

## Daily Alert

**Russian War Against  
Ukraine: Energy Dimension**

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

**Resume**

- Over 6 months (September 2022 to March 2023), Ukraine's air defence forces shot down about 700 missiles and more than 650 kamikaze drones that Russia launched at energy infrastructure.
- Since the first days of the war, attempts to attack Ukrenergo's IT systems have increased tenfold, with cyber defence specialists facing hundreds of cyberattack attempts every day.
- Ukraine's power system is working stably. Due to significant damage, network restrictions remain in the Zhytomyr, Kyiv regions and the city of Kyiv, resulting in outages.
- Some results have been reported in the first anniversary since the UPS of Ukraine was synchronized with ENTSO-E, namely higher reliability of power systems operation. E.g., in the period of regular Russia's massive missile attacks, the volume of technological cross-border flows from the EU countries reached a maximum of 2 GW, and imports - 560 MW. Capacity fees and payments under public service obligations assigned to exporters yield Ukraine an additional 8.7 billion UAH.
- The government of Ukraine and the Energy Community Secretariat signed a memorandum on support for priority projects in the construction and reconstruction of energy infrastructure, as well as the restoration of RES facilities. In addition, the memo provides for cooperation in preparing lawsuits against Russia to claim compensation for the damage.

- Poland is considering energy cooperation with Ukraine in several areas - so PM Mateusz Morawiecki. These include gas exploration in the western part of Ukraine, launch of Khmelnytskyi NPP - Rzeszow interconnector, and Rivne NPP - Chelm interconnection project.
- The National Anti-Corruption Bureau and the Specialized Anti-Corruption Prosecutor's Office filed to a court the first episode of the so-called Rotterdam+ case on charges of six persons of causing electricity consumers losses of over 19 billion UAH in 2016-2017.
- The prosecutor's office, on behalf of the state, filed a lawsuit to terminate the concession agreement for Kharkiv's Eskhar CHP-2 with the company of businessman Pavel Fuks, who is under sanctions.
- The Chair of the Verkhovna Rada Committee on Finance, Taxation and Customs Policy Danylo Hetmantsev confirmed that the parliament is going to liquidate the Asset Recovery and Management Agency. The main complaint against the agency is the non-transparent sale of property.

## Attacks

On March 15, the Russian military shelled the village of Lemishchyn in the Zolochiv community (Kharkiv region), effectively destroying infrastructure facilities, as [reported](#) the Regional Military Administration Head Oleh Syniehubov.

Over 6 months, from September 2022 to March 2023, Ukraine's air defence forces shot down about 700 missiles and more than 650 kamikaze drones that Russia launched at Ukraine's energy infrastructure, [said](#) the spokesman of the Ukrainian Air Force Yurii Ihnat. According to him, the enemy has been producing these missiles for years, some for decades. Although the winter is over and Ukraine's power system has survived, Russian troops may [continue](#) to attack Ukrainian energy facilities, transport infrastructure, water and wastewater treatment facilities, and government buildings.

Since the first days of the war, attempts to attack Ukrenergo's IT systems have increased tenfold, with cyber defence specialists facing hundreds of cyberattack attempts every day, the company [reported](#). Thanks to the powerful monitoring and cyber defence system, all cyber attacks are currently unsuccessful. In addition, Ukrenergo plans to strengthen the cyber security of the company's services, system resilience and readiness to counter cyber challenges with international technical assistance.

## Electricity Sector

### Power system operation

[According](#) to the Minister of Energy Herman Halushchenko, on March 16, the generation has the necessary amount of capacity to fully meet the needs of electricity consumers throughout the country.

[According](#) to Ukrenergo, on March 16, Ukraine's power system is working stably, power plants produce enough electricity to cover consumption. Due to significant damage, network restrictions remain in the Zhytomyr, Kyiv regions and the city of Kyiv, resulting in outages. In other regions, consumption restrictions were not applied, limits were not set.

March 16, 2023, marked the first anniversary since the United Power System of Ukraine operates in synchronous mode with the systems of continental Europe (ENTSO-E). The

Minister Halushchenko noted that the [synchronization took place in difficult conditions](#) of constant shelling. From February 24, 2022, for three weeks, the power systems of Ukraine and Moldova worked in an isolated mode, disconnected from the systems of Russia and Belarus, independently regulating frequency. And on March 16, 2022, emergency synchronization with ENTSO-E took place.

Due to the ability to receive timely assistance in case of emergency shutdowns of power plants, import electricity, and reduce the number of disconnected consumers, synchronization significantly increases the reliability of Ukraine's power system. If necessary and given a surplus of generating capacity, Ukraine can provide emergency assistance to European TSOs and export electricity.

In the period of regular Russia's massive missile attacks, the volume of technological cross-border flows of electricity from the EU countries reached a maximum of 2 GW, and imports - 560 MW. Capacity fees and payments under public service obligations assigned to exporters yield Ukraine an additional 8.7 billion UAH (including VAT), which made it possible to keep the regulated prices for households, to finance works on increasing the cross-border capacity, and to reduce debt on the electricity market.

[According](#) to ENTSO-E, as of March 16, minimal commercial imports of electricity were performed from Slovakia (0-7 MW) and Moldova (0-5 MW) (for different hours during the day). Access to the Slovakia->Ukraine cross-border capacity [was booked](#) by two companies (65 MW in total): D.Trading (55 MW) and ERU Trading (10 MW); in the direction Moldova->Ukraine - by D.Trading (100 MW); all on a flat schedule. In both auctions, the marginal price was "zero". Capacity in other directions was not offered. At the same time, the Base DAM indices in the countries of Eastern Europe (Poland, Hungary, Romania, and Slovakia) [exceeded](#) the similar index of Ukraine 1.5-1.7 times.

## ***Disruption and resumption of supply***

Large-scale power supply disruptions and, consequently, active recovery works were taking place:

- in the **Zhytomyr region**, according to the Regional Military Administration, on March 15 and 16, [short-term power outages](#) related to the repairs of network infrastructure will be applied, in particular in the city of [Zhytomyr](#) and in the [Berdychiv district](#);
- in the **Kharkiv region**, [according](#) to the local DSO, on March 15, specialists restored power supply to 77 metering points in the village of Maliivka (Borova community), which had been offline since September 2022 due to damage to a high-voltage pole and a transformer substation. Specialists restored 6 spans of the 10 kV high-voltage line and replaced the damaged transformer. On the same day, in the city of Kharkiv, due to equipment repairs, as well as voltage stabilization in distribution grids, the operation of on-ground electric transport [was resumed](#);
- in the **Kyiv region** and the **city of Kyiv**, [according](#) to DTEK, on the morning of March 16, stabilization outages were applied in parts of the Holiivskyi, Sviatoshynskyi, Shevchenkivskyi, and Solomyanskyi districts of the city of Kyiv, as well as in the Bucha, Obukhiv, and Fastiv districts of the Kyiv region. The reason is the repeated [damage to energy facilities](#), which currently cannot transmit 100% of electricity to all residents of the specified areas;
- in the **Odesa region**, [according](#) to the local DSO, electricity supply has been fully restored for all consumers, network restrictions have been removed. Since the beginning of February 2023, specialists have been working continuously to improve the situation. To ensure the stable operation of critical infrastructure, 46

powerful generators were deployed, making it possible to release additional power and provide electricity supply to about 10,000 households. Renewable generation, which provided up to 50 MW of additional power, also came to the rescue. Since February 13, municipal electric transport, street lighting, businesses have been operating in the regional center;

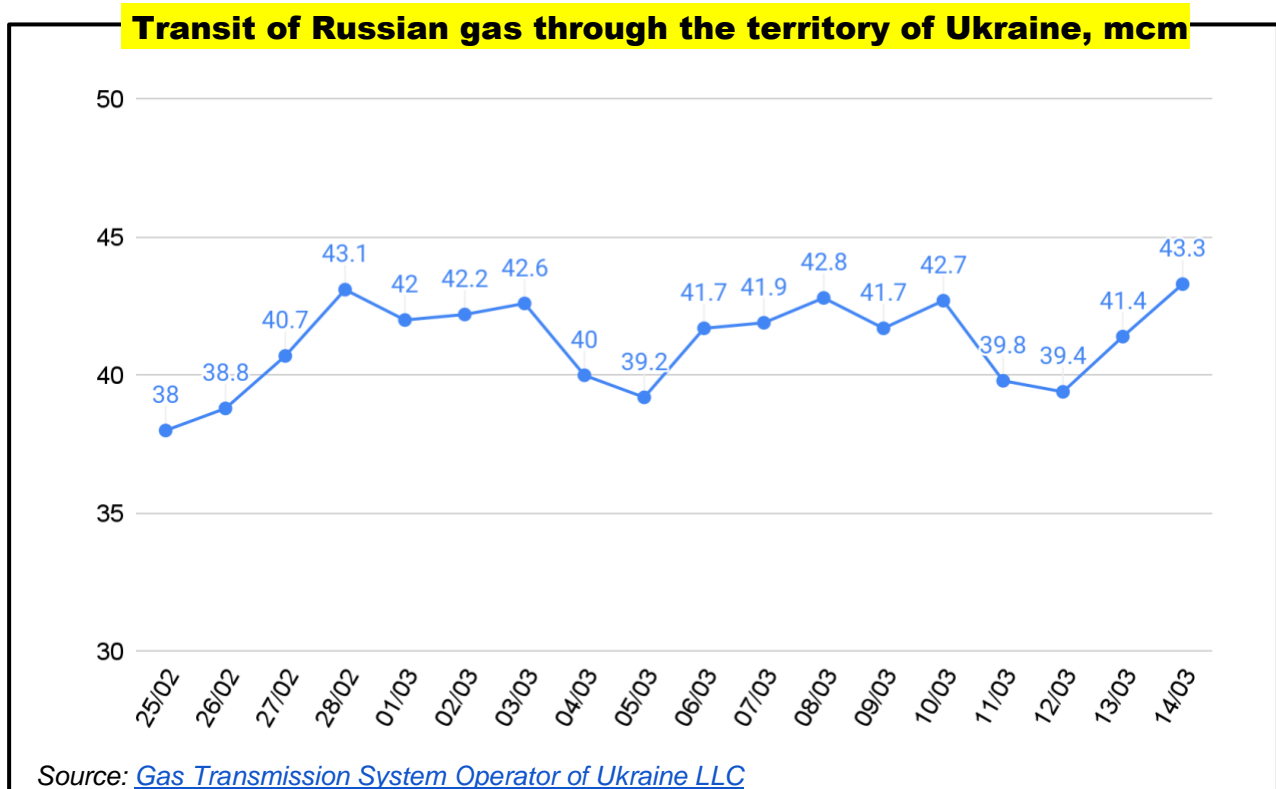
- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of March 16, 24,766 consumers in 70 settlements remained offline (excluding the temporarily uncontrolled territory). During the day, specialists restored power supply to 607 households in the Zaporizhzhia district and 1 consumer in the city of Zaporizhzhia, which were disconnected due to enemy's shelling. On March 15, the hostilities caused new damage to the Orikhiv power grids, as a result 817 consumers were left without electricity supply. There was also 1 single outage in Zaporizhzhia;
- in the **Kherson region**, [according](#) to the Regional Military Administration, as of March 14, 36 crews (174 specialists and 64 units of equipment) were working to restore electricity supply. Specialists performed works on the damaged lines supplying the cities of Kherson and Beryslav, the villages and towns of Zarichne, Novovoznesenske, Tokareve, Borozenske, Biliayivka, Kuibysheve, Novopetrivka, Pravdyne, Kirove, Bilozerka, Komyshany, Chornobaivka, Oleksandrivka, and Stepanivka. The military also inspected 3 km of power lines, on which explosive objects were discovered and destroyed. On March 15, electricity supply to the village of Novovoskresenske (Novovorontsovka community) were [restored](#), with 37 metering points reconnected;
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of March 16, 1,093 electricity supply facilities were partially or completely damaged (no change), while 7 legal entities-consumers still remained offline in the Bashtanka district. The local DSO announced the restoration of electricity supply in the village of Tamaryne, the last one left offline after the de-occupation (300 households were reconnected). [At the beginning](#) of November 2022, since the de-occupation of the Snihurivka district, 88 settlements were offline as a result of hostilities in the Mykolaiv region, and restoration works lasted 4 months in extremely difficult conditions;
- in the **Donetsk region**, [according](#) to the local DSO, on March 13-14, specialists managed to reach a number of damaged networks and equipment and repair them, which made it possible to restore electricity supply to 6,665 households in 26 settlements affected by shelling. As a result of hostilities, 111 settlements remained offline, as specialists did not have access to works there. [According](#) to the Ministry of Energy, on March 15, electricity supply to about 9,000 consumers was restored in the areas affected by shelling;
- there was no up-to-date consolidated information on power supply in the **Sumy, Dnipropetrovsk and Luhansk regions** at the time of the review preparation.

## Oil & Gas Sector

### *Gas system performance*

On March 14, the volume of gas transit through the territory of Ukraine amounted to 43.3 mcm (+1.9 mcm as compared to the previous day), i.e. only 40% of the capacity contracted by Gazprom (109 mcm per day). There were no transit flows via the Sokhranivka interconnection point.

The physical imports from EU countries were reported at 13.5 mcm and performed via the Beregdaroc interconnection point (VIP Bereg) at 7.3 mcm, via the Hermanowice interconnection point (VIP Ukraine-Poland) at 2.1 mcm, via the the Budince interconnection point at 3.4 mcm and via the Căușeni interconnection point (Ukraine-Moldova) at 0.7 mcm. On March 14, on Ukraine’s gas system exit, except for transit flows, no gas was transmitted.



### **Disruption and resumption of supply**

The Ministry of Energy did not update information on the number of consumers without gas supply. The **Dnipropetrovsk, Donetsk, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, and Kharkiv regions** had the most challenging situation.

In the **Zaporizhzhia region**, as of March 16, 14,560 households in 37 settlements remained without gas supply in the government-controlled territories.

In the **Kherson region**, in February the local DSO carried out 239 emergency deployments, 90% were related to eliminating the consequences of damage to gas pipelines after enemy’s shelling of residential and public buildings.

In the **Mykolaiv region**, according to the Regional Military Administration, as of March 16, 1,387 gas infrastructure facilities (no change as compared to March 15) were damaged during the war, as a result, 5,189 consumers (-6) remained with no gas supply.

In the **Kharkiv region**, the local DSO restored gas supply in 4 settlements for 10 households. In the Chuhuiv and Iziurm districts, house-level pipelines are being repaired for families returning to their homes. Liquidation of the consequences of enemy’s shelling continued in the Kupyansk district.

Operational information on gas supply in other affected regions was not available at the time of the review preparation.

# Countermeasures of Ukrainian Companies and Public Authorities

The Cabinet of Ministers of Ukraine and the Energy Community Secretariat have [signed](#) a memorandum on support for priority projects in the construction and reconstruction of Ukraine's energy infrastructure, as well as support for the restoration of renewable energy facilities. In addition, the memorandum provides for cooperation in preparing lawsuits against Russia to claim compensation for the damage to energy infrastructure.

The Prime Minister of Poland Mateusz Morawiecki [said](#) that Poland is considering energy cooperation with Ukraine in several areas. "Of course, peace must be established first, but such projects are possible. The negotiations cover various areas, including gas exploration in the western part of Ukraine", Morawiecki said. The Khmelnytskyi NPP - Rzeszow interconnector is also being modernised and is scheduled to be launched. According to Morawiecki, the project will contribute to the energy security of both countries. He added that the negotiations with the Ukrainian party also concern the interconnector between the Rivne NPP and Chelm. The Polish Government Plenipotentiary for Strategic Energy Infrastructure Mateusz Berger, in turn, [expressed](#) hope that the KhNPP-Rzeszow interconnection would be restored within a few weeks.

The Office of the Vice Prime Minister for European and Euro-Atlantic Integration and the Office of the Government Commissioner for Gender Policy [presented](#) an online platform for helping the rescued [www.help-platform.in.ua](http://www.help-platform.in.ua). The platform contains complete information on all key services to help victims of war. It is expected that the platform will make it easier and faster for citizens to contact the service they need.

The Mykolaiv City Council has [announced](#) the development of a new master plan in cooperation with the Italian architectural company One Works. Experts have already analysed the city and identified the basic principles on which the urban planning document will be based.

The Mayor of Odesa Hennadii Trukhanov and the Mayor of Yokohama Takeharu Yamanaka [signed](#) a Memorandum of Understanding on technical cooperation. The Japanese party will provide technical assistance and support in the restoration and development of Odesa's critical infrastructure.

In the Kyiv region, prefabricated houses by QHome will be [installed](#) on the plots of families whose homes were destroyed as a result of Russia's full-scale invasion. The project is being implemented by UNHCR in cooperation with the Kyiv Regional Military Administration. A total of 100 houses will be installed, the first supply will be provided to the communities most affected by the war in the Bucha district.

On March 14, Finland sent a solar power plant to Ukraine as part of a new aid package, media reported [referring](#) to the Finnish Ministry of the Interior. The power plant is equipped with an intelligent backup system that will help ensure the operation of critical equipment in the event of a power outage.

The NEURC reported that, for the year of war, it [processed](#) about 17,500 individual and collective appeals from consumers regarding violations of their rights and interests in obtaining services in the electricity, gas and utilities markets. The Regulator conducted 185 inspections of licensees based on substantiated appeals from household consumers. Based on the inspections' results, it made 70 decisions to impose fines (in the total amount of 6.8+ million UAH) and issued 58 instructions to eliminate about 240 violations.

The National Anti-Corruption Bureau and the Specialized Anti-Corruption Prosecutor's Office [filed](#) to a court the first episode of the so-called Rotterdam+ case on charges of six persons of causing electricity consumers losses of over 19 billion UAH in 2016-2017.

According to the investigation, the formula approved by the NEURC for calculating the wholesale market electricity price included costs that did not actually exist, namely the cost of transporting coal to Ukraine from the port of Rotterdam.

The Kharkiv Regional Prosecutor's Office, on behalf of the state represented by the Ministry of Energy, [filed](#) a lawsuit to terminate the concession agreement for Kharkiv's Eskhar CHP-2 with the company of businessman Pavel Fuks. A preparatory hearing in the case was scheduled for April 5. To remind, in June 2021, personal sanctions were imposed against businessmen Dmytro Firtash and Pavel Fuks.

The Chair of the Verkhovna Rada Committee on Finance, Taxation and Customs Policy Danylo Hetmantsev confirmed that the parliament is going to liquidate the National Agency of Ukraine for finding, tracing and management of assets derived from corruption and other crimes (Asset Recovery and Management Agency, ARMA). According to Hetmantsev, the main complaint against the agency is the non-transparent sale of property. After the ARMA liquidation, its functions will be transferred to the State Property Fund, which will start selling property through the Prozorro.Sale platform.

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).*