



**MARKET
OPERATOR**

/EQUILIBRIUM ENERGY/

ANNUAL REPORT

SECOND YEAR OF THE | **2020**
SC «MARKET OPERATOR»

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ROMAN SUTCHENKO,
ACTING DIRECTOR OF
«MARKET OPERATOR» SC



Dear colleagues, partners!

We present you the performance of “Market Operator”. The year 2020 was planned differently. However, the coronavirus pandemic has changed the plans throughout the world. Our company is no exception.

«Market Operator» implemented security measures in a timely manner, trading in electricity on the day-ahead market and the intraday market, financial settlements were carried out 24/7. The corona crisis and the abnormally warm winter have contributed to the reduction of the demand for electricity due to a significant and objective reduction in the consumption of this energy resource. The trading strategy of companies has changed and the first half of 2020 for the day-ahead market was characterized by a surplus of offers for the sale of electricity and a low level of concentration of electricity buyers in the Integrated Power System (IPS) of Ukraine. In the second quarter of 2020, 46.3% less electricity was accepted on the DAM than in the first quarter of the same year. The same trend was observed in the second half of 2020.

Under the influence of regulatory changes relating to the working conditions of the state generation and «Guaranteed Buyer», the structure was redistributed in sales volumes by activity types. We observed an increase in the share of suppliers in the DAM sales in the IPS of Ukraine trade zone. This was also due to the growth of trading volumes on the market of bilateral contracts.

In the Burshtyn Energy Island the situation was the opposite. The share of the «Guaranteed Buyer» SC in the sales in the second half of 2019 was 7.3% and increased at the end of the second half of 2020 to 12.9%. The share of producers in the sales in the second half of 2019 was 40.5%, in the first half of 2020 decreased to 32.8% and at the end of the second half of 2020 increased to 54%.

The volumes of electricity sales by suppliers in the second half of 2020 decreased significantly and amounted to 30% of the total trading volume, although in the second half of 2019 the volume of sales by suppliers amounted to 52.2% of the trading volume on the DAM in «Burshtyn TPP Island» trade zone. The decrease in the volumes of sales by suppliers and increase in sales by producers in the second half of 2020 is probably due to lower imports.

Nevertheless, 2020 brought a lot of success to «Market Operator». The company has successfully implemented a quality management system and received the certificate ISO 9001:2015 (ISO 9001:2015, IDT, «Quality Management System»). An external audit confirmed the high standards of operation of the «Market Operator». This opens up great prospects for the company for further sustainable development and certifies the high quality and safety of electricity trading on the platform of «Market Operator».

In July 2020, the Cabinet of Ministers of Ukraine approved the strategic development plan of the State Company «Market Operator» for the period until 2024 and the investment plan of the company for 2020–2024.

The implementation of the goals set out in these fundamental documents became the basis for providing even more accessible and high-quality services to DAM and IDM participants corresponding to the European and global best practices, for modernization of the industry and integration of Ukraine’s electricity market into regional energy markets with the subsequent entry into the pan-European energy market.

In pursuance of the requirements of the Law of Ukraine «On the Electricity Market», the process of corporatization of the State Company «Market Operator» has been initiated. The company must become a joint stock company, 100% of the shares of which belong to the state. Corporatization will help to increase the competitiveness of «Market Operator», will make it possible to minimize risks and make faster decisions that are important for the industry.

We became the company of the year thanks to the gender policy and received a positive opinion from the auditing company AC Crowe Ukraine on the observance by «Market Operator» of the provisions of the day-ahead and intraday market rules. This gave us confidence that the company is following the European path of development.

We ended the year in a proper manner and in terms of the trading volume achieved the average indicator for a country participating in the European exchange EPEX SPOT, and in terms of the number of trading participants were even ahead of our European counterparts. We do not stop there, we have many new plans and ideas on how to make «Market Operator» a powerful state energy exchange.



«MARKET OPERATOR» SC: MANAGEMENT AND BUSINESS PROCESSES

The State Company «Market Operator» has been operating since July 2019 and is responsible for organizing electricity trading on the day-ahead market and the intraday market. This is the best practice of the European model of the electricity market, which has been successfully implemented by the company in Ukraine.

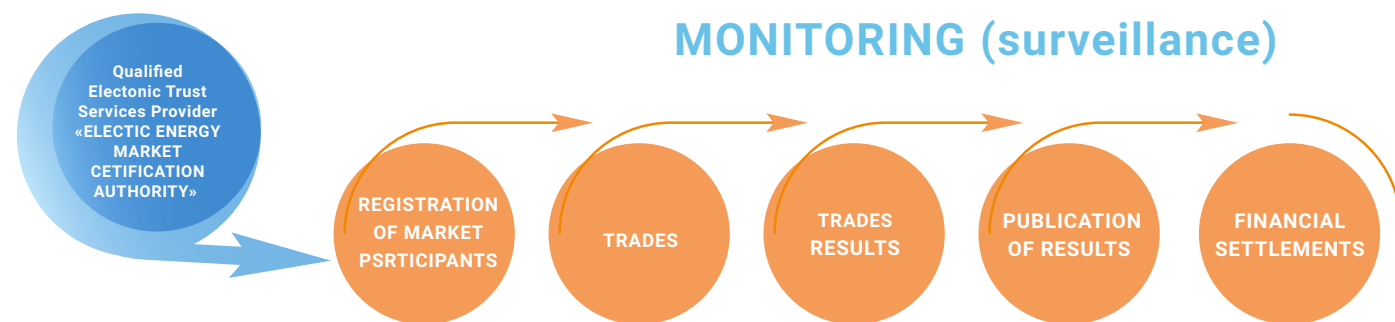
«Market Operator» operates transparently in compliance with the principles of free pricing and ensures 100% settlements with market participants. Electricity tradings are conducted 24/7 in automatic mode, without any manual process control.

This is confirmed with the certificate of quality in the field of management ISO 9001:2015, which certifies the compliance of «Market Operator» with international quality management standards for the provision of services of organization of purchase and sale of electricity, as well as the results of the audit of AC Crowe Ukraine, which is a member of Crowe Global, an international network, on the compliance of business processes of the company and the software of «Market Operator» with the requirements of the Rules of the DAM and IDM.

BUSINESS PROCESSES

«Market Operator» registers companies that have shown their willingness to sell or buy electricity on the DAM and IDM, provides organizational, technological and other conditions for conducting auctions that take place automatically, checks the results and publishes them on the official website and Telegram channel. Financial settlements with companies that have sold electricity are made daily. In accordance with the Rules of the DAM and IDM approved by the National Energy and Utilities Regulatory Commission, the company monitors the functioning of the day-ahead market and the intraday market, the behavior of their participants in the process of participation in electricity auctions. Furthermore, «Market Operator» is the owner of a qualified provider of electronic trust services «Electric Energy Market Certification Authority» and is the only energy company in Ukraine that provides electronic trust services.

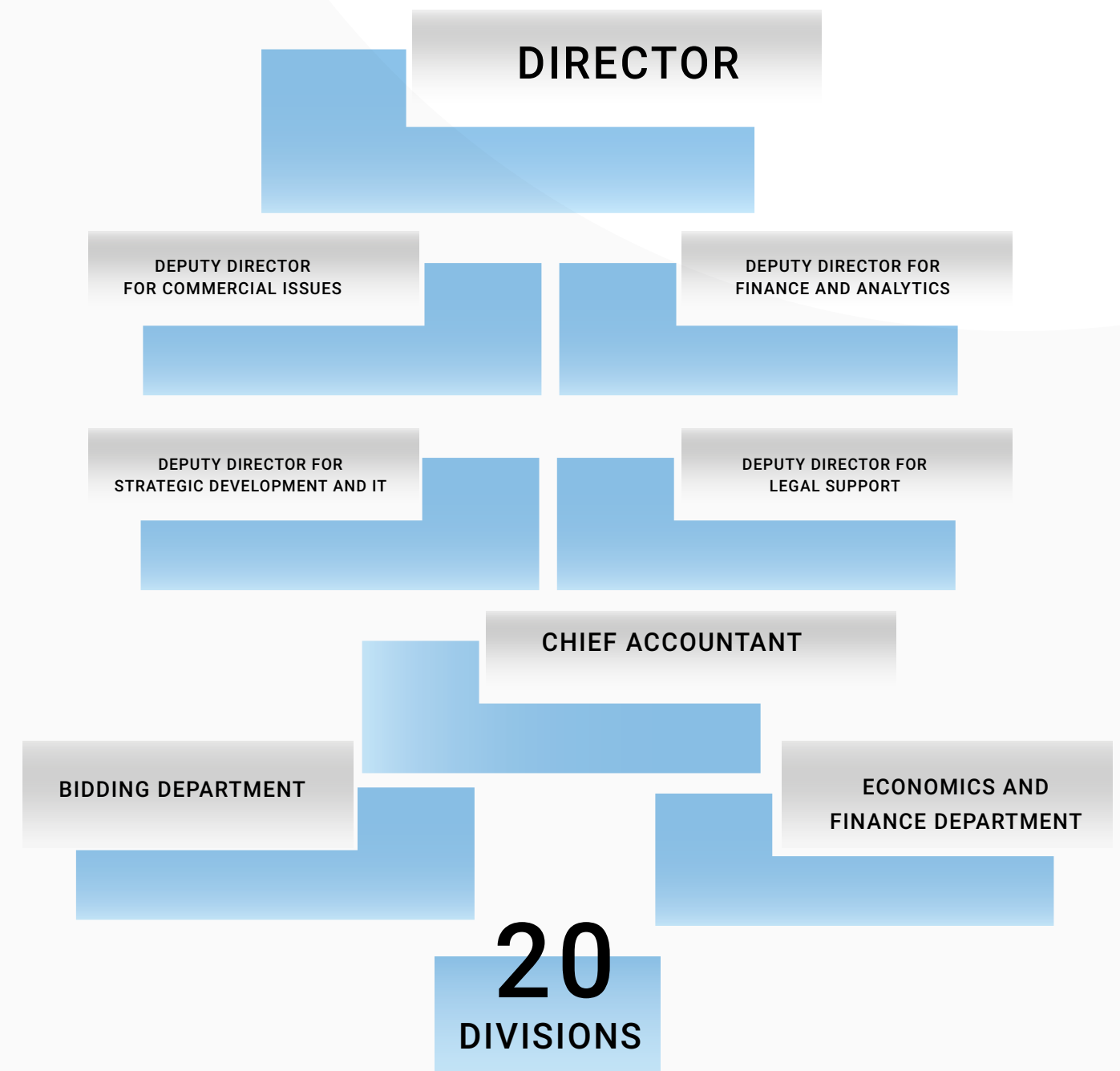
MAIN BUSINESS PROCESSES «MARKET OPERATOR»



Single information and technical complex.
High-tech, innovative equipment

STRUCTURE OF THE SC «MARKET OPERATOR»

The founder and the management body of the SC «Market Operator» is the state represented by the Cabinet of Ministers of Ukraine. The management of the company is carried out by the Director who is accountable to the management entity.



Divisions: divisions of monitoring, registration of market participants, IT infrastructure support, information system support, programming, information protection, IT strategic development, legal support, general division, divisions of market rules administration, procurement procedure support, administrative support, HR division and structural units of the accounting section, market analysis and forecasting division.

EMPLOYEE PROFILE

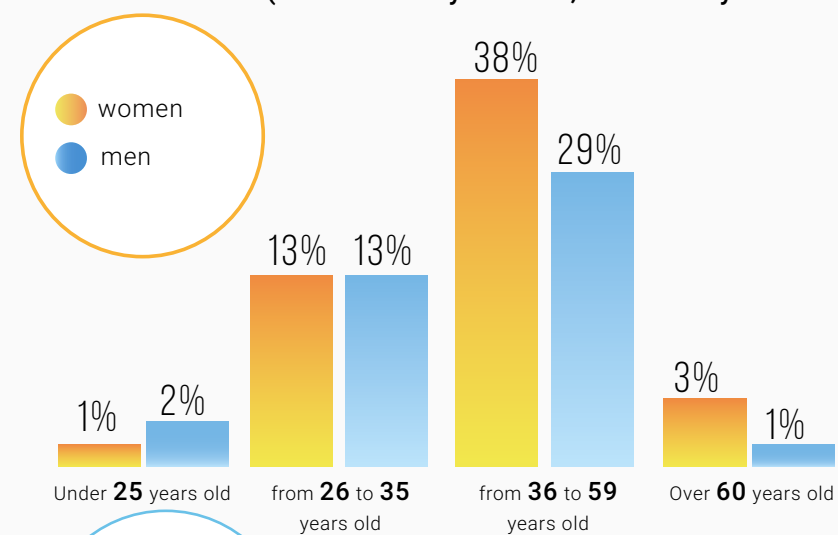
104 employees (as of 31 December 2020)



58 women (56%): in top management – 4%
in middle management – 18%

46 men (44%): in top management – 6%
in middle management – 14%

Average age of the employee – **40 years old**
(women – 41 years old, men – 38 years old)



Every fourth employee of «Market Operator» has two or more university degrees

The average length of experience of employees of «Market Operator» in the electric power industry is 12.6 years. The electric power industry experience of women is 2 years longer.



22.01

An additional type of offers is introduced on the DAM – simple block offers.

25.03

The SC «Market Operator» and «Ukrainian Energy Exchange» CE sign a memorandum on cooperation. The parties agreed to work on the development of the forward electricity market tools.

26.03

«Market Operator» joins the UN Foundation initiative to overcome gender stereotypes by signing the Declaration on Promotion of Gender Equality.

13.05

The Cabinet of Ministers of Ukraine takes the decision to transform the SC «Market Operator» into «Market Operator» Joint Stock Company, 100% of shares in the authorized capital of which belongs to the state and is not subject to privatization or alienation in any other way.

27.05

«Market Operator» is certified according to ISO 9001:2015 standards. The certification body of Ukrmetrteststandard SC confirms the compliance of the quality management system of «Market Operator» with international quality management standards in respect of the provision of services of organization of purchase and sale of electricity.

28.05

«Market Operator» SC successfully passes an audit of financial statements for 2019.

17.06

Pursuant to the decision of the National Energy and Utilities Regulatory Commission, block offers on the intraday market are cancelled (Resolution No. 1117).

MAIN EVENTS OF THE YEAR 2020

18.06

«Market Operator» is one year old. The Company summarizes the performance results and announces development plans.

17.07

The Gender Committee of «Market Operator» SC is formed.

29.07

The Cabinet of Ministers of Ukraine approves the strategic development plan of the State Company «Market Operator» for the period until 2024 and the investment plan of the company for 2020-2024.

26.10

According to the results of the National Business Rating, prepared on the basis of an independent analysis of financial and economic indicators of Ukrainian companies, the State Company «Market Operator» takes the first place in terms of «Dynamics of the Net Assets Value». The company is awarded the status of «Industry Leader 2020», which indicates high efficiency in the management of the company's resources.

Roman Sutchenko is appointed as the Acting Director of the SC «Market Operator».

13.11

«Market Operator» receives a positive opinion of the independent auditor AC Crowe Ukraine on the organization of the DAM and IDM operation, which confirms the transparency of «Market Operator» and the reliability of the software package XMTRADE/PXS.

19.11

The State Company «Market Operator» wins the annual thematic competition, taking the first place in the nomination «Company of the Year» as the best energy company that has implemented and develops a gender policy.

A YEAR OF DAM AND IDM:

KEY ACCENTS OF ELECTRICITY TRADING

PRODUCT PRICES ON THE DAM IN 2020 (MONTHLY AND PER YEAR), UAH / MWh

DAM MAIN INDICATORS PER SEMESTERS 2019–2020

INDICATOR	first half of	second half of	CHANGE %	second half of	CHANGE %
	2020	2020		2019	
DAM weighted average price, UAH/MWh	1 329,27	1 417,61	▲ 6,65	1 513,65	▼ -6,34
DAM weighted average price (IPS), UAH/MWh	1 301,24	1 398,6	▲ 7,48	1 492,60	▼ -6,30
DAM weighted average price (BEI), UAH/MWh	1 632,43	1 599,36	▼ -2,03	1 778,63	▼ -10,08
DAM total traded volume, MWh	21 522 137,5	15 196 192,3	▼ -29,39	24 483 206,1	▼ -37,93
DAM traded volume (IPS), MWh	19 700 837,6	13 756 861,8	▼ -30,17	22 681 374,5	▼ -39,35
DAM traded volume (BEI), MWh	1 821 299,9	1 439 330,5	▼ -20,97	1 801 831,6	▼ -20,12
DAM Average traded volume, MWh	118 253,5	82 588,0	▼ -30,16	133 060,9	▼ -37,93

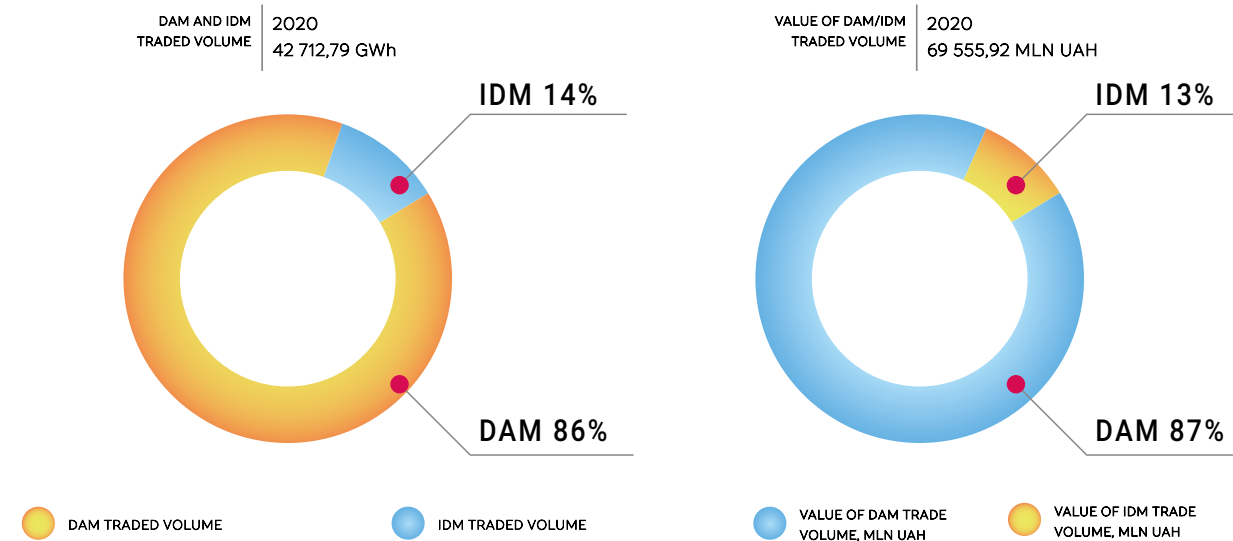
MARKET DAM

IDM MAIN INDICATORS PER SEMESTERS 2019–2020

INDICATOR	first half of	second half of	CHANGE %	second half of	CHANGE %
	2020	2020		2019	
IDM weighted average price, UAH/MWh	1 223,21	1 351,16	▲ 10,46	1 561,30	▼ -13,46
IDM weighted average price (IPS), UAH/MWh	1 217,88	1 348,75	▲ 10,75	1 532,62	▼ -12,00
IDM weighted average price (BEI), UAH/MWh	1 429,15	1 524,01	▲ 6,64	1 702,31	▼ -10,47
IDM total traded volume, MWh	2 245 203,3	3 749 260,2	▲ 66,99	737 452,6	▲ 408,41
IDM traded volume (IPS), MWh	2 188 551,6	3 697 727,5	▲ 68,96	612 828,2	▲ 503,39
IDM traded volume (BEI), MWh	56 651,7	51 532,7	▼ -9,04	124 624,4	▼ -58,65
IDM Average traded volume, MWh	12 336,3	20 376,4	▲ 65,17	4 007,9	▲ 408,41

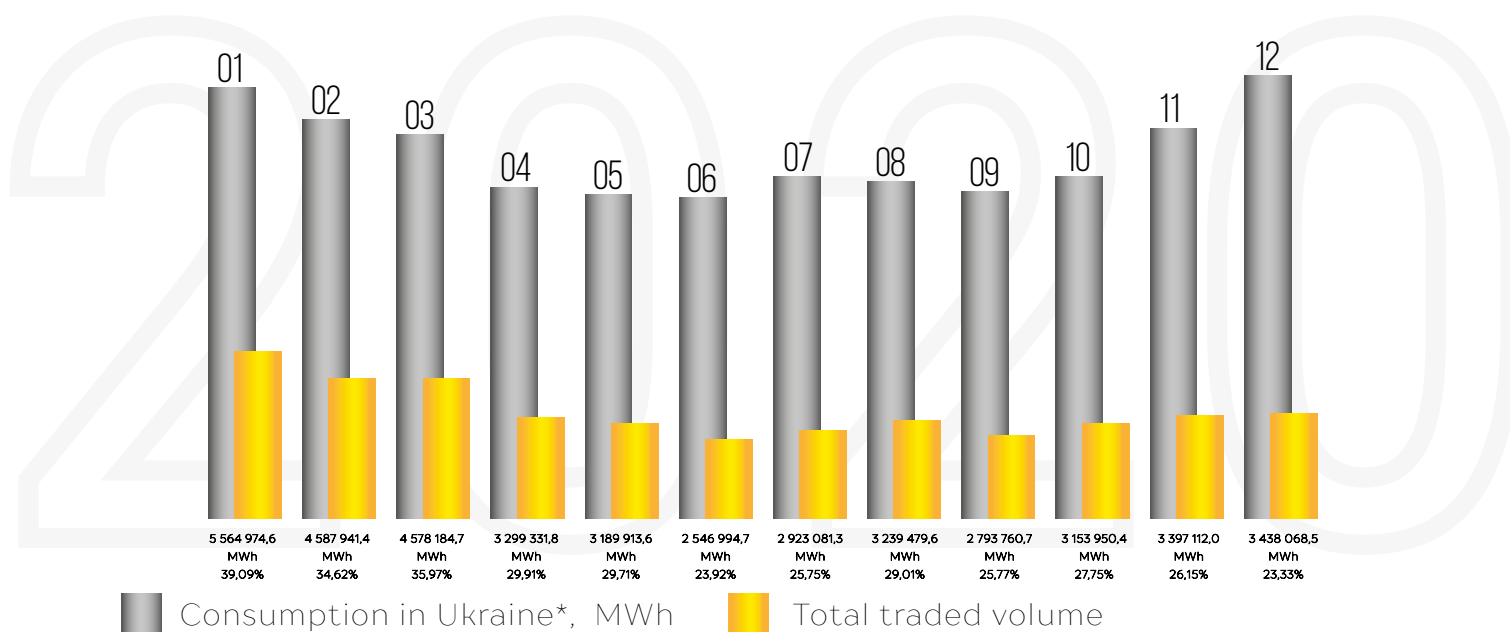
MARKET IDM

VOLUMES AND COSTS OF PURCHASE AND SALE OF ELECTRICITY ON THE DAM AND IDM 2020



TOTAL TRADED VOLUME RELATIVE TO CONSUMPTION FOR 2020

In 2020, 42.7 TWh of electricity was traded on the platform of «Market Operator». This is about 30% of the total electricity consumption of Ukraine. The volume of trading operations on EPEX SPOT in 12 countries in 2020 amounted to 615 TWh, which was ensured by 303 participants. If we do not take into account the scale of each country that formed this indicator, the average value per country is 51.2 TWh. Thus, the volume of purchase and sale of electricity of «Market Operator» is close to the average EPEX SPOT indicator per participating country.



*-according to the operative data of PJSC NEC «Ukrenergo»

PRICES AND VOLUMES

In 2020, the day-ahead market there was decrease in weighted average prices and electricity purchase and sale volumes. In the second half of 2020, the trading volume on the DAM amounted to 15,196.19 GWh, which is 29.39% less than was accepted in this segment of the electricity market in the first half of 2020, and 37.93% less than in the second half of 2019.

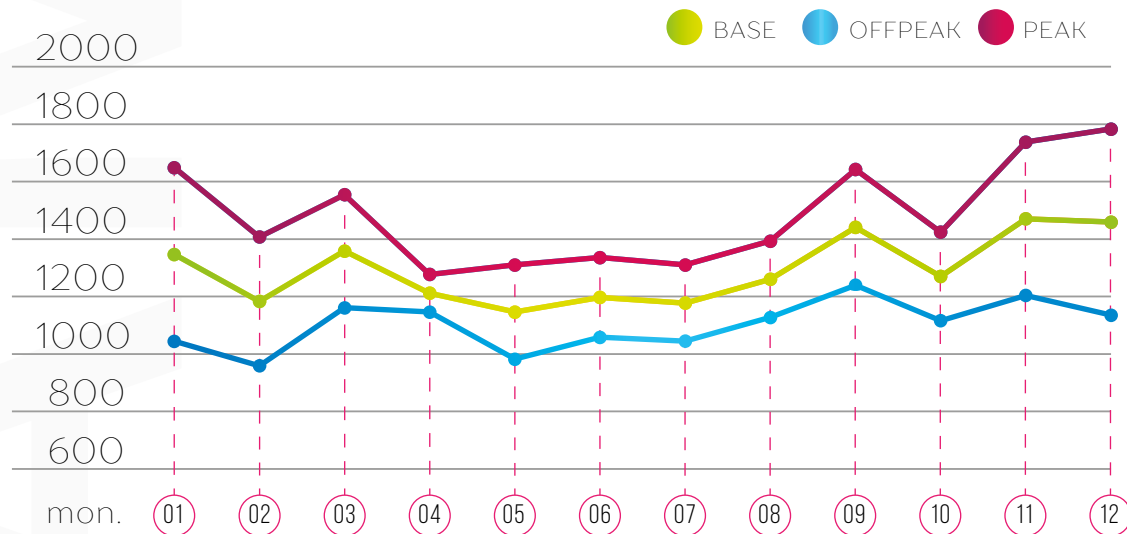
The weighted average price in the second half of 2020 was UAH 1,417.61/MWh (net of VAT), which is 6.34% lower than the price in the second half of 2019.

DAM PRICES (MONTHLY AND FOR A YEAR), UAH/MWh

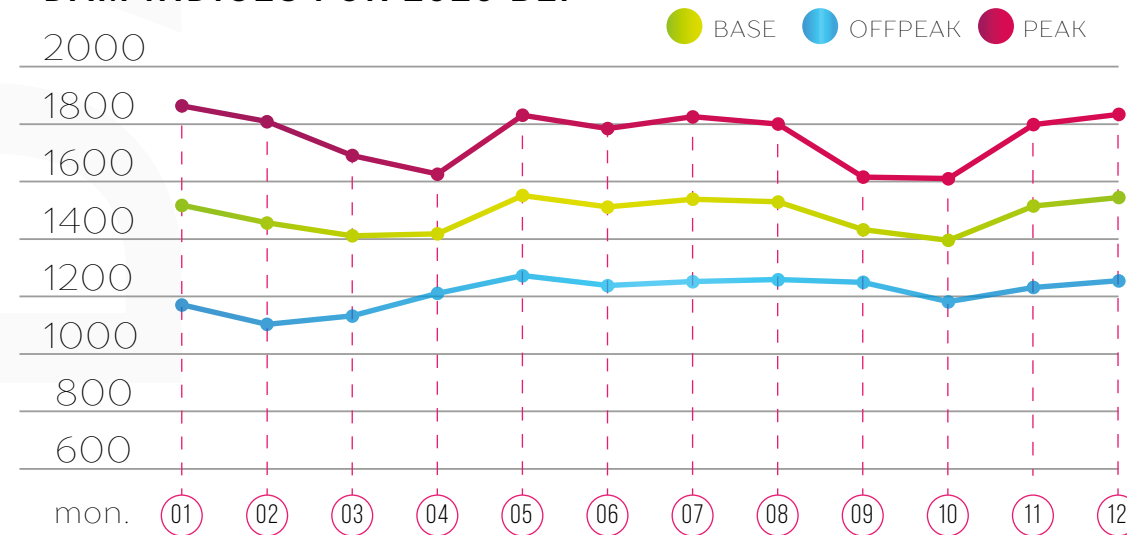
IPS			
Indices	2019	2020	CHANGE %
DAM			
BASE	1 464,79	1 293,72	-3,09 ▼
PEAK	1 811,00	1 485,69	-8,37 ▼
OFFPEAK	1 118,72	1 101,68	5,08 ▲

BEI			
Indices	2019	2020	CHANGE %
DAM			
BASE	1 575,42	1 482,72	-5,88 ▼
PEAK	1 953,58	1 756,41	-10,09 ▼
OFFPEAK	1 197,43	1 209,11	0,98 ▲

DAM INDICES FOR 2020 IPS

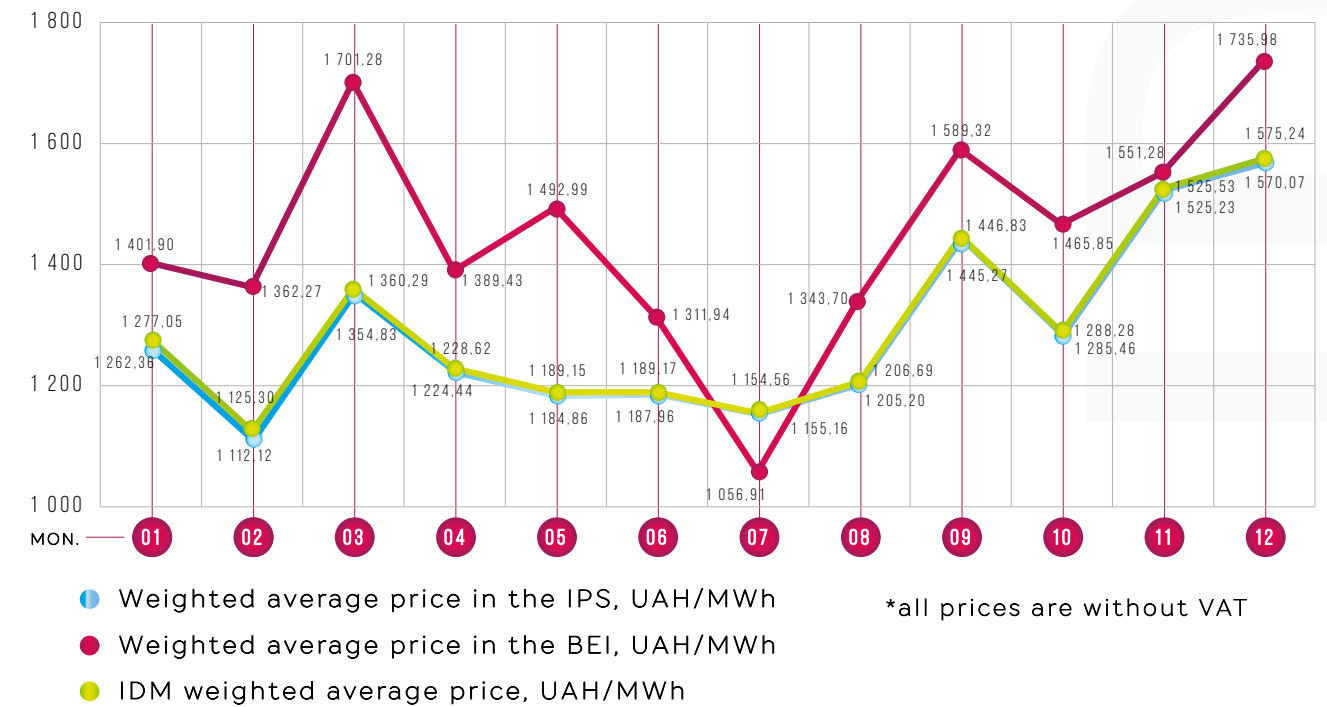


DAM INDICES FOR 2020 BEI



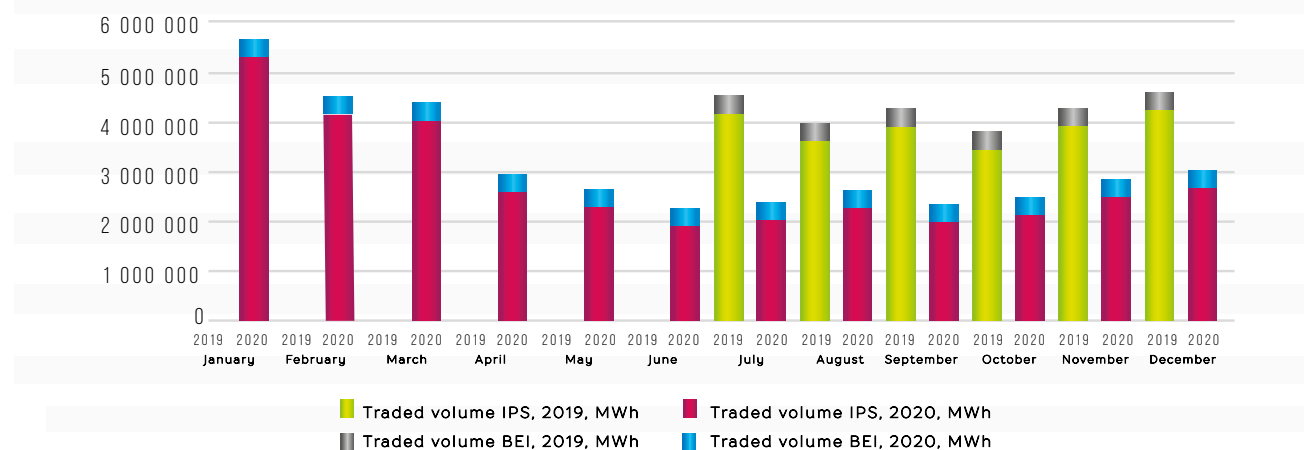
On the intraday market in the second half of 2020, the electricity trading volume amounted to 3,749.26 GWh, which is 66.99% more than in the first half of 2020 and 5.1 times more than in the second half of 2019. The weighted average price on the IDM in the second half of 2020 was 13.46% lower than in the second half of 2019 and amounted to UAH 1,351.16 / MWh (net of VAT).

IDM WEIGHTED AVERAGE PRICE, UAH/MWh, 2020



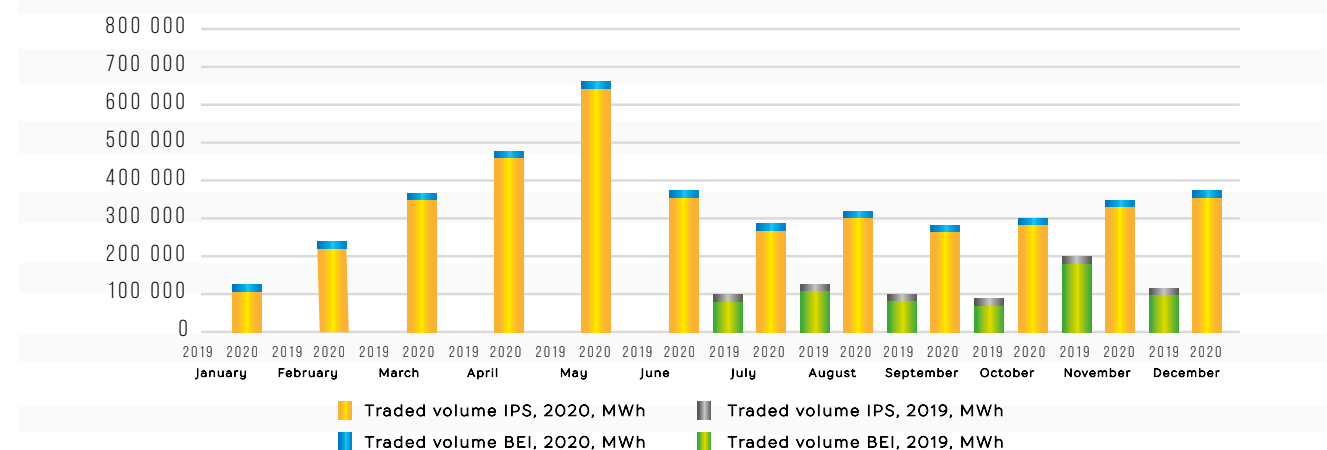
DAM TRADED VOLUME 2019-2020

IPS, GWh		BEI, GWh		DAM total, GWh	
second half of 2019	2020	second half of 2019	2020	second half of 2019	2020
22 681,4	33 457,7	1 801,8	3 260,6	24 483,2	36 718,3



IDM TRADED VOLUME 2019-2020

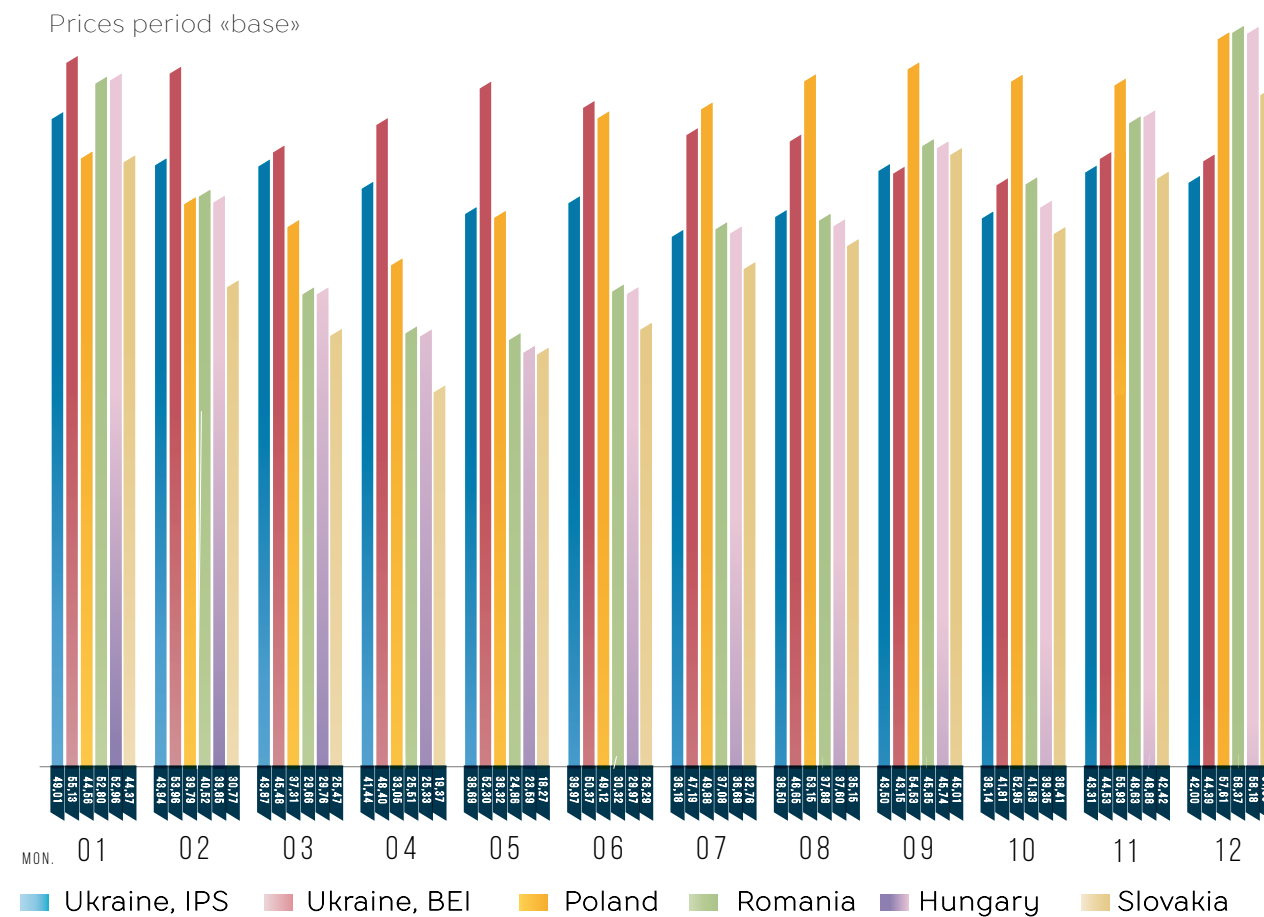
IPS, GWh		BEI, GWh		DAM total, GWh	
second half of 2019	2020	second half of 2019	2020	second half of 2019	2020
612,8	5 886,3	124,6	108,2	737,5	5 994,5



The weighted average purchase and sale price of electricity on the day-ahead market in 2020 was UAH 1 365,83 / MWh (net of VAT), which is 9,77% lower than the DAM price for the second half of 2019.

- The minimum weighted average price per day in 2020 on the DAM in the IPS of Ukraine trade zone was registered on 11 April 2020—UAH 606,26/MWh (net VAT).
- The maximum weighted average price per day on the DAM in the IPS of Ukraine trade zone was registered on 17 December 2020—UAH 1 794,91/MWh (net of VAT).
- In «Burshtyn TPP Island» trade zone the minimum weighted average price per day in 2020 was registered on 29 March 2020—UAH 422,71/MWh (net of VAT), and the maximum - on 10 November - UAH 1 980,96/MWh (net of VAT).

PRICES DAM. COMPARISON WITH PRICES IN EUROPE (EUR/MWh)

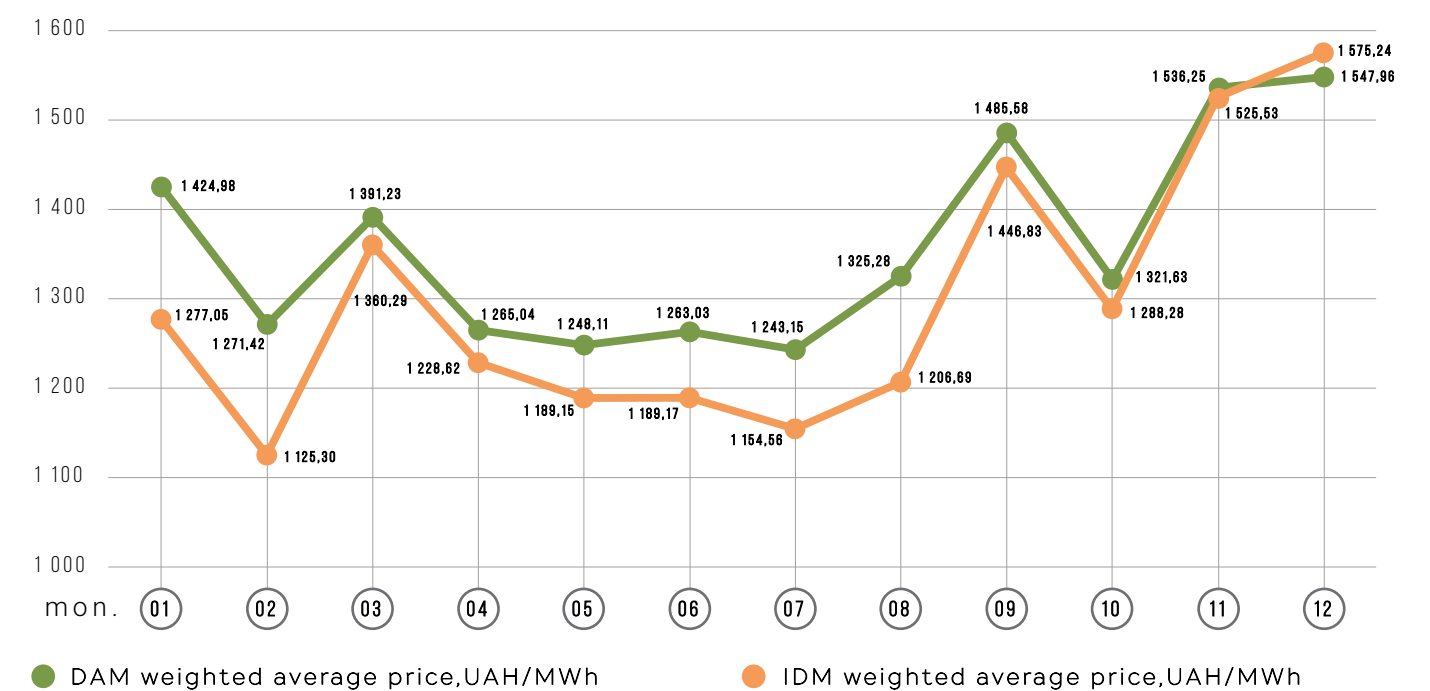


The weighted average price of electricity accepted on the intraday market in 2020 was UAH 1,303.24 / MWh (net of VAT), which is 16.53% less than the price in the second half of 2019.

- The minimum weighted average price per day in 2020 on the IDM in the IPS of Ukraine trade zone was registered on 29 January 2020—UAH 528.36/MWh. (net of VAT).
- The maximum weighted average price per day on the IDM in the IPS of Ukraine trade zone was registered on 16 December 2020—UAH 1,902.51/MWh (net of VAT).
- In «BURSHTYN TPP ISLAND» trade zone the minimum weighted average price per day in 2020 was registered on 15 February 2020—UAH 208.96 MWh (net of VAT), and the maximum - on 5 March, 20 April and 12 December 2020—2,048.23 UAH/MWh (net of VAT).

The weighted average prices on the intraday market in 2020 were lower than the prices on the day-ahead market in all months ranging from 0.7% to 11.49%, except for December 2020, where the increase in the price of the IDM, compared to the price of the DAM, was registered at the level of 1.76%.

COMPARISON OF WEIGHTED AVERAGE PRICES DAM/IDM 2020

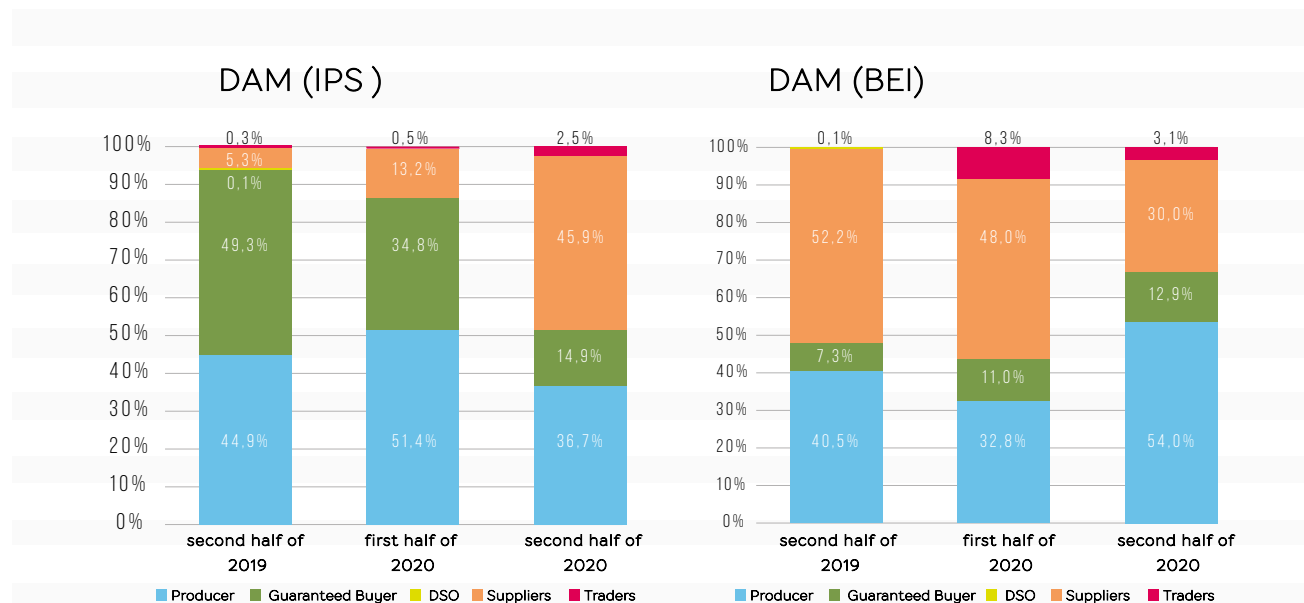


BIDDING STRUCTURE

In 2020, the DAM witnessed significant changes in the structure of electricity sales volume by activity types.

Thus, in the IPS of Ukraine trade zone the share of «Guaranteed Buyer» SC in total sales in the second half of 2019 was 49.3%, in the first half of 2020 decreased to 34.8% and at the end of the second half of 2020 it was only 14.9%. The share of producers in sales ranged from 44.9% in the second half of 2019, to 51.4% in the first half of 2020 and 36.7% at the end of the second half of 2020.

CHANGE IN THE STRUCTURE OF SALES FOR DAM BY HALF-YEARLY 2019-2020



In the second half of 2020, sales of electricity by suppliers increased significantly – 45.9% of the total trading volume, although in the second half of 2019 their sales volume amounted to only 5.3% of trading on the DAM in the IPS.

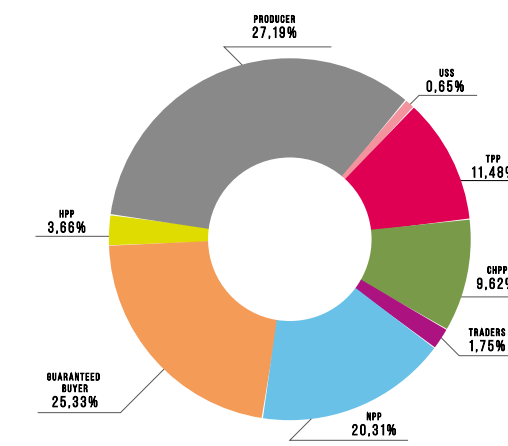
The share of acceptance of the offered volumes for sale also changed. Thus, in July 2019, the share of acceptance of the volume declared for sale by producers was at the level of 83.9%, while at the end of December 2020 it decreased to 43.2%. The lowest rate of acceptance of offers to sell from suppliers was in November 2019 – 51.5%. In other periods, the percentage of acceptance of offers to sell of suppliers ranged from 88% to 99.5%.

The redistribution of the structure in sales volumes by activity types, in particular the increase of the share of suppliers in sales on the DAM in the IPS, was due to a surplus of proposals, increased trading volumes in the market of bilateral contracts, as well as suppliers offering to sell electricity at somewhat lower prices as compared to manufacturers.

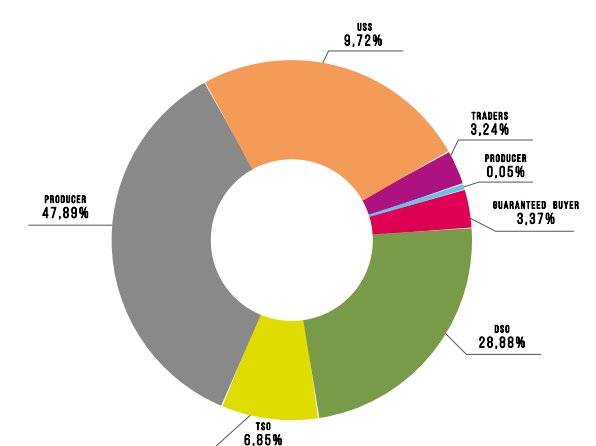
The situation on the DAM in «Burshtyn TPP Island» trade zone is the opposite. The share in sales of «Guaranteed Buyer» in the second half of 2019 was 7.3% and increased at the end of the second half of 2020 to 12.9%. The share of producers in the sales volume in the second half of 2019 was 40.5%, in the first half of 2020 decreased to 32.8% and at the end of the second half of 2020 increased to 54%. Speaking of suppliers, it should be noted that their sales in the second half of 2020 decreased significantly and amounted to 30% of the total trading volume, although in the second half of 2019 sales by suppliers amounted to 52.2% of the trading volume on the DAM in “Burshtyn TPP Island” trade zone. The decrease in sales by suppliers and increase in sales by producers in the second half of 2020, is probably due to lower imports.

STRUCTURE OF DAM TRADED VOLUME 2020

Structure of volumes of sale DAM



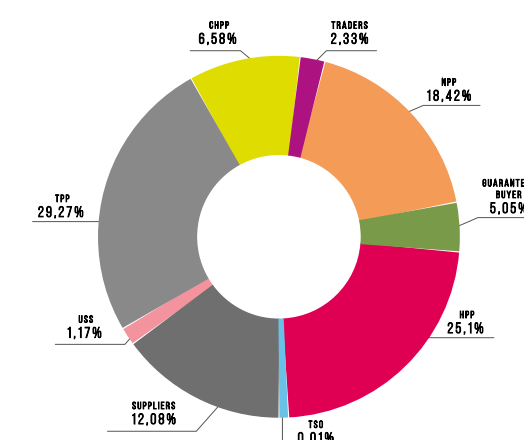
Structure of volumes of purchase DAM



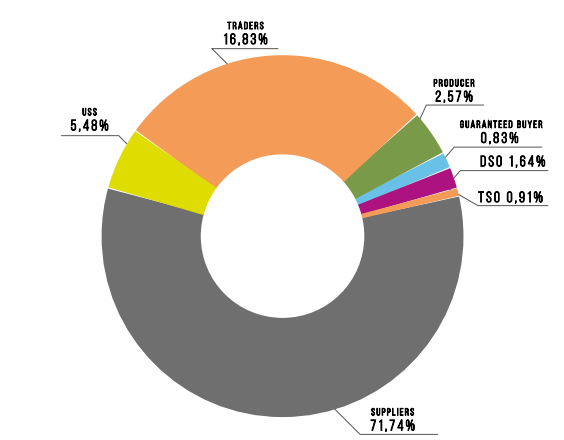
- Universal Services Suppliers also conduct electricity purchase transactions as electricity suppliers
- The amount of interest may differ from 100% due to rounding up to 2 decimal place

STRUCTURE OF IDM TRADED VOLUME 2020

Structure of volumes of sale IDM



Structure of volumes of purchase IDM



- Universal Services Suppliers also conduct electricity purchase transactions as electricity suppliers
- The amount of interest may differ from 100% due to rounding up to 2 decimal place

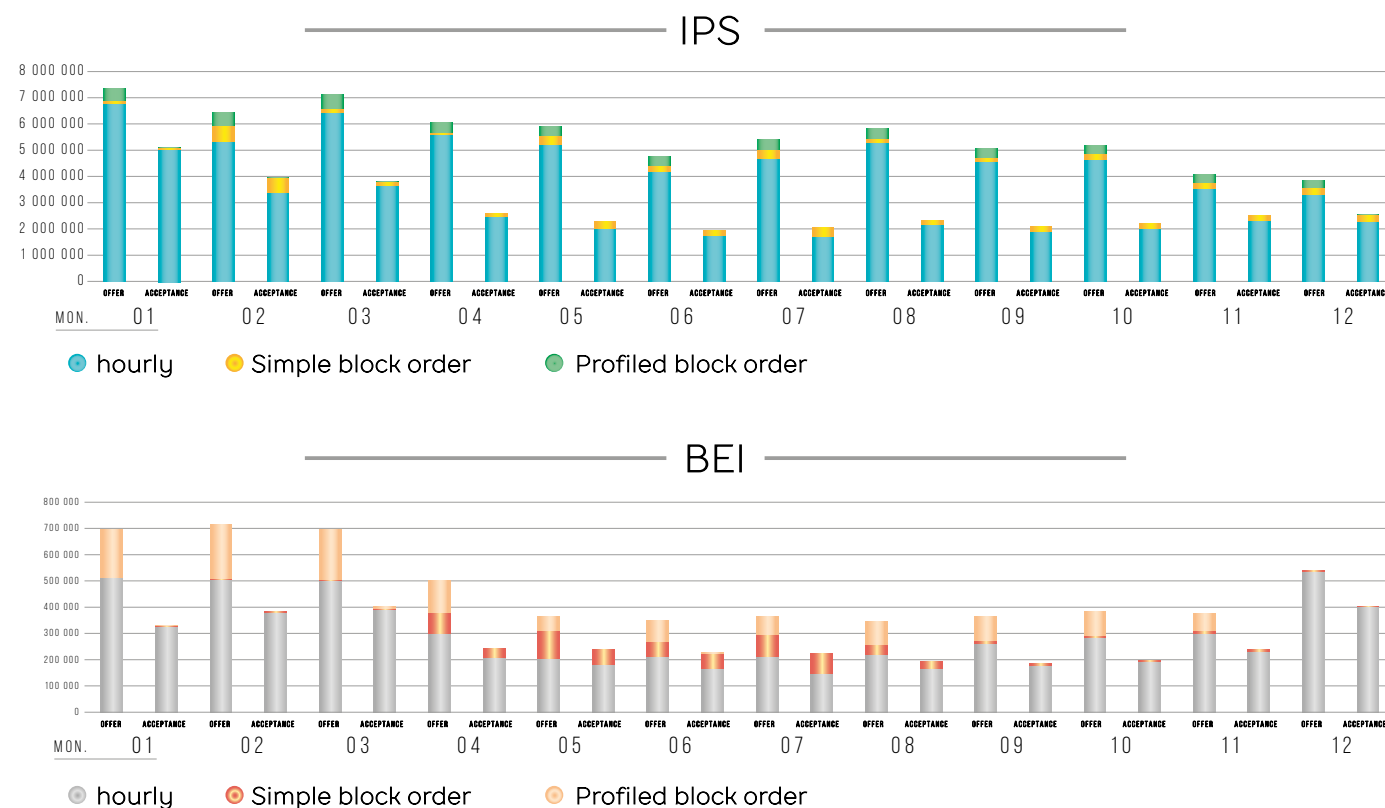
DYNAMICS OF THE SUPPLY, DEMAND AND TRADING VOLUME ON THE DAM IN 2019–2020

From the beginning of the operation of the new electricity market on the day-ahead market in the IPS of Ukraine trade zone, the supply and demand were almost at the same level, and at the end of 2019 and throughout 2020, the supply exceeded the demand. In 2020, the supply exceeded the demand by 2 times on average.

The highest demand was in January 2020 and amounted to 5,140.55 GWh. From February, the demand gradually decreased, but in April 2020 the demand decreased to 2,714.3 GWh, which is 1.9 times less than in January 2020.

The lowest demand since the start of operation of the new electricity market was in June 2020. The volume of purchase bids decreased to 1,943.78 GWh and was lower than in July 2019, by 55.34%. Compared to January 2020, the decrease is 62.19%. The average daily trading volume in 2019 was at the level of 123.27 GWh and decreased by 25.84% in 2020 – to 91.41 GWh.

DAM OFFERED AND ACCEPTED SALES VOLUME BY ORDER TYPE YANUARY–DECEMBER OF 2020, MWh



DYNAMICS OF THE SUPPLY, DEMAND AND TRADING VOLUME ON THE DAM IN 2019–2020

IPS

PERIOD	Offer MWh	Change from previous months, %	Demand MWh	Change from previous months, %
July 2019	4 470 174.7	-	4 352 803.3	-
August 2019	3 833 997.6	-14.23	3 930 699.9	-9.70
September 2019	4 255 063.6	10.98	4 265 831.9	8.53
October 2019	3 903 461.8	-8.26	3 779 827.2	-11.39
November 2019	5 003 347.4	28.18	3 821 501.1	1.10
December 2019	5 894 418.3	17.81	4 133 141.7	8.15
January 2020	7 344 285.0	24.60	5 140 547.4	24.37
February 2020	6 424 037.2	-12.53	4 025 151.9	-21.70
March 2020	7 137 912.8	11.11	3 840 651.0	-4.58
April 2020	6 071 732.8	-14.94	2 714 295.2	-29.33
May 2020	5 899 421.5	-2.84	2 307 572.0	-14.98
June 2020	4 746 391.9	-19.54	1 943 781.0	-15.77
July 2020	5 418 771.6	14.17	2 081 084.6	7.06
August 2020	5 814 516.8	7.30	2 372 956.5	14.02
September 2020	5 056 984.2	-13.03	2 097 398.5	-11.61
October 2020	5 168 687.7	2.21	2 231 120.0	6.38
November 2020	4 090 371.7	-20.86	2 550 137.2	14.30
December 2020	3 858 807.5	-5.66	2 605 879.0	2.19

BEI

PERIOD	Offer MWh	Change from previous months, %	Demand MWh	Change from previous months, %
July 2019	349 007.4	-	307 200.2	-
August 2019	227 283.7	-34.88	350 528.2	14.10
September 2019	352 052.4	54.90	469 056.3	33.81
October 2019	431 965.9	22.70	663 303.2	41.41
November 2019	545 666.6	26.32	605 094.9	-8.78
December 2019	607 796.7	11.39	544 250.6	-10.06
January 2020	697 946.5	14.83	624 504.7	14.75
February 2020	715 131.1	2.46	582 585.5	-6.71
March 2020	694 297.4	-2.91	424 778.3	-27.09
April 2020	501 413.4	-27.78	263 591.1	-37.95
May 2020	363 826.7	-27.44	267 251.3	1.39
June 2020	347 494.3	-4.49	257 419.3	-3.68
July 2020	364 359.6	4.85	284 539.9	10.54
August 2020	347 101.6	-4.74	242 435.1	-14.80
September 2020	365 222.4	5.22	226 471.6	-6.58
October 2020	385 355.6	5.51	223 213.3	-1.44
November 2020	374 808.6	-2.74	281 760.8	26.23
December 2020	538 385.7	43.64	418 299.4	48.46

In «BURSHTYN TPP ISLAND» trade zone in the reporting year the supply on the DAM, exceeded the demand by 1.4 times on average, while in most months of the 2nd half of 2019 there was a shortage of supply.

The highest demand was in January 2020 – 624.51 GWh. Since February, as in the IPS of Ukraine trade zone, there has been a demand decreasing. The demand decreased significantly in April 2020 and amounted to 263.59 GWh, which is 2.4 times less than in January 2020.

In October 2020, the demand decreased to 223.21 GWh which is the lowest figure since the start of the new electricity market.

The decrease compared to January 2020 is 64.26%, compared to July 2019 there is a decrease of 27.34%.

The average daily trading volume in 2019 was at the level of 9.79 GWh and decreased in 2020 to 8.91 GWh, the decrease is 9.02%.

VOLUME OF ELECTRICITY SALES BY TYPES OF ORDERS IN 2020

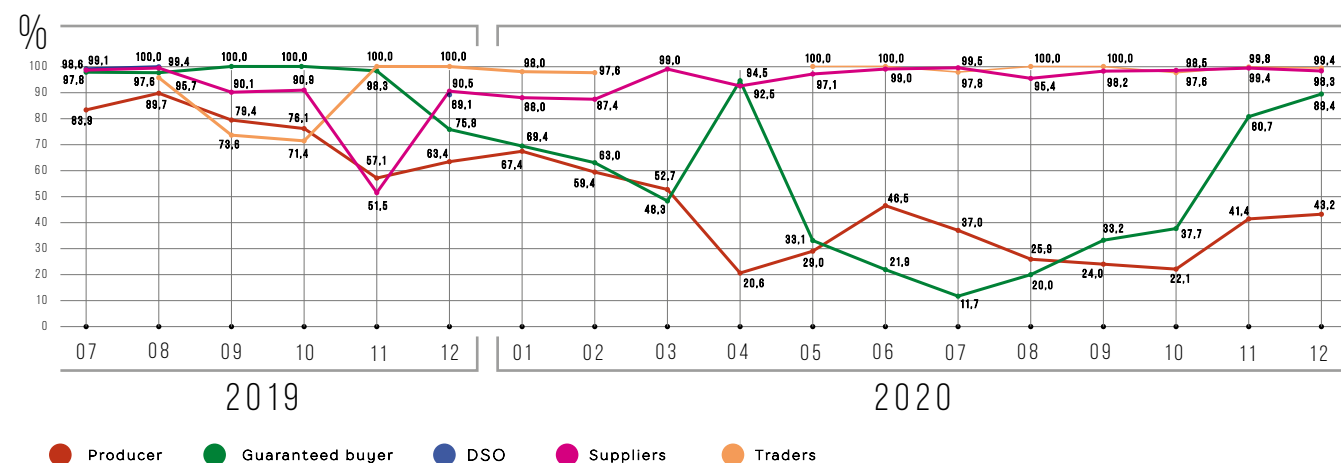
In 2019 and early January 2020, companies on the platform of «Market Operator» were able to use two orders on the DAM: profiled block orders and hourly order. Since 22 January 2020, a new orders has been introduced on the DAM – simple block orders.

In 2020, offered volume by hourly orders on the DAM in the IPS was 59,664.34 GWh, 51.5% of such orders were accepted, the acceptance for 2020 was 30,714.96 GWh. In 2020 DAM/IDM participants submitted simple block orders for sale for the amount of 2,883.66 GWh, of which 93.9% were accepted, the acceptance is 2,707.78 GWh. The volume of profiled block orders submitted for sale in 2020 amounted to 4,483.92 GWh, of which only 0.8% were accepted, the acceptance was 34.96 GWh.

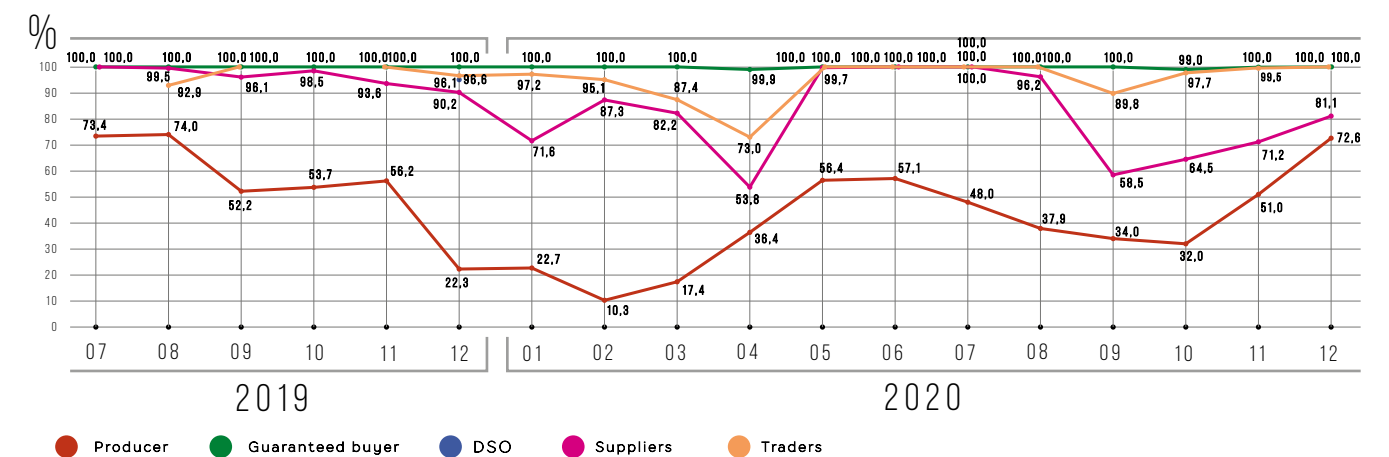
In «Burshtyn TPP Island» trade zone the supply of hourly offers on the DAM in 2020 amounted to 4,048.92 GWh, of the total declared volume of such offers, 73.3% were accepted, acceptance for 2020 is 2,967.7 GWh. In 2020 DAM/IDM participants submitted simple block offers for sale for the amount of 403.14 GWh, of which 69.6% were accepted, the acceptance is 280.48 GWh. The volume of profiled block offers submitted for sale in 2020 amounted to 1,243.28 GWh, of which only 1% was accepted, the acceptance is 12.44 GWh.

The low percentage of acceptance of the declared volumes for sale of profiled block orders is due to the price factor, since such orders mostly contain maximum price indicators and can not be accepted, given the surplus of orders.

THE SHARE OF THE ACCEPTED VOLUME IN THE OFFERED FOR SALE VOLUME (IPS)



THE SHARE OF THE ACCEPTED VOLUME IN THE OFFERED FOR SALE VOLUME (BEI)



DAM AND IDM PARTICIPANTS

SUPPLIERS	ELECTRICITY SUPPLIER	387	DSO	31
	USS	25	TRADERS	21
PRODUCER	CHPP AND OTHER	26	CONSUMERS	1
	TPP	5	TSO	1
	HPP	3	GUARANTEED BUYER	1
	NPP	1		

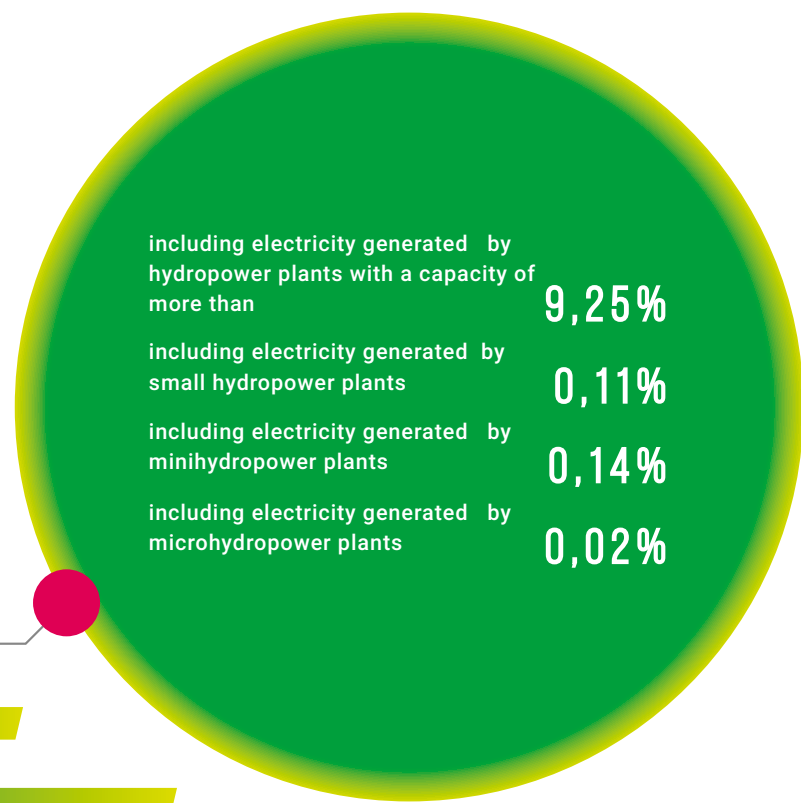
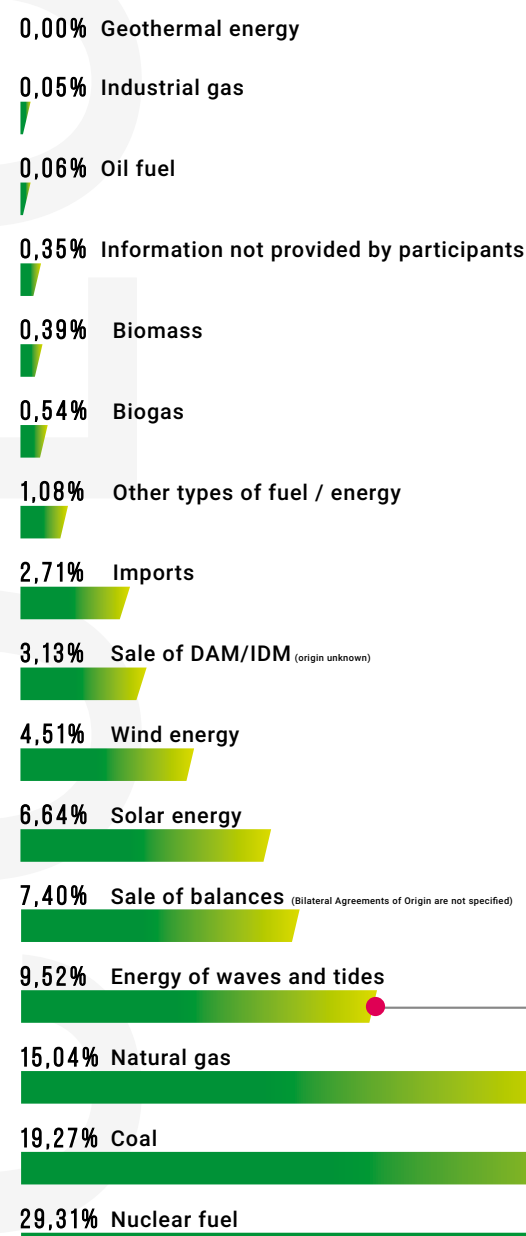
502
participants

The total number of participants of the spot market the day-ahead market and the intraday market in 2020 was 557 companies. 502 companies actively sold and bought electricity on the platform of the state company. These are such large state-owned companies such as Guaranteed Buyer, as well as private generating companies, traders, distribution system operators, electricity suppliers.

ENVIRONMENTAL ASPECTS

29.31% of electricity sold on the day-ahead market and intraday market in 2020 was generated from nuclear fuel. The share of electricity from coal sold on the DAM and IDM was 19.27%, from natural gas – 15.04%, from the wave and tidal energy – 9.52%, from solar energy – 6.64%, from wind energy – 4.51%, from biomass – 0.39%, from biogas – 0.54%, from fuel oil – 0.06%, from industrial gas – 0.05%.

2,71% of electricity sold last year on the DAM and IDM was of imported origin, 7.40% was the sale of balances of electricity on the DAM and IDM, purchased by market participants under bilateral contracts, the source of which is not specified, and 3.13% was the sale of electricity on the DAM and IDM of uncertain origin. For the share of another 0.35% of electricity the source is unknown due to the failure of some market participants to provide relevant information.



FINANCIAL INDICATORS OF «MARKET OPERATOR» SC

In 2020, the SC «Market Operator» received UAH 20 million of net profit and paid UAH 133.8 million of taxes and fees to budgets of various levels. Value of total traded volume for 2020 year was 69.6 BLN UAH.

ITEM	2019 (actual)*	2020 (planned)	2020 (actual)	Performance 2020 (+/- %)
Net income from sales of goods	38 339 344	56 125 519	58 183 857	2 058 338 (104%)
Cost of goods sold	38 210 403	55 915 605	57 963 268	2 047 663 (104%)
Gross profit	128 941	209 914	220 589	10 675 (105%)
Profit/loss before tax	19 407	11 541	25 379	13 838 (220%)
Net profit	14 425	9 463	20 072	10 609 (212%)
Payments to the budget	85 441	131 307	133 830	2 523 (102%)
EBITDA	23 823	23 129	38 989	15 858 (169%)

*- the company has started its licensed activity since July 2019.

The growth of the company's financial indicators was influenced by the increase relative to the plan:

- of the volumes of electricity purchased and sold on the DAM and IDM by 981.5 thousand MWh or by 2% to 42,712.8 thousand MWh
- the increase in the number of active market participants from 315 to 399 persons (by 84 persons or 27%)
- the increase in the average purchase price on the DAM and IDM from UAH 1,340/MWh to UAH 1,357/MWh (by 1%)

CAPITAL INVESTMENT, UAH THS.

ITEM	2019 (actual)*	2020 (planned)	2020 (actual)	Performance 2020 (+/- %)
Acquisition of fixed assets	5 900	11 899	11 054	-845 93%
Acquisition (creation) of intangible assets	2 079	3 307	3 083	-224 93%
Modernization of fixed assets	0	79	0	-79 0%
Total commissioned	7 979	15 285	14 137	-1 148 93%

*- the company has started its licensed activity since July 2019.

The main directions of capital investment in 2020 were: hardware and software related to cybersecurity, computer, server and network equipment, office equipment, system software, software for computer, server equipment, information security, etc.

LIQUIDITY AND LIABILITIES

STRUCTURE OF ASSETS OF THE SC «MARKET OPERATOR» IN 2020, UAH THS.

The sources of liquidity are non-current and current assets.

ASSETS	At the beginning of the reporting period	At the end of the reporting period	Change +/-
Non-current assets, in particular			
Intangible assets	16 674	16 369	(305)
In-progress capital investments	2 052	3 393	1 341
Fixed assets	26 348	47 089	20 741

ASSETS

	At the beginning of the reporting period	At the end of the reporting period	Change +/-
Current assets, in particular			
Inventory	705	1 215	510
Accounts receivable for products, goods, works, services	399 294	25 664	(373 630)
Receivables on: advances made	321	92 061	91 740
budgetary payments	12 797	-	(12 797)
including on profit tax	12 797	-	(12 797)
Other current accounts receivable	345	527	182
Cash and cash equivalents	20 104	26 980	6 876
Deferred expenses	74	112	38
Other current assets	67 653	33 715	(33 938)
TOTAL ASSETS:	546 367	247 125	(299 242)

The share of current assets in the balance sheet currency as of 31 December 2020 was 73%, of which the most liquid are money on bank accounts and receivables for electricity, the total share of which in the balance sheet currency is 58%. The share of receivables for electricity in the balance sheet currency as of 31 December 2020 was 47%.

STRUCTURE OF LIABILITIES OF «MARKET OPERATOR» SC IN 2020, UAH THS.

LIABILITIES

	At the beginning of the reporting period	At the end of the reporting period	Change +/-
Long – term liabilities and provisions	1 020	814	(206)
Current liabilities and provisions	480 299	157 812	(322 487)
TOTAL LIABILITIES:	481 319	158 626	(322 693)

The total share of long-term and current liabilities in the balance sheet currency as of 31 December 2020 was 64%, with accounts payable for electricity being the largest liability, with the share in the balance sheet currency of 47%. Due to the peculiarities of the organization of purchase and sale of electricity on the DAM and IDM, established by law, accounts payable for electricity are fully covered by receivables for electricity.

The company has a sufficient level of liquidity, as evidenced by the current liquidity (coverage) ratio – 1.14 (for 2019 – 1.04). This ratio shows the sufficiency of the company's resources that can be used to pay current liabilities (regulatory value is > 1–1.5).

TARIFF POLICY

The decision to revise the tariff of «Market Operator» in 2020 was due to a significant decrease in trading volumes on the day-ahead market, which for the second quarter of 2020, as compared to the first quarter, decreased by 46.3%.

UAH 3 269,46 (NET OF VAT)
is the fixed payment for participation
in the DAM and IDM in 2020

UAH 3,03/MWh (net of VAT)
is the tariff for electricity purchase
and sale operations on the DAM and
IDM (8 months of 2020 it was UAH
2.02/MWh (net of VAT))

From 1 August 2020, the tariff for the purchase and sale of electricity on the day-ahead market and the intraday market has been set by the National Energy and Utilities Regulatory Commission at UAH 3.03 MWh (net of VAT).

ANTI-CORRUPTION COMPLIANCE

«Market Operator» operates on the basis of the Anti-Corruption Program and the Anti-Corruption Policy. Strict adherence to ethical behavior by all employees of the company contributes to the quality functionality, improvement of the reputation and avoidance of potential risks of bribery, participation in corruption, which can result in undermining of the reputation and loss of confidence in «Market Operator».

In order to form a sustainable understanding of «zero tolerance» of corruption in the employees of the company, the Anti-Corruption Officer of the SC «Market Operator» carries out explanatory work.

In compliance with the requirements of anti-corruption legislation and in order to implement the provisions of the Anti-Corruption Program, the company conducts anti-corruption inspections of contractors. Work with whistleblowers is clearly defined and regulated, personnel checks are carried out in cooperation with the HR division.

GENDER POLICY

In March 2020, the SC «Market Operator» joined the joint initiative of the United Nations Fund for Population Activities and the Center for the Development of Corporate Social Responsibility and signed the Declaration on the Promotion of Gender Equality.

With the participation of independent experts – Gender Policy Expert of the USAID Energy Security Project in Ukraine, at the end of 2020 the gender audit of the company was completed. The SC «Market Operator» became the only state-owned company in Ukraine to conduct such an audit.

The Methodology for conducting a gender audit of the International Labor Organization, whose members are 185 countries, including Ukraine, was used.



The Gender Committee of «Market Operator» SC was formed on 17 July 2020.

The audit was based on the principle of active participation of employees of the SC «Market Operator» and was conducted to analyze the gender policy of the company, introduced in 2019 to implement a comprehensive gender approach in the SC «Market Operator».

The results of the gender audit as a whole showed the observance of the principles of gender equality by the SC «Market Operator» and the absence of stereotypical thinking that energy is a purely male profession.

The analysis of the Collective Agreement between the administration and employees of the SC «Market Operator» confirms the policy declared by the company, friendly to the families of employees with equal working conditions for both men and women and equal level of wages. Positions related to decision-making in the structural units of the company are held by both men and women.



In November 2020, «Market Operator» was recognized as the best energy company with gender parity. The company won the annual thematic competition, taking the first place in the nomination «Company of the Year» as the best energy company that has implemented and develops a gender policy.

RISK MANAGEMENT

“ Risk management in the SC «Market Operator» is based on international standards of risk management. The company is working to prevent operational, financial, corruption, market and IT risks. In particular, a system of internal control over financial and economic activities has been introduced, which allows timely detection of illegal or inefficient use of assets.

Operational risk means the probability of direct or indirect losses as a result of deficiencies or errors in the internal processes of the company, in the actions of employees, in the operation of information and computer systems, or due to an external influence.

Regulations governing the activities of market participants on the DAM and IDM, namely the purchase and sale of electricity, effectively level out the risk of arrears on such transactions. However, in 2020 the company identified the risk of non-registration or late registration by contractors (sellers) of tax invoices based on the results of electricity purchase and sale transactions, which may lead to financial imbalance of the company. Relevant decisions have been developed and supported by the National Energy and Utilities Regulatory Commission.

Financial risk (credit risk, liquidity risk, market risk) means the risk associated with the probability of loss of financial resources (cash) due to improper performance by counterparties of their obligations, changes in market conditions, the value of goods in the market.

Perhaps the main risk of 2020 for the company was the reduction of electricity trading volumes. In the second quarter of 2020, the day-ahead market began to accept 46.3% less electricity than in the first. Accordingly, the company was forced to apply to the National Energy and Utilities Regulatory Commission with a request to revise the tariff for transactions of purchase and sale of electricity on the DAM and IDM.

The company overcomes challenges related to IT risks and confidential information protection with modern cybersecurity measures. In particular, in order to minimize the risk of information loss and damage in the information systems of the company, data transmission through the web service, reporting, were automated, access rights to the information system of the company were clearly differentiated in accordance with the duties of users, additional measures to avoid leakage of commercial information were implemented.

To minimize the risks of loss of information, including restricted information, a round-the-clock monitoring of the condition of the company's software and infrastructure has been introduced, and a clear incident response algorithm has been defined. Additional stress tests on the loss of communication between the main and backup server equipment were also performed, on the basis of which the configuration of the software database management system was improved.

IN ORDER TO INCREASE THE INFORMATION SECURITY, «MARKET OPERATOR» HAS TAKEN SEVERAL ADDITIONAL MEASURES:

SERVER EQUIPMENT

In order to eliminate the risks of loss of information stored on the server equipment, a backup of such information was introduced, regular updates of operating systems were set up, policies and means of information security and control over these events were introduced. For virtual servers hosted in a cloud environment, additional parameters have been introduced in the service level agreement (SLA) and an access control policy has been introduced.

NETWORK EQUIPMENT

In order to prevent information leakage and unauthorized access to the company's network, firewalls have been implemented, a modern software package for protection against DDoS attacks has been set up, and an access control policy has been introduced.

In order to minimize information loss and unauthorized access, anti-virus software, centralized security policy management, periodic security policy compliance checks, critical data storage on a network drive (from which data is constantly backed up), and a physical access policy have been implemented.

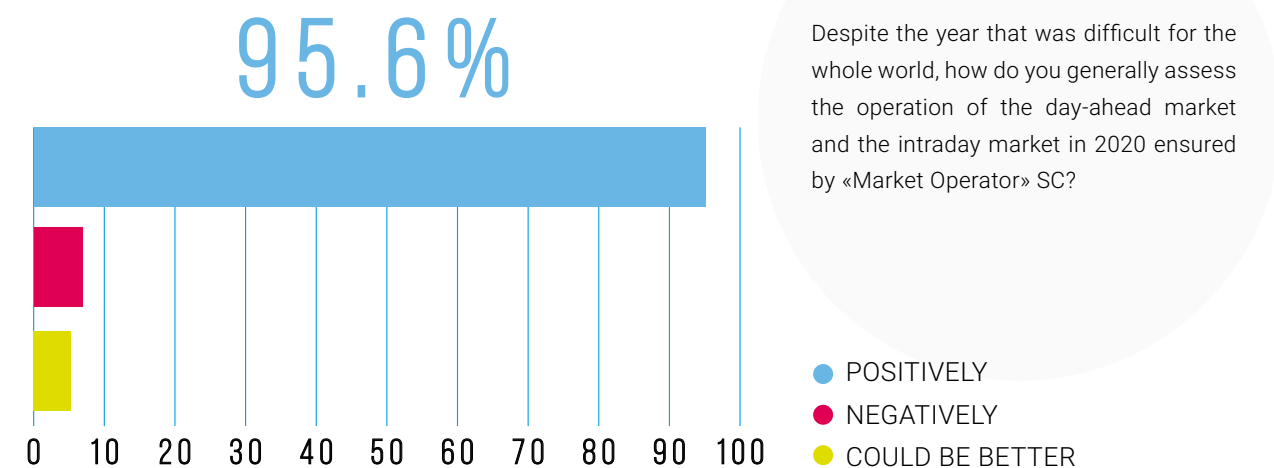
PC

SOFTWARE COMPLEX OF «MARKET OPERATOR»

In order to prevent unauthorized access to the complex and information leakage, security policies, access restrictions and two-factor authentication, security event monitoring and security measures, including hardware and software protection of websites, have been implemented.

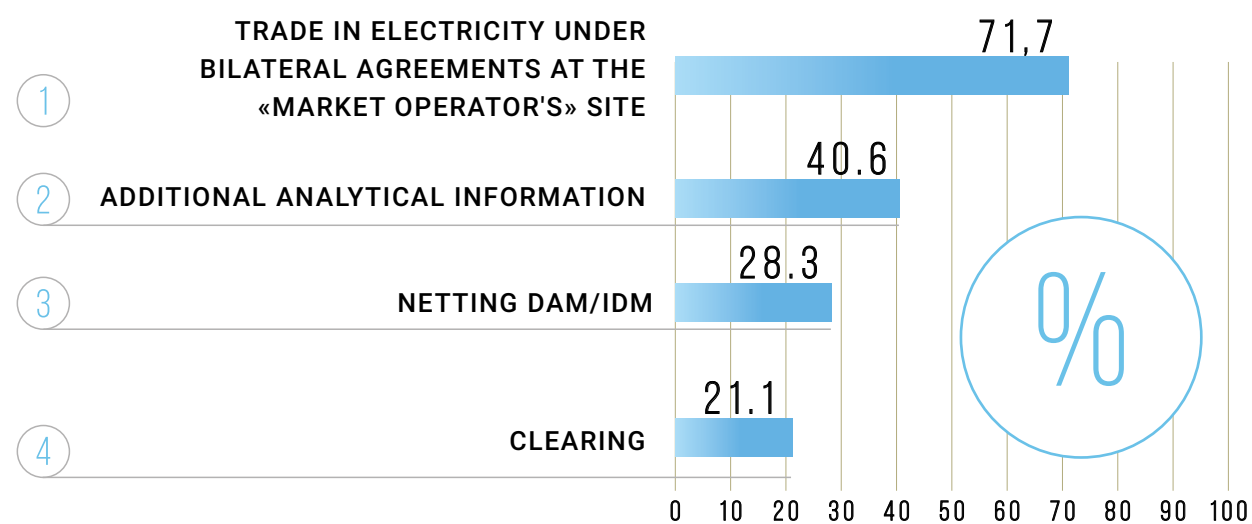
DEVELOPMENT STRATEGY

95.6% of electricity market participants positively assessed the work of the day-ahead market and the intraday market in 2020. This is evidenced by the results of a survey conducted by the company by targeted electronic survey of companies operating on the platform of «Market Operator».



WHEN ASKED “WHAT NEW SERVICES OF «MARKET OPERATOR» ARE YOU INTERESTED IN?”

When asked “What new services of «Market Operator» are you interested in?”, 71.7% of companies noted that they would like to trade electricity on the platform of «Market Operator» on the principle of bilateral contracts, 40.6% of market participants were interested in additional analytical information, 28.3% sought the introduction of netting on the DAM and IDM and 21.1% voted for the clearing of obligations between market participants.



Both in 2019 and in 2020, market participants determined the strategic vector of development of «Market Operator» by their votes. The company studied international experience and finalized the software complex «Electricity Trading System (ETS/UA)» and created an additional module for the organization of electricity trading under bilateral contracts. In autumn 2020, the first stage of its testing among participants of the electricity market took place.

At the same time, «Market Operator» developed a draft Procedure for the Organization and Conduct of Electricity Trading by the Market Operator under Bilateral Contracts and the relevant Contract for market participants.

In October 2020, «Market Operator» started developing an information security management system in accordance with the requirements of the international information security standard ISO/IEC 27001.

At the end of May 2020, «Market Operator» passed the certification and received the ISO 9001: 2015 certificate of conformity of the quality management system of «Market Operator» to international quality management standards for the provision of services of organization of purchase and sale of electricity.

At the end of the year, the work was initiated to obtain an international certificate on anti-corruption activities of «Market Operator» SC.

ISO 9001:2015

An external audit confirmed the high standards of operation of «Market Operator». This opened great prospects for the company for further sustainable development and proved the high quality and safety of electricity trading on the platform of «Market Operator».

In 2020, the company also began the process of corporatization. The Cabinet of Ministers of Ukraine by its order No. 1196-r dated 30 September 2020 formed the Commission for the Transformation of the State Company «Market Operator» into a Joint Stock Company.

Corporatization of «Market Operator» is carried out in compliance with the Law of Ukraine «On Electricity Market» and License Terms in accordance with the Procedure for transformation of a state company into a joint stock company on the basis of the decision of the Cabinet of Ministers of Ukraine.

In cooperation with the USAID Energy Security Project in Ukraine, the company has integrated new software that supports accounting according to international standards. From 1 January 2021, the company has started the implementation of a new accounting policy and moved to international financial reporting standards.





The Cabinet of Ministers of Ukraine

THE STATE COMPANY «MARKET OPERATOR»

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