

## Weekly Alert

**Russian War Against  
Ukraine: Energy Dimension**

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**Russian War Against Ukraine: Energy Dimension**  
**DiXi Group weekly review**

(December 11 – 17)

**#StopRussianAggression**  
**#StandWithUkraine****Summary**

- As of December 18, 454 settlements in Ukraine remained without electricity supply due to hostilities and technological disruptions.
- The occupied Zaporizhzhia NPP has been reconnected to the only remaining backup power line but the overall supply remains fragile and vulnerable – IAEA.
- Electricity consumption was covered by domestic production, as well as by imports (increased by 2.5 times) and emergency assistance (activated on December 11, from Romania and Poland in the total amount of 3,400 MWh).
- The Regulator amended Distribution Systems Code to regulate the operations of Small Distribution Systems (SDS)
- The NEURC has also found, that Ukrenergo violated the Licensing Conditions: certified commercial metering data of electricity producers receiving feed-in tariff, provided by the TSO for January-December 2022, didn't indicate that some of the units operated in a non-synchronous mode with the IPS of Ukraine.
- On December 14, the ENTSO-E Assembly approved the fully fledged membership of Ukrainian TSO (Ukrenergo) in the association from 1 January 2024. Ukrenergo and EBRD have also

signed a new 150 million EUR loan agreement to support the liquidity and stability of the TSO functioning under martial law.

- The CEO of Naftogaz Oleksii Chernyshov announced the beginning of the development of the company's decarbonization strategy.
- The Supreme Court denied PJSC VK Ukrnaftoburinnia to open cassation proceedings against the court decision, which deprived the company of a special permit to use the Sakhalinske field. In parallel, ARMA filed a second cassation and appealed to the Prosecutor General's Office to intervene in the situation.
- The wholesale prices of liquefied petroleum gas continued to decrease; on December 8-15, the average retail price of LPG also decreased by 2.46 UAH/l to 32.79 UAH/l.
- The Bila Tserkva City Council bought the single property complex of the Bila Tserkva CHP from the National Bank of Ukraine.
- Energoatom and Westinghouse Electric Company signed an agreement to purchase equipment for the Khmelnytskyi NPP Unit 5 to be constructed using the AP1000 technology.
- The Energy Community Secretariat in its 2023 Implementation Report assessed the progress of Ukraine in complying with the Community's acquis: the Markets and Integration cluster was assessed at 69%, Decarbonization of the Energy Sector – 44%, Ensuring Energy Security – 61%; Improving the Environment – 52%, and Performance of Authorities – 76%.
- 28 out of 63 second-level facilities to protect energy infrastructure from shrapnel and drone strikes are completed – Head of the State Agency for Infrastructure Restoration and Development Mustafa Nayyem.
- UNDP experts have assessed 26 healthcare facilities in the Kyiv, Odesa, Zhytomyr and Volyn regions for the installation of solar panels provided by the Italian company ENEL as part of the European Commission initiative.
- As of December 13, the total amount of donor commitments to the Ukraine Energy Support Fund reached 390 million EUR – Ministry of Energy. Of this amount, 229 million EUR has actually been transferred, while the rest are pledged and formalized contributions.

## IMPACT OF THE WAR

### Attacks

[According to](#) Ukrenergo, as of December 18, 454 settlements in Ukraine remained without electricity supply due to hostilities and technological disruptions (-37 as compared to the previous week). Hostile attacks and, consequently, interruptions of electricity and gas supply took place:

**Donetsk region.** On [December 11](#), 2 settlements (11,900 consumers) were disconnected due to shelling; a total of 113 settlements (121,200 metering points) were left without electricity supply. On [December 17](#), 72 settlements (31,232 consumers) and a mine were deprived of electricity supply, 29 [workers](#) were brought to the surface.

**Kharkiv region.** On [December 11](#), networks in four to five communities, as well as an underground gas distribution pipeline, were damaged, leaving over 1,000 consumers without gas supply. On [December 13](#), a gas pipeline was damaged in the Kupyansk district, disconnecting 60 consumers. On [December 16](#), a gas pipeline was damaged again, leaving 435 consumers without gas supply. As of [December 17](#), 68 settlements (16,369 consumers) were cut off from the power supply.

**Zaporizhzhia region.** As of [December 17](#), 63 settlements (about 26,000 consumers) were without electricity supply.

**Kherson region.** As of [December 11](#), about 5,000 consumers were disconnected in the city of Kherson, 9,400 as of [December 13](#), 33,700 as of [December 14](#), and 14,700 as of [December 15](#); 45 settlements in the region (about 26,000 metering points) were without power supply. On

[December 17](#), a substation in Kherson was damaged, disconnecting 12,067 metering points; a total of 26,069 metering points were disconnected due to shelling in the city. In addition, 746 consumers remained offline as a result of the Kakhovka HPP dam explosion.

**Mykolaiv region.** On [December 13](#), about 200 consumers lost power supply. As a result of repeated rocket attacks, gas pipelines of private households in the Ochakiv community were damaged, and gas supply was disrupted.

**Dnipropetrovsk region.** On [December 13](#), 28 consumers were disconnected, and on [December 17](#) - another 231.

**Sumy region.** On [December 11](#), an inlet gas pipeline was damaged in one of the districts bordering Russia, resulting in a power outage. As of [December 13](#), 58 settlements were without power supply; on [December 17](#) - 63 settlements (3,094 consumers).

**Chernihiv region.** As of [December 11](#), 12 settlements (1,300 consumers) were without power supply, as of [December 13](#) - 20 settlements (1,300 consumers), and as of [December 17](#) - 19 settlements (1,275 consumers).

**In the city of Kyiv**, 120 consumers were left without electricity supply on [December 11](#) as a result of the attack; on [December 13](#), 35 private houses were disconnected. On [December 14](#), a thermal power plant was shelled **in the east of Ukraine**, causing damage to equipment. On [December 15](#), the enemy once again attacked one of the thermal power plants in the frontline area, and a satellite city was also shelled.

## Nuclear and Radiation Safety

The IAEA [has reported](#) that the occupied Zaporizhzhia NPP has been reconnected to the only remaining backup power line after it was suddenly lost two weeks ago, but the overall supply remains fragile and vulnerable to further disruptions. Of the ZNPP's six units, five remain in 'cold shutdown' mode, while unit 4 operates in 'hot shutdown' mode.

Throughout the week, the IAEA team [continued](#) to conduct regular site visits at the ZNPP, including the temporary emergency response center, the dry spent nuclear fuel storage facility and the unit 5 reactor vessel, as well as the main control rooms of all six units, one after the other. The IAEA experts at the ZNPP continued to hear explosions relatively close to the site.

## Countermeasures

Mustafa Nayyem, Head of the State Agency for Infrastructure Restoration and Development, [said](#) that the Agency is implementing a three-tiered system of energy infrastructure protection, including

- The first one, basic level, is passive protection against shrapnel, such as gabions placed around power facilities. According to Nayyem, there are currently 103 of them, incl. 73 at electricity infrastructure facilities and 30 at gas facilities.
- The second level is concrete structures that protect autotransformers from shrapnel and drone strikes. So far, 28 out of 63 sites have been completed.
- The third level of protection is at the experimental level.

Under the Ministry of Energy coordination and with the assistance of the European Commission, experts from the United Nations Development Programme (UNDP) [have assessed](#) 26 healthcare facilities in the Kyiv, Odesa, Zhytomyr and Volyn regions for the installation of solar panels provided by the Italian company ENEL as part of the European Commission initiative to provide stable electricity supply to Ukrainian hospitals. The proposed solutions are designed to provide 26 hospitals (over 46,000 patients annually) with a stable and autonomous energy supply. According to preliminary estimates, the solar power systems provided by the partners could potentially reduce

total electricity consumption of the 26 facilities by 25%. A total of 5,700 units of relevant equipment are to be transferred to Ukraine.

On December 12, the Cabinet of Ministers [approved](#) the draft Law "On Amendments to Certain Laws of Ukraine on Reporting in the Framework of Attracting International Aid" to support the recovery and reconstruction process in Ukraine.

In addition, on December 12, the government of Ukraine [adopted](#) a decree to allocate the grant from the Ukraine Relief, Recovery, Reconstruction and Reform Multi-Donor Trust Fund to the implementation of the Housing Repair for People's Empowerment (HOPE) project.

On the same day, the government [adopted](#) decisions that will allow attracting additional resources for the reconstruction of Ukraine, including amendments to the grant agreement with the EIB to modernize the water supply and sewage system in Mykolaiv and to attract 4.5 million EUR in grants from the IBRD and the International Development Association to repair damaged housing.

On December 14, the ENTSO-E Assembly [approved](#) the Ukrainian TSO (Ukrenergo) to become a full member from 1 January 2024. The ENTSO-E membership status will provide Ukrenergo with the following opportunities:

- vote during ENTSO-E General Assembly meetings (participate in the adoption of the ENTSO-E annual work programme, which sets priorities in such key areas as the electricity market, the development of the pan-European energy infrastructure, and risk management in the energy sector; adoption of the 10-Year European Network Development Plan and strategies for events that have a significant impact on the technical, security, market or financial conditions of operation of the European TSOs);
- participate in ENTSO-E Board with the right to vote (participate in the preparation of proposals for the ENTSO-E annual work programme and the development of proposals and recommendations for the Assembly on strategic priorities of cooperation between system operators and key decisions);
- participate in ENTSO-E committees and associated working groups (participate in the Market Committee, System Development Committee, Research, Development and Innovation Committee, and Information and Communication Technologies Committee; participate in the development of Network Codes, in the development and approval of regional investment plans, and work in the Legal and Regulatory Group).

On December 12, the Cabinet of Ministers [amended](#) the Regulation on the State Inspectorate for Energy Supervision to provide that the Inspectorate ensures the adaptation of national legislation to the EU acquis on issues within its competence, and also takes measures within its powers to implement the provisions of international treaties, to which Ukraine is a party, into national legislation.

## MARKETS PULSE

### Electricity Sector

#### *Power system operation*

According to [Ukrenergo](#) and [the Ministry of Energy](#), electricity consumption throughout the week was covered by domestic production, as well as by imports from Romania, Slovakia, Poland, Moldova, and emergency assistance.

On December 11, the power system experienced a shortage of electricity at 1.2% of consumption. The reasons are insufficient generating capacity against the backdrop of high consumption in the country. On December 12, at a meeting of the Anti-Crisis Energy Task Force, Prime Minister Denys Shmyhal [said](#) that the power shortage had to be [compensated](#) for by activating emergency assistance. Emergency support was activated to avoid outages and to balance the power system:



on December 11, 10:00-17:00 from Romania and 11:00-14:00 from Poland in the total amount of 3,400 MWh.

**Repairs continued** at the generation facilities. On December 11, 1 TPP unit was put under short-term emergency repair. At the same time, 2 TPP units and 1 CHP unit were put back into operation. On December 12, 3 TPP units and 1 CHP unit were put online. On December 13, 2 TPP units were put under short-term emergency repairs; equipment at one of the CHP experienced an emergency shutdown. On December 14, 4 TPP units were taken offline for short-term repairs. On December 15, 4 TPP units were put under repair, out of which 2 units were brought back online. In addition, 3 more TPP units were put back in operation. On December 16, an emergency shutdown took place at a TPP unit, which was subsequently brought back online. On December 17, a 150 MW TPP came out of capital repair.

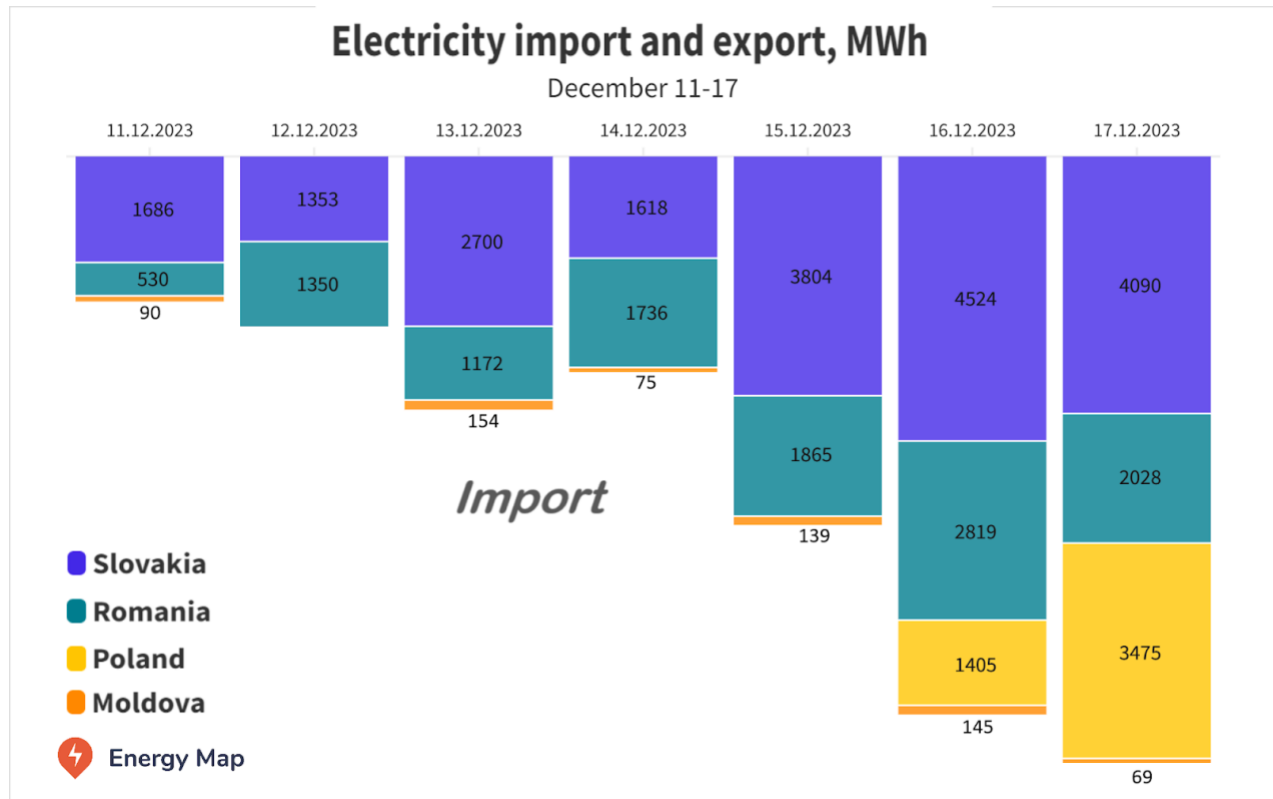
The main reason for the power outages during the week was **adverse weather conditions**: on December 11, 140 settlements (22,600 consumers) in the Dnipropetrovsk region and 7 (700) in the Kirovohrad region were without power supply. On December 12, 193 settlements in the Donetsk region (99 / over 52,000), the Zaporizhzhia region (54 / 9,700), the Dnipro region (7,700), and the Ternopil region were disconnected. On December 13, 247 settlements in the Donetsk region (182), the Dnipropetrovsk region (38), and the Kharkiv region (27) remained offline. On December 14, 225 settlements in the Donetsk region, the Dnipropetrovsk region, the Kirovohrad region, the Kharkiv region, and the Chernihiv regions were disconnected. In the Donetsk region, 147 settlements were without power supply for over 24 hours.

On December 15, 355 settlements in the Donetsk region (221 / 116,400), the Kharkiv region (136 / 43,400), the Dnipro region (9,000), the Poltava region (19 / 4,400), the Cherkasy region (11 / 1,400), the Chernihiv region (3 / 1,000), and the Sumy region were left without electricity supply. In the Kharkiv region, 250 power poles were damaged due to icing; a 330 kV overhead line and two autotransformers at Ukrenergo's 330 kV substation, which were powered by diesel generators, were also out of service. On December 16, 194 settlements (45,700 consumers) in the Donetsk region and 46 (10,000) in the Kharkiv region were disconnected, and 297 power poles were damaged; on December 17, 156 (30,888) in the Donetsk region and 8 (3,945) in the Kharkiv region.

Another reason for the outages was **technological disruptions**. Thus, on December 11, 5,700 consumers in the Ternopil region, 3,400 in the Zaporizhzhia region, 1,900 in the Odesa region, and several dozen more in the Mykolaiv region were left without electricity supply. On the same day, the 220 kV interstate line with Hungary and the 110 kV line Slovianska TPP - Zelenyi Klyn were disconnected, and consumers of the Slaviansko-Kramatorsk hub in the Donetsk region were left without power supply. On December 12, 38 settlements (2,700 consumers) in the Zaporizhzhia region remained offline. The equipment of Ukrenergo's 330 kV substation in the Chernivtsi region was disconnected, which resulted in power outages in the Chernivtsi and Ivano-Frankivsk regions. In the Kharkiv region, equipment at Ukrenergo's 330 kV substation was disconnected during performance of works by a contractor. Also, 110 kV overhead lines in the Donetsk region were disconnected, resulting in power outages for household consumers, the railroad, and 9 mines.

On December 13, 1 settlement (435 consumers) in the Sumy region and 1 (78) in the Kyiv region were left without electricity supply. 110 kV overhead lines were disconnected in the Ternopil region; an autotransformer was disconnected due to technological disruptions at the 330 kV substation of Ukrenergo in the Chernivtsi region; a 330 kV overhead line was also disconnected in the Kharkiv region. On December 14, 16 settlements (16,400 consumers) in the Zaporizhzhia region, 14 (5,200) in the Kyiv region, 3,500 in the Odesa region, 10 (1,700) in the Mykolaiv region, and 3 (405) in the Sumy region were cut off from electricity supply. On December 15, 2,900 consumers in the Kyiv region, 1,500 in the Zaporizhzhia region, and about 1,000 in the Sumy region were offline. Throughout the day, 110 kV lines in the Donetsk region were disconnected, which led to train delays and the disconnection of 3 mines. On December 16, 64 consumers in the Dnipropetrovsk region were without power supply. On December 17, 5 settlements (338 consumers) in the Zaporizhzhia region, 5 (631) in the Sumy region, and 4 (1,270) in the Chernihiv region remained offline. On the same day, equipment and 110 kV substations in Lviv were disconnected due to a disruption at Ukrenergo's 330 kV substation.

According to the [NEURC](#) and [ENTSO-E](#), no commercial electricity exports were performed during the week. Imports increased by 2.5 times and arrived from Romania, Slovakia, Poland, and Moldova. Commercial imports from Slovakia [amounted](#) to 19.8 GWh (+260% week-on-week) with capacity ranging from 1 MW to 350 MW. Deliveries from Romania amounted to 11.5 GWh (+106%), with a capacity range of 6-452 MW. Deliveries from Poland were performed on December 16-17, with capacity ranging from 135 to 300 MW and a total volume of 4.9 GWh (+59%). Imports from Moldova were performed in small volumes (from 1 to 36 MW) during December 11 and 13-17, with a total volume of 0.7 GWh (+51%).



Source: [Energy Map](#)

At the daily auctions, 7 to 10 companies [booked](#) capacity for imports in the Romania-Ukraine direction; the main players were CPG Energy, Solipower, Energy Exchange Solutions, Energy Company of Ukraine, and Energo Resource Ri Group. The marginal price was set on December 13 and 15-17 in the range from 0.03 to 3.5 EUR/MWh, and the revenue of Ukrenergo reached around 148,000 UAH. The capacity from Slovakia was booked by 15-18 companies, with the main players being D.Trading, Tviy Energopostachalnyk, Energy Company of Ukraine, and Trade Energy Solution. The marginal price was set on December 11-15 in the range from 0.39 to 5 UAH/MWh, and the revenue of Ukrenergo reached 13,600 UAH. On December 16-17, in the Rzeszów-KhNPP direction, capacity was booked by Euromin Energy with a zero marginal price. In the Moldova-Ukraine direction, capacity was booked by 4-6 companies, including CPG Energy, Energo Resource Ri Group, Artlex-Group, Solipower, etc. The marginal price was set on December 11-12 and 16-17 in the range of 0,01-1 UAH/MWh, and the revenue of Ukrenergo reached 700 UAH. For exports, no capacity was booked.

## Electricity market performance

**Bilateral contracts market (BCM):** After a sharp decrease in the previous week, trading dynamics at the Ukrainian Energy Exchange (UEEX) rebounded. On December 11-17, UEEX [held](#) 21 auctions for the purchase/sale of electricity (7 in commercial and 14 in specialized sections). Among the initiators of the auctions were Guaranteed Buyer, Ukrhydroenergo, Centrenergo, DTEK Group companies, Kremenchuk CHP, Shamraivskyi Sugar, universal service suppliers, distribution system operators, and others. In total, 921 GWh were sold at UEEX (+72.1% week-on-week). The monthly Base BCM Index for December remained at 3,871.5 UAH/MWh.

In particular, Centrenergo sold 8.9 GWh of baseload at prices in the range of 3,890.0-3,910.0 UAH/MWh with delivery in December. Ukrhydroenergo sold 1.8 GWh of the block position (24-07) at a weighted average price of 2,400.0 UAH/MWh and 4.3 GWh (08-16) at a price of 4,450.0 UAH/MWh with delivery on December 15-25. DTEK Kurakhivska TPP, DTEK Dniproenergo and DTEK Zakhidenergo sold a total of 745.0 GWh in block positions at prices of 1,840.0-4,590.0 UAH/MWh with delivery in the third decade of December. In the specialized section, Kremenchutska TPP sold 6.1 GWh of baseload at a weighted average price of 3,800.0 UAH/MWh with delivery on December 16-31. Guaranteed Buyer sold 21.6 GWh in block positions of daytime hours at prices of 4,000.0-4,817.5 UAH/MWh and 3.9 GWh (01-07) at a weighted average price of 2,200.0 UAH/MWh with delivery in December. In addition, the company sold 43.7 GWh of base load at a weighted average price of 3,973.6 UAH/MWh and 42.8 GWh of block positions of daytime hours at prices of 4,292.2 - 4,396.8 UAH/MWh with delivery in the 1st quarter of 2024. In the commercial sections, the companies purchased/sold electricity for individual load profiles.

**Day-ahead market (DAM):** According to the [Energy Map](#) service, during December 11-17, DAM prices showed significant [volatility](#): deviations of hourly prices from price caps ranged from 0 to 89.2% and averaged 25.9%. The number of significant price deviations (over 50%) from the price caps was observed in 15.5% of the settlement periods (mainly 01:00-05:00 and 22:00-23:00). At the same time, the number of hours when prices were close (with a deviation under 1%) or at the level of price caps continued to grow and amounted to 20.2% (compared to 11.9% in the previous week). Prices at the level of price caps were set mainly for 09:00-17:00.

The average hourly price of electricity (Base DAM index) during the reporting week continued downward trend and decreased to 4,103.0 UAH/MWh (-4% week-on-week), while the weighted average daily price [ranged](#) from 3,864.8 to 5,201.2 UAH/MWh. At the same time, the ratio between the Base DAM indices in the countries of Eastern Europe (Poland, Hungary, Romania, and Slovakia) and Ukraine decreased significantly and [ranged](#) from 0.57 to 1.20.

After an upward trend of several weeks, the total volume of electricity sales on the Ukrainian DAM changed its trajectory and [decreased](#) to 564.7 GWh (-5%). The daily trading volume varied in the range of 68.8-86.7 GWh. In general, the DAM was in surplus: the ratio between the total daily volume of sell and purchase bids generally decreased and ranged from 1.08 to 1.47. At the same time, the number of deficit hours increased: 14.9% of the settlement periods (mainly 09:00-17:00) showed a deficit (compared to 4.8% of deficit hours in the previous week). Suppliers [prevailed](#) in the electricity purchase structure (88.4-91.8%), system operators' share was 8.1-11.5%, and the rest (up to 0.1%) accounted for producers.

## **Policy and regulation**

The Energy Community Secretariat [has published](#) the 2023 Implementation Report, containing the assessment of implementation of the Energy Community acquis by Ukraine for the period from November 2022 to October 2023 in 5 main clusters. Progress in the Markets and integration cluster was assessed at 69%; Decarbonization of the Energy Sector - 44%; Ensuring Energy Security - 61%; Improving the environment - 52%; and Performance of authorities - 76%. The performance of the national regulatory authority in the energy sector was assessed at a high level - 82%. The Secretariat noted the main changes that took place in the current year:

- start of REMIT(Regulation 1227/2011 on Wholesale Energy Market Integrity and Transparency) implementation;
- implementation of the Clean Energy for All Europeans package: introduction of and development of bylaws related to guarantees of origin of electricity from renewable sources, market premium and net billing mechanisms, demand management measures (aggregation in the retail electricity market);
- pricing reforms in the electricity market, including a reasonable increase in prices for consumers in 2023 and a review of wholesale price caps in accordance with the approved methodology;

- successful certification Ukrainian gas storage operator Ukrtransgaz JSC in accordance with Regulation (EU) 2022/1032;
- ensuring the stability of the power system notwithstanding the ongoing military aggression by Russia.

The Regulator [has amended](#) the Distribution Systems Code to regulate the operation of small distribution systems (SDS), in particular, issues related to the criteria for classification and operating conditions of SDS; establishment of SDS within industrial parks; conditions for connection of SDS to TSO or DSO networks, as well as the procedure for connecting customers/users of electricity distribution services to SDS networks; the list of information, which SDS operator is obliged to publish on its website, etc.

The Regulator [has adopted](#) amendments to the Code of Commercial Metering of Electricity related to requirements for information support for the provision of metering services. In particular, commercial metering service providers (CMSPs) must ensure transparency by launching the service "Personal Account of the Customer of Commercial Metering Services" on their website. The service should ensure that the customer is informed about the list of available commercial electricity metering services, the status of their provision, methods of transmitting and receiving commercial metering data, methods of communication between the customer and the CMSP, etc.

## **Other**

Based on [the results](#) of the inspection of Ukrenergo (electricity TSO) conducted on the basis of the request from SE Guaranteed Buyer, the Regulator found that Ukrenergo violated the requirements of Licensing Conditions related to provision of reliable documents, information, data and reports to the NEURC. In particular, the certified commercial metering data on the hourly volumes of electricity supply and consumption by generating units of producers receiving feed-in tariff, which was provided by Ukrenergo for January-December 2022, did not indicate that some of the units operated in a non-synchronous mode with the Integrated Power System of Ukraine. Also, the TSO did not provide certified metering data with indication of the synchronous/non-synchronous mode of operation of these generating units from January to December 2022. Failure to provide such information is qualified by the Commission as inaccurate data. In accordance with the Procedure for determining the amount of penalties, the Regulator decided to warn Ukrenergo against further violations of the Licensing Conditions for electricity transmission.

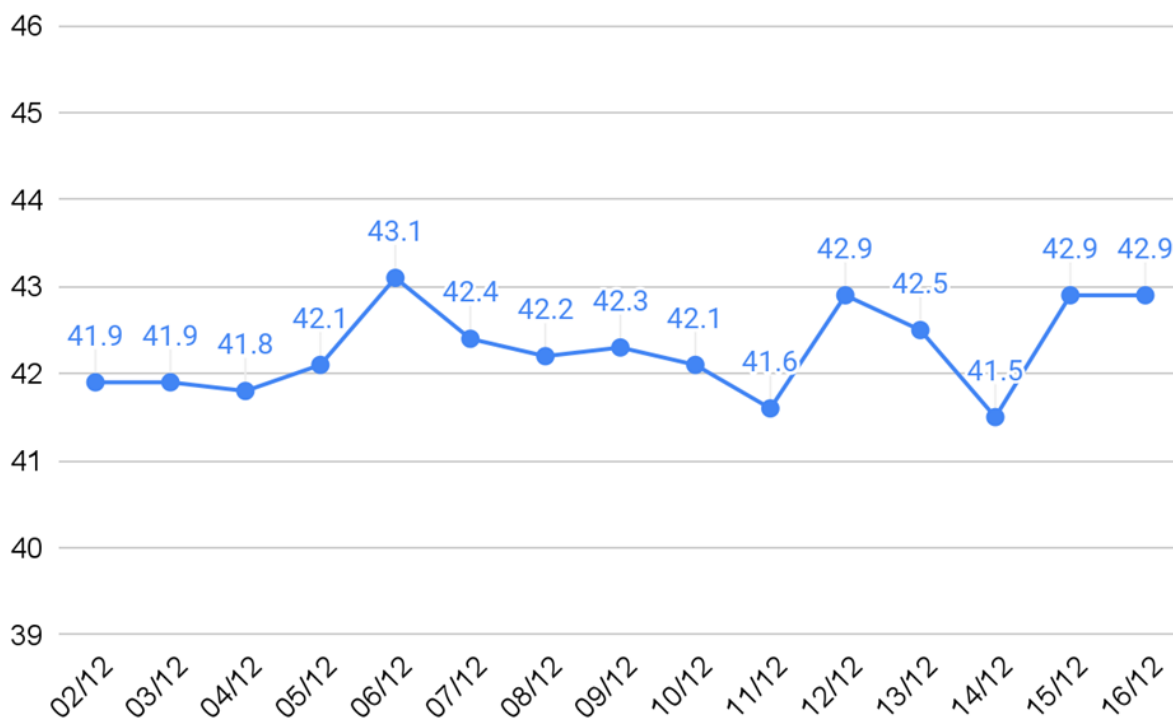
## **Gas**

### **Gas system operation**

On December 10-16, the volume of gas transit through the territory of Ukraine amounted to 41.5-42.9 mcm per day, i.e. 38-39% of the capacity contracted by Gazprom (109 mcm per day). In the reporting week, the average daily transit was 42.3 mcm (corresponds to the indicator of the previous week). There were no transit flows via the Sokhranivka interconnection point.



## Transit of Russian gas through the territory of Ukraine, mcm



Source: [Gas Transmission System Operator of Ukraine LLC](#)

There were no physical imports from EU countries in the reporting week. 6.4 mcm of gas arrived from Moldova through the Căușeni interconnection point, but it was probably a transit of gas, which later returned to Moldova through the "Consumers of Moldova" virtual interconnection point.

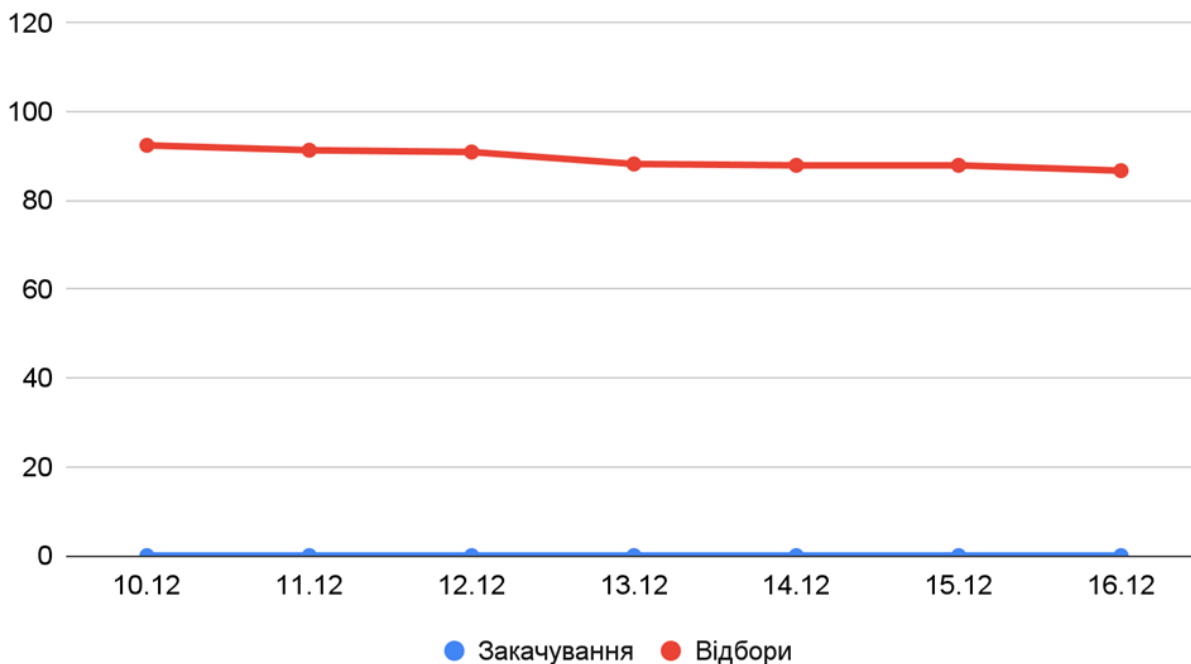
At the same time, gas exports from Ukraine continued. In the circumstances of the ban on the exports of Ukrainian-produced gas, exports are the gas volumes withdrawn from the storage facilities by non-residents, who previously injected it for storage in the "customs warehouse" mode. The volume of such exports in the reporting week was 88 mcm (-13% as compared to the previous week), which were transported through the Drozdowicze/Hermanowice interconnection point with Poland.

Commercial imports into the Ukrainian system have suspended as well. At the same time, commercial exports of gas through the VIP Ukraine-Poland were performed at 88.3 mcm (actually corresponding to physical volumes). It is also likely that part of the volumes exiting the Ukrainian system to Moldova is the transmission of gas stored by Moldovan companies in Ukrainian storages. This assumption is due to the fact that the volumes of gas transported from the system in the "customs warehouse" mode exceeded the indicators of commercial exports to Poland and amounted to 172.5 mcm.

### **Underground storage facilities**

According to the [AGSI platform](#), as of December 16, 9.34 bcm of gas was accumulated in the Ukrainian storage facilities (-2.05% week-on-week). It corresponds to 30.83% of the total working capacity, i.e. without 4.662 bcm of "long-term storage" buffer gas. Withdrawals from storage decreased by 6% and totaled 625.3 mcm; the average daily withdrawal amounted to 89.3 mcm.

## Natural gas withdrawals and injections into/from Ukrainian storage facilities, mcm



Source: [AGSI](#) (all indicators calculated by dividing the primary indicators in MWh by the conversion factor of 10.595 kWh/cm)

### Gas market performance

In the [trading sessions](#) of December 11-15, five companies (one buyer and four sellers) submitted bids for purchasing gas at the Ukrainian Energy Exchange (UEEX). In the reporting period, UEEX received purchase bids for 150.4 mcm of gas (+97% week-on-week) with a total starting cost of 1.91 billion UAH (+94%). The weighted average starting price of bids was 12.72 UAH/cm (excluding VAT), which is 1.8% less than the indicator of the previous week.

In the reporting week, only GSC Naftogaz Trading LLC succeeded in buying gas; the total volume of purchases was 47.4 mcm (+99% week-on-week). The weighted average price of purchased gas was 12.66 UAH/cm (excluding VAT). All of the commodity was sold with delivery in December and will be transferred in underground storages.

### Other

The CEO of Naftogaz Oleksii Chernyshov announced the beginning of the development of the company's decarbonization strategy. All units and subsidiaries of the Naftogaz Group will work on the strategy. The result should be a specific action plan with an assessment of the current state, goals, ways of financing and terms of their implementation.

On December 12, the Supreme Court of Ukraine [denied](#) PJSC VK Ukrnaftoburinnia to open cassation proceedings against the decision of the Sixth Administrative Court of Appeal, which deprived the company of a special permit to use the Sakhalinske field (Kharkiv region). The second cassation to the Supreme Court [was filed](#) by the Asset Recovery and Management Agency (ARMA). ARMA also [appealed](#) to the Prosecutor General's Office to intervene in the situation with the Sakhalinske field. Ukrnafta and Ukrnaftoburinnia also reserved the right to apply to other competent authorities and courts in this case. To remind, the nationalized enterprise Ukrnaftoburinnia, which was transferred to the management of Ukrnafta, suspended gas production at the Sakhalinske field on December 1 due to the annulment of the special permit by

the court. As reported by the company, the operations pause [leads to](#) not producing 47.3 mcm of natural gas every month.

The High Anti-Corruption Court has [started](#) a substantive review of the case regarding the illegal awarding of bonuses to Andrii Kobolev, the former CEO of Naftogaz. The next meeting is scheduled for January 4, 2024.

The National Bank of Ukraine [announced](#) that the Bila Tserkva City Council bought the single property complex of the Bila Tserkva CHP from it at the beginning of December. The National Bank took over the CHP to pay off the debts of Finance and Credit Bank JSC. Both assets are linked to the oligarch Konstantyn Zhevago. The price of the transaction was 298.6 million UAH, and the funds were transferred to the NBU account on December 4.

## Oil and Motor Fuels

The specialized media [reported](#) that, on December 11-15, the wholesale prices of liquefied petroleum gas (LPG) continue to decrease by 8,570 UAH/t to 42,980 UAH/t. Retail chains also [reacted to](#) the drop in wholesale prices for LPG: on December 8-15, the average price decreased by 2.46 UAH/l to 32.79 UAH/l.

Monitoring by the specialized media [indicates](#) that retail prices for other motor fuels also decreased: on December 8-15, the average price of A-95 petroleum decreased by 0.99 UAH/l to 52.43 UAH/l, premium A-95 petroleum fell in price by 0.95 UAH/l to 55.58 UAH/l. The price reduction for diesel fuel constituted 1.06 UAH/l to 52.28 UAH/l.

At the same time, the situation on Ukraine's border with the EU countries remains difficult: [according to](#) the State Border Guard Service, as of December 13, about 4,300 trucks were queuing up, including about 2,600 trucks at the Polish border. On December 11, the blocking of the Yahodyn-Dorohusk checkpoint with Poland was [lifted](#), but the media, citing the protests' organizers, [reported](#) it will resume on December 18 as a new blockade of the access road to the Dorohusk checkpoint.

## International Cooperation

On 14 December, the European Council [decided](#) to open negotiations on Ukraine's accession to the European Union. The European Commission is now to prepare the negotiation framework with Ukraine. A vote on its approval may take place at the EU summit in March 2024, if Ukraine meets the necessary conditions by then.

On 17 December, at the Ministry of Energy premises, in the presence of the Minister Herman Halushchenko, the President of Energoatom Petro Kotin and the CEO of Westinghouse Electric Company Patrick Fragman [signed](#) an agreement to purchase equipment for the Khmelnytskyi NPP Unit 5 (to be constructed using the AP1000 technology). In total, according to the decisions of the Cabinet of Ministers and memoranda signed between Energoatom and Westinghouse, Ukraine plans to build 9 units using AP1000 technology. The first two shall be built at the Khmelnytskyi NPP site.

Ukrenergo will [receive](#) a 150 million EUR loan from the European Bank for Reconstruction and Development (EBRD) to support the liquidity and stability of the TSO functioning under martial law. The relevant agreements were signed on December 15 by the Prime Minister Denys Shmyhal, the EBRD President Audrey Renaud-Basso and the CEO of Ukrenergo Volodymyr Kudrytskyi. These funds are allocated to finance the Special Capital Support Project and will be used to cover Ukrenergo's key costs of balancing the power system and fulfilling the public service obligations imposed by the government.

According to the Ministry of Energy, as of December 13, the total [amount of donor commitments](#) to the Ukraine Energy Support Fund reached 390 million EUR. Of this amount, 229 million EUR has

actually been transferred from 18 public and private sector donors from different countries, while the rest are pledged and formalized contributions expected to be received soon.

Another shipment of energy aid from the Republic of Azerbaijan [left](#) for Ukraine - 20 trucks carrying more than 550,000 meters of electric cables and 6 sets of transformer stations. This is the third shipment of aid to be received by Ukraine from its Azerbaijani partners to restore the power grid. The total amount of energy aid will be over 7.6 million USD.

The first shipment of 10 cargoes, which included power transformers and backup power plants, has already been distributed among energy companies in the regions most affected by the Russian hostile attacks. The equipment from Azerbaijan was also sent to the needs of the transmission system operator and the upstream sector. The second shipment of 37 items will be distributed soon. The next shipment of aid will include power and oil transformers, autotransformers, complete substations, high voltage cabinets, wires, cables and other equipment. In total, the agreement provides for four stages of shipments, which should arrive in Ukraine by the end of January 2024.

As part of the Good Governance Fund's Community Recovery Planning project, 10 communities have been [selected](#) to receive assistance in developing recovery plans following an open call for proposals announced by the Ministry for Communities, Territories and Infrastructure Development of Ukraine with the support of the UK Government. The support will also include a number of practical tools for communities to help them start recovery as soon as possible.

For subscriptions, comments and other questions, please email to:  
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### **SUPPORT UKRAINIAN ENERGY SECTOR**



*Ukraine urgently needs emergency energy equipment to restore energy supply in the regions affected by war. More than 12,000 items are on the list of requested emergency energy equipment. If your company, association or country is ready to help, please [contact the Energy Community Secretariat's Ukraine Support Task Force](#).*

*[Energy Community Homepage \(energy-community.org\)](http://energy-community.org)*

### **SUPPORT UKRAINIAN ARMY**

*To financially support the Armed Forces of Ukraine, please follow the [link](#) (the National Bank of Ukraine special account).*