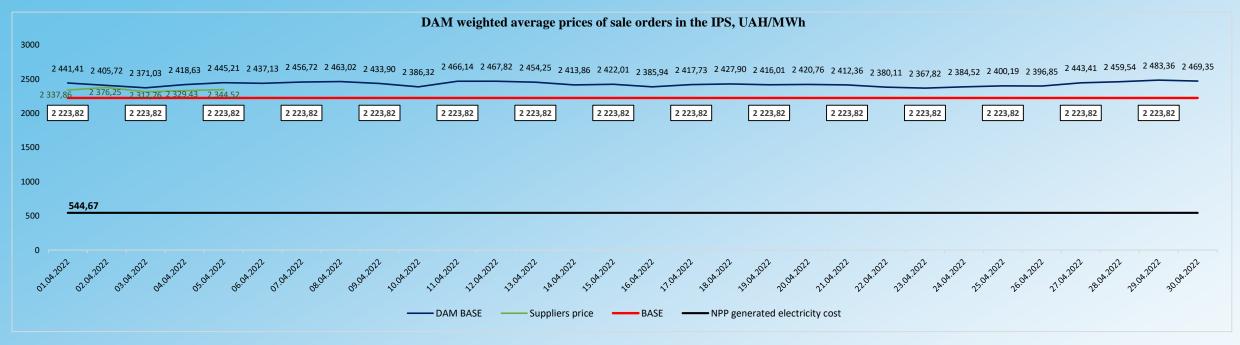
DAM demand and supply in the IPS

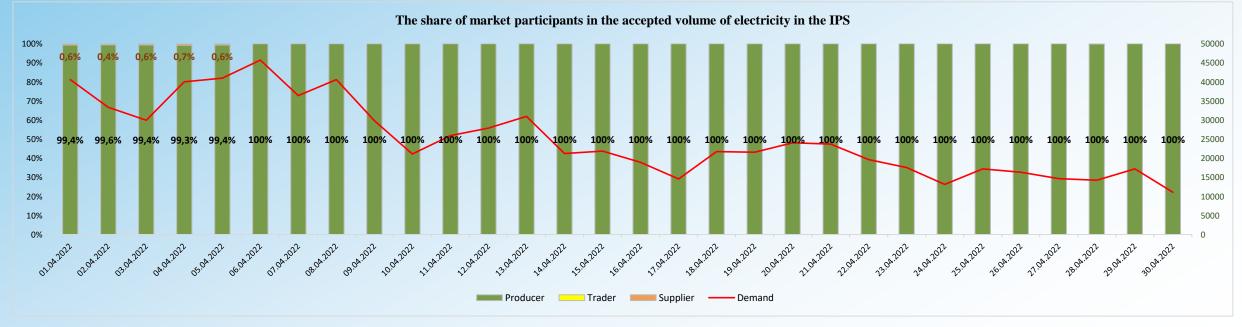


^{*} comparison with March 2022

^{**}Sales volumes of the Guaranteed buyer are considered in sales volumes of producers, purchase volumes of the Guaranteed buyer - in purchase volumes of suppliers

DAM in the IPS





April 2022

IDM RESULTS in the IPS of UKRAINE

UAH 0,062 billion (including VAT)
was transferred to electricity sellers
on the IDM

Legislative changes in the electricity market, which were extended in March:

✓ <u>NEURC`s Resolution №413 dated on 26 April 2022</u>

On amendments to the NEURC`s Resolution № 332 dated on 25 February, 2022 and invalidation of the NEURC`s Resolution № 766 dated on 08 April 2020:

- one trading zone «the IPS of Ukraine» is defined for the period of the martial law in Ukraine;
 - the level of minimum prices applies to the IDM in the IPS of Ukraine: in their orders, the participants must indicate the price of electricity not less than 110,0% of the DAM price.

The volume of electricity accepted

20,0 GWh

Weighted average price

2 562,62 UAH/MWh

94

of active participants

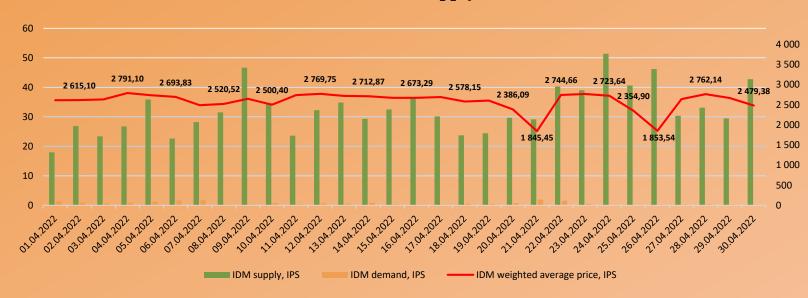
IDM in the IPS in APRIL 2022

Emphases:

- ✓ Decrease in the IDM weighted average price in the IPS by -4,7% (-125,13 UAH)
- ✓ Decrease in demand by -64,1% (-35,8 GWh, demand in April amounted to 20,0 GWh) from suppliers and producers while increasing DSOs by +15,8% and the application of minor purchase volumes from traders
- ✓ Decrease in supply by -23,6% (-301,3 GWh, supply in April amounted to 973,8 GWh) from market participants
- ✓ IDM weighted average prices in the IPS are lower than those of European countries



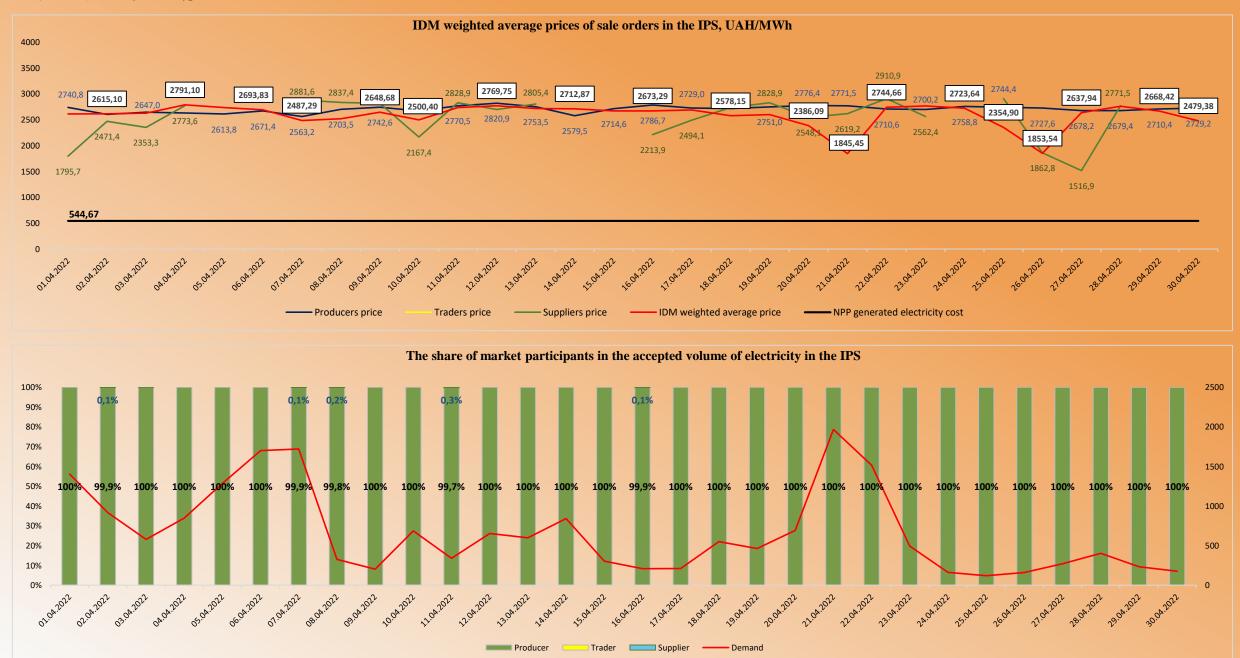
IDM demand and supply in the IPS



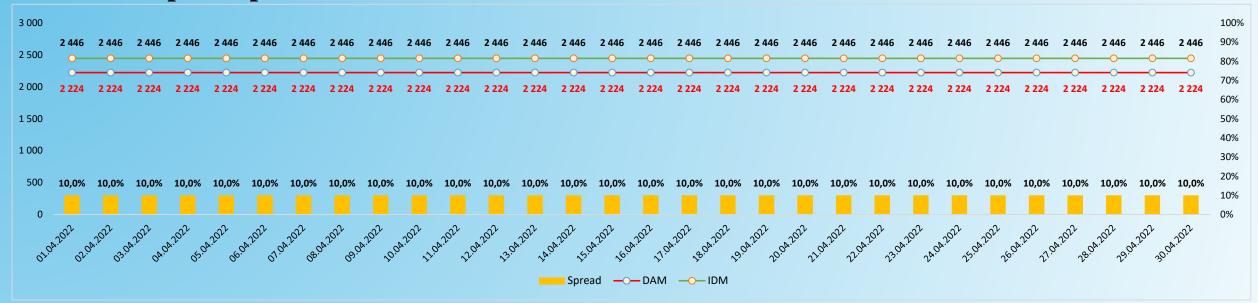
^{*}comparison with March 2022

^{**}Sales volumes of the Guaranteed buyer are considered in sales volumes of producers, purchase volumes of the Guaranteed buyer - in purchase volumes of suppliers

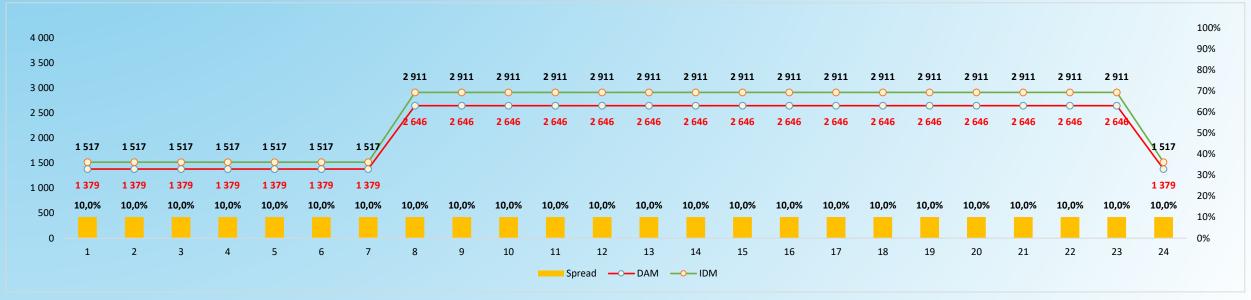
IDM in the IPS



DAM/IDM price spread in the IPS



DAM/IDM price spread (average hourly prices) in the IPS



The spread is calculated at the average prices of the respective days and hours. In the absence of bidding at certain hours on the IDM, the relevant DAM data were not taken into account in the calculation

Price indices of the European countries

In April 2022, the DAM average prices in the IPS of Ukraine were lower than the corresponding indicators of neighboring countries: the base-load price indices in the IPS were lower by 42,9%-63,0%.



		DAM	Comparison with other countries							
		UA	PL		RO		HU		SK	
Prices:				UA/PL		UA/RO		UA/HU		UA/SK
BASE	UAH/MWh	2 223,82	3 895,37	-42,9%	5 526,71	-59,8%	6 003,36	-63,0%	5 818,82	-61,8%
PEAK	UAH/MWh	2 646,25	4 021,05	-34,2%	5 438,33	-51,3%	6 002,25	-55,9%	5 955,64	-55,6%
OFFPEAK	UAH/MWh	1 801,40	3 703,69	-51,4%	5 615,10	-67,9%	6 004,51	-70,0%	5 682,01	-68,3%

In April 2022, the IDM weighted average prices in the IPS of Ukraine were lower than the corresponding indicators of European countries by 53,5%-54,6%.

		IDM	Comparison with other countries				
		UA	SK	CZ			
Price:			UA/SK	UA/CZ			
Weighted average	UAH/MWh	2 562,62	5 516,37 -53,5%	5 646,46 -54,6%			

Price indices of the European countries

European DAM prices declined significantly in April 2022 compared to March 2022. The decline in the countries bordering Ukraine ranged from 12,6% in Poland to 36,4% in Romania.

BASE index on the spot markets of Europe and Ukraine, EUR/MWh							
	2021	2022					
	December	January	February	March	April		
Ukraine, IPS	91,60	82,29	61,16	67,64	70,00		
Ukraine, BEI	69,86	78,93	78,20				
Slovakia	232,06	194,64	171,33	279,34	183,41		
Poland	179,79	146,5	115,57	143,75	125,71		
Romania	230,21	192	188,51	274,22	174,3		
Hungary	245,81	204,77	194,27	285,58	189,18		
Czech Republic	228,69	179,57	154,98	260,15	174,09		



