



Russian War Against Ukraine: Energy Dimension

DiXi Group alert

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#StopRussianAggression

#StandWithUkraine

Summary

- **App. 621,400 consumers all over Ukraine did not have electricity supply, and 177,000 consumers remained without gas supply.**
- After June 15, **pilot volumes of electricity exports to the EU countries will be determined.** Ukraine has almost completed the implementation of six technical prerequisites to ensure the stability of the interconnected network and increase the ability to dampen low-frequency oscillations - Ukrenergo.
- According to Energoatom, the occupiers were actively preparing a visit of the IAEA Director General Rafael Grossi to the Zaporizhzhia NPP. **Ukraine claims any IAEA mission cannot be admitted unless ZNPP and the city of Energodar are liberated**, as such visit may aim to legitimize the presence of the Russian nuclear terrorists at the station and will be considered a violation of international law and indirect assistance to Russia's nuclear terrorism.
- **ZNPP personnel takes all measures to ensure the accounting and control of nuclear material** under the IAEA Safeguards Agreement and its Additional Protocol, including reports to the IAEA on changes in inventory and balance of nuclear material - so the State Nuclear Regulatory Inspectorate.
- The Ministry of Foreign Affairs has prepared **an official letter to the EU outlining Ukraine's proposals on the 7th sanctions package.** In particular, new sectoral sanctions in the fields of energy, finance and trade, new personal sanctions and closing all “loopholes” to bypass and evade sanctions are proposed.

- The CEO of Naftogaz Yurii Vitrenko believes **the only way to end the war is a full embargo on Russian gas**. In his opinion, exceptions should be subject to a transfer cap, with only part of the payment to reach Russia, and the rest to be kept on escrow accounts.
- The Sumy Regional Military Administration Head Dmytro Zhyvytskyi reported **the consideration of proposals from three companies on restoring the district heating system in Okhtyrka**. All the projects provide for construction of boilers on solid biomass (wood chips).

Nuclear and Radiation Safety

Chornobyl NPP Exclusion Zone

The enterprises of the Exclusion Zone (SSE “ChNPP”, SSE “CERWM”, SSE “Pivnichna Pushcha”, SSE “Ekotsentr”, SE “TsOTIZ”, etc.) continued to [resume](#) their activities. In particular, SSE “ChNPP” organized the delivery of personnel to perform works on ensuring the safe condition of the Chornobyl facilities, storage of spent nuclear fuel and radioactive waste management; repair and modernization of the physical protection system continued; a reserve information channel was created between the Chornobyl NPP site and the city of Slavutych; the efficiency of automated information systems and the IT network of the Chornobyl NPP was restored after the occupation; the concept of a national project for technical cooperation with the IAEA in 2024-2025 was developed; restoration of working and operational documentation damaged and lost as a result of the occupation continued. According to Energoatom, the occupiers were actively [preparing](#) for the visit of the IAEA Director General Rafael Grossi to the Zaporizhzhia NPP. In particular, the Russian military together with Rosatom’s representatives held special meetings and contacted the IAEA to organize the visit of the Agency’s mission. At the same time, the Ukrainian party categorically opposes such a visit while ZNPP is occupied, as it may aim to legitimize the presence of the Russian nuclear terrorists at the station. Any attempts by the IAEA mission to arrive at the station without Ukraine’s consent will be considered a violation of international law and indirect assistance to Russia’s nuclear terrorism.

At the same time, Ukraine continued to insist on a clear position of the IAEA on the withdrawal of Russian troops and military equipment from ZNPP, pressure on Russia to leave the station and transfer of control over ZNPP to Ukraine, as this is the only way to speed up the IAEA experts visit to confirm safe condition of the site and assess the damage caused by criminal actions of the occupiers, as it was done at the Chornobyl NPP site.

A similar position on the inadmissibility of any IAEA mission unless ZNPP and the city of Energodar are liberated [was expressed](#) by the Acting Chairman of the State Nuclear Regulatory Inspectorate Oleh Korikov at a working meeting with the ambassadors of the G7 countries and the EU. He also stressed the importance of implementing the IAEA Board of Governors’ resolution on the global nuclear threat due to Russia’s armed invasion of Ukraine and acts of nuclear terrorism against Ukrainian nuclear facilities, as well as the urgent application of appropriate sanctions.

According to Korikov, ZNPP personnel takes measures to maintain the operational safety of nuclear facilities, ensure the accounting and control of nuclear material under the IAEA Safeguards Agreement and its Additional Protocol, including reports to the IAEA on changes in inventory and balance of nuclear material. At ZNPP and all other operating NPPs of Ukraine, nuclear material is present and used in the form of fuel assemblies with low enrichment, not suitable for the manufacture of nuclear weapons.

Electricity Sector:

Power system operation

Ukraine [continued](#) commercial exports of electricity to Poland via the Dobrotvirska TPP - Zamosc transmission line at the stable schedule of 210 MW hourly. [According](#) to Ukrenergo, as of June 9, exports to Moldova reached 142 MW during the day and 100 MW at night. Also, technical cross-border flows [continued](#) between the energy systems of Ukraine and Eastern Europe countries (Slovakia, Hungary, Poland, Romania, and Moldova), which operating in synchronous mode.

After the positive response of the transmission system operators of Continental Europe (ENTSO-E) to Ukrenergo's request of re-launching electricity exports from Ukraine, the CEO of Ukrenergo Volodymyr Kudrytskyi [said](#) that pilot volumes of exports to the EU countries will be determined after June 15. Also, Ukraine has almost completed the implementation of six technical prerequisites to ensure the stability of the interconnected network and increase the ability to dampen low-frequency oscillations, which is an essential precondition for developing electricity trade.

Kudrytskyi noted that, since the beginning of the full-scale aggression in Ukraine, electricity demand had dropped significantly. At the same time, Ukraine is the only large country in Central and Eastern Europe that can be a net exporter of electricity, while neighboring countries are in short supply.

In addition, Ukrenergo and PSE (the Polish TSO) continued working on a project to restore the Khmelnytskyi NPP-Rzeszow cross-border transmission line with a shift to 440 kV voltage class for further exports expansion. Ukrenergo expects the project implementation may take up to a year and will increase total electricity exports by 25-30%. It is also expected that all market participants will have access to the capacity.

As part of the [restoration](#) of damaged energy infrastructure by Ukrenergo, a 330 kV overhead power line was turned on in the south-eastern region. Also, a 330 kV line and a 330 kV substation were under repair in the eastern region; the replacing of damaged 0.4 kV power cables continued. At the same time, a damaged 750 kV high-voltage line was being inspected. In the central region, the 750 kV overhead line inspection with sappers was completed; emergency and restoration works continued at a 750 kV substation and a 330 kV line. In the northern region, the installation and connection of bus supports' equipment at a 330 kV substation took place.

Electricity market performance

Day-ahead market (DAM): On June 9, the weighted average settlement price [almost didn't change](#) and amounted to 2,223.05 UAH/MWh (+0.3% vs the previous day). At the same time, the DAM Base price indices of the Eastern European countries (Poland, Romania, Slovakia and Hungary) synchronously decreased and almost equalized at 2.8-2.9 times [higher](#) than the Base DAM index of Ukraine.

The total volume of trading showed a slight [decrease](#) up to 15,251.9 MWh (-12.5% vs the previous day). At the same time, the supply level almost didn't change - 89,516.7 MWh (+0.4%), leading to slight increase in market surplus - the gap with the volume of purchase bids amounted to 5.8 times. The [structure of purchase](#) also had somehow changed: the dominant part (59.3%) was occupied by suppliers, 40.4% by system operators, the remaining 0.3% by producers and traders.

Intraday market (IDM): On June 8, the weighted average price of electricity on IDM continued to [decrease](#) and amounted to 2,375.40 UAH/MWh (-3.7% vs the previous day). Meanwhile, the total volume of trading was halved up to 573.3 MWh (-51.4% vs the previous day). At the same time, relatively less reduction in supply to 38,871.1 MWh (-16%) did not prevent a significant increase in market surplus - the gap with the volume of purchase bids grew from 39 to 68 times. In the [structure of purchase](#), the dominant part (98.6%) was occupied by suppliers, 1.3% by system operators and producers.

Disruption and resumption of supply

[According](#) to the Ministry of Energy, as of June 8, due to hostilities, a total of 621,400 consumers in 725 settlements were disconnected from electricity supply. During the day, electricity supply was resumed to app. 17,500 consumers.

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

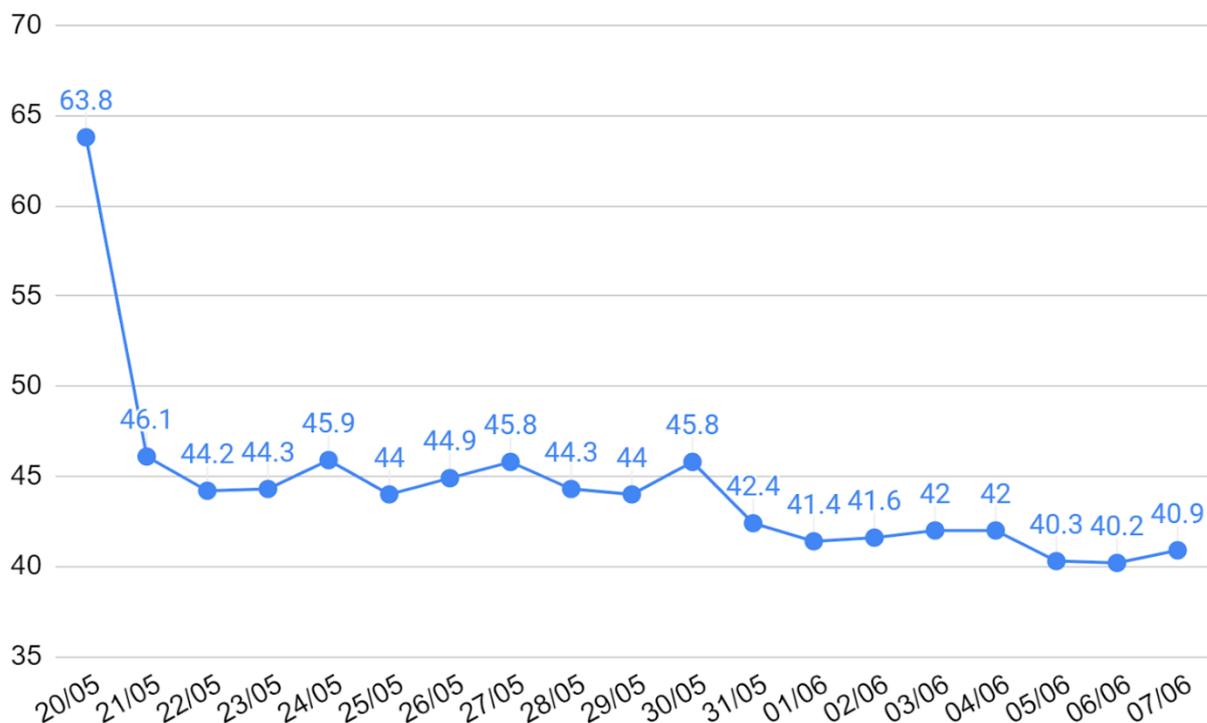
- in the **Donetsk region**, according to the local DSO, the specialists restored electricity supply to 26,503 households in 22 settlements (15 of them in the Bakhmut, Volnovakha, Kramatorsk and Pokrovsk districts). A total of 316 settlements were left without electricity ([according](#) to the Ministry of Energy - more than 351,000 consumers);
- in the **Luhansk region**, [according](#) to the Ministry of Energy, 128,200 consumers were left without electricity supply;
- in the **Kharkiv region**, [according](#) to the Ministry of Energy, about 70,600 consumers remained without electricity and 4,200 consumers were reconnected. In particular, power supply was completely [restored](#) for 500 households in the villages of Blahodatne, Zatyshshya and Elitne in the Kharkiv district, where the supports and wires of transmission lines were damaged due to explosions.
- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on June 9, 25,714 consumers in 83 settlements remained without electricity. During the day, DSO specialists repaired the damage and restored supplies to 277 households in the Orikhiv district and 270 consumers in the city of Polohy. At the same time, as a result of fighting in the Vasylivka district, two high-voltage overhead lines and two substations were shut down, with 1,100 consumers in 3 settlements disconnected from electricity supply;
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of June 9, 381 power supply facilities were partially or completely damaged. In particular, a power line in the village of Prybuzke was [damaged](#) due to shelling of the Kutsurub community. 93 settlements (5 of them partially) of the Bashtanka and Mykolaiv districts remained without electricity supply. [According](#) to the Ministry of Energy, supply to 1,400 consumers in the region was restored in the day;
- in the **Kherson region**, [according](#) to the Regional Military Administration, as of 16:00 on June 8, among the communities with contact established, electricity supplies were partially in the Novovorontsovka, Muzykivka and Kochubeivka communities; at least 10 settlements remained without electricity. All 22 settlements of the Vysokopillia community remained with no electricity supply;
- in the **Chernihiv region**, [according](#) to the Regional Military Administration, as of 06:00 on June 9, 2,925 consumers in 1 settlement did not receive electricity supply service;
- there was no up-to-date consolidated information on power supply in the **Sumy, Dnipropetrovsk and Odesa regions** at the time of the review preparation.

Gas Sector:

As of June 7, the gas transit through the territory of Ukraine increased by 0.7 mcm as compared to the previous day and amounted to 40.9 mcm. These volumes were only 38% of the capacity contracted by Gazprom (109 mcm per day). There were no transit flows via the Sokhranivka interconnection point.

Physical imports of gas from the EU were reported from the Hermanowice interconnection point (virtual interconnection point "Ukraine-Poland") at 1.4 mcm. At the same time, part of these volumes may be a transit from Poland to Hungary via Ukraine, as on June 7, on Ukraine's gas system exit via the Berehove interconnection point (virtual interconnection point "Bereg") 0.8 mcm of gas was shipped.

Gas transit through Ukraine (at Sokhranivka and Sudzha interconnection points), mcm



Source: [GTSOU](#)

Disruption and resumption of supply

The **Donetsk, Luhansk, Zaporizhzhia, Chernihiv, Mykolaiv and Kharkiv regions** had the most challenging situation in gas supply. [According](#) to the Cabinet of Ministers, as of June 8, 177,000 consumers were left with no gas supply. Supply to 10,700 consumers was restored during the day.

In the **Donetsk region**, the situation didn't change: almost the whole region remained without gas supply due to the main gas pipeline damage. Only 1,900 consumers in 2 settlements [had](#) gas supply. At the same time, for the last 17 days, the local DSO engineers have been sending the remaining gas volumes in the distribution network to the Druzhkivka bread factory.

In the **Luhansk region**, there were no changes in gas supply: it was completely suspended due to hostilities which were deeply destroying the region's critical infrastructure.

In the **Kharkiv region**, the local DSO specialists [restored](#) gas supply to 5,000 households in 4 settlements of the Derhachi community. 3 settlements of the Chuhiv community also have been reconnected.

In the **Zaporizhzhia region**, as of the morning of June 9, the situation didn't change: 81,160 consumers in 106 settlements were [left](#) without gas supply. The day before, in the city of Orikhiv, the operation of a cabinet-type gas distribution point, which was shut down earlier in the day due to explosion, was restored.

In the **Kherson region**, [as of 16:00 on June 8](#), there was no information regarding any significant change as compared to the previous day: 1 community (Vysokopillia) has completely remained without gas supply and 3 communities (Velyka Oleksandrivka, Novovorontsovka, Stanislav) partially. However, there is no mobile connection in some of these communities, so there is no up-to-date

information on gas supply. LPG reserves were running out in 4 communities (Tyahyn, Hornostaivka, Velyka Lepetykha and Rubanivka); in the Novoraysk community, LPG supply had run out.

In the **Mykolaiv region**, as of June 9, the situation almost did not change: 592 gas infrastructure facilities were [destroyed or damaged](#) for the whole period of the war (no change vs the previous day), and 6,578 (-162) consumers were left without gas supply.

Operational information on gas supply in the **Sumy and Chernihiv regions** was not available at the time of the review preparation.

Countermeasures of Ukrainian Companies and Public Authorities

The President Volodymyr Zelenskyi [called on](#) the Western investors to build long-term cooperation with Ukraine, in particular, in the field of 'green' energy. According to Zelenskyi, Ukraine means: access to the entire European market; qualified specialists; agricultural sector, which remains major to dozens of countries even during the war; rich natural resources and green energy; digital space, which gives simplicity, transparency between person/company and government. He stressed that, in the context of a full-scale Russian invasion, all Ukrainian institutions have shown their resilience. In addition, according to the President, the ambitious program of post-war reconstruction of Ukraine will be the largest economic project in Europe.

The Minister of Foreign Affairs Dmytro Kuleba [stated](#) that Ukraine categorically rejects proposals to "wait" with the next sanctions. According to Kuleba, the Ministry of Foreign Affairs has prepared an official letter to the EU outlining Ukraine's proposals to form the basis of the 7th sanctions package. In particular, three main elements proposed are: new sectoral sanctions in the fields of energy, finance and trade; new personal sanctions against Russian oligarchs, high-ranking government officials and heads of state-owned enterprises; closing all "loopholes" to bypass and evade sanctions. Kuleba also called dependence on the foreign merchant vessels the "Achilles' heel" of Russia's export-oriented economy. He also added the "cherry on the cake" was that Ukraine will continue to insist on using the frozen Russian assets for Ukraine's reconstruction.

Testifying for the Commission on Security and Cooperation in Europe (Washington DC), the CEO of Naftogaz Yuriy Vitrenko [said](#) Ukraine needs help with the purchase of 6 bcm of gas for the next heating season with app. 8 billion USD cost. According to him, work was underway with the U.S. government to find commercial solutions and even consider obtaining gas using the 2022 Land-Lease Act. Vitrenko also [wrote](#) he believes the only way to end the war is a full embargo on Russian gas. In his opinion, exceptions should be subject to a transfer cap, when only part of the payment will reach Russia, and the rest will be kept on conditional escrow accounts.

The CEO of Ukrenergo Volodymyr Kudrytskyi [stated](#) that the Ukrainian power system will be able to pass the 2022-2023 heating season in any scenario, which includes disconnection of certain generating capacities (i.e. loss of load). According to him, synchronization with the European continental network (ENTSO-E) has given Ukraine not only export potential but also import potential; if necessary, Ukraine will be able to rely on external support.

The Sumy Regional Military Administration Head Dmytro Zhyvytskyi [announced](#) the consideration of proposals from three companies on restoring the district heating system in the city of Okhnytka. The first option at 150-180 million UAH provides for the construction of a mixed heating system, which includes a modular boiler house on wood chips or pellets (20 modules, 1.5 MW each) and a separate gas boiler. The second option at 126 million UAH provides for the creation of modular boilers using 4 types of fuel: gas / fuel oil and pellets or wood chips. The third option, proposed by Naftogaz, is a wood-fired boiler house (2 boilers 20 MW each) for 150 million UAH. The decision is expected to be made early next week.

Sources:

The alerts are developed based on collected, verified, and analyzed information reports of over 100 official sources: ministries, state agencies, network operators, and energy companies. Information was collected only from official websites and official social media accounts.

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