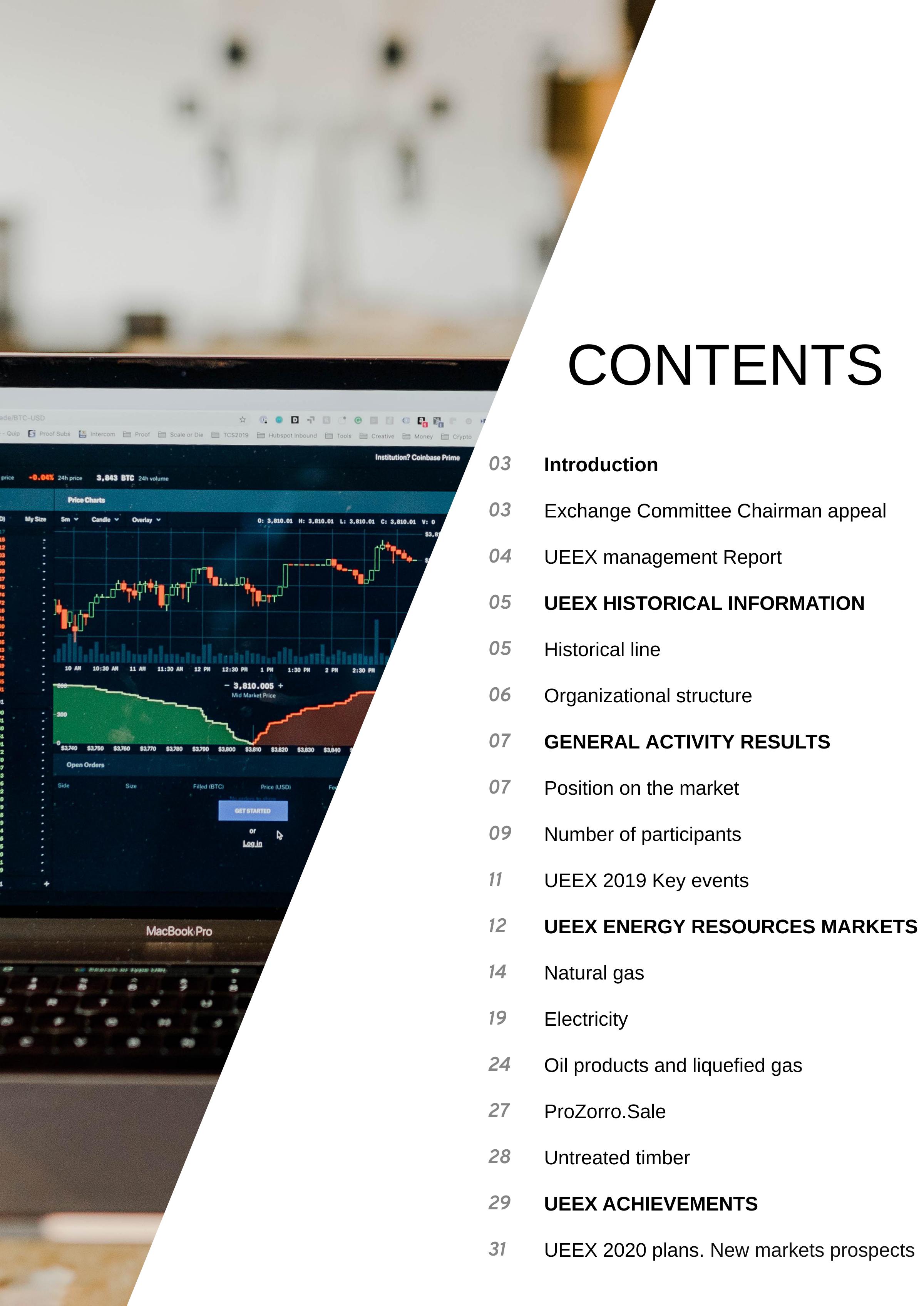


# UKRANIAN ENERGY EXCHANGE

ANNUAL REPORT - 2019



ueex.com.ua





# Oleksii Dubovskyi Chairman of the Exchange Committee

"My gratitude to all participants for cooperation, and to all UEEX team for devoted work.

Our fixed asset is trust of our Customers. Thank you for being with us on the way to reforming and changes for better"

O. Dubovskyi

Ukrainian Energy Exchange has been building competitive energy markets in Ukraine for nine years according to the best international standards of organized trade. We are integrating leading trading solutions and technologies into the Ukrainian market, creating reliable supports for reforming energy markets in Ukraine. In 2019 we became members of the Association of European Energy Exchanges (Europex).

2019 was saturated with transformational processes in the markets, but we were able to handle all the challenges and created a powerful basis for the functioning of the liberalized markets of electricity and energy resources in the country.

First thing that is necessary for competitive market creation is a liquid exchange. UEEX shows strong dynamics of rapid growth, gaining recognition of the market and support of its participants.

In 2019 UEEX, as part of the market reform, has launched electricity trading in the market of bilateral agreements, we managed to create high liquidity in the natural gas market and attract the largest state-owned gas company to the auction. As part of the gas market reform, UEEX has fully developed and implemented a model of short-term natural gas market operation for trading short-term standardized products in the daily balancing mode.

Our participants are major global traders, national mining, generating and manufacturing companies, state enterprises, including those of strategic importance. The figure of 1000 participants achieved in 2019 shows the recognition of the exchange, the trust of participants, confirms the equidistance and transparency of UEEX. Our quotations have become recognized by authorities, and the fact that authorities and the market are already based on real market prices is a sign that the country is moving in the right direction towards transparency, competition and marketability.

In the reporting year we have expanded not only the number of our markets, their shares and volumes, the number of trading tools and technologies, but also significantly expanded our team to continue to provide better service to our members and to maintain unconditional leadership in the industry.



Inna Shcherbyna Member of the Exchange Committee

Today we can safely say that in Ukraine there is an institution, which is an indispensable element of effective functioning of the market economy - the energy exchange. UEEX was created to implement the model of functioning of reformed energy markets in Ukraine according to EU standards.

Building the fundamentals of the exchange market in Ukraine, creating a liquid spot market, forming a community of conscious exchange players that understand the need to create a centralized market, all this took a lot of time. And from now we will be ready to transfer our trading operations to the same level as the world exchange trade. Our priorities in the new period will be standardization, clearing and risk management.

All strategic aims for 2019 were achived, results doubled, UEEX has turned from an industry leader into a single hub of market pricing for energy resources.

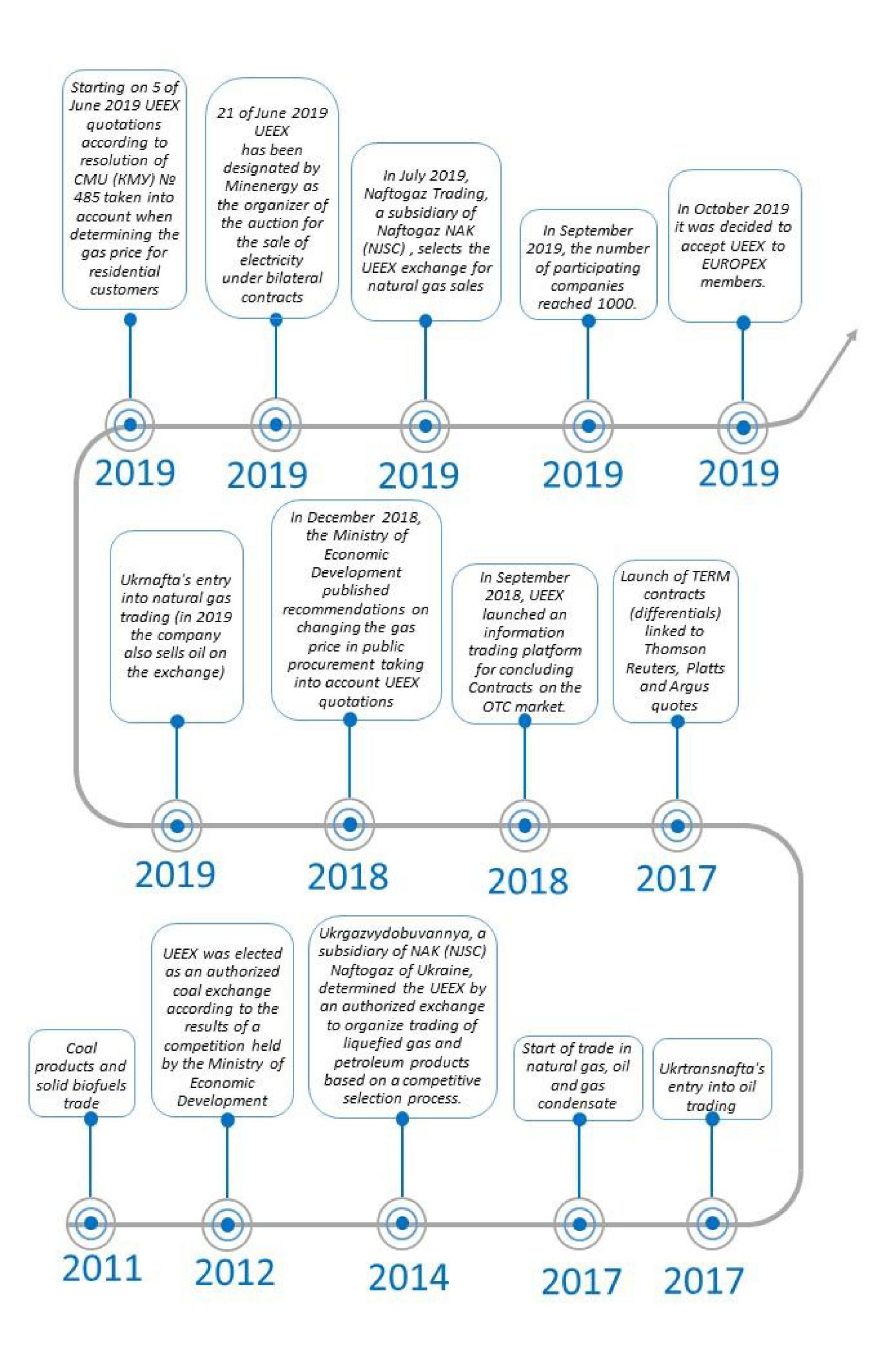
In 2019, many new technological solutions were introduced at UEEX to improve the bidding process in accordance with legal and market requirements. The current trading system of Exchange PP BETS was improved and two new trading solutions were developed for electricity trading auctions and for bilateral short-term trading of standardized contracts, including the daily natural gas balancing regime. The clearing module of the Energy Trading Platform was developed separately.

High efficiency of UEEX functioning last year is confirmed by high trade performance. During the year, the number of participants increased by more than 50%, with a slight increase in the number of trading sessions, the implementation of the resource has increased by almost two and a half times, trading liquidity has increased significantly, all key players of the energy market of Ukraine became our participants.

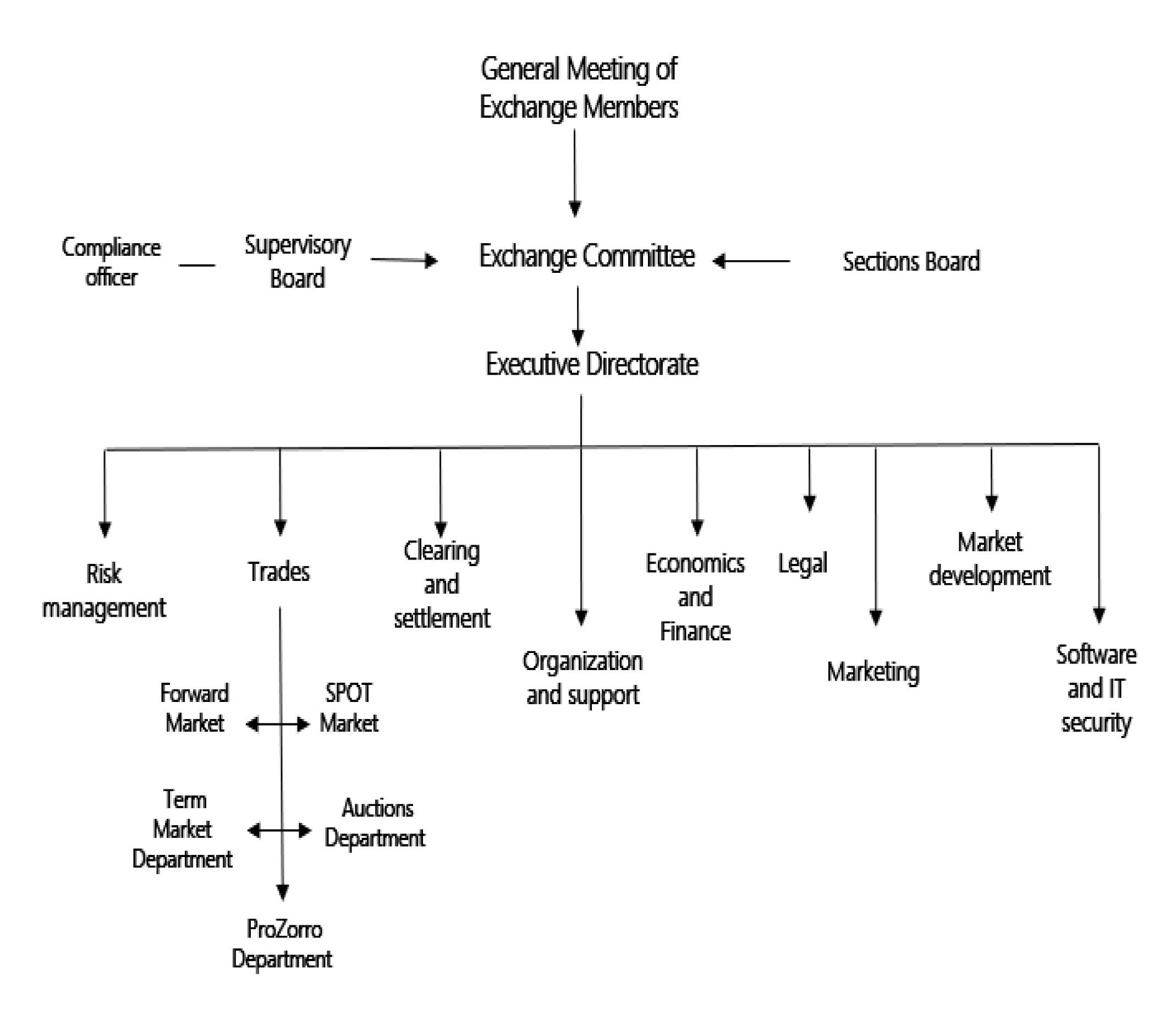


Oleksandr Kovalenko CEO

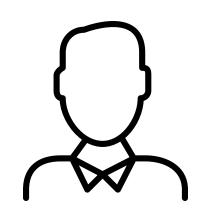
## UEEX HISTORICAL INFORMATION



# ORGANIS'ATIONAL STRUCTURE







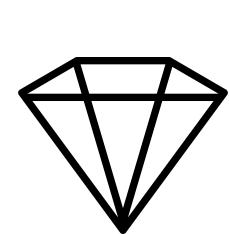
# Registered > 1000 companies



Concluded
> 33 th. of
Contracts



Total sales volume > 100 bill. UAH

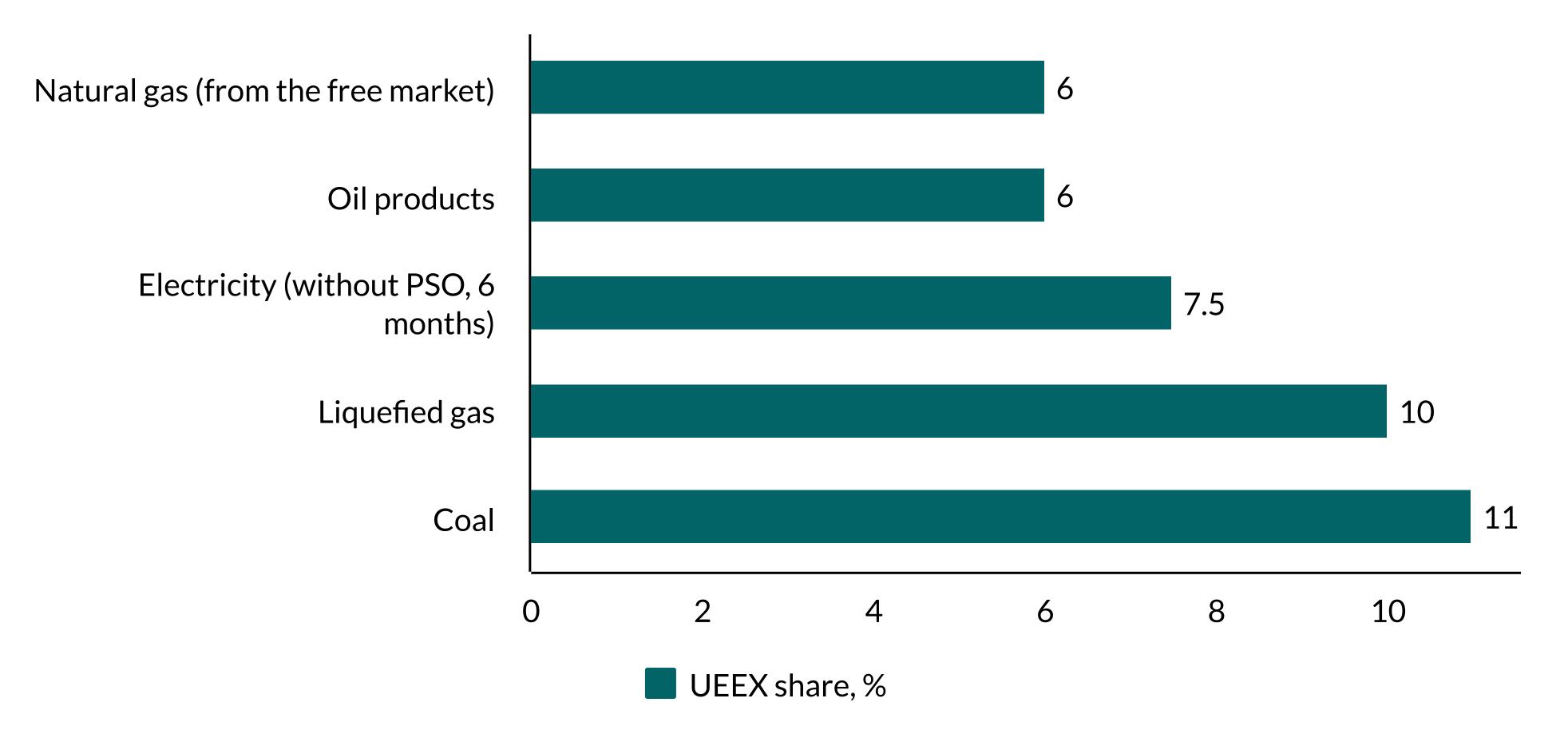


1 place among the platforms ProZorro.
Sale

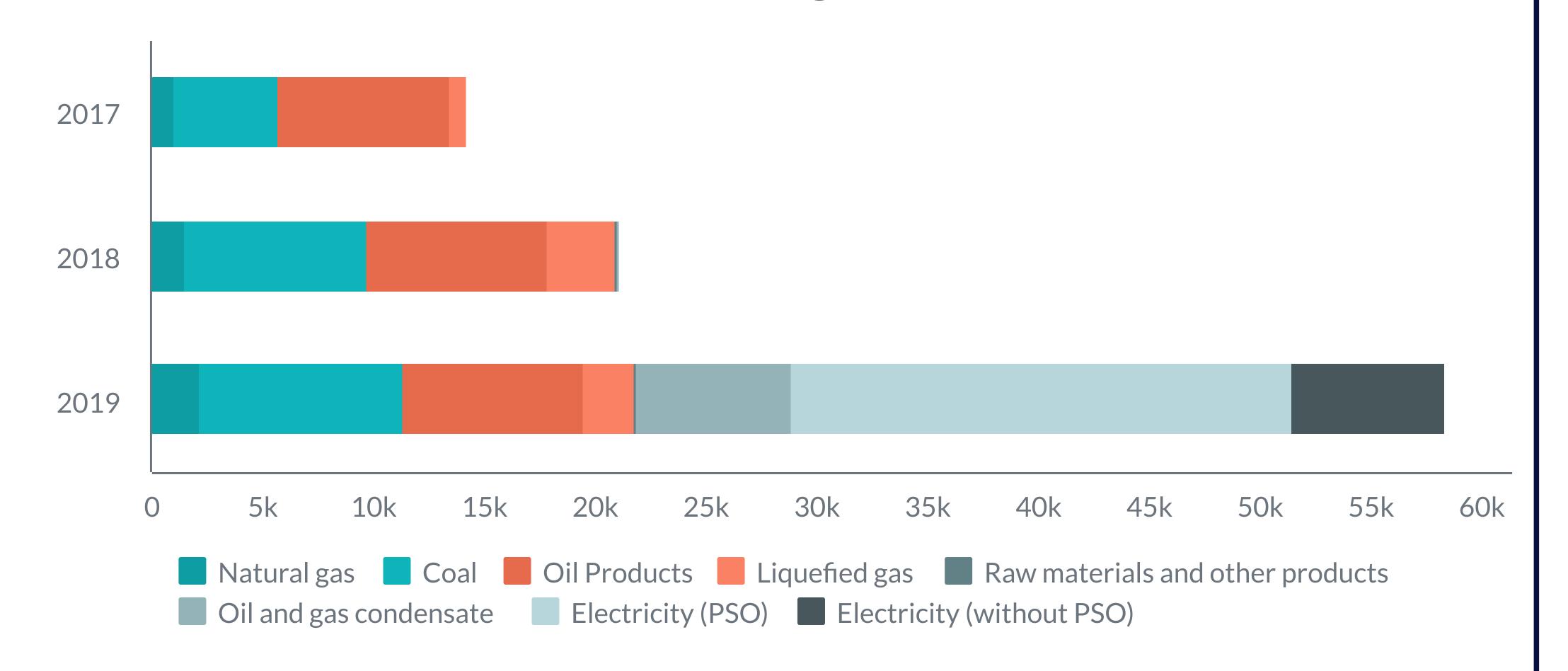
MARKET

**UEEX POSITION ON** 

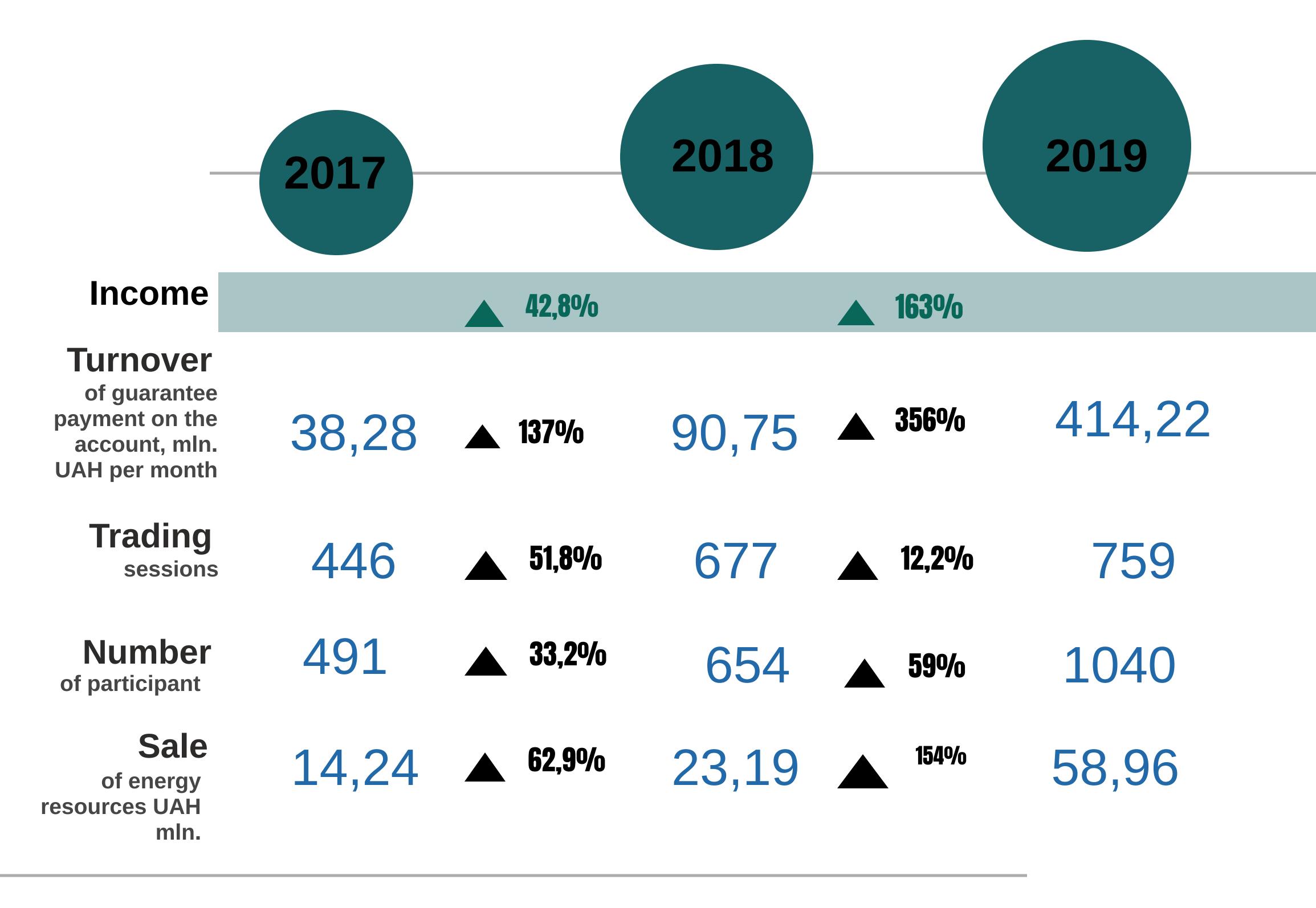
## OVERALL BUSINESS RESULTS



UEEX trade volume growth, UAH mln.

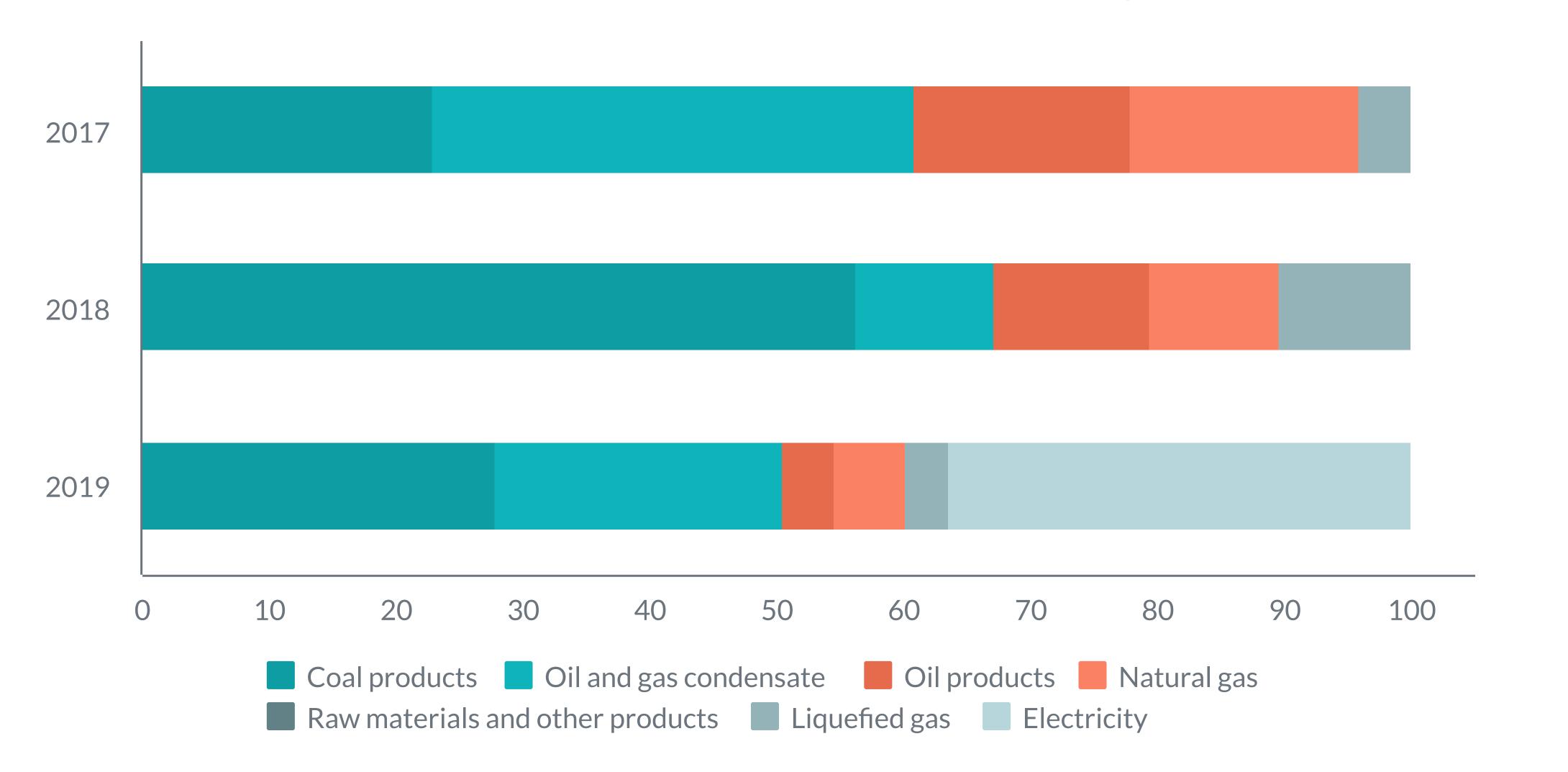


## GENERAL ACTIVITY INDICATORS

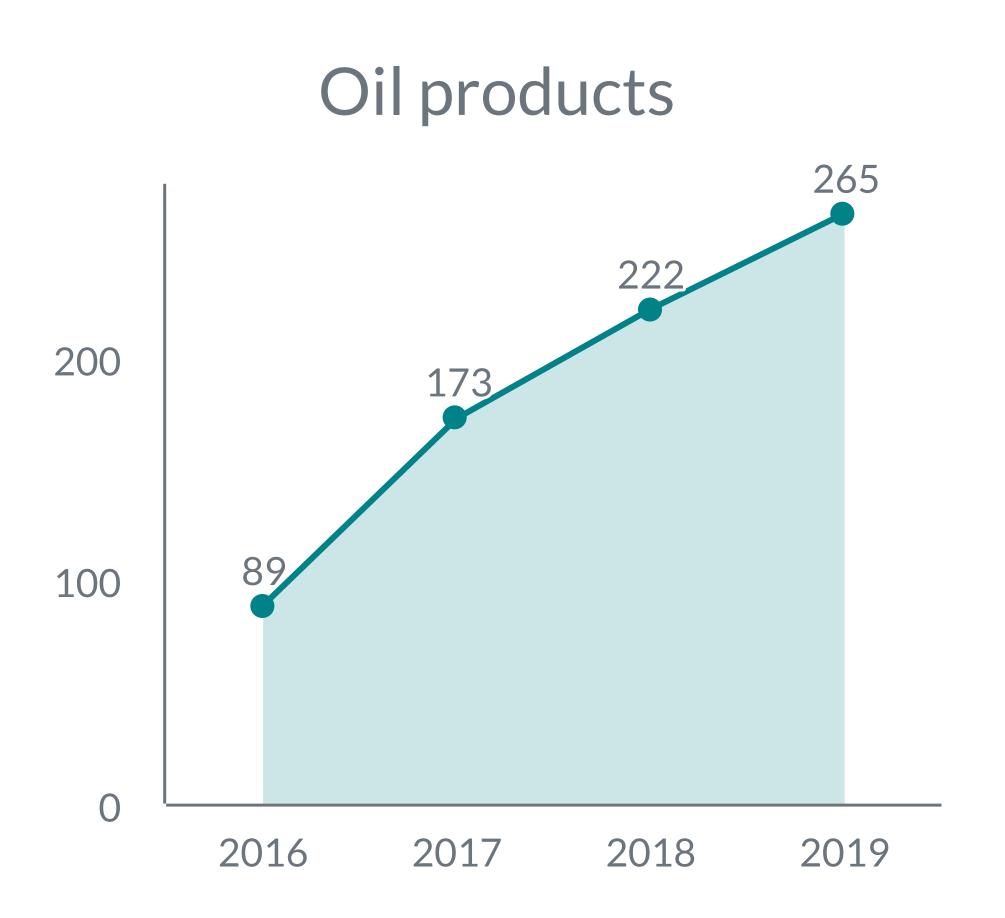


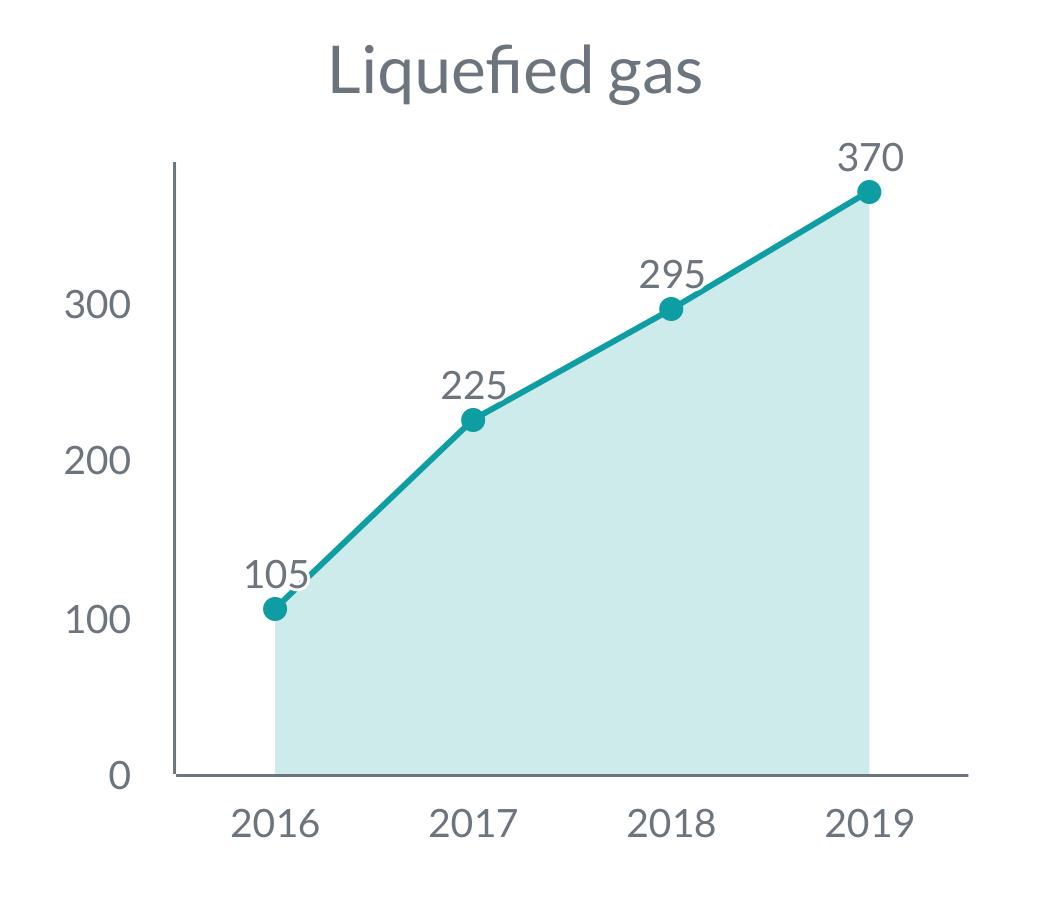
UEEX is the leader of exchange trading in Ukraine and the single centralized platform where the greatest liquidity and trade in all types of energy resources are concentrated.

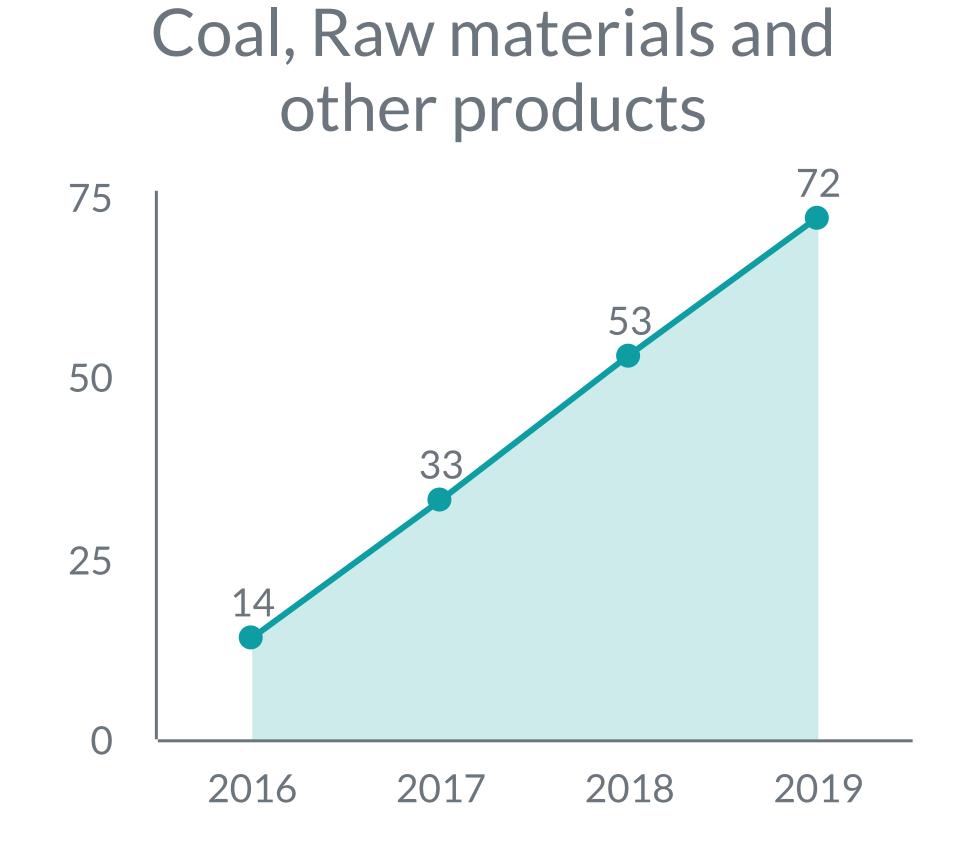
## Distribution of UEEX income by electronic trading directions, %

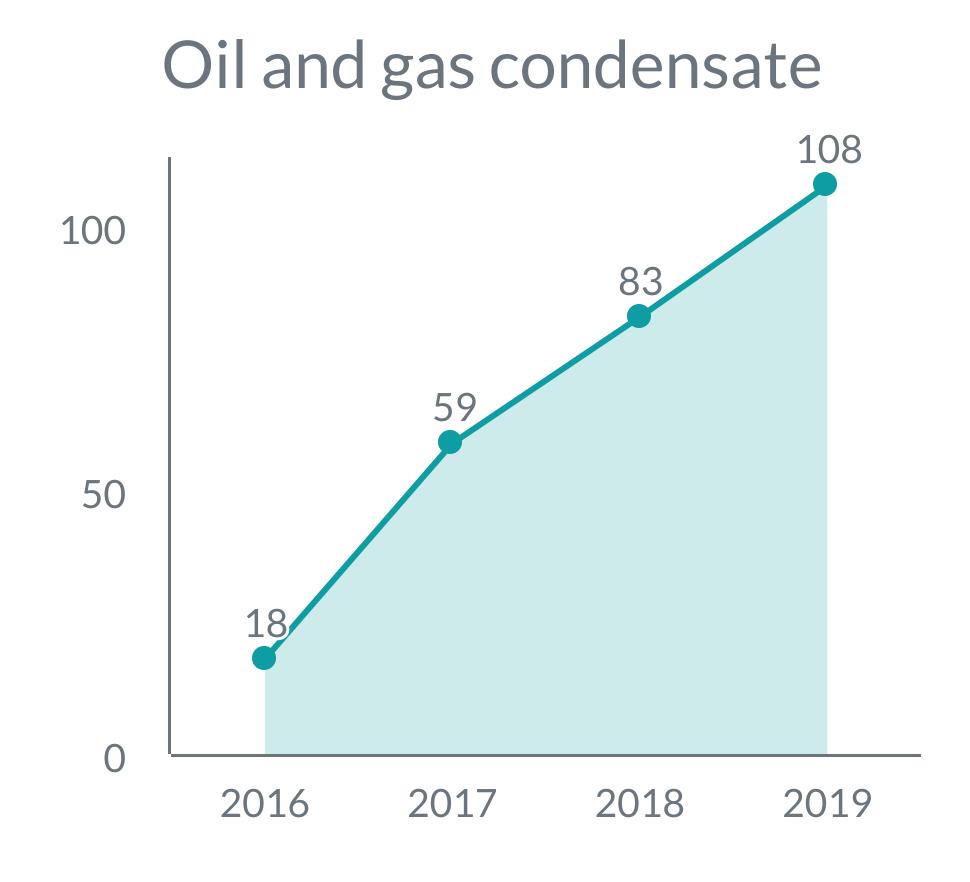


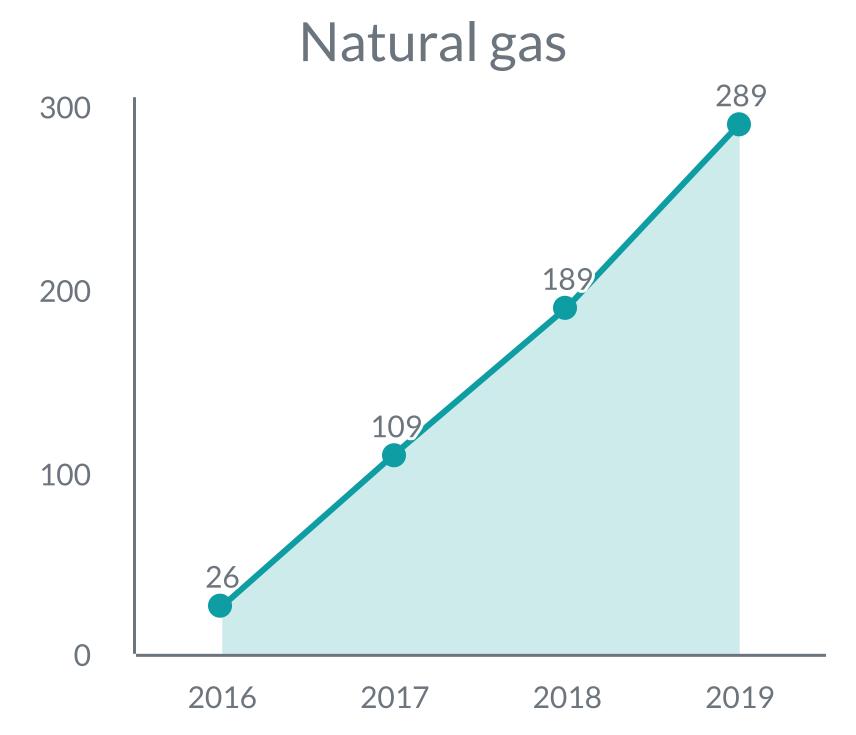
## UEEX NUMBER OF MEMBERS











## KEY SECTION PARTICIPANTS

More than 1000 bidders take part in the bidding at UEEX





















More than 289 participants take part in the bidding for natural gas

















More than 400 participants take part in the bidding for oil products and liquefied gas











More than 190 bidders take part in the bidding for electricity





КАЛУСЬКА ТЕЦ-НОВА



## KEY EVENTS IN 2019

# Transition to the market of daily balancing

- To ensure a smooth transition, UEEX launched the OTS platform free of charge for participants to balance their portfolios.
- Ready to fully operate in the new market model trading platform daily balancing "Energy Trading Platform" with standardized products with a time interval in the "intraday" market or "day-ahead" market.
- Integration with banks was carried out to ensure clearing of exchange transactions using light escrow accounts (light CCP).
- An agreement on interaction between TSO and UEEX was concluded for the purpose of data exchange.
- The integration testing of the interaction process between the TSO and the Operator of the trading platform - CE UEEX was successfully completed. The Parties agreed on the Rules for Information Exchange.

## Creating a liquid natural gas market

- In December, the Ministry of Economic Development published recommendations on changes in gas prices in public procurement, taking into account UEEX quotations.
- The next confirmation of recognition of UEEX quotations marketability was the inclusion of UEEX quotations to the Resolution of the Cabinet of Ministers of Ukraine No. 485 for the purpose of determining the gas price for households.
- Starting from July, Neftegaz Trading GC, a subsidiary of Naftogaz, chooses UEEX as exchange for selling natural gas, and later Naftogaz of Ukraine starts purchasing gas from on the UEEX. Thus, Naftohaz of Ukraine becomes a market maker of a transparent and competitive gas market.

### New technologies and solutions

- A version of PP BETS in the Electric Power version was developed for electricity purchase/sale auctions. The system allows: trading on standard charts and block bids, supports formula trading, and anticorruption fuses.
- Online electronic accreditation modules for electricity trading.
- The system is developed for trading on the principle of bilateral counter auction on the markets Intra-Day and Day-Ahead. The system has a module for automatic reading of customer consumption of the supplier.
- The clearing module of the system has been developed.
- Bots and channels were put into operation to promptly inform market participants about exchange news, trading and their results and to receive high-quality feedback.

#### **New directions**

 Since February, UEEX holds auctions on sale of untreated timber of forest farms



## Launch of exchange auctions for the purchase and sale of electricity

- With the launch of the market reform, UEEX was the only suitable platform for conducting auctions for state power generation, as provided the Law of Ukraine "On Electricity Market". On June 21 the UEEX was temporarily appointed by the Ministry of Energy as an organizer of auctions on sale of electric energy under bilateral agreements.
- Since July, UEEX started to conduct electricity auctions for PSO purposes and, separately, for state producers and other sellers.
- UEEX confirms its right and full compliance with legal requirements to hold auctions at the organizers' competitive selection in September.
- UEEX specialists take an active part in the market reform, UEEX reacts instantly to the changes in the legislation and decisions of the authorities, which are designed to improve the process of the BCM functioning. Electronic technologies and regulatory support are promptly adapted.
- A large number of private companies start taking part in auctions and UEEX decides to create a separate commercial section for conducting auctions, has a wider trading opportunities, including the possibility to conduct auctions for procurement, and the rules for conducting auctions can be quickly adapted to the needs of the market, as they are not subject to government regulation for government auctions.
- Full-fledged centralized BCM creating at UEEX and price indications are formed for this market segment.

## **Membership in Europex**

• On October 18 it was decided to admit UEEX to the members of Association of European Energy Exchanges, Europex, registration of membership will take place in June 2020.

## **Transparent auctions**

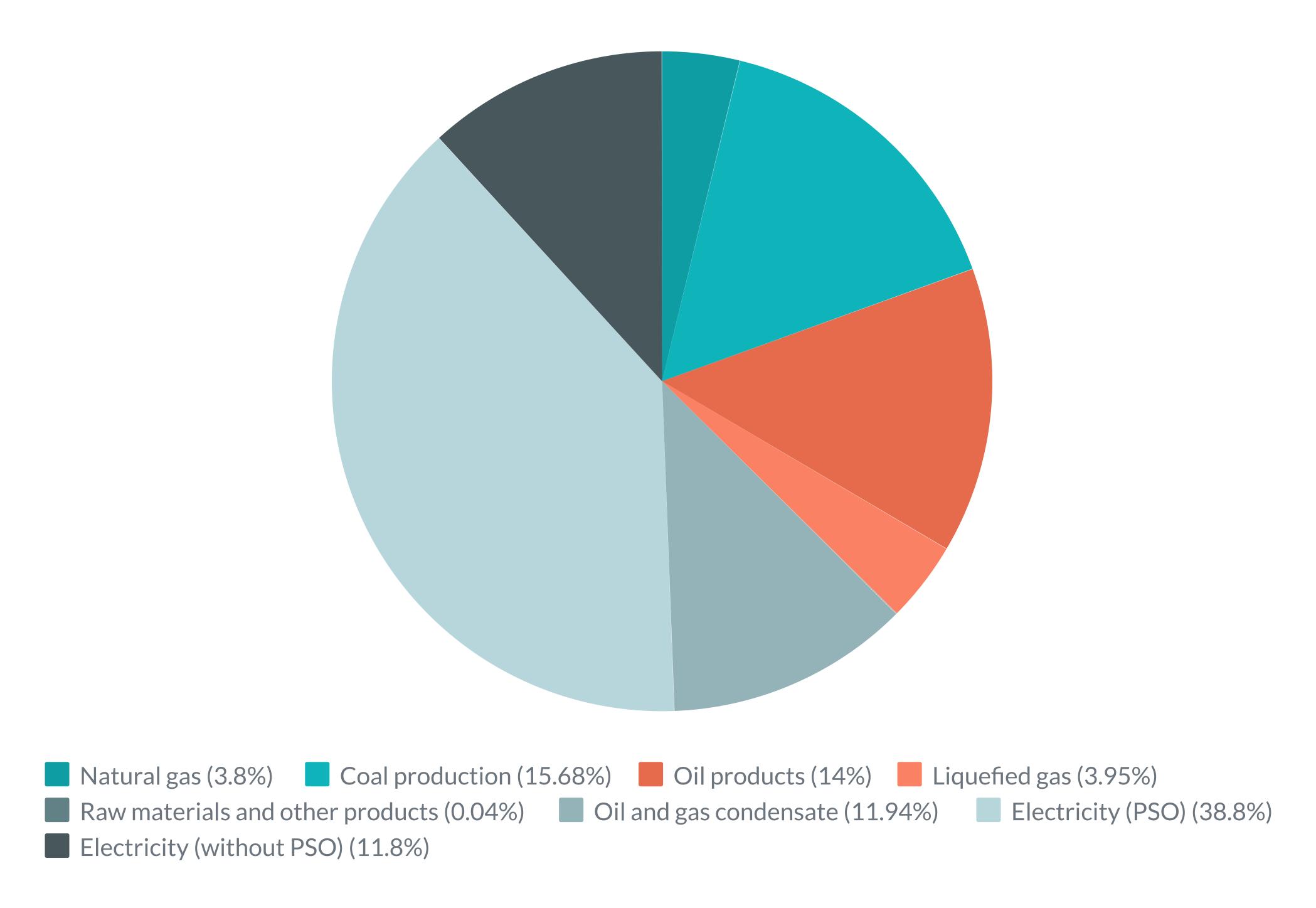
- The State Service of Geology and Subsoil of Ukraine sells subsoil use permits through the UEEX electronic site.
- Since March, transparent electronic auctions for the right to extract oil and gas have been held at UEEX.

## **Compliance and security**

- In 2019, the exchange's compliance service was strengthened. All exchange participants, except for the identification procedure provided by the legislation on financial monitoring, are thoroughly checked by the compliance service and are ranked according to the level of risk of potential counterparty in trading.
- A great deal of attention is paid to the monitoring of the trading process and comprehensive measures are taken to prevent manipulation.

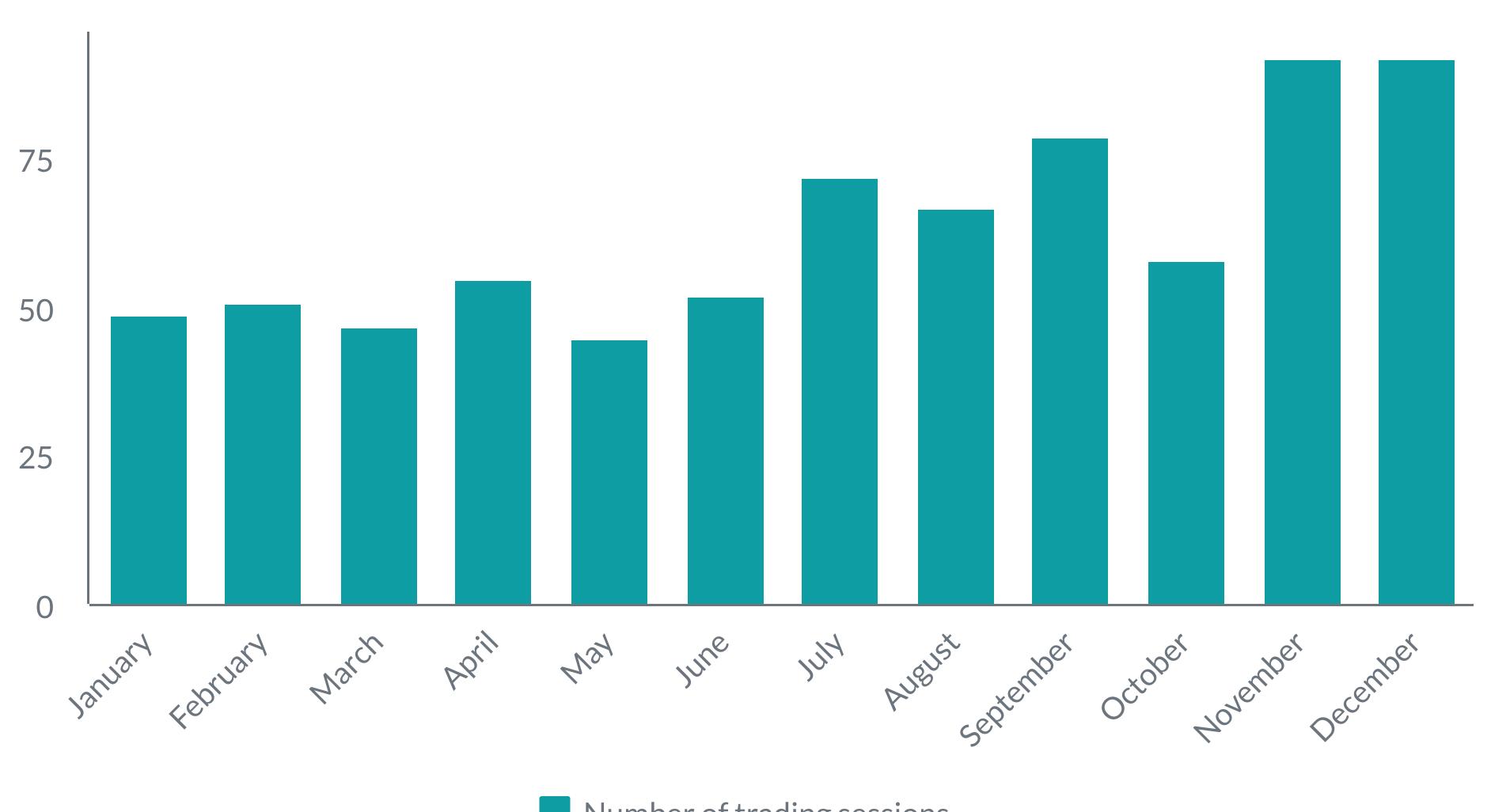
## UEEX ENERGY MARKETS

## Energy sales value in 2019



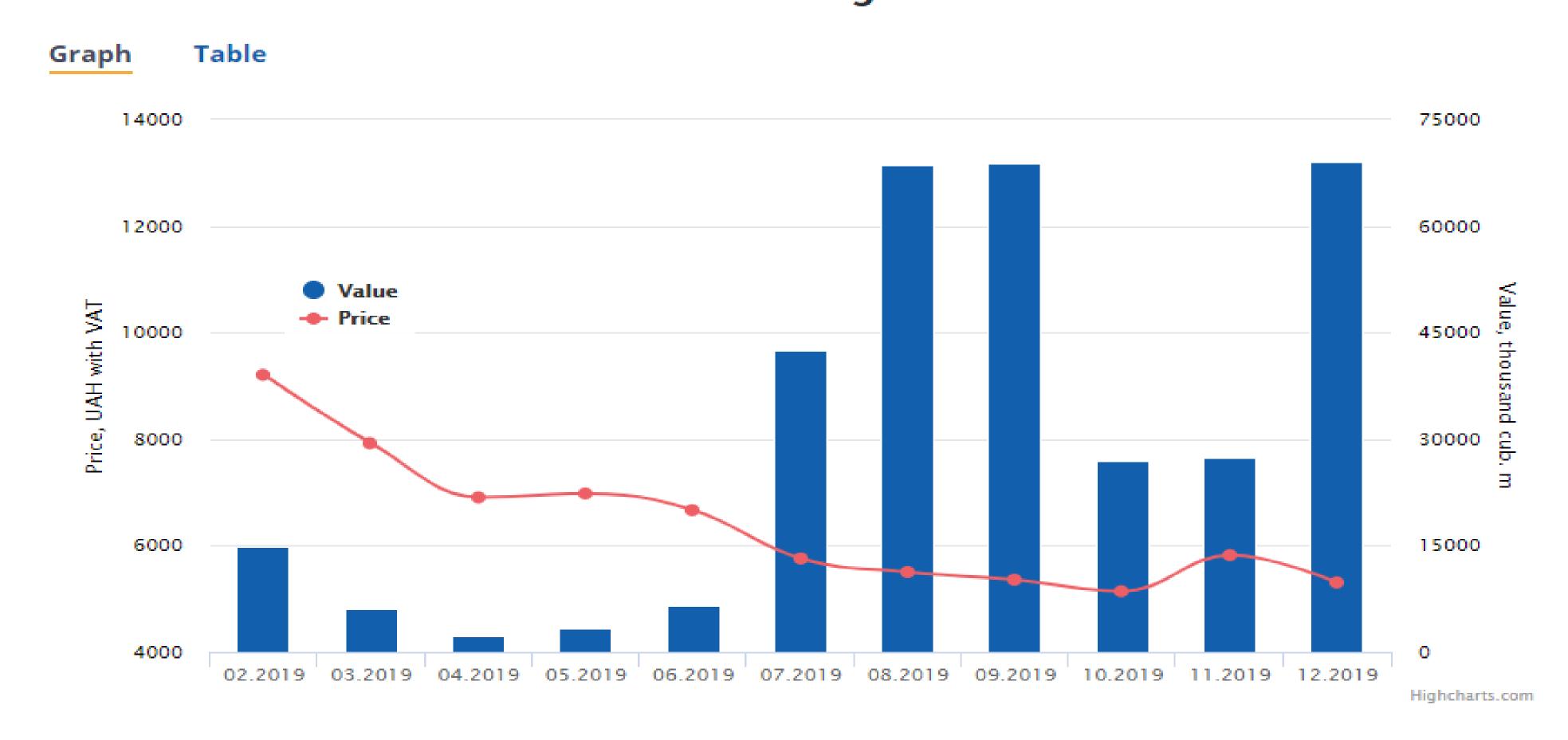
According to the key performance indicators, 2019 was the best year in energy trading. During the year, energy resources worth about 60 billion UAH were sold, 51% of which were electricity. Energy sales price 2019.

A total of 758 trading sessions were held, resulting in 10624 exchange transactions. November and December were record-breaking for the number of trading sessions, and the average annual value was 63 trading sessions per month.

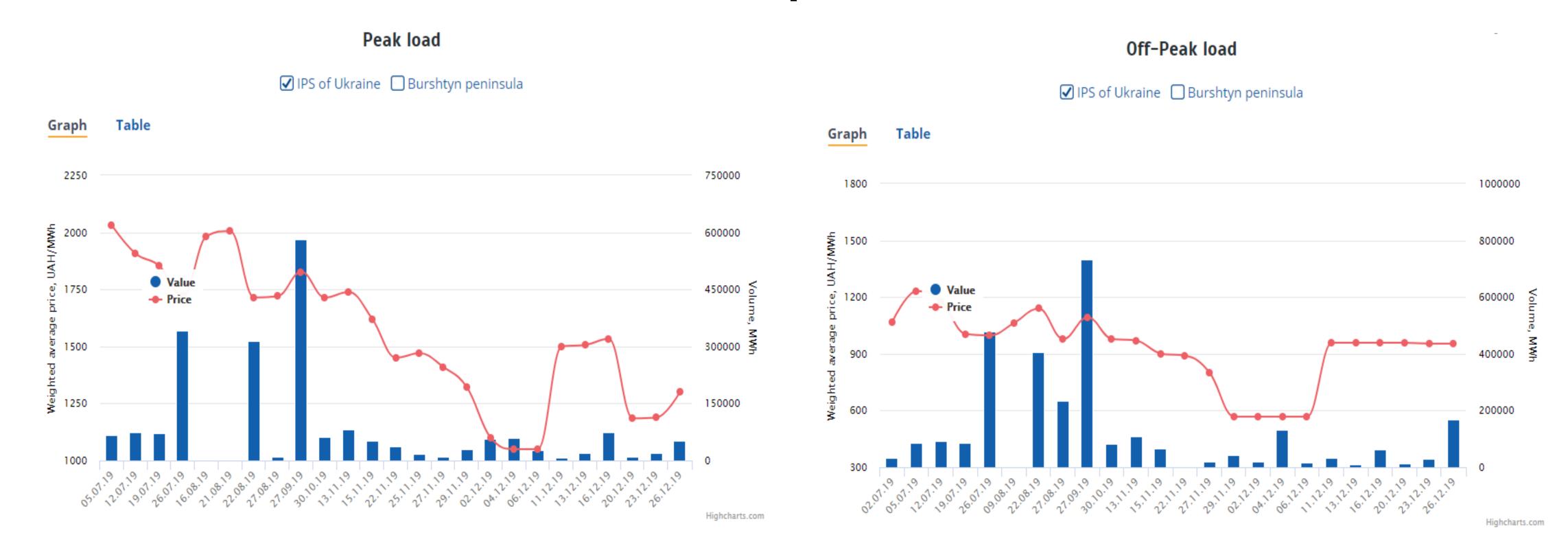


## EXCHANGE QUOTATIONS

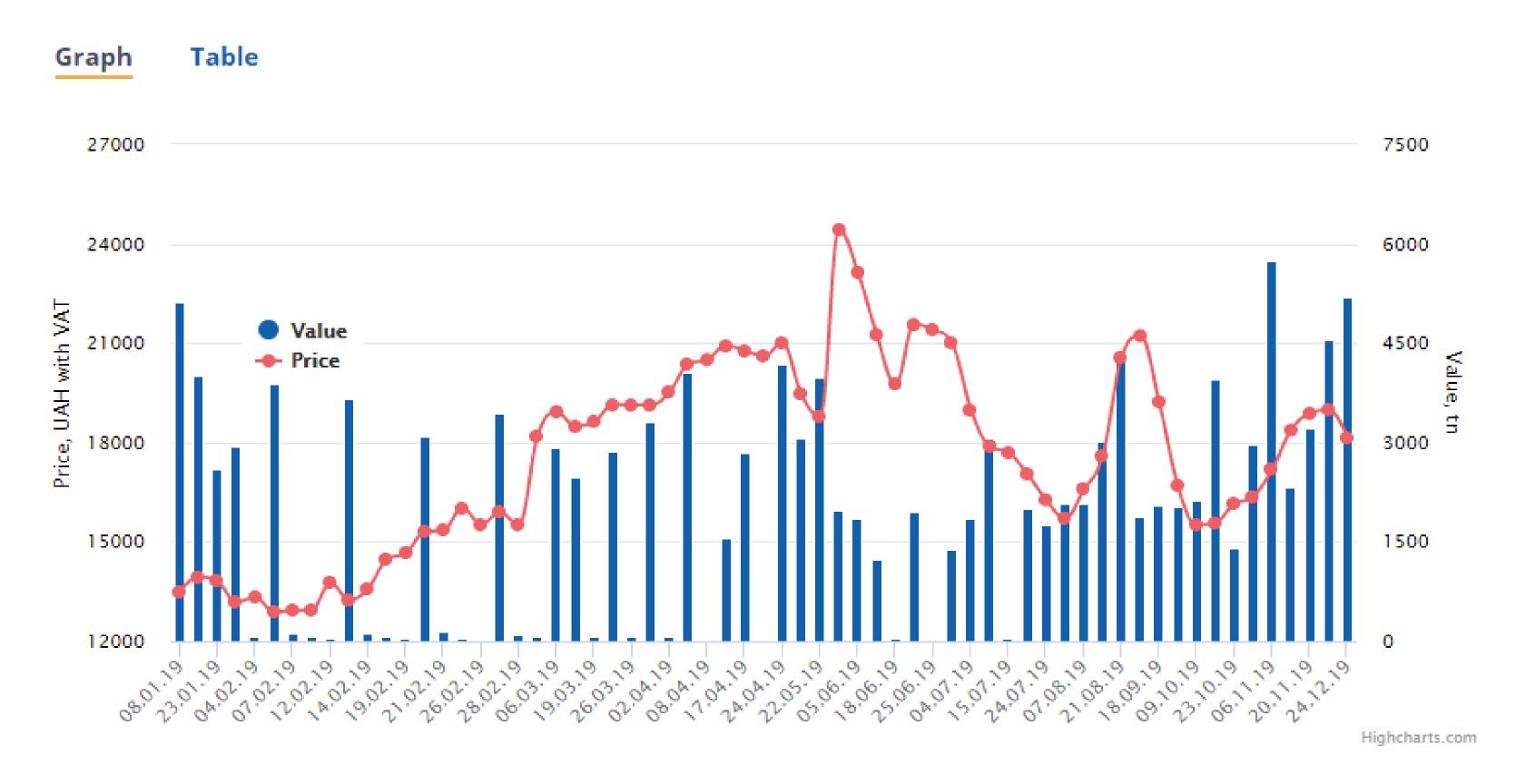
#### Natural gas



## **Electric power**



#### Schedule of prices for liquefied gas EXW, vehicles



## NATURAL GAS

On March 1, 2019, after several postponements, one of the key reforms in the energy sector took place - daily balancing on the natural gas market was launched. Thus, Ukraine has fulfilled its obligations under the Association Agreement with the European Union. During the first months of the daily balancing there were a number of problems, in particular technical failures in the information platform, incorrect calculation of the cost of daily imbalances, etc. As a result, there were situations with debts of Ukrtransgaz to the participants and the creation of an emergency situation consisted in the insolvency of Ukrtransgaz to pay off debts and gas shortages for balancing purposes.

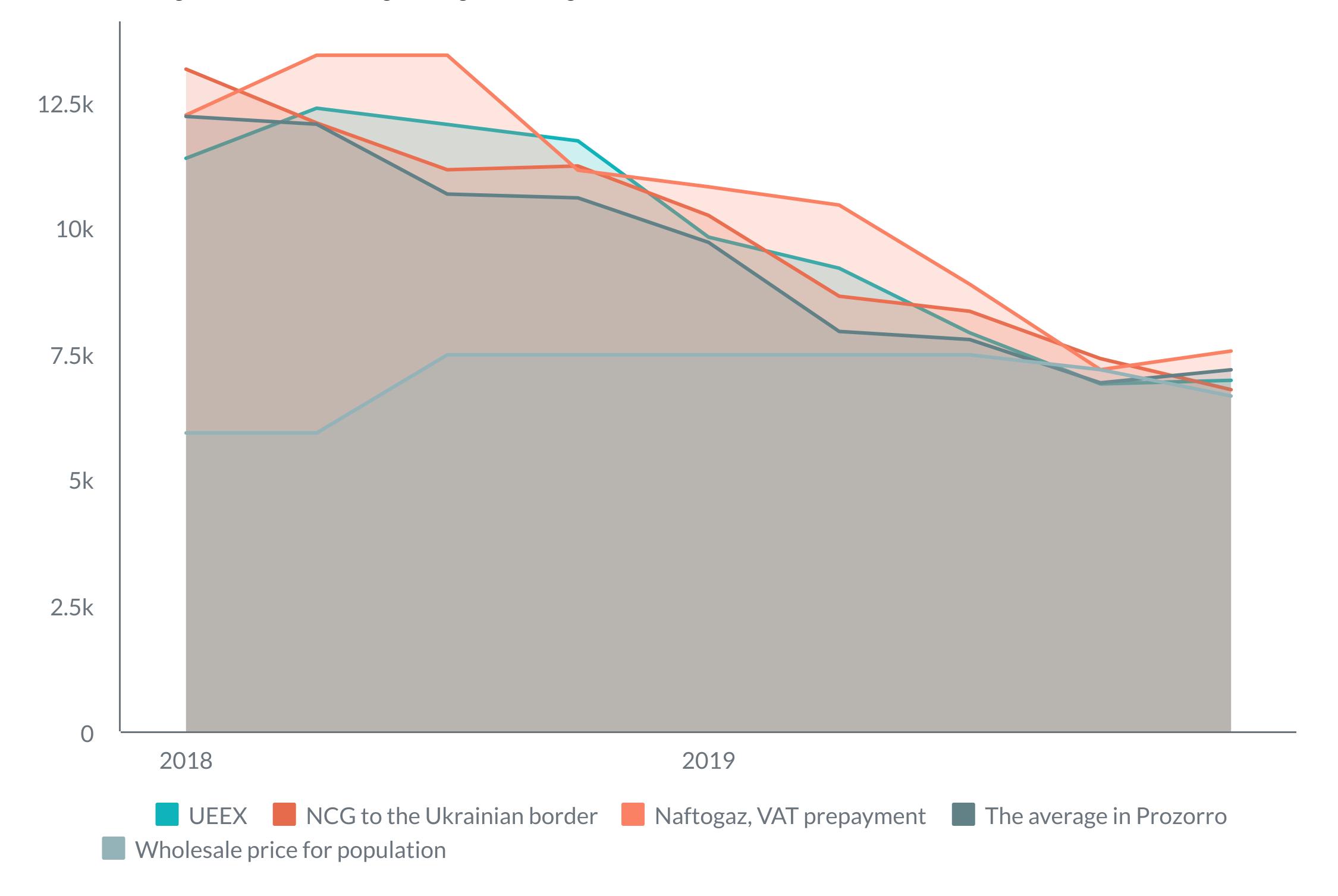
On June 5, the government made amendments to the methodology of forming natural gas prices for the population.

The price of natural gas in the framework of the Regulation on the assignment of special duties (PSO) has become the minimum value out of four, among which the average weighted price of a monthly natural gas resource for the gas month of sale/delivery based on the results of electronic exchange trading at the Ukrainian Energy Exchange before the beginning of this gas month.

The problem was partially resolved by supplying natural gas to Ukrtransgaz by Naftogaz, with payment deferred until February 2020.

At the end of the year the issue of determining margin prices by Ukrtransgas became particularly acute, as the operator at that time did not purchase natural gas for balancing purposes in a competitive way, as provided by the GTS Code, and did not purchase short-term standardized products for balancing the GTS on the exchange. Market participants were increasingly complaining about the absence of a market mechanism for determining the margin price based on the daily trading data of the GTS Operator. As a result, the Antimonopoly Committee of Ukraine issued an obligation to TSO to purchase gas at the exchange.

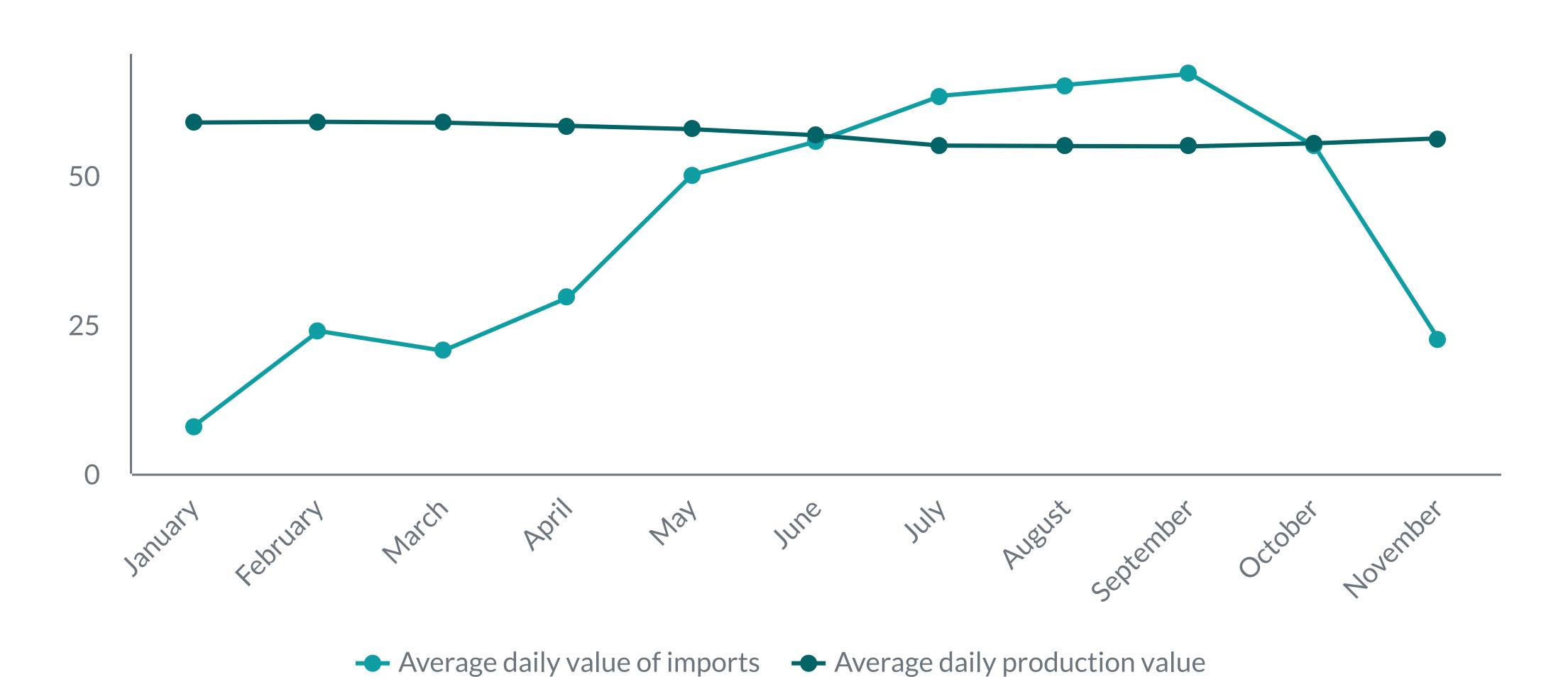
Month of supply	Import	UEEX Naftogaz		PSO
	(M-1)	(M+1)	(M-1)	
June	5681,5	5553,9	6299	7184,8
July	5160,5	4905,7	5803	7184,8
August	4811,8	4653,5	5017	7184,8
September	4493,6	4558,2	4640	7184,8
October	4272,8	4400,5	4640	7184,8
November	4988,5	4926,2	4899	7184,8
December	4276,7	4908,38	5861	7184,8
		-,		- , -



In the European market, prices were falling record-breaking. For example, quotations at the German hub NCG in September reached the lowest level since January 2019 - 8 euro/megawatt (-64%) and was 13 euro/megawatt in December (-27%).

## NATURAL GAS

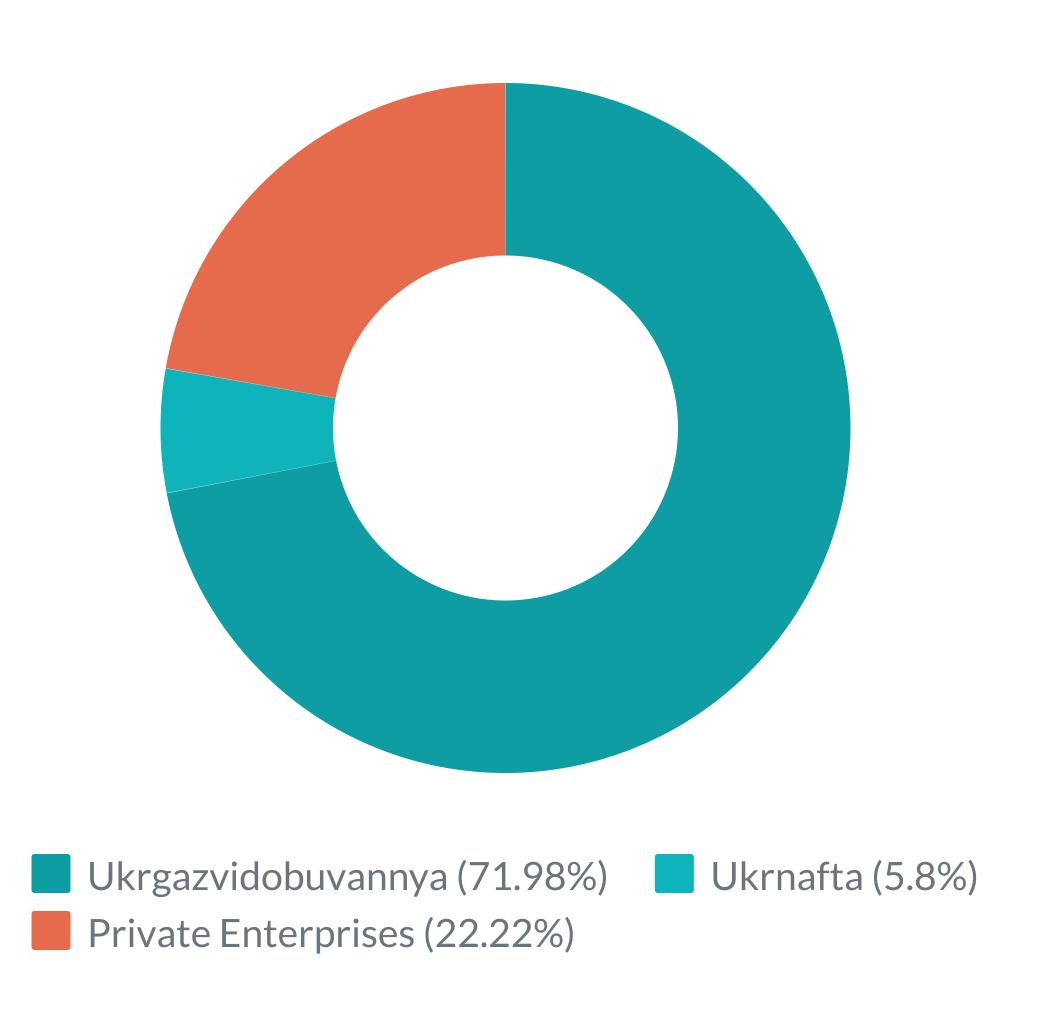
The reason was competition between Russian pipeline gas and American liquefied gas in Europe, redirecting liquefied gas flows from Asia to Europe, significant resource accumulation in UGS, moderately warm weather, and etc.



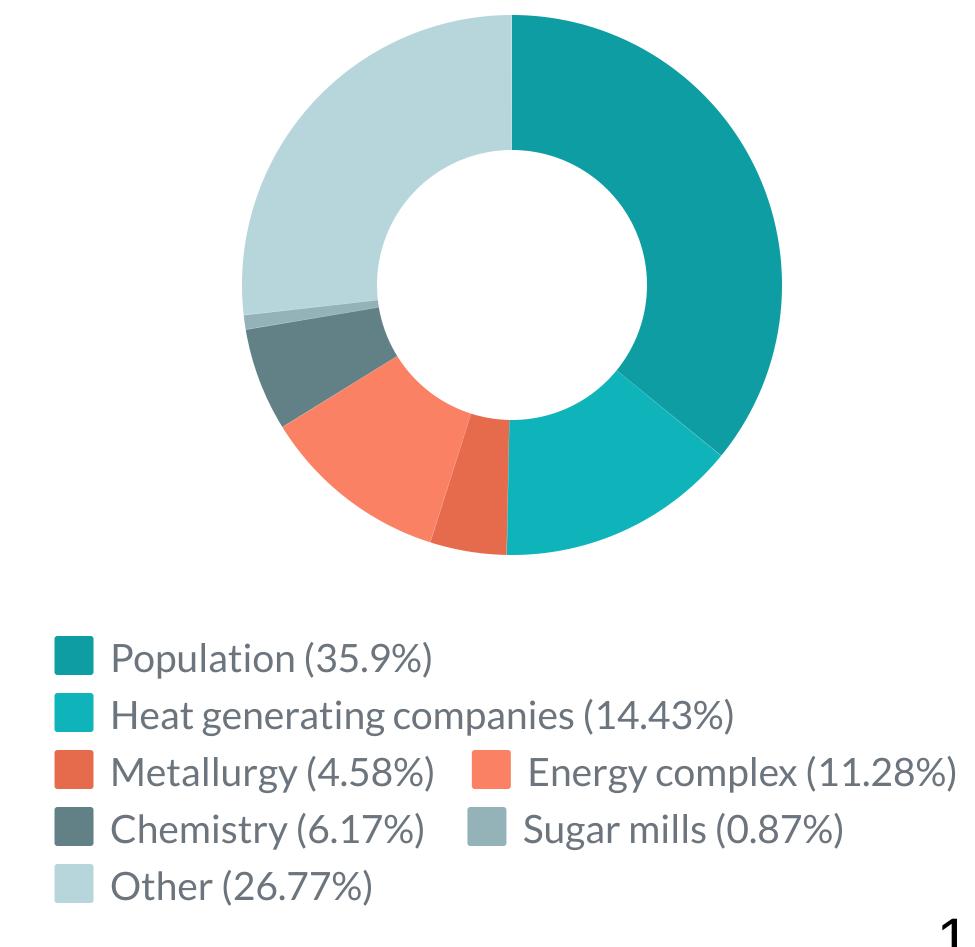
In 2019, 20.7 billion cubic meters of natural gas was produced in Ukraine. Compared to the previous year, this figure has decreased by 1%. The introduction of electronic auctions to sell subsoil licenses in the long term should stimulate production in the coming years. Lower prices have stimulated an increase in imports. Imports amounted to 14 billion cubic meters, which is 35% more than last year.

In the non-heating period, imports were the main source of gas supplies to the GTS. Slovakia was the leader of imports (65% of the total). UGS was injected with 13.1 billion cubic meters, 34% more than last year. Thus, 22 billion cubic meters of gas were accumulated in UGS facilities at the beginning of the selection season, which is a record figure for the last 5 years.

# Production of natural gas, billion cubic meters.



Natural gas consumption, billion cubic meters.



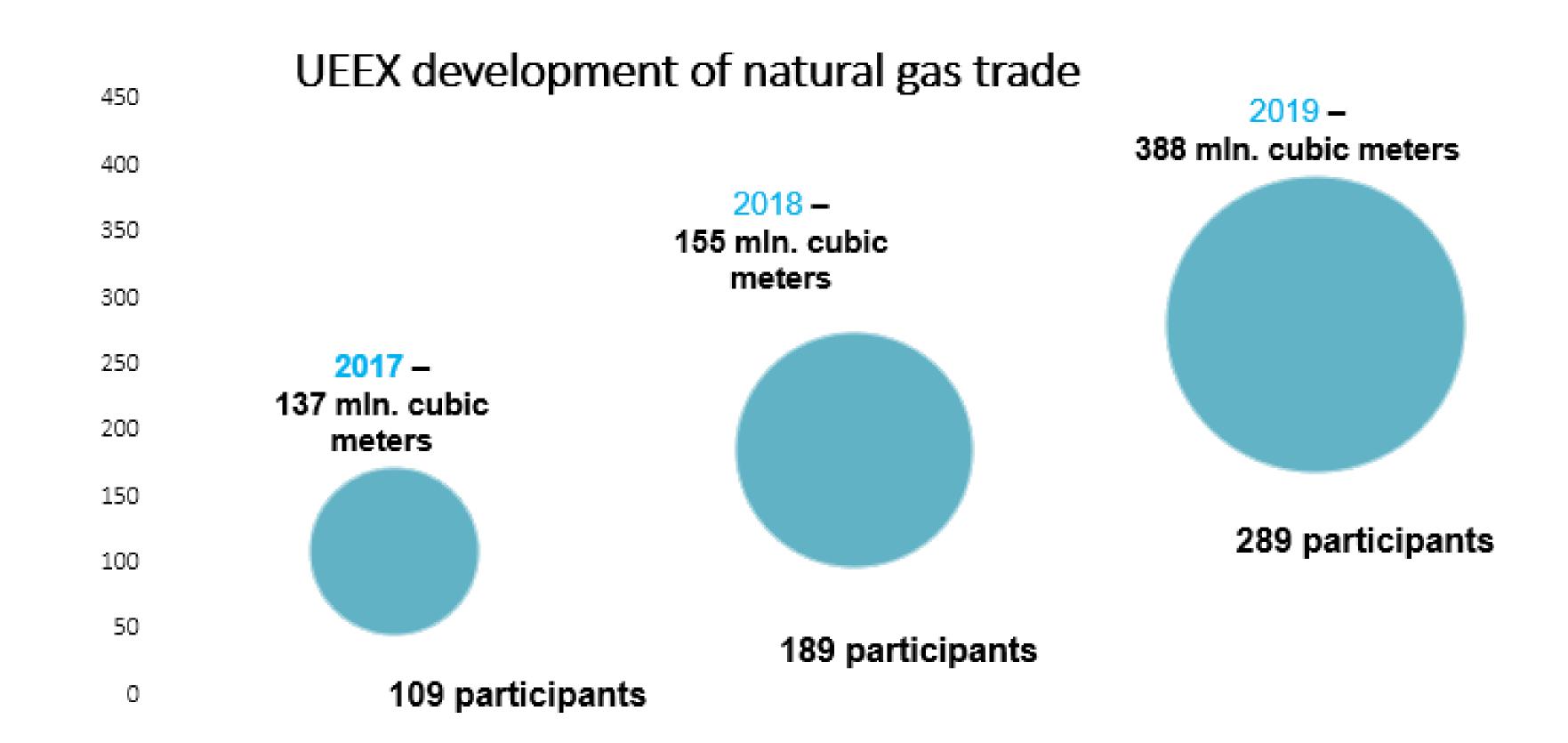
## NATURAL GAS TRADING ON UEEX

Last year was undoubtedly successful in terms of natural gas trading on the Ukrainian Energy Exchange. In total 388 million cubic meters of natural gas was sold during the year, which is almost 2.5 times more than the previous year and 2.9 times more than in 2017. Thus, over the last years the trade volumes have been dynamically growing.

In total of 218 trading sessions were held, 126 of which were natural gas resources sold.

For comparison, 227 trading sessions were held in 2018 and 105 in 2017.

In 2019 UEEX managed to attract 100 new participants to the Natural Gas trade direction. Thus, as of the end of the year 289 companies were accredited for natural gas trading. In total, almost 2000 natural gas purchase and sale transactions/exchanges were concluded during the year.

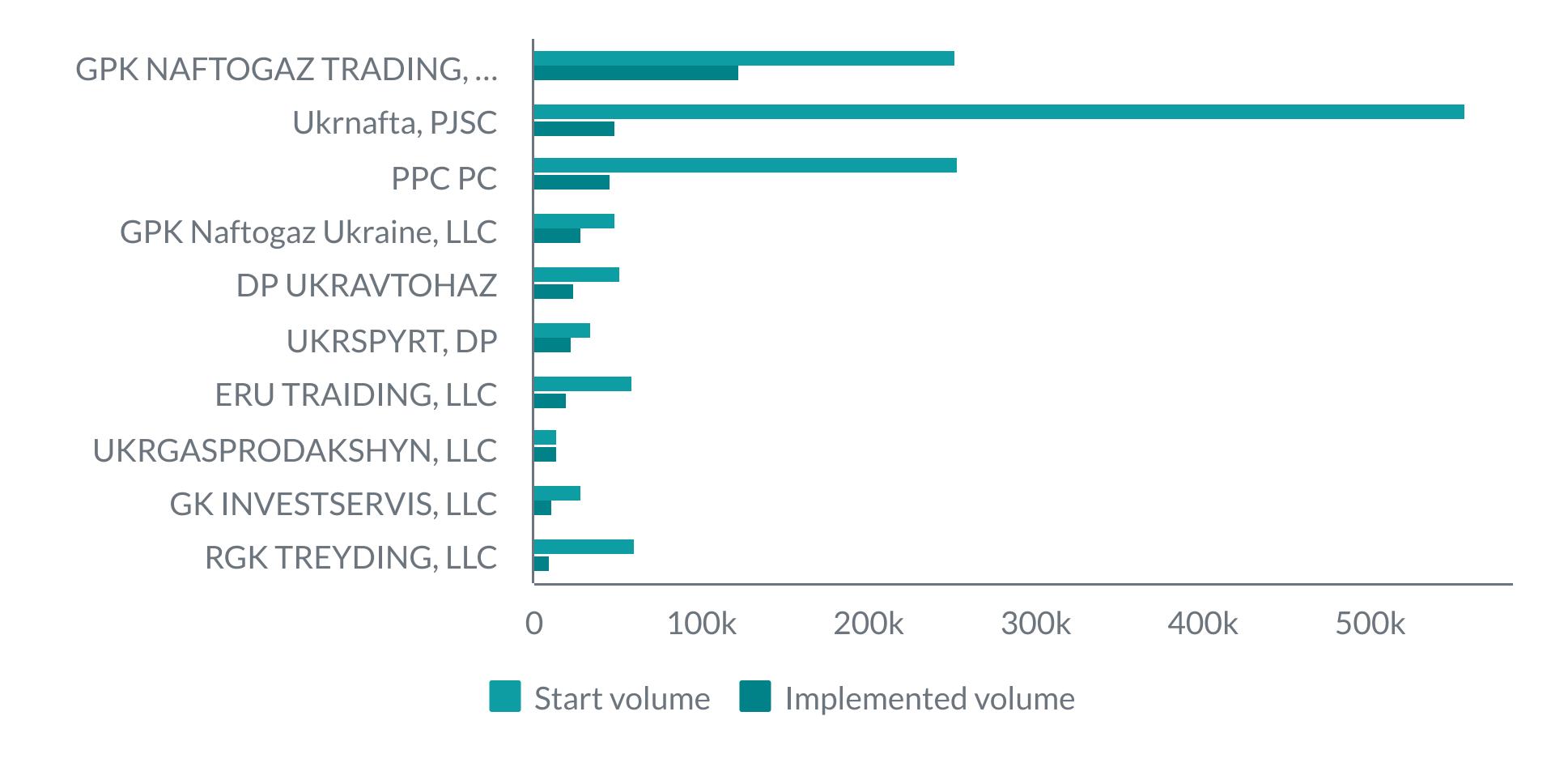


Natural gas trading was initiated by 44 companies. Among them, Kraft Energy, Naftogaz Trading, PPC, De Trading and TD SKF initiated the largest number of positions. Trading sessions were held both for buying and selling the resource.

Naftogaz Trading was of great importance in the growth of participants' activity. The company has formed starting positions 229 times.

Naftogaz Trading was of great importance in the growth of participants' activity. The company has formed starting positions 229 times. Of the 252 million cubic meters of natural gas that was on the auction, 49 per cent was sold. This is the highest absolute sales figure among other companies.

Operators of gas distribution networks from the beginning of 2020 began to buy gas for WTV at UEEX to ensure the breakeven of its adjustable tariff.



# UEEX WORK TO START A SHORT-TERM GAS MARKET



In July 2018, the OTC Platform was launched to ensure a smooth transition to launch the daily balancing market. The OTC Platform operates on the principle of a bilateral counter auction. Until the integration of the exchange trading platform and the GTS Operator Information Platform was completed, UEEX provided its OTC Platform for free to allow participants balance their portfolios.



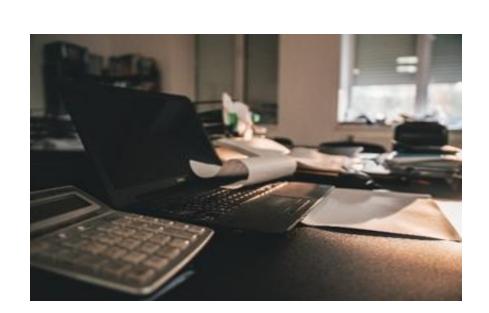
Ready for full operation in the new model of the market daily balancing Trading Platform "Energy Trading Platform" with standardized products with a time interval in the "intra-day" market or in the "day ahead" market.



An agreement on interaction between the GTS Operator and UEEX for the purpose of data exchange has been concluded. The integration of the UEEX Trading Platform and the GTS Operator Information Platform from the direction of UEEX is completely done.

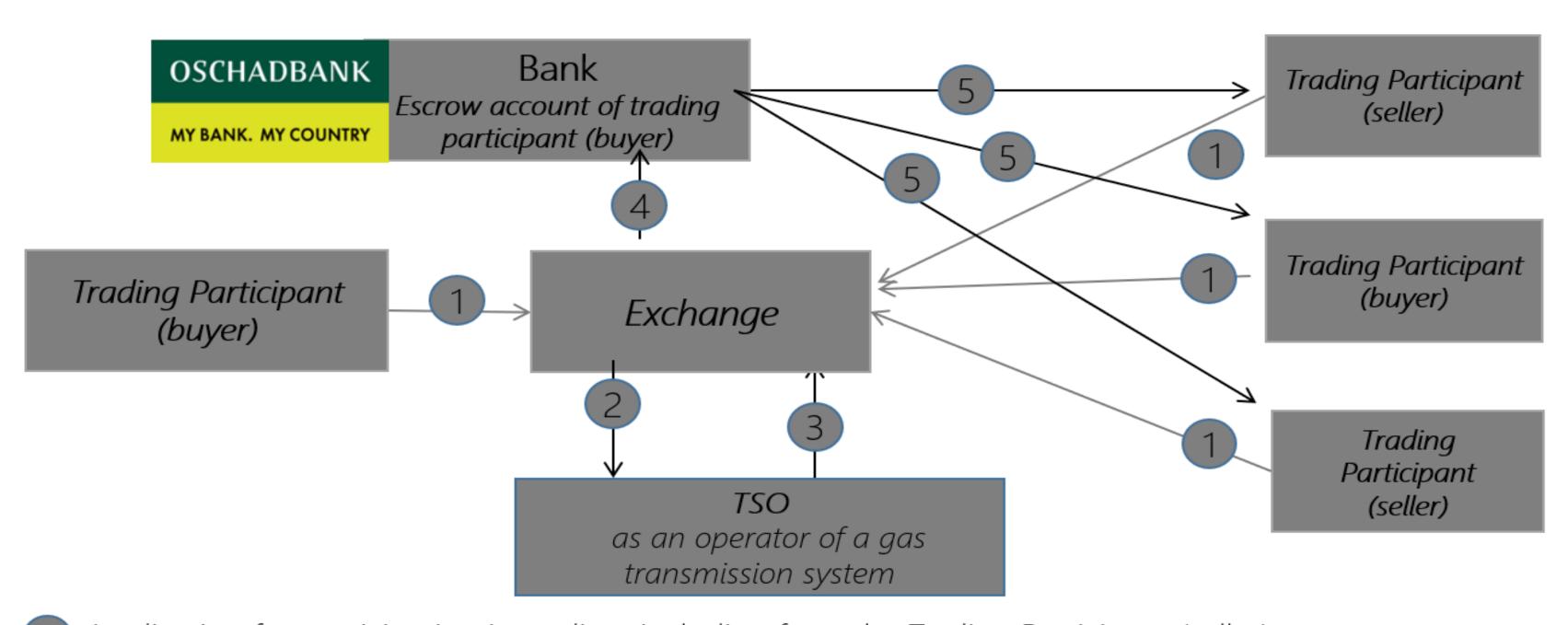


Available electronic systems for full-featured natural gas trading: continuous trading, auction, OTC-deals (quote driven market). Reliable information and data protection system.



Integration with banks was conducted to ensure clearing of exchange deals using escrow accounts (light CCP). A risk management system has been developed.

## Creating a liquid natural gas market



- 1 Application for participation in trading, including from the Trading Participant (seller)
- Trade Notification on purchase/sale of natural gas
- 3 Trade Notification confirmation (volume of natural gas purchase/sale)
- Formation and sending Register to the Bank
- Transfer of funds from the Escrow account of the buyer to the Seller's current account at the Beneficiary's order (according to the provided Register) \*

<sup>\*</sup> operation requires automation taking into account the Regulations of operation of the Exchange, which stipulates conducting trading sessions on weekends and holidays

## BALANCING IN UKRAINE

## - not the market yet

#### MARGIN PRICE =

#### EXCHANGE

In order to determine margin prices, the GTS Operator uses the data of the exchange agreed by the Regulator

#### Sales - the lowest of:

- the lowest selling price of any short-term standardized D product to which TSO is a party;
- weighted average price of short-term standardized D products, reduced by the correction value.

#### Purchase – the highest of:

- the highest purchase price for any short-term standardized D product to which TSO is a party;
- weighted average price of short-term standardized D products, increased by the correction value.

#### If that didn't happen, for every D.

Margin sale/purchase price - by reducing/increasing the cost of natural gas purchased by TSO as a result of receiving balancing services on this gas day D by the correction value.

Since October, TSO has switched from a monthly to a daily margin gas price.

"When switching to the last option (exchange quotations), the Ukrainian gas market in terms of determining the payment for imbalances is fully synchronized with the European rules" - JSC "Ukrtransgaz".

#### If anything above is impossible-

Margin sale/purchase price is determined in accordance with the natural gas purchase by TSO price, which was formed during the gas month (M-1), reduced/increased by the correction value

Market threat Through the duality of legislation on public procurement in Ukraine, GTS operator was beware of purchasing natural gas for daily balancing on the exchange. Purchasing gas from ProZorro did not allow for the formation of objective margin prices, and the direct purchase from one supplier - Naftogaz, completely excluded market factors in the mechanism of formation of margin prices. Due to their non-reference, the essence of daily balancing was leveled out, and it was not profitable for the participants to settle their imbalances on their own.

Decision

The AMCU provided recommendations to the GTS operator to purchase gas at the exchange. Until the Draft Law "On Changes to Public Procurement" is adopted, which excludes gas procurement by the GTS operator from the scope of the law, LLC "GTS Operator of Ukraine" will purchase balancing services at ProZorro on condition that the gas supplier must purchase this gas on the stock exchange on a daily basis. This will allow forming the necessary liquidity of short-term standardized products (titles) and forming objective market margin prices every day.

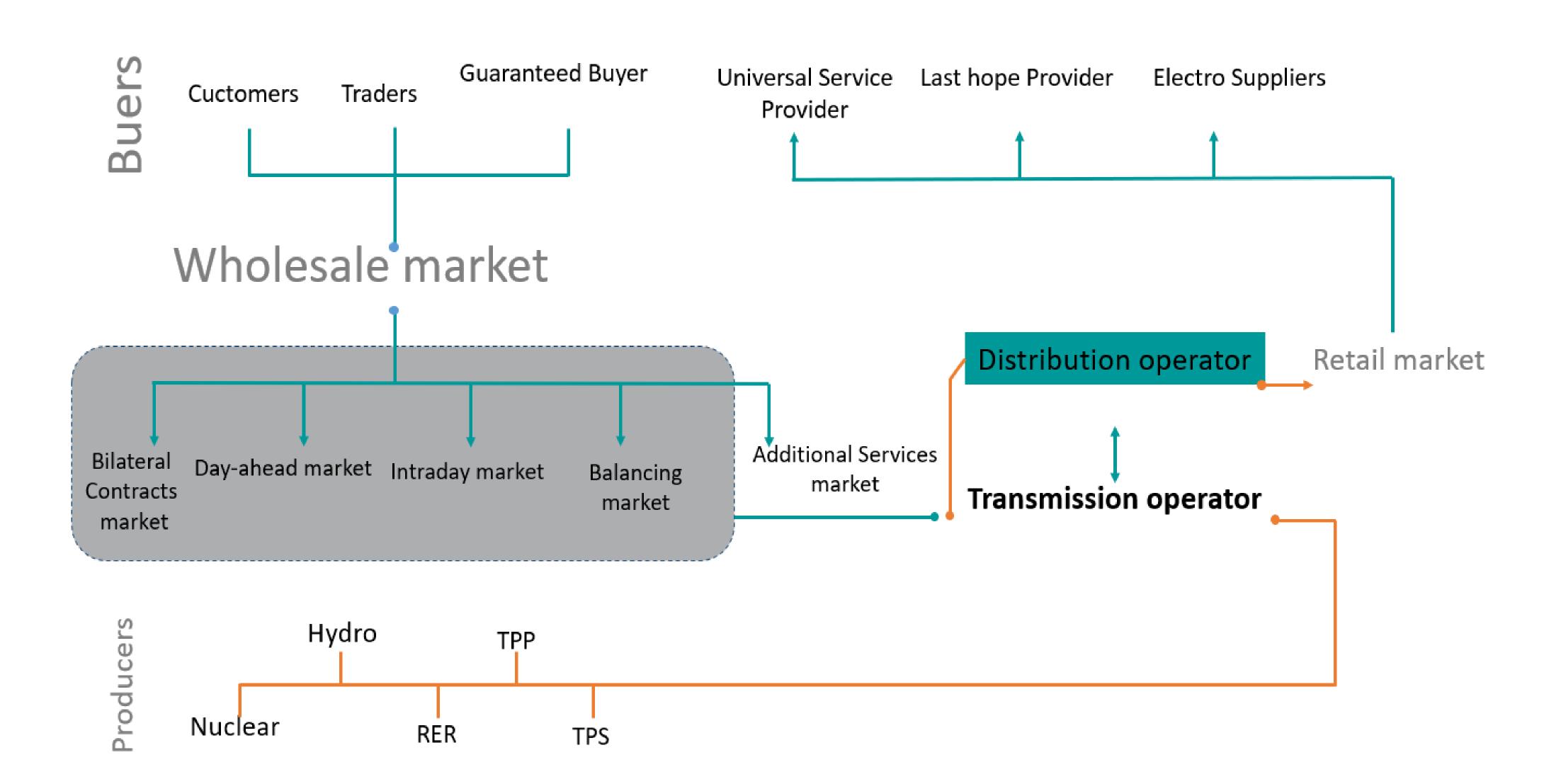
Market threat By 1.05.2020, state production companies are obliged Naftogaz of Ukraine to sell gas at a regulated price within the scope of the PSO. At present, the price for the population is almost equal to the price for gas for industry. Under such conditions, the consumer should have the right to choose any gas supplier, and then the obligations of the PSO are not practical.

Decision

In case of PSO non-extension, from 1.05.2020 Ukrgazvydobuvannya will be able to sell gas on the free market, including the exchange.

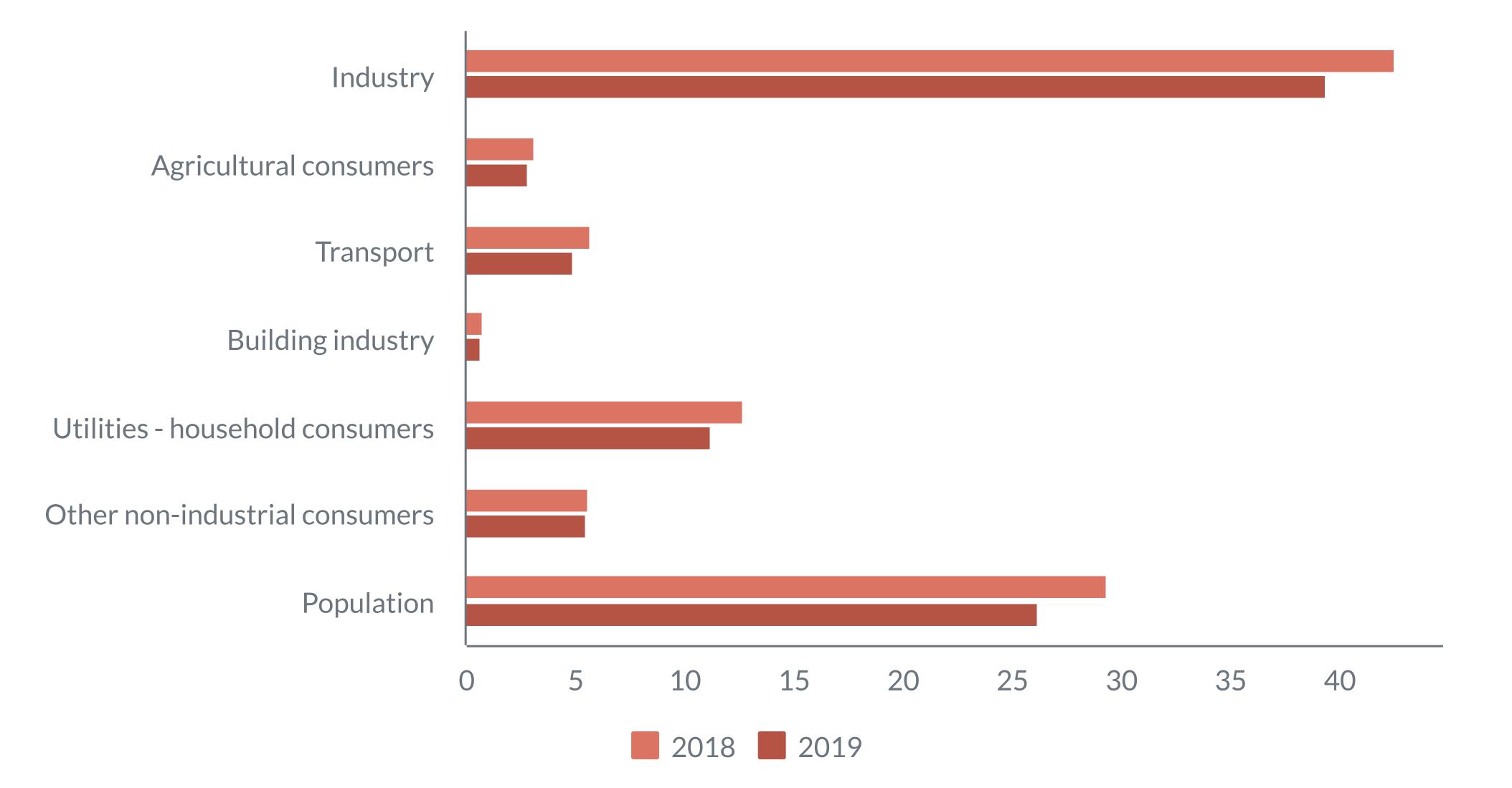
## ELECTRICITY

The Law on "On Electricity Market", adopted in The new model includes a number of segments: April 2017 to fulfill obligations under the EU Third bilateral contracts market, day-ahead market, Energy Package, provided for the implementation intraday market, balancing market. The Law went of a new market model. into effect on July 1, 2019.



The cost of electric energy is determined by the market demand. Energy-intensive consumers have the opportunity to purchase electricity directly from its producers, on condition of providing all necessary contracts stipulated by the Market Rules. The exception to the new rules relates only to the supply of electricity of the population, for which the preferential price is still valid

## Consumption structure in Ukraine, billion kWh

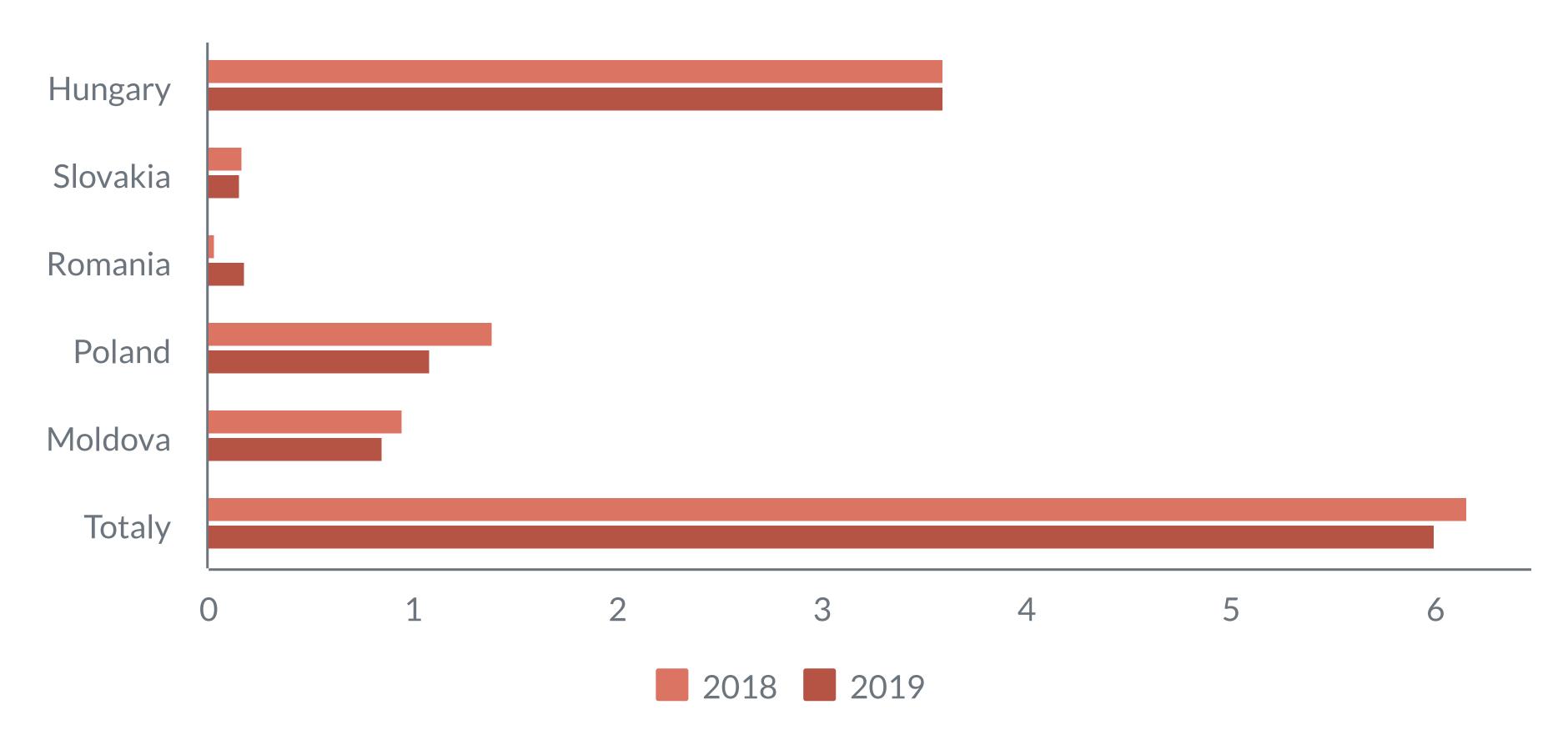


<sup>\*</sup> not taking into account temporarily occupied territories of the Autonomous Republic of Crimea, city of Sevastopol, Donetsk and Lugansk regions

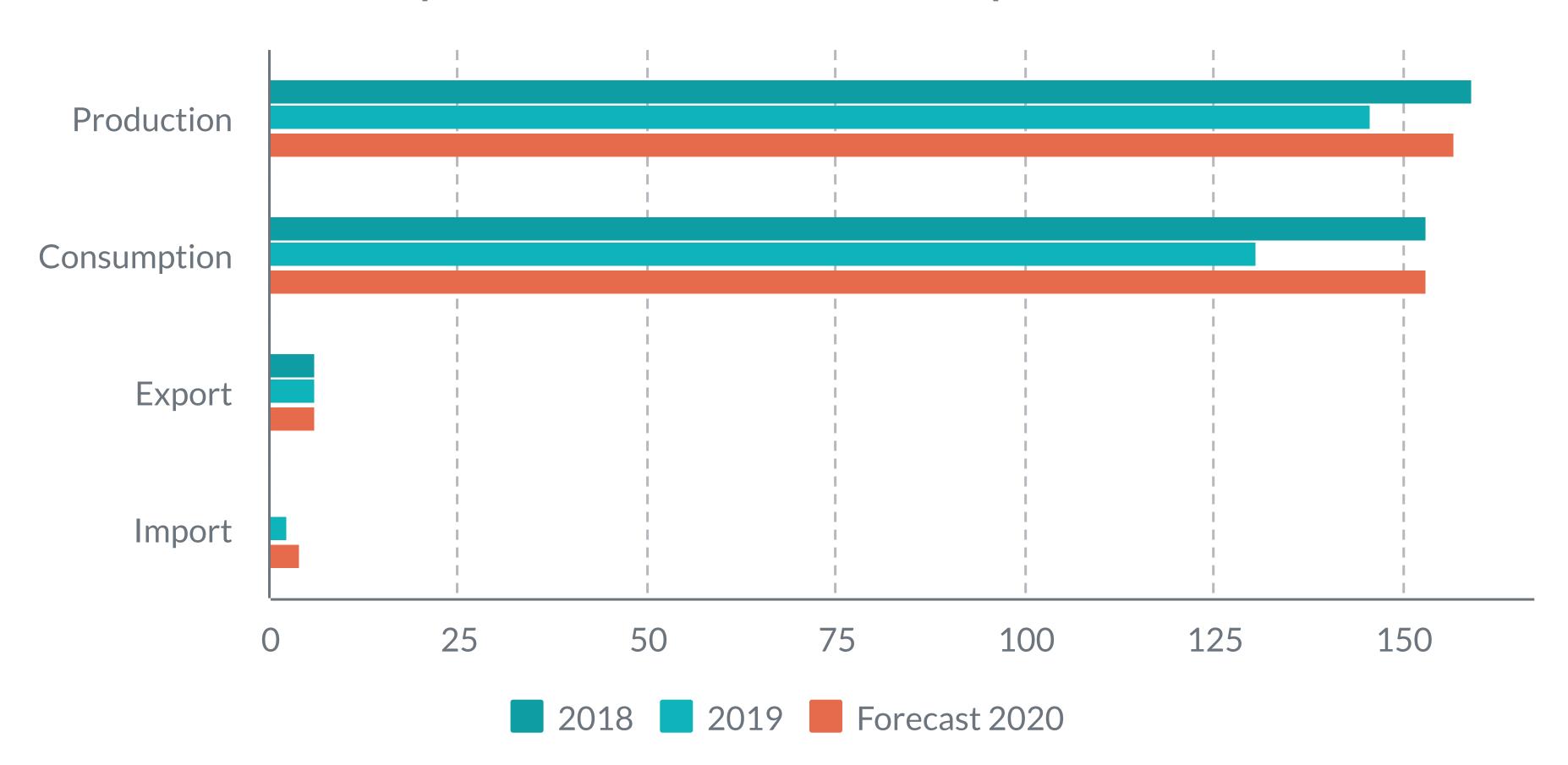
## ELECTRICITY

The UES of Ukraine is divided into two parts. The main part of the UES of Ukraine operates in parallel with the energy sector of the CIS and Baltic countries, and the other part - "Burshtynska TES Island" - as part of the union of power systems of continental Europe ENTSO-E.

## Exports by destination, billion kWh



### Balance of production and consumption, billion kWh



## ELECTRICITY

For half a year (July - December), the total value of purchased and sold electricity at DAM is 44.5 billion UAH (including VAT). Out of this amount, 89% in the UES of Ukraine - 40.65 billion UAH (including VAT) and 11% in Burshtyn TPP - 3.8 billion UAH (including VAT). On IDM the total cost is -1,39 UAH (with VAT). Of these, 81% for the UES of Ukraine - 1.13 billion UAH (with VAT) and 19% for Burshtyn Island - 0.26 billion UAH (with VAT). In 2019 from July to December the total volume of purchase

and sale of electric energy at DAM and IDM is 17534.81 GWh. Changes in volumes of purchase and sale of electric energy for half a year on separate trade zones look as follows: on DAM in the zone "UES of Ukraine" - 14995.47 GWh in the zone "Burshtynskaya TPP island" - 1801.87 GWh; on HSS in the zone "UES of Ukraine" - 612.8 GWh. In the zone "Burshtynskaya TPP Island" - 124.67 GWh. Bidding volumes on DAM and IDM were almost 30% of consumption in the zone of "UES of Ukraine".

	Volume of Mwh	Volume, Gwh	Price	Average number of participants	Total amount, (mln UAH with VAT)	
			DAM UES			
July	4068423,1	4 068 ,4	1643,48	212	8 005,20	
August	3618449,8	3 618 ,4	1679,09	214	7 248,96	
September	3838965,8	3839,97	1604,67	222	7392,33	
October	3349827	3349,82	1533,16	226	6192,99	
November	3719083,8	3719,08	1320,35	236	5892,59	
December	4086649,6	4086,6	1207,8	241	5923,02	
DAM BuOS						
July	279300,2	279,3	1698,34		569,1	
August	196978,5	196,98	1856,27		438,77	
September	249812,4	249,81	1911,38		572,98	
October	310089,5	310,09	1875,85		698,02	
November	417993,2	417,99	1787,53		896,6	
December	347700,8	347,7	1606,35		670,2	

	Volume of Mwh	Volume	Price	Average number of participants	Total amount, (mln UAH with VAT)
			IDM UES		
July	88423	88,4	1835,27	79	194,7
August	89912	89,9	1754,57	90	189,31
September	83799,1	83,8	1772,94	95	178,29
October	74674,7	74,7	1692,1	96	151,63
November	185429,5	185,4	1242,67	78	276,5
December	90601	90,6	1256,75	72	136,6
			IDM BuOS		
July	16003	16	1733,01		33,2
August	31395,6	31,4	1940,57		73,1
September	24920,2	24,92	1746,58		52,23
October	22588,1	22,59	1729,25		48,87
November	16936,3	16,93	1450,99		29,49
December	12826,4	12,83	1279,28		19,69

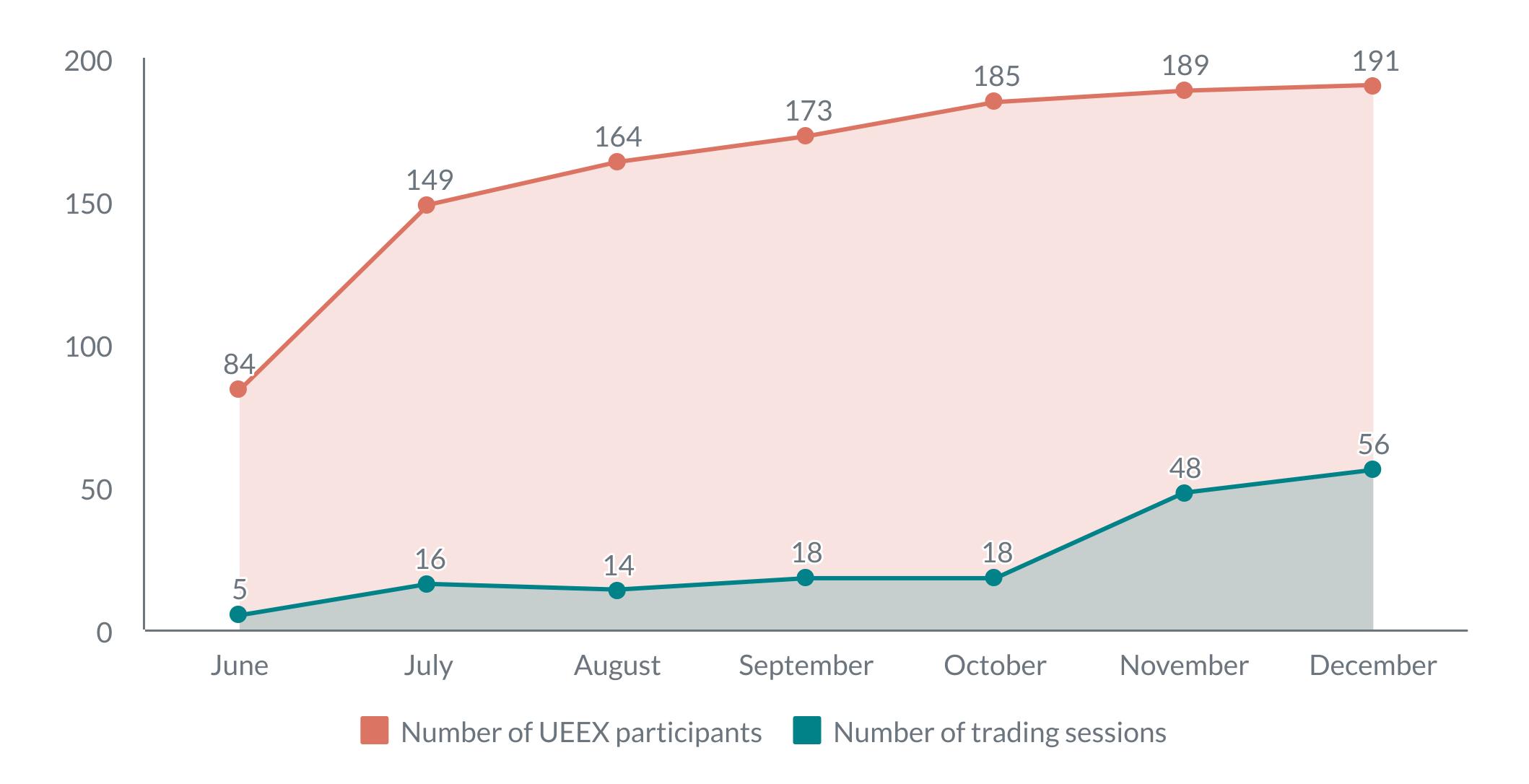
In order to obtain a sharp rise in electricity prices, price caps have been set for IDM and DAM. Price caps: for periods with minimum load (00:00 08:00 and 23:00 24:00) are 959.12 UAH/MWh, and for hours with maximum consumption (from 08:00 to 23:00) are 2048.23 UAH/MWh. Maximum prices in both trading zones have changed since December 1 compared to those in effect during July-November. Thus, the minimum price is 30% lower than the current hour DAM price, and the maximum price is 15% higher.

Prior to that, the price cap on the CE was: from 8:00-23:00: the minimum price is 15% lower than the price cap for the peak at the DAM and the maximum price is 15% higher than the peak at the DAM. Prior to Ukraine's entry into ENTSO-E, CE participants are required to sell electricity in this market segment at prices ranging from 70% (lower boundary) to 115% (upper boundary) of the price that was at the DAM at the current hour.

## ELECTRICITY TRADE ON UEEX

On June 5, the government adopted a resolution "On Approval of the Procedure for Conducting Electronic Auctions for Sale of Electric Power under Bilateral Contracts and the Procedure for Selection of Organizers of Auctions Authorized to Organize and Conduct Electronic Auctions for Sale of Electric Power under Bilateral Contracts" according to which the Ukrainian Energy Exchange was selected as the organizer of the auction for electricity selling.

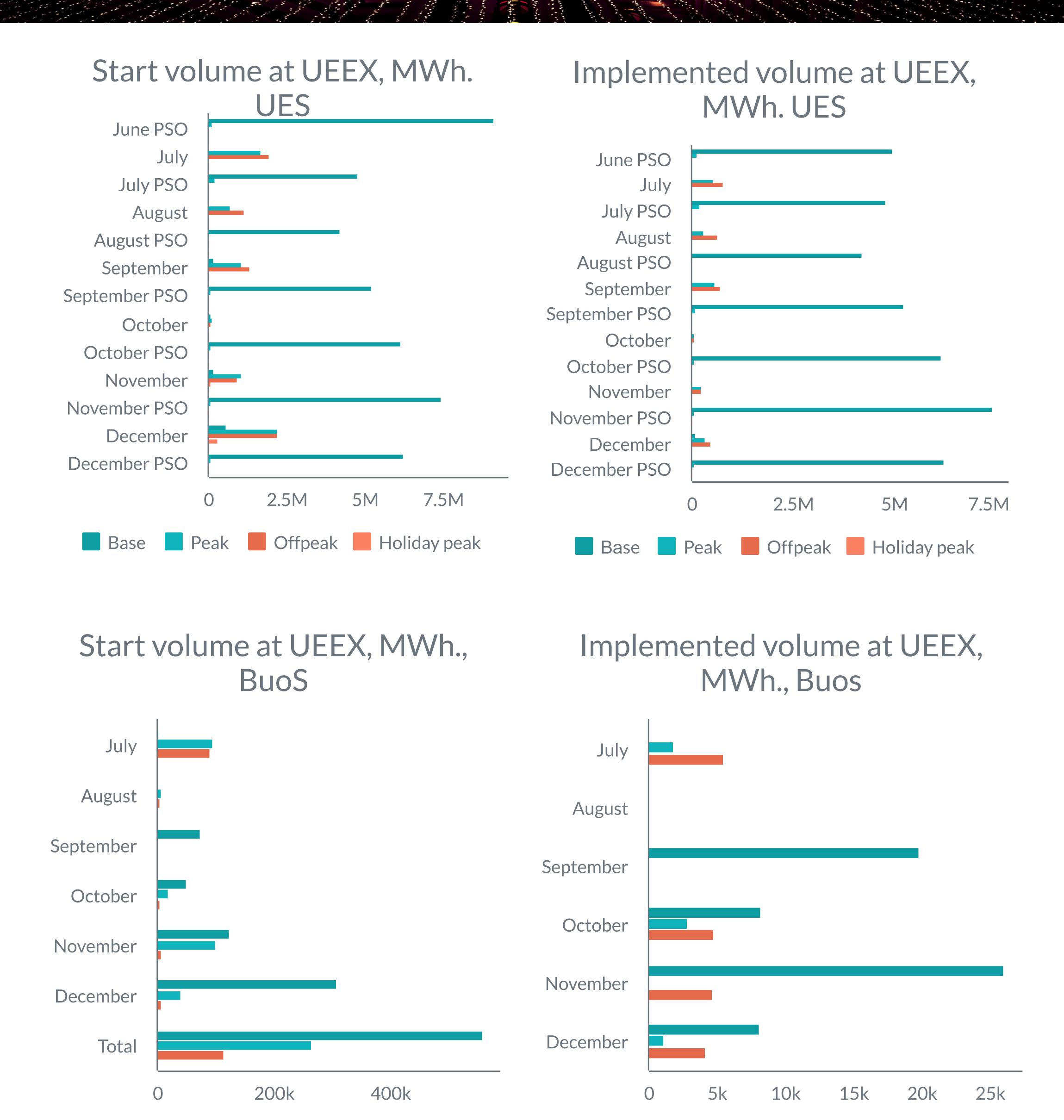
In order to maintain the preferential price (PSO), the mechanism of providing the population with electricity produced by the State Companies "Energoatom" and "Ukrhydroenergo" is used, its cost of electricity is the lowest in Ukraine. The first auctions for the sale of electricity under bilateral contracts were held on June 27, as part of the PSO.



According to the results of 2019, 175 auctions were held on CE UEEX for the sale of base, peak, off-peak and peak loads of non-working days of electricity, of which 18 auctions for the implementation of PSO to ensure public interest and 8 commercial sessions. Totaly in 2019 on CE UEEX on the "Electricity" direction 191 participants were accredited. Within six months, 302 starting positions were formed in the trade zone "UES of Ukraine" and 237 in the zone "BuoS" for the sale / purchase of resources of different types of load. In total, in 2019 the total volume of sales of electric energy in the market of bilateral contracts amounted to more than 45.1 million MWh.

Realized volumes of electric power on trade zones look as follows: in the zone "UES of Ukraine" - 45040743 MWh. in the zone "BuOs" - 87358 MWh, that makes 99,8% and 0,2% of total volume of sales respectively. Besides, at Ukrainian Energy Exchange in the zone "UES of Ukraine" there were sold 39.8 million MWh of base, peak and peak non-working hours of electricity at regulated prices of companies, which have special responsibilities in the new electricity market of SE NAEK "Energoatom" and PJSC "Ukrhydroenergo". As of today, 90% of electricity generated by SC NAEK Energoatom and 35% by PJSC Ukrhydroenergo fall under the obligations of the PSO (at DAM, the companies sell at least 10% of their output). Such significant obligations under the PSO do not contribute to the development of a competitive market and significantly hamper market pricing.

## ENERGY TRADE VOLUMES ON BEEX



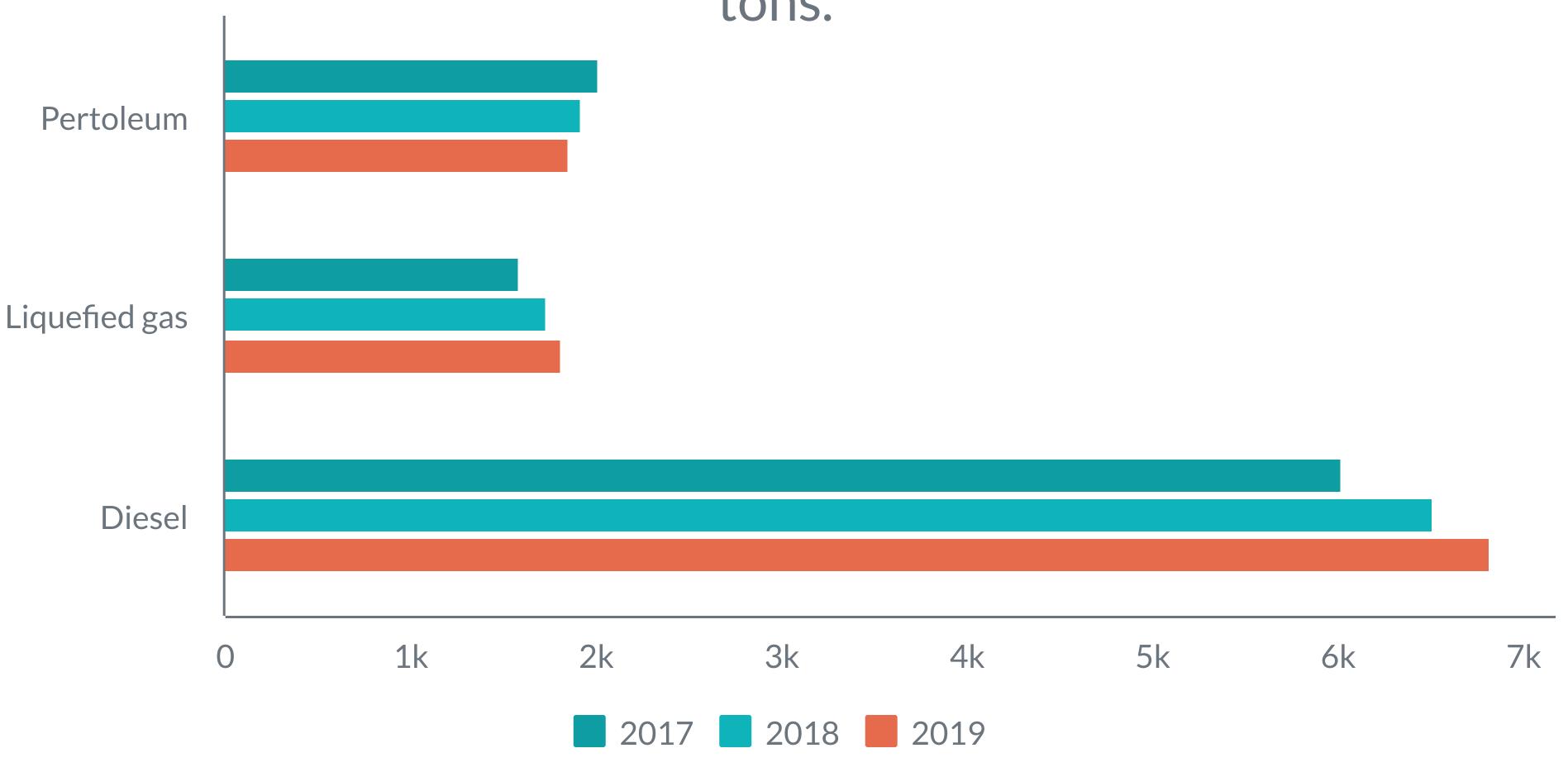
Peak Offpeak

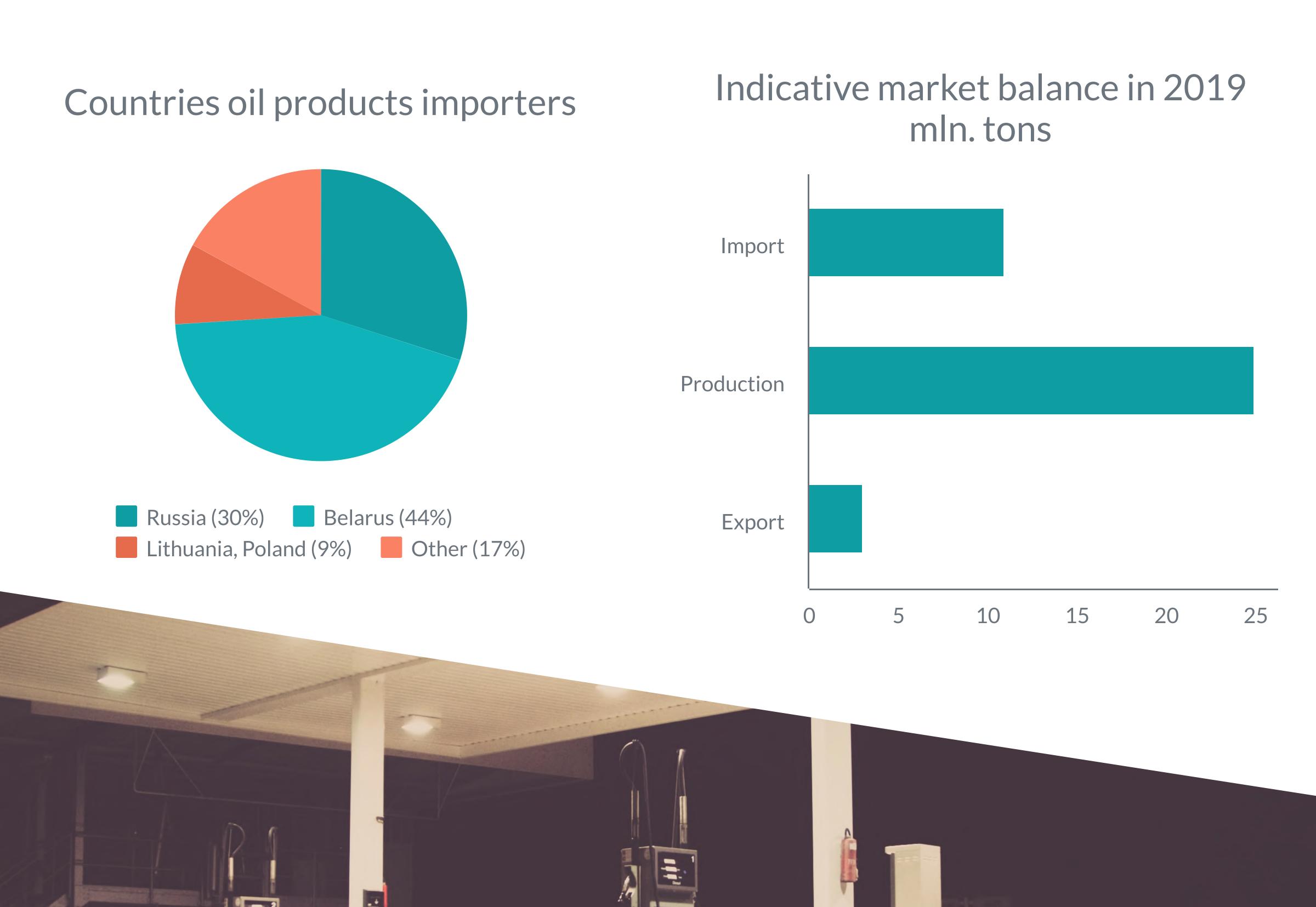
Base

Base Peak Offpeak

## OIL PRODUCTS AND LIQUEFIED GAS

Consumption of main types of oil products in Ukraine, thousand tons.

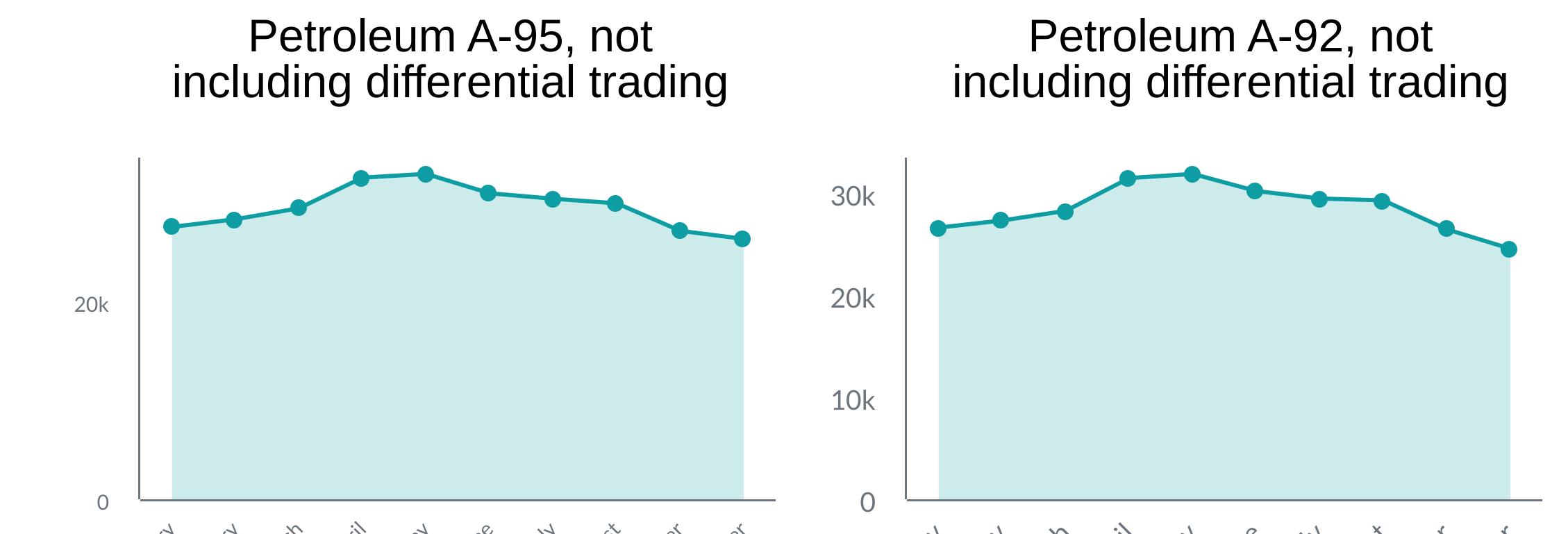




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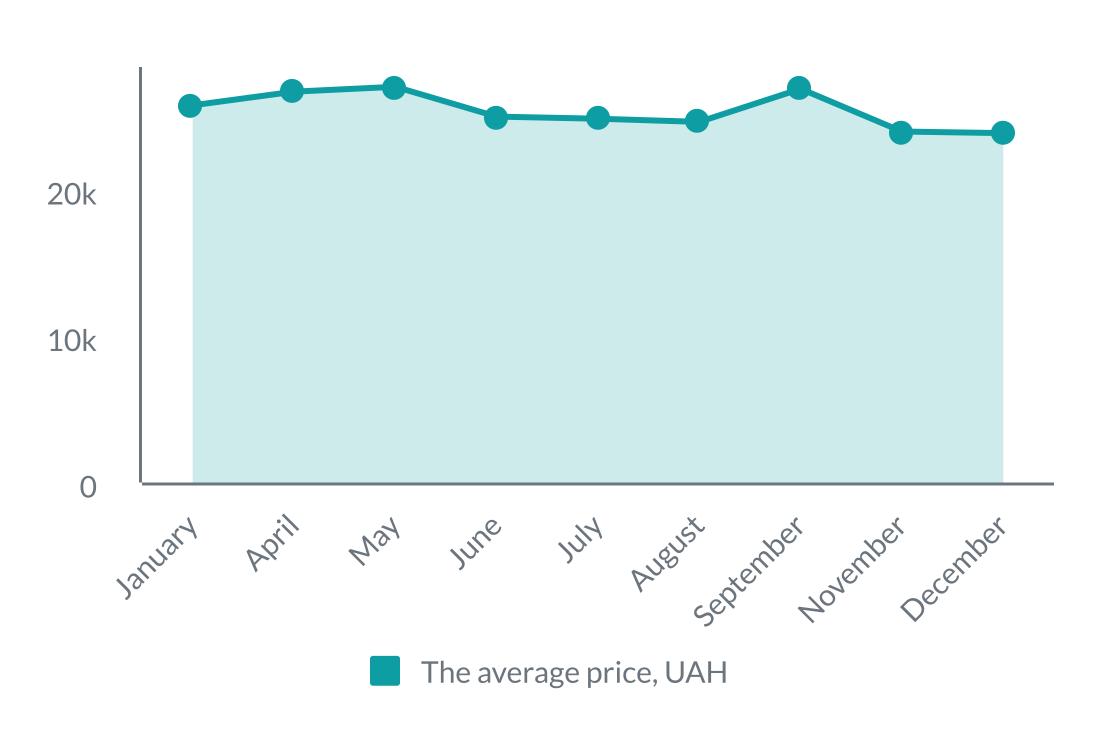
## OIL PRODUCTS TRADE ON UEEX

The average price, UAH.

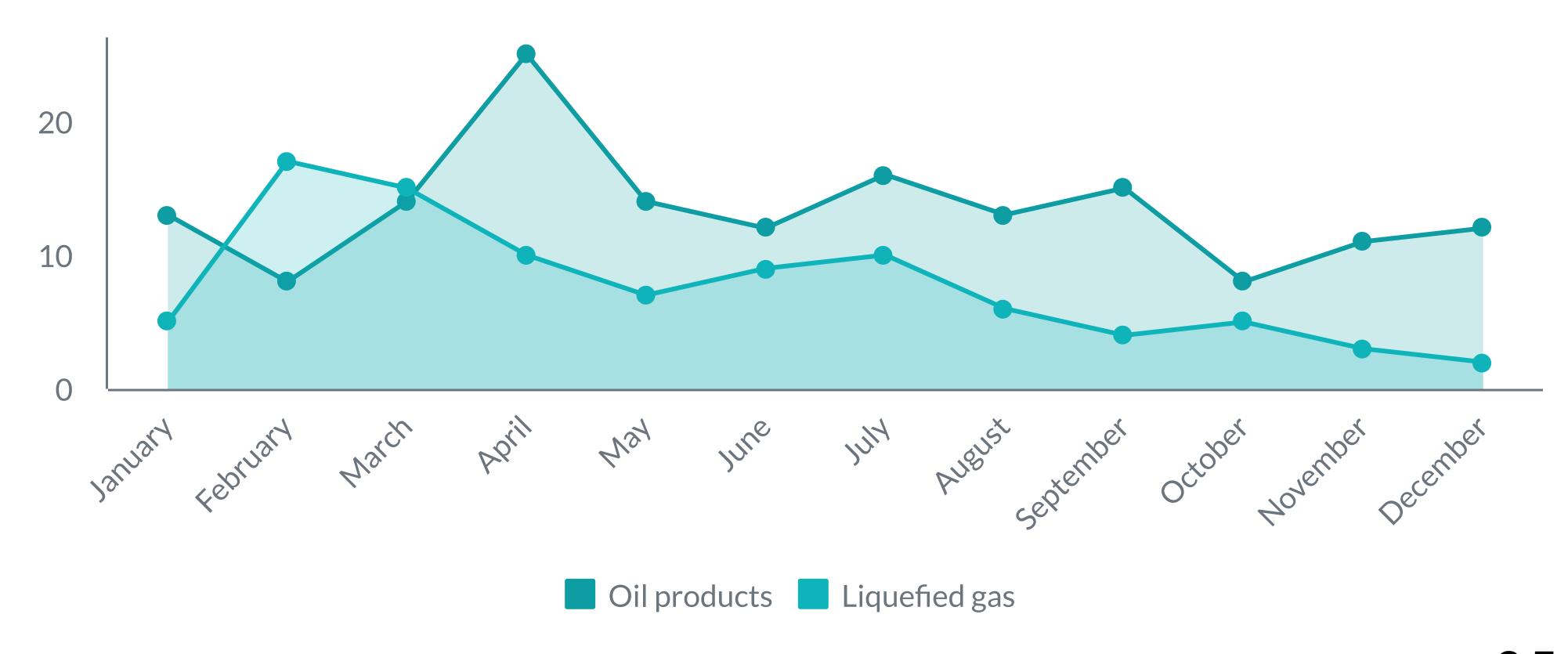


Diesel, not including trading with differentials

The average price, UAH



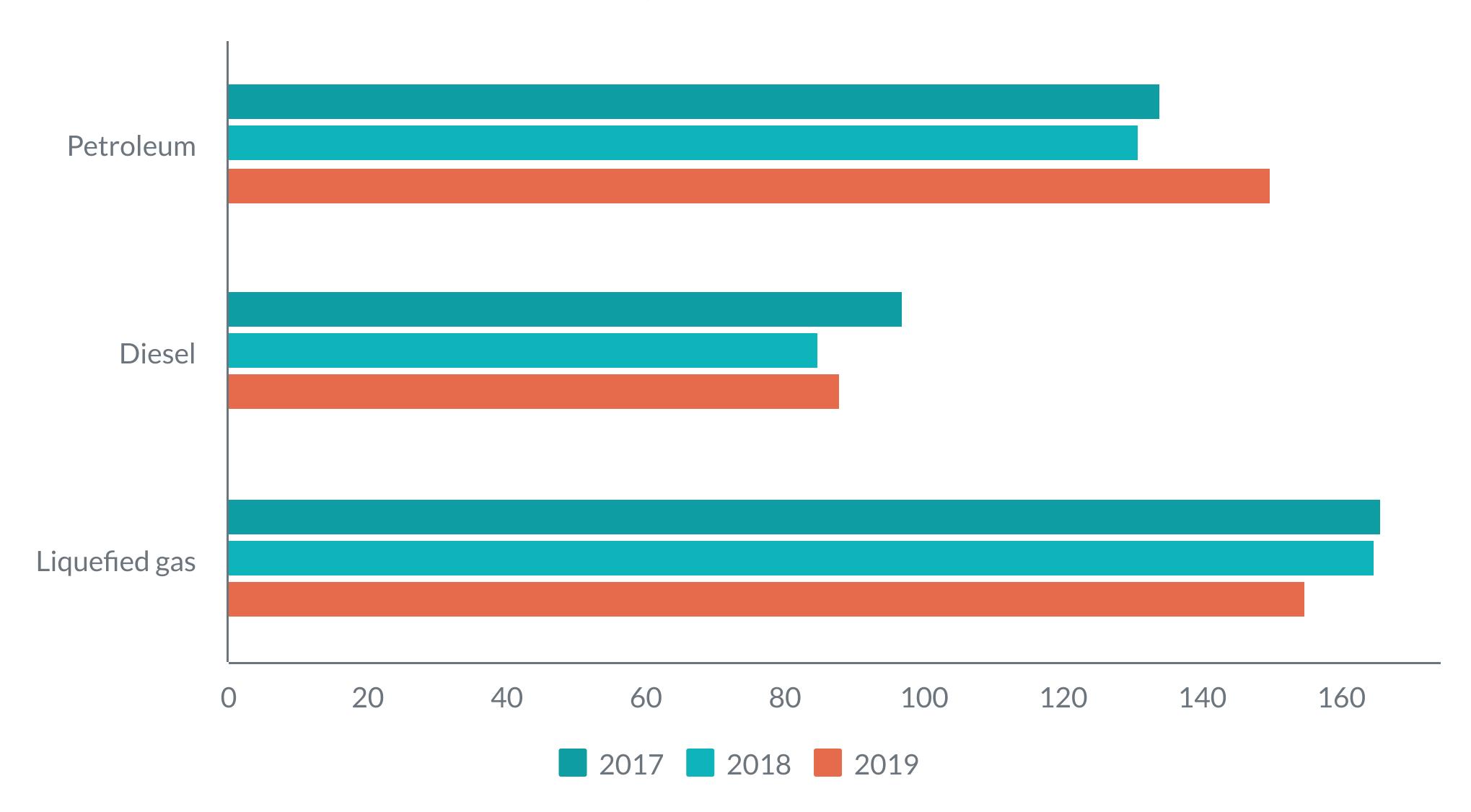
Number of trading sessions



## OIL PRODUCTS TRADE ON UEEX

#### MAIN MARKET MAKER RESULTS

Production of Ukrgazdobycha, thousand tons.



Recently, the priority of the company's development is Euro 5 petroleum production and sales.

In trading sessions the company focuses on long-term contracts. For example, in August 2019 all volumes assigned to long-term contracts for September-August 2019/2020 were sold -186 thousand tons of oil products.

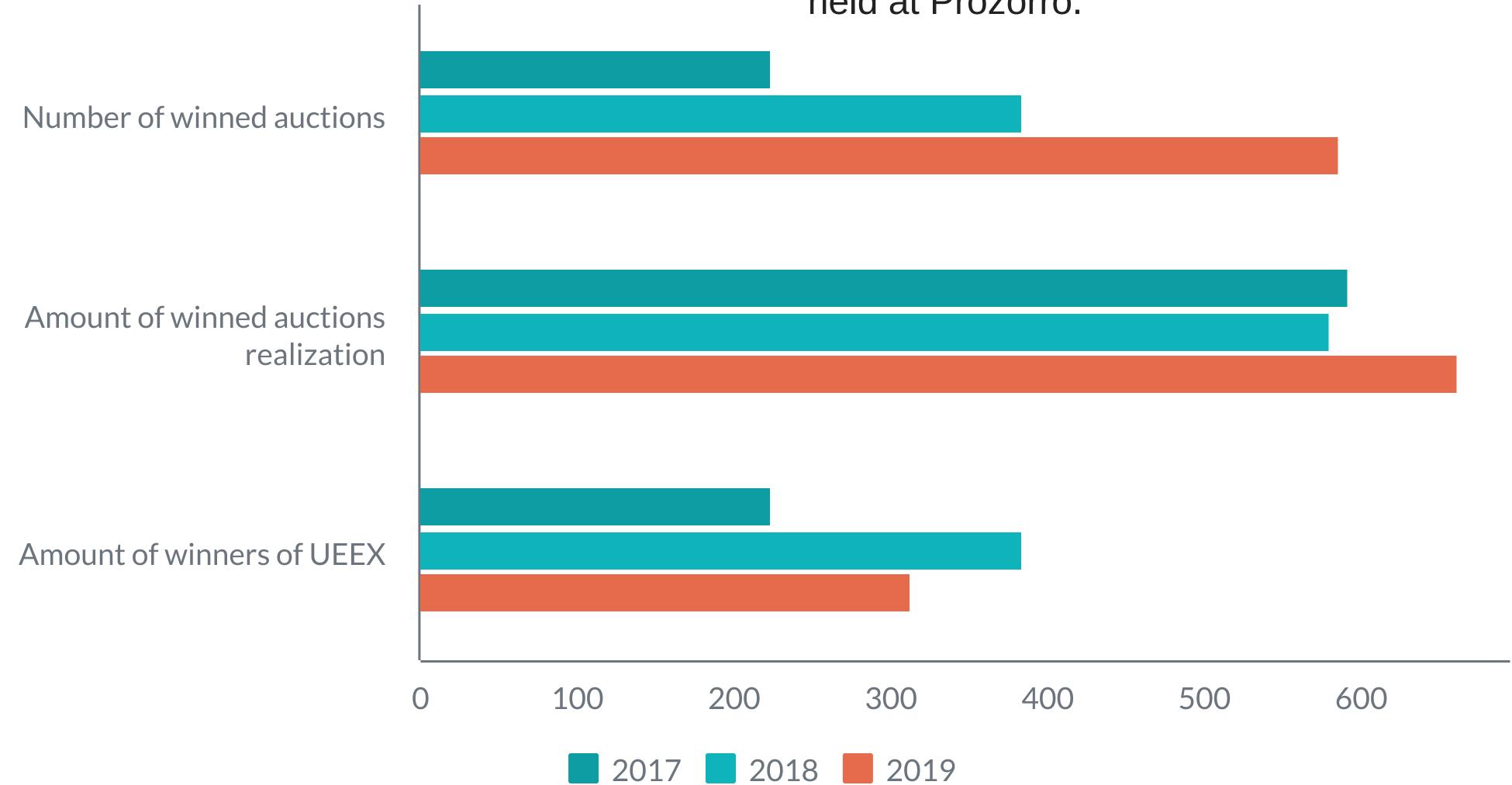


## PROZORRO.SALE

Successful auctions help to fill budgets at different levels. In 2017-2018, the increase in the minimum price reached 16% on average - in UAH equivalent it is about 155 million UAH. And already in 2019 it reached 54%. In other words, the organizers of the auctions received over 232 million UAH in addition to the announced price.

The highest demand in 2019 was for the lots of the State Service of Geology and Subsoil of Ukraine. The department also decided to lease 100% of freight cars rather than 5-10% as it used to be through electronic auctions.

At a meeting on December 27, the Cabinet of Ministers of Ukraine decided that auctions for the sale of energy generated from alternative sources will be held at Prozorro.



The main advantages of the electronic trading platform of the Commodity Exchange Ukrainian Energy Exchange:

- simple and convenient system interface;
- availability of the platform from anywhre in the world with an Internet connection;
- qualified online support for users at all stages of the procedure;
- fair competition, transparency and openness of the whole auction procedure;
- equal rights for all market participants to acquire an asset on competitive terms.

«Last year, Prozorro. Sales not only filled the budgets of different levels by almost 10 billion UAH, but also expanded its markets. At the legislative level, it was stipulated that from now on, through electronic auctions, Prozorro shall mandatorily sell all the property, which arises in the process of recovery of debtors' solvency (bankrupt's property), liquid or written off property of state companies, confiscated from customs, permits for farming and fishing, amber extraction, lease of state and municipal property.

Electronic platform of CE Ukrainian Energy Exchange traditionally actively attracts participants to Prozorro auctions. Therefore, in 2019 UEEX was constantly among the leaders in terms of sales volumes and maintained this indicator for the year.

And this is not only the painstaking work of dozens of experts who are engaged in search and full support of investors to participate in electronic auctions, but also filling the state and local budgets with additional funds, thanks to successful competitive bidding.»

A. Kuznetsov Head of RpoZorro.Sale Department

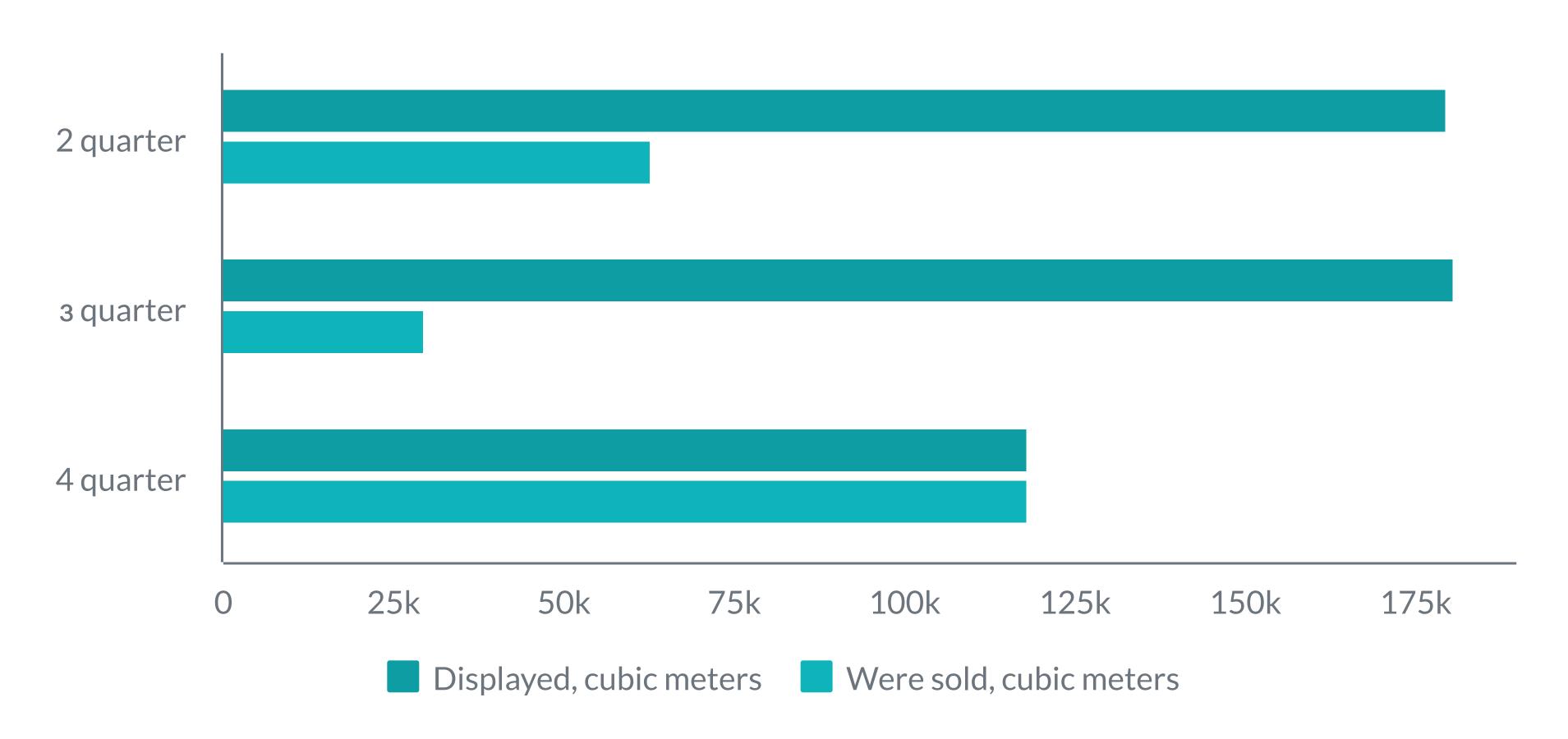


## UNTREATED TIMBER

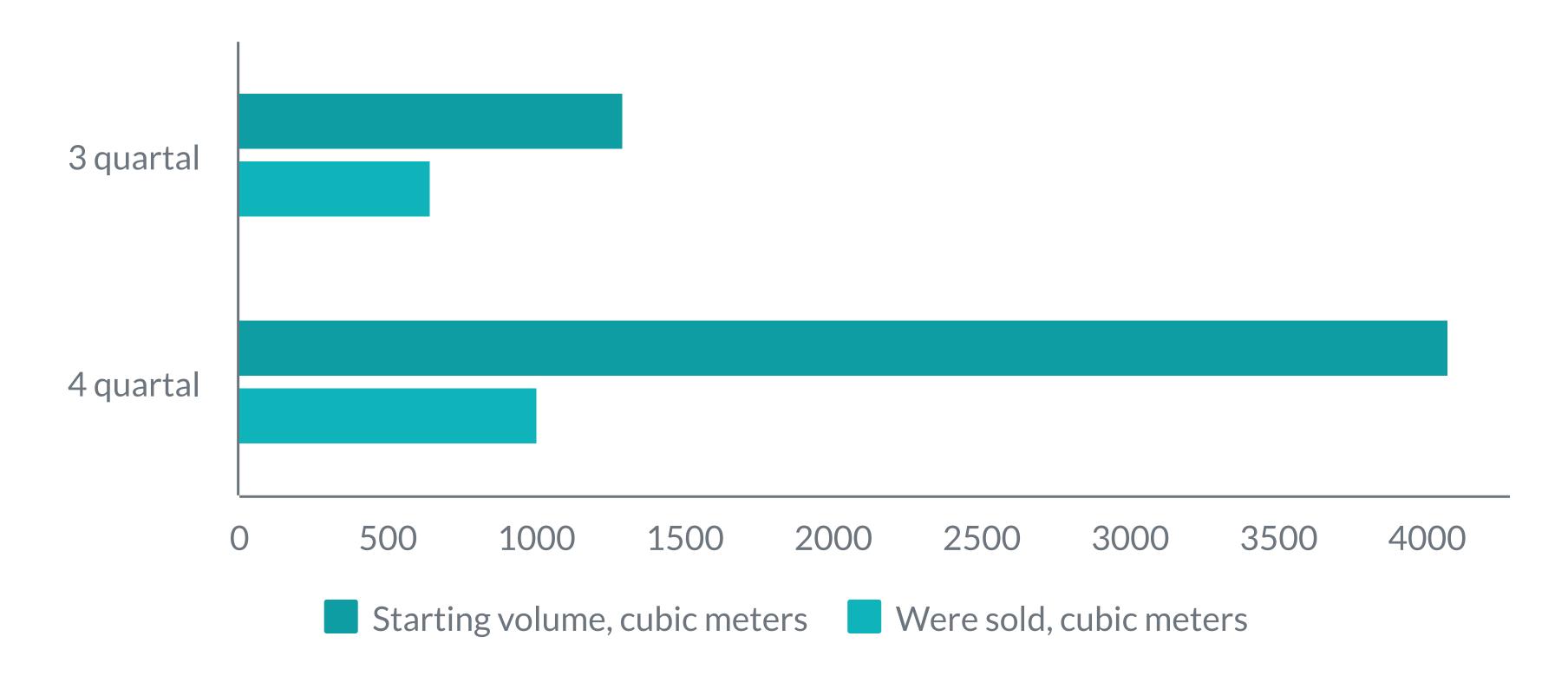
Last year was also quite successful for the trade in untreated timber. In 2019, successfully held 7 auctions for the sale of timber procurement by forestry in the Kiev region and Kiev Forestry and Hunting Department. At UEEX as a whole for the year was sold 116843 cubic meters of untreated timber, which amounted to about 25% of the starting volume. In total for the year there were concluded almost 190 deals / stock exchange deals on purchase and sale of untreated timber.

During the year the prices for untreated timber practically did not change, there were insignificant fluctuations. The average weighted price per cubic meter in the second quarter made UAH 1,320.99, in turn, in the third quarter the price dropped by 10% and made UAH 1181.83, in the last quarter the price made UAH 1,352.67 per cubic meter. During the year, both coniferous and deciduous timber of various length and diameter were offered for sale. Sale of untreated timber through electronic auctions attracts new buyers, because the conditions of participation in the auction are absolutely equal and the same for all entrepreneurs.

#### Timber sales volumes



#### Volumes of timber exhibited at additional auctions



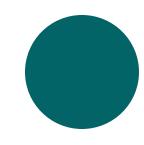
## UEEX ACHIEVEMENTS



UEEX is defined as an organizer of electronic auctions for sale of electricity under bilateral agreements in accordance with Resolution of the Cabinet of Ministers of Ukraine No. 499 of June 5, 2019.

According to the Resolution of the Cabinet of Ministers of Ukraine No. 485 dd. 05 June 2019 "On Amendments to the CMU Resolution No. 293 dd. 3.04.2019". (Provisions on PSO) CE UEEX quotations are taken into account when determining the gas price for residential consumers.





EDM has provided clarification (letter Nomega 3304-04/54265-06 from 11.12.2018) on the calculation of the cost of natural gas during the revision of the price in public procurement according to the level of UEEX exchange quotations.

UEEX is the Operator of the trading platform (for settlement of daily imbalances) in accordance with the Resolution of NKREKP No. 2493 of 30.09.2015 "On approval of the Code of the gas transportation system" and concluded an interaction agreement with TSO.





UEEX is an authorized exchange to conduct exchange trades in coal products in accordance with Order of the Ministry of Economic Development dd. 19.06.2012 № 723 and Order of the Cabinet of Ministers of Ukraine dd. October 26, 2011 N 1070-r "On approval of the concept of transition to the exchange form of coal sales".

According to the Resolution No. 570 dd. 16.10.2014 "Ukrgazvydobuvannya" JSC determined UEEX as an authorized exchange for organization of liquefied gas trading based on the competitive selection. The Company also sells oil products at the exchange.





Since June 2019, SC Neftegaz Trading LLC and SC Naftogaz of Ukraine LLC (subsidiary of Naftogaz of Ukraine on the basis of the competitive definition of the stock exchange, began trading operations for the purchase and sale of natural gas through UEEX). Another Naftogaz subsidiary, Ukrtransnafta, has been participating in the auction for over two years.

For a long time CE UEEX takes the first place in ProZorro. Sale in terms of sales volumes of insolvent banks among 40 accredited DGF electronic platforms.





UEEX quotations have become recognized by the authorities and demanded by the market; they are published by top Ukrainian and international price agencies. The Ministry of Economic Development of Ukraine has provided clarification (Letter No. 3304-04/54265-06 dd. 11.12.2018) regarding the calculation of natural gas prices during the price revision in public procurement according to the UEEX exchange quotations.

## PROSPECTS OF NEW MARKETS



Trade in standardized Intra-Day and Day-Ahead natural gas contracts for balancing purposes as well.

Launch of the derivatives market.





Launch of spot trading in solid biofuels and agricultural products.

Carrying out of trades in capacity of main ammonia pipelines.

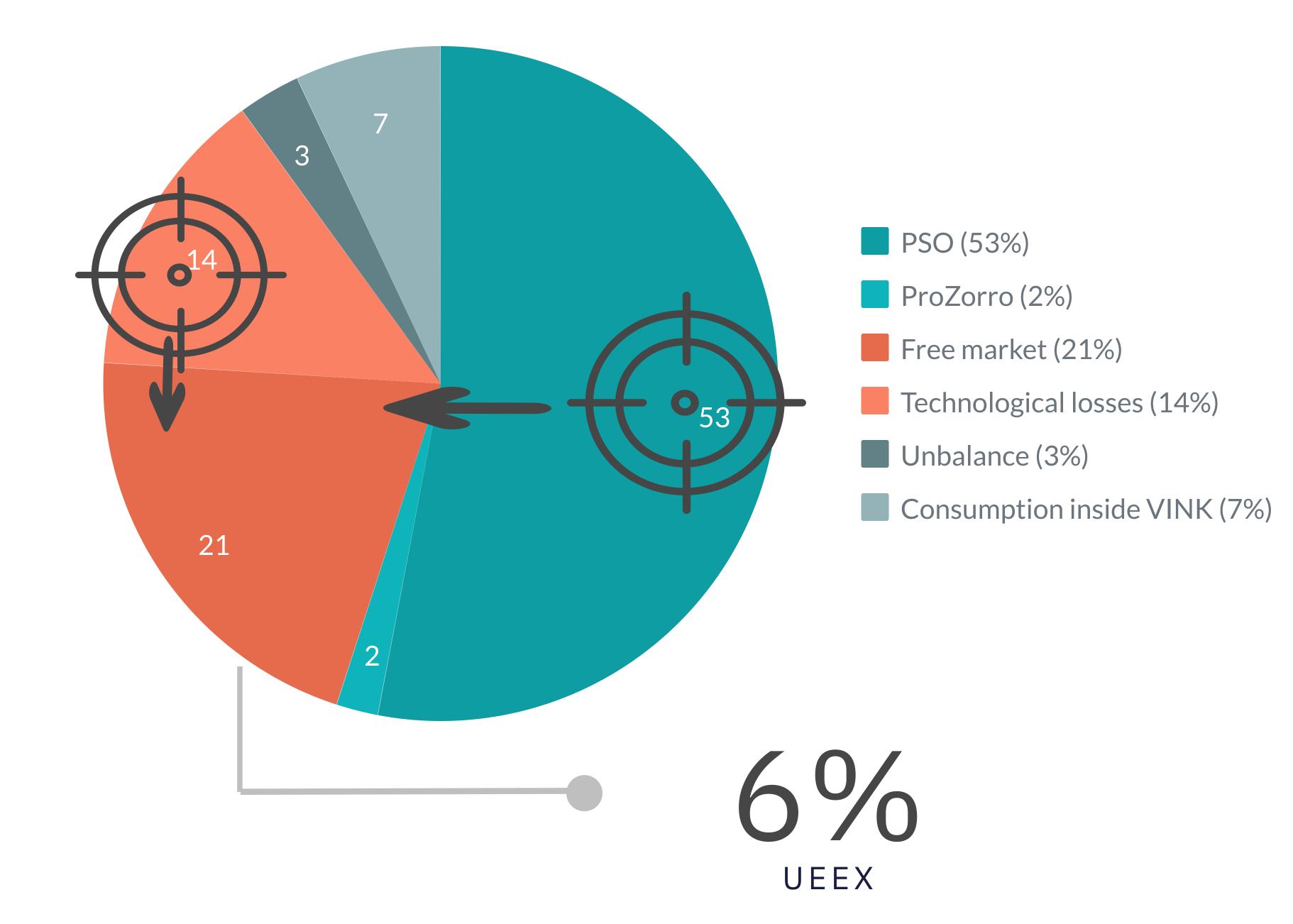




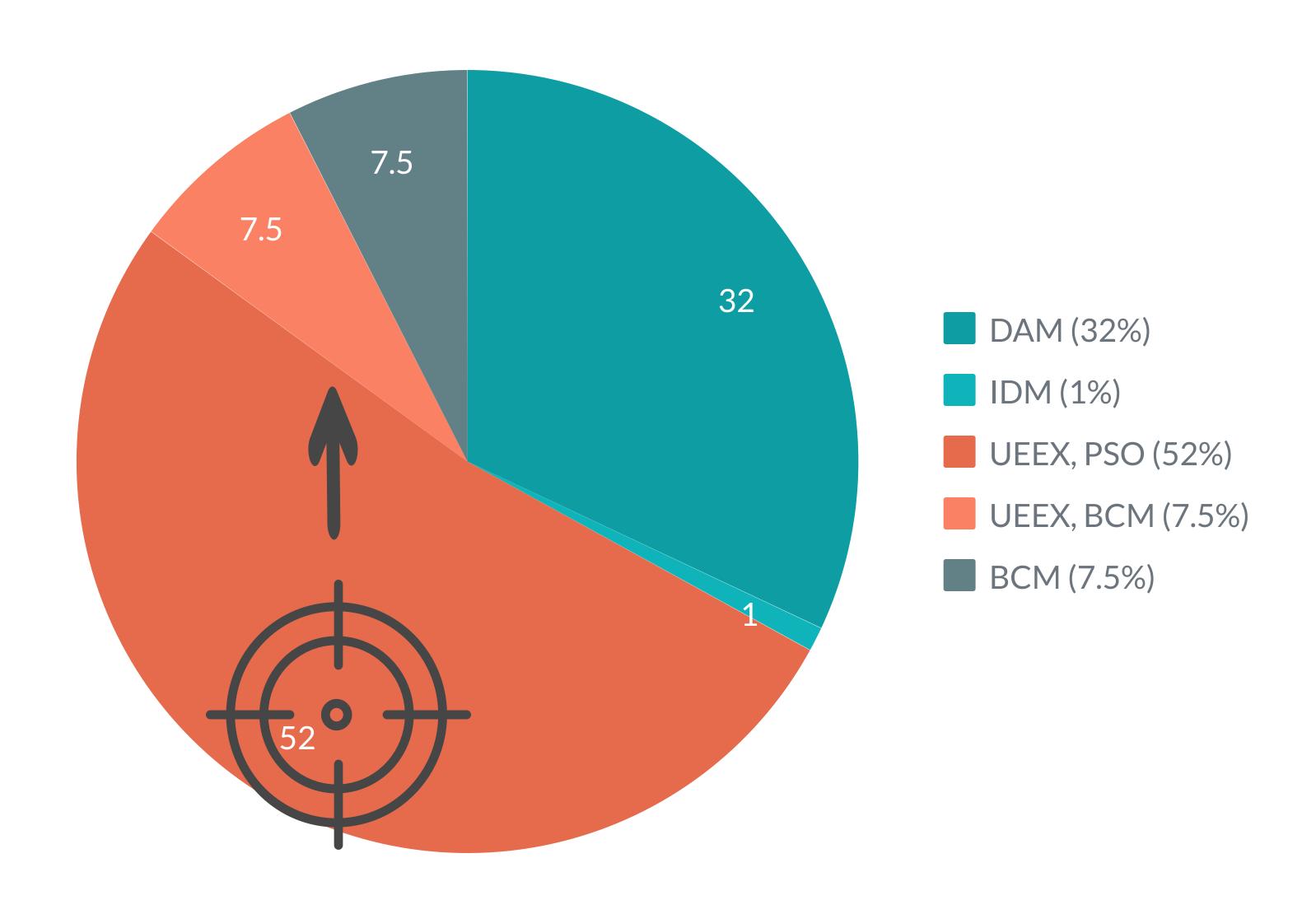
Sale of energy produced from alternative sources through the UEEX ProZorro.Sale

## MARKET GROWTH POTENTIAL

#### **NATURAL GAS**

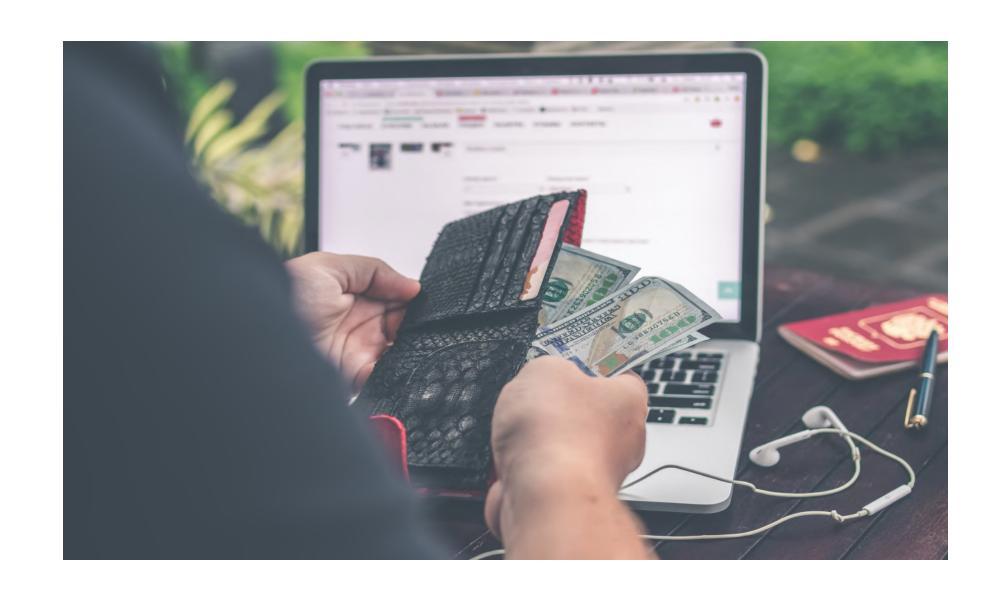


#### **ELECTRICITY**



UEEX has significant potential to increase its market share in 2020. The PSO should be gradually reduced in the electricity market and completely eliminated in the gas market.

## UEEX 2020 PLANS



Establish full clearing and execution of functions of a central counterparty by an exchange or a separate exchange structure.

Launch of daily balancing market (trade in short-term contracts in "Intraday market" and "day-ahead market")





Launch of a reporting system for meeting the conditions of transparency in energy markets (REMIT-light).

Standardization. Standard products and standard transaction completion is a key factor in the development of liquidity in the commodity exchange market. A certain range of wholesale energy products should follow the European example, as different products will become a serious obstacle for foreign traders.



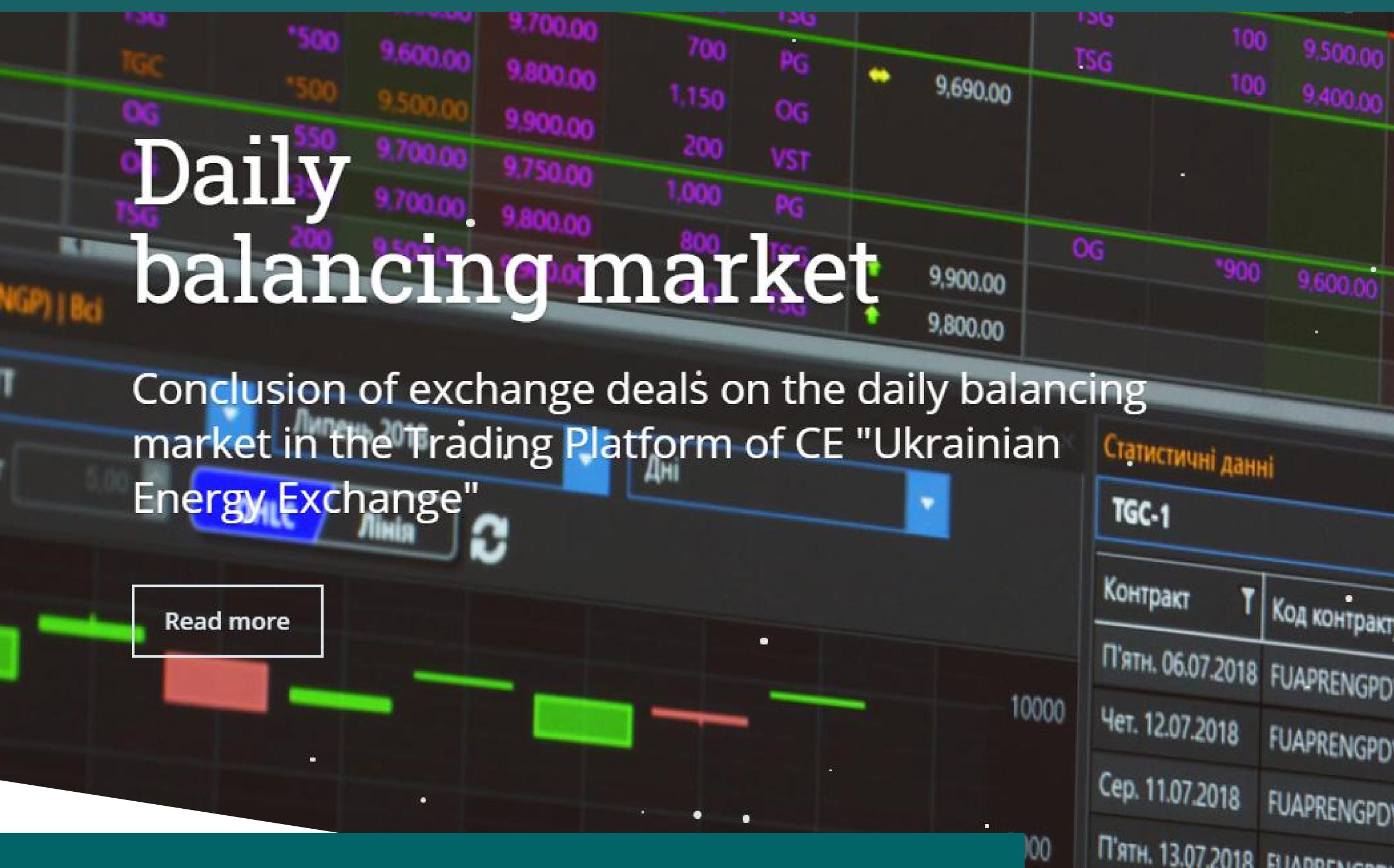


Sale of energy produced from alternative sources through the UEEX ProZorro. Sale.





## YKPAÏHCЬKA EHEPTETMYHA SIPXKA









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