

## Daily Alert

# Russian War Against Ukraine: Energy Dimension

(status as of 12:00, March 1)

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

## Summary

- On the night of March 1, Russia made another attempt to attack Ukraine's infrastructure with Shahed kamikaze drones, all 4 UAVs were shot down.
- According to the Prosecutor General's Office, over the past 4.5 months, 255 missiles and drones have impacted energy infrastructure, including 214 at high-voltage grid facilities of Ukrenergo.
- The IAEA mission on the Zaporizhzhia NPP reported that on February 25, the 330 kV backup power line was disconnected twice after the sound of artillery fire, and on February 27, about 20 explosions were heard near the station. Meanwhile, water levels in the Kakhovka Reservoir have stabilized.
- According to Ukrenergo, one of the power plants resumed operation, which increased the available capacity in the power system and its operational safety. Measures to improve power supply reliability are ongoing in the Odesa region. As a result of enemy's shelling, transmission and distribution systems damage is reported, namely in the Dnipropetrovsk, Donetsk and Kherson regions.
- On March 1, the OECD Ukraine Liaison Office was opened in Kyiv. The Prime Minister Denys Shmyhal said a program with measures for Ukraine's membership in the OECD could be signed in June.
- At a meeting of the OECD Secretary-General Mathias Cormann and the President Volodymyr Zelenskyi, the parties discussed the creation of a tax system that would be interesting for business during the post-war recovery. The OECD team was also invited to join the development and implementation of the concept of Russian assets confiscation in its member states.

- By June 30, 2023, ministries and other central executive authorities have to conduct self-screening on the compliance of Ukrainian legislation with EU acquis and by August 30 - submit a report to the government. The Deputy Prime Minister Olha Stefanishyna will coordinate the process.
- Several working groups at the level of the Cabinet of Ministers, the Ministry of Energy, and the NEURC are considering options for raising electricity prices for households - so the NEURC Chair Konstantyn Ushchapovskyi.
- 7 units of Ukrainian NPPs have been switched to Westinghouse Electric Sweden AB fuel, and in 2024, all 15 units should be supplied with this fuel - Energoatom. The company is also developing a nuclear fuel production facility, with pre-project works underway and the commissioning scheduled for 2026. Meanwhile, the Ministry of Energy agreed with European partners to create a subgroup to supervise the corporatization of Energoatom.

## Attacks

On the night of March 1, Russia made another attempt to attack Ukraine's infrastructure with Iranian-made Shahed kamikaze drones, as the Air Force Command [reported](#). The enemy attacked with 4 UAVs from the north, all of which were destroyed. [According](#) to the Poltava Regional Military Administration Head Dmytro Lunin, all the drones were shot down in the Poltava region, causing a fire at an infrastructure facility.

[According to](#) the Prosecutor General's Office, over the past 4.5 months, 255 missiles and drones have impacted Ukraine's energy infrastructure, including 214 at high-voltage grid facilities of Ukrenergo. Thanks to the professional work of energy specialists, Ukraine managed to quickly restore the functionality of the power grid and power plants and avoid outages.

The International Criminal Court (ICC) intends to investigate Russian missile and drone attacks on Ukraine's electricity infrastructure, the ICC Prosecutor Kareem Khan [said](#) while visiting Ukraine on February 28. The Geneva Conventions and Additional Protocols state that attacks on civilian infrastructure are prohibited.

## Nuclear Safety

The IAEA mission on the Zaporizhzhia NPP site [reported](#) that on February 25, the 330 kV backup power line was disconnected twice after the sound of artillery fire. The outage occurred on the other side of the Dnipro River, i.e. on the territory controlled by Ukraine. The Agency also reported that on February 27, about 20 explosions were heard near the station.

The IAEA Director General Rafael Grossi reported that, in recent weeks, the need to introduce a demilitarized zone around the ZNPP has been increasing due to the intensification of hostilities. Grossi expressed concern about the ongoing delays in the rotation of the IAEA experts who remain at the site and should have been replaced more than three weeks ago. Meanwhile, it is reported that the water levels in the Kakhovka Reservoir have stabilized.

# Electricity Sector

## *Power system operation*

[According](#) to the Prime Minister Denys Shmyhal, in 1.5 months before the end of the heating season, the most difficult period is already behind. There has been no capacity deficit in the power system for 17 days in a row.

As of March 1, [according](#) to Ukrenergo, electricity consumption is at the working day level, for 18 days in a row there has been no capacity deficit in the power system and it is currently not forecasted. Electricity supply is fully covered by the generation capacities of Ukrainian power plants and a small amount of imports from EU countries. All types of generation are in operation, hydroelectric power plants are actively operating due to freshet, and RES generation continues to grow seasonally. Also, one of the power plants resumed operation, which increased the available capacity in the power system and its operational safety.

Consumption limits in the regions have not been applied, there are currently no network restrictions necessitating restriction of supply. Measures to improve power supply reliability are ongoing in the Odesa region. As a result of enemy's shelling, transmission and distribution systems damage are reported in the regions close to combat.

[According](#) to ENTSO-E, as of March 1, minimal commercial imports of electricity were performed from Slovakia (4-11 MW) and imports from Moldova were suspended. D.Trading [booked capacity in both directions](#): Slovakia->Ukraine (250 MW) and Moldova->Ukraine (120 MW) on a flat schedule; the marginal price was "zero". Capacity in other directions was not offered. At the same time, the Base DAM price indices of Eastern European countries (Poland, Slovakia, Romania and Hungary) [exceeded](#) the similar index of Ukraine by 1.8 times.

## *Disruption and resumption of supply*

As of February 28, the Ministry of Energy did not update information on the restoration of supply and the number of consumers without electricity.

[According](#) to DTEK, during the year of the war, its specialists managed to repair 4,000 energy facilities and restore electricity supply to more than 7 million households, including 4 million in the Donetsk region, 1.2 million in the Kyiv region, 874,000 in the Dnipropetrovsk region, 773,000 in the city of Kyiv and 83 000 in the Odesa region (in these regions, companies of the group are distribution system operators).

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

- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on March 1, 23,951 consumers in 70 settlements remained offline (excluding the temporarily uncontrolled territory). During the day, specialists restored electricity supply to 532 households in the Vilniansk, 42 in the Hulyaipole and 1 in the Zaporizhzhia power grids, which were disconnected due to technological malfunctions and enemy's shelling. As of the morning, there were 3 single outages in the city of Zaporizhzhia;
- in the **Odesa region**, [according](#) to Ukrenergo, necessary measures are made to increase in the reliability of power supply in the city of Odesa and the Odesa district;
- in the **Dnipropetrovsk region**, [according](#) to the Regional Military Administration, on March 1, the enemy opened fire on the city of Nikopol, as a result power grids were

damaged in the Myrove community. [According](#) to Ukrenergo, as a result of Russian shelling, there was damage to main networks of the region;

- in the **Kherson region**, [according](#) to the Regional Military Administration, as of February 27, 37 crews (181 specialists and 68 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 Bilousove, Olhyne, Trudoliubivka, Kalynivske, Pravdyne, Daryivka, and Posad-Pokrovske. [On February 28](#), power supply was restored to 312 households in the village of Pravdyne (Bilozerka community), which was offline for almost a year due to the infrastructure destruction by Russian occupiers. Currently, 105 of 228 liberated settlements in the region (46%) are provided with electricity supply. On the same day, in the city of Kherson, as a result of shelling, a 150 kV overhead line was [damaged](#), 4 substations of 35 kV were disconnected, with Shumenskyi, partially Zhytloselyshche and Tsentr neighborhoods were left without electricity. [Ukrenergo confirmed](#) the damage to distribution grids in the Kherson region;
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of March 1, 1,042 electricity supply facilities were partially or completely damaged (+14 during the day), while 4 settlements of the Bashtanka and Mykolaiv districts remained offline;
- in the **Donetsk region**, [according](#) to Ukrenergo, distribution networks were damaged due to enemy's shelling;
- in the **Kharkiv region**, [according](#) to the local DSO, specialists restored electricity supply in the border villages of Morozova Dolyna and Lemishchyne (Zolochiv community), where several 0.4 kV and 10 kV power lines were damaged as a result of enemy's shelling. In order not to attract the attention of occupiers, specialists worked almost secretly, without any special equipment;

there was no up-to-date consolidated information on power supply in the **Luhansk and Sumy regions** at the time of the review preparation.

## Oil & Gas Sector

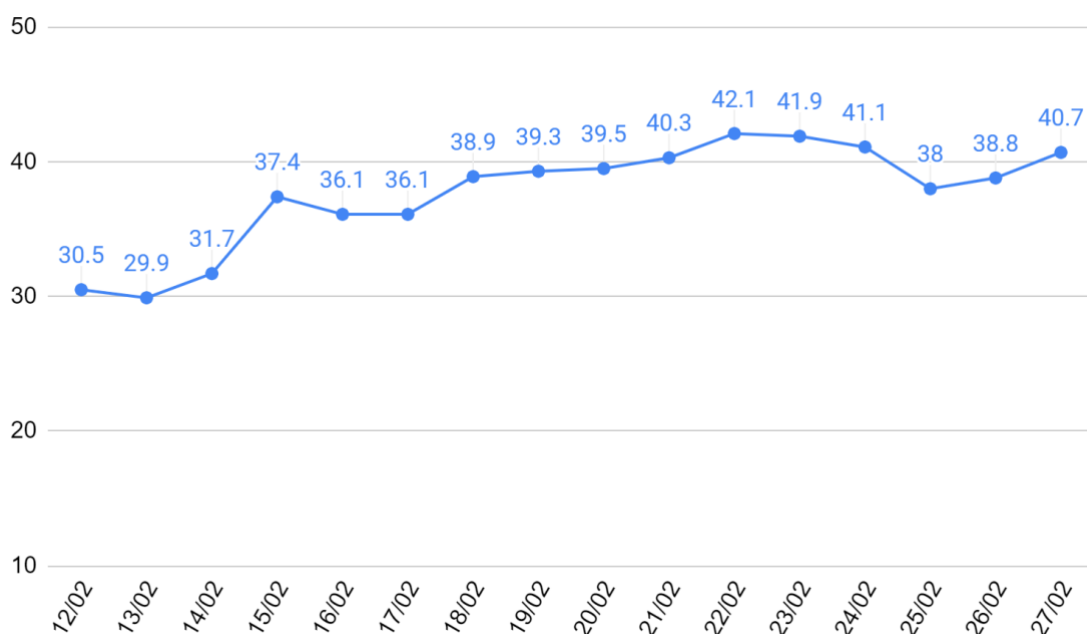
### *Gas system performance*

On February 27, the volume of gas transit through the territory of Ukraine amounted to 40.7 mcm (+1.9 mcm as compared to the previous day), i.e. only 37% 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 in the reporting period were reported at 10.7 mcm and performed via the Beregdaroc interconnection point (VIP Bereg) at 3.7 mcm, via the Hermanowice interconnection point (VIP Ukraine-Poland) at 1.6 mcm, via the the Budince interconnection point at 4.6 mcm and via the Căușeni interconnection point (Ukraine-Moldova) at 0.8 mcm. On February 27, on Ukraine's gas system exit, except for transit flows, no gas was transmitted.



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



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

## Performance of the natural gas market

Gas Distribution Networks of Ukraine LLC, which was established by Naftogaz to manage gas distribution assets (including those transferred to its management as arrested DSOs), changed the CEO (Oleksii Skryl instead of Denys Myrhorodskiy).

## Disruption and resumption of supply

As of February 28, the Ministry of Energy did not update information on the supply restoration and the number of consumers without gas supply.

The **Dnipropetrovsk, Donetsk, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, and Kharkiv regions** had the most challenging situation.

In the **Kherson region**, the local DSO [started](#) restoration works on gas distribution to one more de-occupied settlement of the Velyka Oleksandrivka community. There are almost no surviving gas pipelines, but thanks to the efforts of specialists, the first 5 households of the settlement already receive gas for heating and cooking. Restoration works are ongoing.

In the **Mykolaiv region**, according to the Regional Military Administration, as of March 1, 1,147 gas infrastructure facilities (no change as compared to February 28) were damaged during the war, as a result, 5,275 consumers (-3) [remained with no gas supply](#).

In the **Dnipropetrovsk region**, gas infrastructure of the Myrove community was damaged by the Russian occupiers shelling once again.

In the **Kharkiv region**, during the last week, the local DSO restored gas supply to 120 settlements in the Kupyansk and Chuhuiv districts.

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

# Countermeasures of Ukrainian Companies and Public Authorities

On the day the International Criminal Court Prosecutor Karim Khan visited Ukraine, the President Volodymyr Zelenskyi [announced](#) legal consequences for Russia for its policy of genocide against Ukrainians. He emphasized it is not only about the perpetrators, but also about the top political and military leadership of the terrorist state.

Following a meeting with the OECD Secretary-General Mathias Cormann, Zelenskyi invited the OECD representatives to join the process of Ukraine's reconstruction. The Presidential Office [website](#) states that the parties discussed the creation of a tax system that would be interesting for business during the post-war recovery. Zelenskyi also invited the OECD team to join the development and implementation of the concept of Russian assets confiscation in the Organization's member states.

The Prime Minister Denys Shmyhal also [said](#) that a program with necessary measures for Ukraine's membership in the OECD could be signed in June. Shmyhal [noted](#) that the opening of the OECD Ukraine Liaison Office in Kyiv, held on March 1, will allow coordinating joint efforts on the reconstruction and restoration of Ukraine and ensuring the implementation of OECD standards and tools in Ukraine.

By June 30, 2023, ministries and other central executive authorities have to conduct a [self-screening](#) on the compliance of Ukrainian legislation with EU acquis and by August 30 - submit a report to the government, the Prime Minister Shmyhal [said](#). According to him, the report must contain specific proposals on how to harmonize sectoral legislation with EU law. The Deputy Prime Minister for European and Euro-Atlantic Integration Olha Stefanishyna will coordinate the process.

Several working groups at the level of the Cabinet of Ministers, the Ministry of Energy, and the National Energy and Utilities Regulatory Commission are considering several options for raising electricity prices for households, [reported](#) the NEURC Chair Konstantyn Ushchapovskyi. According to him, the increase can take place in different ways: the current system of subsidizing vulnerable households can be modified, price levels can be revised depending on consumption volumes, or mixed versions of these schemes can be implemented. "The final decision to revise the prices in any direction is the government's responsibility", Ushchapovskyi said.

At its meeting on February 28, the NEURC [decided](#), inter alia:

- to publish for comment draft amendments to the licensing conditions on electricity production, which provide an exemption from licensing of the activities of backup (emergency) electricity production by mobile (autonomous) installations;
- to approve amendments to the NEURC resolutions aimed at preventing manipulations by electricity market participants, in particular by monitoring operations in the market management system and market operator (MO) software. In particular, it is envisaged that, in case a market participant fails to confirm by own generation capacities and/or purchase on the DAM and/or imports of electricity volumes declared for sale on the DAM, the MO shall reject its trading bids on the DAM and IDM and suspend the participation of such a participant in the DAM and IDM for 7 calendar days.

Naftogaz will prepare for the heating season two years in advance, [said](#) the company's CEO Oleksii Chernyshov. "We have to provide the country with energy reserves, primarily gas, oil and petroleum products, in order to look confidently into the future", he said. Chernyshov noted that gas should be saved this year and that tariffs will not change until the end of the current heating season. According to him, Naftogaz [supplies](#) gas to 12.5 million Ukrainian households.

7 units of Ukrainian nuclear power plants have been switched to Westinghouse Electric Sweden AB fuel, Energoatom [reported](#). Starting in 2024, all 15 units of Ukrainian NPPs should be supplied with this fuel. The President of Energoatom Petro Kotin also noted the company is working with Westinghouse to create "domestic" nuclear fuel production: in November 2022, Energoatom was defined by the Ministry of Energy as the operator of a future nuclear facility for the production of fuel assemblies, and in December the company developed and agreed a roadmap for the construction of a production facility. Currently, the schedule has been outlined, the pre-project part is underway, and the commissioning is scheduled for 2026.

The Ministry of Energy [reported](#) that the Swedish government has decided to contribute almost 30 million USD to the Ukraine Energy Support Fund. In addition, Sweden will allocate funds to support the IAEA mission deployed at Ukrainian nuclear power plants.

The Ministry of Energy also agreed with European partners to create a subgroup within the existing International Advisory Council to supervise the corporatization of Energoatom, involving international experts. This was [announced](#) by the Minister Herman Halushchenko following an informal meeting with the EU energy ministers in Stockholm.

The Register of Damaged and Destroyed Property already contains information on more than 10,000 affected assets provided by nearly 500 communities, [said](#) the Chair of the Verkhovna Rada Committee on State Building, Local Governance, Regional and Urban Development Olena Shulyak. She emphasized that all operations on compensation for destroyed or damaged housing will be performed in a digital format, and the queue for compensation will be formed electronically. Applications from privileged categories of citizens will be considered first, while other applications will be considered as they are received by the Register.

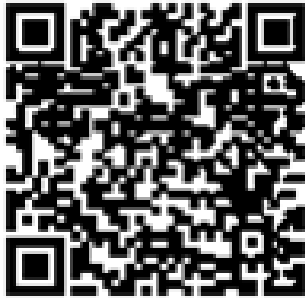
Shulyak also [informed](#) that, as of February 28, 335,145 applications for compensation for housing damaged or destroyed by the aggressor had been submitted through Diia. The Donetsk, Kharkiv and Kyiv regions are leading in terms of the volume of destroyed housing. The MP reminded that, in order to resolve the issue of compensation for lost housing, on February 23, the Verkhovna Rada adopted a law (draft No. 7198), which is pending the signature of the Verkhovna Rada Speaker. "The government has two months to develop the relevant regulations for the full implementation of the adopted draft law. And we hope it will be in full force in May," emphasized Shulyak.

The European Commission has [announced](#) two calls for 7.5 million EUR to provide Ukrainian small and medium-size businesses with new opportunities to access the EU Single Market and gain business experience in European countries. The first call, Business Bridge, provides financial support to SMEs affected by the war by providing vouchers for access to services and their participation in trade presentations in the EU. The second call, Erasmus for Young Entrepreneurs, will provide 450 people with the opportunity to gain business experience in other European countries.

In the capital, only a few thousand people visited the "Points of Invincibility" during the power outages, [said](#) the First Deputy Head of the Kyiv City State Administration Mykola Povoroznyk. "In fact, almost every Kyiv resident has already built and equipped their own "invincibility point" in apartment. I mean alternative sources of electricity, alternative ways of cooking, etc.", said Povoroznyk. He added that "Points of Invincibility" are not in demand now, given there are no serious power outages.

For subscriptions, comments and other questions, please email to: [author@dixigroup.org](mailto:author@dixigroup.org)

### **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).*