



Russian War Against Ukraine: Energy Dimension

DiXi Group alert

(status as of 12:00, June 1)

#StopRussianAggression

#StandWithUkraine

Summary

- **App. 647,600 consumers all over Ukraine did not have electricity supply, and 166,600 consumers remained without gas supply.**
- **The IAEA expert mission started its work in the Exclusion Zone** to ensure proper nuclear and radiation safety at the Chornobyl NPP site (support for radiation protection, verification and safety of radioactive waste management, resumption of the automatic radiation monitoring system operation).
- **Energoatom received a 1.5 billion UAH loan from Ukrgazbank to purchase Westinghouse fuel in 2022.** The company officially put into operation the hydroelectric unit 3 of the Tashlyk PSPP, increasing the flexible capacity and balancing opportunities for the energy system (this effectively confirmed our assumption a few days earlier).
- **The President Volodymyr Zelenskyi welcomed the EU agreement on the sixth sanction package** that includes an embargo on Russian oil and refined products. Despite the delay in implementation, these restrictions strategically leave Russia on the sidelines of the modern economy, according to Zelenskyi.
- **The government introduced a short-term PSO on the gas market.** From June 1 to July 31, 2022, Naftogaz Trading will sell gas to district heating companies in the volumes required to provide hot water supply services at a price of 7,420 UAH/tcm

(including VAT). Tariff for transmission service and the coefficient used when booking day-ahead capacity will be added to the price.

- **The Cabinet of Ministers also has canceled the competition for positions of CEOs**, heads of executive bodies and members of supervisory boards in the companies of public sector for the martial law period. Appointments will be made after approval of candidates by the Cabinet of Ministers.
- **The NEURC approved the draft Licensing Conditions for energy storage activities**, the ten-year network development plan for GTSOU (with an expected cost of 42.632 billion UAH, excluding VAT), the minimum IDM price cap reduction from 110% to 102% of the DAM price (excluding VAT), and restarted an investigation into possible violations of some electricity market players.
- **The State Bureau of Investigation announced the arrest of property, accounts and corporate rights of Russia's Tatneft** group of companies, including oil depots, filling stations, non-residential buildings, land plots and 118 fuel trucks and cars.

Nuclear and radiation safety

After refusing to continue purchasing Russian nuclear fuel TVEL, Energoatom received a 1.5 billion UAH loan from the state-owned Ukrzazbank to [purchase](#) Westinghouse fuel in 2022.

Chornobyl NPP Exclusion Zone

The IAEA expert mission has started its work in the Exclusion Zone, aimed at ensuring proper nuclear and radiation safety at the Chornobyl NPP site, [including](#) support for radiation protection, verification and safety of radioactive waste management, and resumption of full operation of the automatic radiation monitoring system in the Exclusion Zone.

Meanwhile, in the Exclusion Zone, work is [underway](#) to extinguish forest litter and individual fires in Dytiatky, Opachychi and Kotovske forestries with a total area of about 350 hectares. According to the State Agency for the Exclusion Zone Management, there was no threat of fire spreading, and the radiation situation was under control. There is also a constant patrol of areas with no threat of explosions.

Electricity Sector:

Power system operation

Ukraine [continued](#) commercial exports of electricity to Poland via the Dobrotvirsk TPP - Zamosc transmission line at the stable schedule of 210 MW hourly. As of June 1 st, exports to Moldova were [suspended](#), despite the allocated capacity for June at the [monthly auction](#) (420 MW) and daily auctions (up to 180 MW). Also, technical [cross-border](#) flows continued between the energy systems of Ukraine and Eastern Europe countries (Slovakia, Hungary, Poland, Romania, and Moldova).

Meanwhile, the Polish Minister of Climate and Environment Anna Moskwa [stated](#) that the exports of electricity from Ukraine will support Poland's energy stability and will allow seizing the opportunities of synchronization with ENTSO-E. At the same time, Ukrenergo continued to cooperate with the Polish TSO (PSE) to ensure Ukraine's full integration into the European electricity market. In addition, parties continue working on a project to [restore](#) the 750 kV Khmelnytskyi NPP-Rzeszow line, which can further provide exports of up to 1,000 MW.

According to the Acting President of Energoatom Petro Kotin, the company [put into operation](#) the hydroelectric unit 3 of the Tashlyk pumped-storage power plant, which is part of the South Ukrainian energy complex. This confirms our assumption made in the review a few days earlier. On May 31, the unit with a capacity of 150 MW in generator mode was connected to the power system, which increases its flexibility and improves balancing capabilities.

Ukrenergo [continued](#) to rebuild damaged energy infrastructure. A 330 kV overhead line was put into operation in the south-eastern region of Ukraine. In total, during the repairs, more than 40 km of the line were inspected, 8 new struts were installed, and 5 cable breaks were eliminated. Three more 330 kV lines in the eastern and central regions were being repaired (wire damage being eliminated, new reinforced concrete supports being installed) and inspection of remote areas together with the State Emergency Service specialists was ongoing. The work to restore the high-voltage 750 kV infrastructure was underway: a switch has been installed at a substation, 9 crews were working on the line (gusts and sagging of the cable were eliminated).

Electricity market performance

Day-ahead market (DAM): As of June 1, the DAM weighted average settlement price didn't [decrease](#) and amounted to 2,281.5 UAH/MWh (-1.2% vs the previous trading day). At the same time, exchange prices in most Eastern European markets synchronously increased, which led to widening of their [gap](#) with Ukraine. The prices in Slovakia, Hungary and Romania practically equalized and were about 3.2 times higher than the Base DAM price index of Ukraine, while the spread to Poland was traditionally narrower at 2.6 times.

The total volume of trading [increased](#) more than two times to 24,107.5 MWh (+141,6% vs the previous day). At the same time, the supply on DAM also increased significantly - to 108,006.1 MWh (+45.4%), which led to a decrease in market surplus: the gap with the volume of purchase bids fell from 7.4 to 4.5 times. At the same time, [the structure of purchase](#) significantly changed: 77.6% was occupied by suppliers, 22.2% by system operators, 0.2% by producers and traders.

Intraday market (IDM): On May 31, the weighted average price of electricity on IDM slowly [decreased](#) and amounted to 2,683.25 UAH/MWh (-5.8% vs the previous day). At the same time, the total volume of trading after the two days of significant growth, showed an anomalous jump and reached 2,006.2 MWh (+474.2% vs the previous day). Supply also increased significantly - to 42,825.4 MWh (+23.3%), and the surplus on IDM decreased significantly - the gap with the volume of purchase bids fell from 99 to 21 times. In the [structure of purchases](#) 100% was occupied by suppliers.

Disruption and resumption of supply

[According](#) to the Ministry of Energy, as of May 31, due to hostilities, a total of 647,600 consumers in 736 settlements were disconnected from electricity supply. During the day, electricity supply was resumed to app. 35,000 consumers.

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

- in the **Donetsk region**, [according](#) to the Ministry of Energy, 356,300 consumers were disconnected from electricity supply and supplies to 8,300 consumers were resumed during the day. [According](#) to the local DSO, the most difficult destinations in the region were Slovyansk, Avdiivka, Maryinka, Toretsk, Bakhmut and Velyka Novosilka, where equipment and power lines are constantly damaged due to shelling;
- in the **Luhansk region**, [according](#) to the Cabinet of Ministers, 128,200 consumers were left without electricity supply. [According](#) to the Regional Military Administration Head Serhii Haidai, the front line crosses Severodonetsk, the city has a completely destroyed critical infrastructure, there was no electricity supply;
- in the **Kharkiv region**, [according](#) to the Ministry of Energy, 74,900 consumers were left without electricity supply and supply to 15,000 was resumed during the day;
- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on June 1, 37,041 consumers in 87 settlements remained without power supply. Supply to 2,316 consumers

was resumed during the day (1,663 in Tokmak district, 612 in Zaporizhzhia district and 41 in the city of Zaporizhzhia). As a result of hostilities, 12,414 consumers of the Orikhiv electric networks and 2 consumers in Zaporizhzhia were without electricity supply;

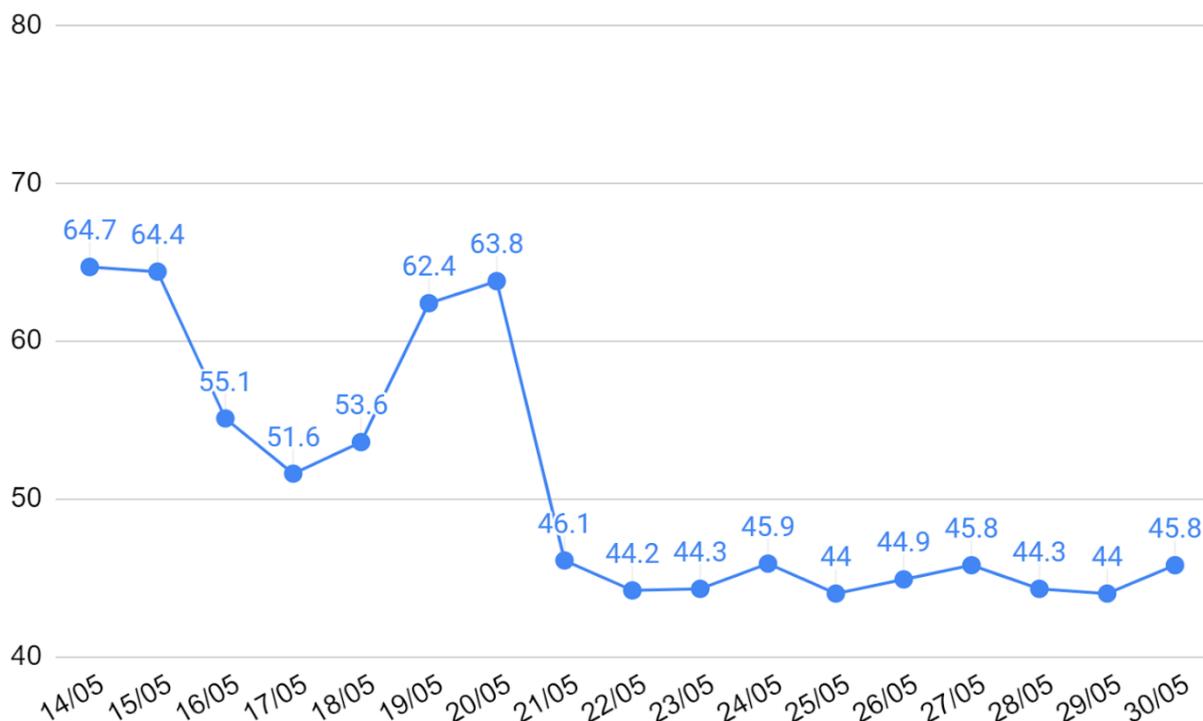
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of June 1, 364 power supply facilities were partially or completely damaged. 89 settlements (3 of them partially) of the Bashtanka and Mykolaiv districts remained without electricity. [According](#) to the Ministry of Energy, as of May 31, electricity supply to 150 consumers was restored during the day;
- in the **Odesa region**, [according](#) to the local DSO, in May electricity supply was restored to 24,086 households in 40 settlements, most of them in the Bolgrad district;
- in the **Kherson region**, [according](#) to the Ministry of Energy, supply to 3,800 consumers was restored during the day;
- in the **Dnipropetrovsk region**, [according](#) to the Ministry of Energy, as of May 31, power supply was restored to 450 consumers. [According](#) to the Regional Military Administration Head Valentyn Reznichenko, the Russian military fired artillery and mortars at Zelenodolsk community, damaging a power line, and repairs were underway on the spot;
- in the **Chernihiv region**, [according](#) to the Regional Military Administration, as of 06:00 on June 1, 1,195 consumers in 2 settlements did not receive electricity supply services;
- in the **Kyiv region**, [according](#) to the State Emergency Service, during the day specialists inspected 4,500 km of power lines, as well as 350 kV lines ChNPP-Lisova and ChNPP-Slavutych for the presence of explosives; as of May 31, a total of 1,019 km of transmission lines in the region were [inspected](#);
- in the **Zhytomyr region**, in order to support and ensure defense capabilities, the local DSO specialists [built](#) a 10/0.4 kV transformer substation and an overhead power line at one of the field locations of the Ukrainian military;
- there was no up-to-date consolidated information on power supply in the **Sumy region** at the time of the review preparation.

Gas Sector:

As of May 30, the gas transit through the territory of Ukraine increased by 1.8 mcm compared to the previous day and amounted to 45.8 mcm. These volumes were only 42% 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 0.5 mcm. At the same time, these volumes may be a transit from Poland to Hungary via Ukraine, as on May 29, on Ukraine's gas system exit via the Berehove interconnection point (virtual interconnection point "Bereg") almost the same volume of gas (0.6 mcm) 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 May 31, app. 166,600 consumers were left with no gas supply. Supply to 1,500 consumers was restored during the day.

In the **Donetsk region**, there was no information regarding any changes. The region was mainly disconnected from gas supply; repairs were impossible due to active hostilities.

In the **Luhansk region**, gas supply was completely suspended. [According](#) to the Regional Military Administration Head Serhii Haidai, the region's critical infrastructure was destroyed by 90%.

In the **Zaporizhzhia region**, as of the morning of June 1, 75,913 consumers in 94 settlements [remained](#) without gas. The day before, low-pressure gas pipelines in the city of Orikhiv were damaged by shelling. As a result, 43 consumers were left without gas supply. At the same time, in Orikhiv, damage to low-pressure distribution gas pipelines, caused by shelling earlier in the day, was eliminated.

In the **Kherson region**, [as of 12:00 on June 1](#), there was no information regarding any significant changes vs the [previous day](#): 1 community (Vysokopillia) has completely remained without gas supply and 3 communities (Velyka Oleksandrivka, Novovorontsovka, Stanislav) partially. 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 1, the situation became worse: 300 gas infrastructure facilities (+56 vs the previous day) were [destroyed or damaged](#) for the whole period of the war, and 5,498 consumers (+1,105) were left without gas supply.

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

Countermeasures of Ukrainian Companies and Public Authorities

The President of Ukraine Volodymyr Zelenskyi in his [video address](#) stated that, despite the delay in implementation, the restrictions on oil imports from Russia, which were approved at the EU summit, on a strategic level leave Russia on the sidelines of the modern economy. He noted that with such an aggressive policy and a course of isolation from the civilized world, Russia will not be able to adapt. Zelenskyi thanked all those who worked to reach this decision, while expecting fast action to disconnect Sberbank from SWIFT, stop broadcasting Russian channels in Europe and new personal sanctions. In addition, the President [called on](#) Ukrainians to lobby at all levels the issue of weapons supply to Ukraine and stressed this narrative should be maintained at all occasions.

The Cabinet of Ministers [approved](#) a resolution on the assignment of public service obligations (PSO) to supply gas to district heating companies. According to the [document](#), from June 1 to July 31, 2022, Naftogaz Trading will sell gas to such companies in the volumes required to provide hot water supply services at a price of 7,420 UAH/tcm (including VAT). The price will be supplemented by the tariff for transmission service and the coefficient used when booking day-ahead capacity.

[According to](#) Taras Melnychuk, the representative of the Cabinet of Ministers in the Verkhovna Rada, the government has also canceled the competition for positions of CEOs, heads of executive bodies and members of supervisory boards in the companies of public sector for the martial law period. From now on, appointments will be made after approval by the Cabinet of Ministers without a competitive selection for the duration of martial law and three months after its termination.

At the meeting on May 31, the NEURC [made](#) a number of decisions, including:

- [approved](#) and published for comments the draft Licensing Conditions for energy storage activities, which obliges to license facilities with a total installed capacity of 150+ kW and the storage capacity of 150+ MWh; no licensing required for the storages of DSOs and generation for own needs;
- [approved](#) the ten-year network development plan for GTSOU (gas transmission system operator) with an expected cost of 42.632 billion UAH (excluding VAT);
- initiated an investigation of violations of the law by United Energy, D.Trading, Pivden Energo Zbut, Tradenergoresurs, Energoatom, DTEK Dniproenergo, DTEK Zakhidenergo, DTEK Skhidenergo (according to [media reports](#), it is about resuming the investigation into the actions of electricity market players from January 1, 2021, to February 10, 2022, which led to a significant reduction in prices);
- [expanded](#) the list of information to be provided NEURC by gas suppliers in the period of martial law;
- [clarified](#) creation of additional areas of commercial metering by electricity system operators to record the volumes of receipt / return / balance of flows at administrative borders with the temporarily occupied territories;
- [approved](#) the 2021 NEURC annual report;
- [adjusted](#) the cost of universal service suppliers (USS) service to support RES share for January-December 2021 and [approved](#) the corresponding cost of service for April 2022;
- [reduced](#) the minimum price cap on IDM from 110% to 102% of the DAM price (excluding VAT);
- postponed the consideration of the issue of [setting](#) for the TSO and DSOs a lower limit of the mandatory purchase of electricity on DAM for compensation of technological losses.

On May 31, the Verkhovna Rada in a plenary session has adopted, inter alia, [a law](#) providing an increase in expenditures of the State Budget general fund by 287 billion UAH (registered No.7413) and a law on the conversion funds held at ARMA accounts into military bonds (registered No.7342). The chairman of the Verkhovna Rada Committee on Finance, Tax and Customs Policy Danylo Hetmantsev [told the](#) media that MPs do not plan to return excise duty and full VAT on motor fuels until the end of martial law.

The State Agency on Energy Efficiency and Energy Saving together with the Ministry of Energy [filled in](#) the questionnaire of the Energy Community Secretariat, which will determine the necessary legislative changes for the implementation of the Clean Energy Package. Ukraine, along with eight other Contracting Parties of the Energy Community, must bring its national legislation in line with a number of EU acquis, including Directives 2018/2001 and 2018/2002, Regulation 2018/1999.

The State Bureau of Investigation [announced](#) the arrest of property, accounts and corporate rights of Russia's Tatneft group of companies. The SBI suspects Tatneft of financing actions aimed at forcible change and overthrow of the constitutional order, seizure of state power, committed by a group of individuals with prior conspiracy. So far, 115 real estate facilities have been arrested: oil depots, filling stations, non-residential buildings, land plots and 118 fuel trucks and cars. As noted, the value of corporate rights and movable property reaches 400 million UAH, after the evaluation of real estate it may increase to 2 billion UAH. The assets will be transferred to the National Agency of Ukraine for finding, tracing and management of assets derived from corruption and other crimes (Asset Recovery and Management Agency, ARMA).

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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