



Russian War Against Ukraine: Energy Dimension

DiXi Group alert

(status as of 12:00, August 23)

#StopRussianAggression

#StandWithUkraine

Summary

- The Russian military shelled the **Zaporizhzhia TPP** located in Energodar, the satellite city of the ZNPP. The occupiers are increasing the number of equipment and military personnel on the territory of the nuclear plant.
- Due to the damages caused by hostilities almost 628,400 consumers remain without electricity supply in Ukraine. Almost 234,800 consumers remain without gas supply.
- Mahistralni Gazoprovody Ukrainy JSC (GTSOU parent company) [stated](#) about making several urgent decisions following the results of two MGU's Supervisory Board meetings and decided to apply to the State Audit Service to conduct GTSOU's financial audit.
- The [Reuters](#) media agency cited an American official, while reporting that the United States has intelligence about Russia's intention to carry out new attacks on the civilian infrastructure of Ukraine and state facilities in the upcoming days. The Main Directorate of Intelligence of the Ministry of Defense also [called on](#) Ukrainians to be especially careful on August 24, Independence Day, due to the threat of missile attacks and provocations from Russia.
- A group of MPs has registered a [draft law](#), which gives the right to the management body of home owner's associations to temporarily reduce the amount of contributions and payments of co-owners, if such a change is due to a reduction in the scope of functions for management, maintenance and use of common property (register No. 7676).

Attacks

On August 22, the Russian military shelled the **Zaporizhzhia TPP** located in Energodar, the satellite city of the ZNPP, the State Atomic Energy Regulatory Commission [reported](#). As a result of the

shelling, the central heating station, backup transformers for its own needs [were damaged](#), and the communication line Zaporizhzhia NPP - Zaporizhzhia TPP (VL-330) was disconnected, the line was restored in the evening of the same day. In addition, the occupiers [shot](#) a civilian car at close range, resulting in the [death](#) of an employee of the **Zaporizhzhia NPP**. [According](#) to Energoatom, the occupiers are increasing the number of equipment and military personnel on the territory of the nuclear plant. Currently, more than 40 units of military equipment are stationed on the territory of the ZNPP, in particular, 16 military vehicles are located near the first power unit, 7 near the second power unit, another 12 units of equipment were driven by the occupiers under the overpass.

According to media reports, Russia is also preparing a provocation in the field of international politics: it urgently convenes the Security Council regarding the situation around the ZNPP "in connection with continuous Ukrainian provocations", and asked UN Secretary General Antonio Guterres to speak at it. The Permanent Mission of Ukraine to the UN [considers](#) such a move an attempt by the Russian delegation to use the tools of the UN Security Council in order to informationally interrupt the August 24 discussion of the consequences of Russian aggression against Ukraine, as well as to accuse Ukraine of shelling the ZNPP. The President of Ukraine, Volodymyr Zelenskyy, [stated](#) that the Russian Federation did not stop playing with international structures and once again had the audacity to convene the UN Security Council to discuss its own provocations and its own terror at the Zaporizhzhia NPP.

Electricity Sector:

Power system operation

Daily capacity allocation auctions ([for August 23](#)):

Ukraine->Poland: DTEK Zakhidenergo purchased all available capacity of 63 MW every hour on a flexible schedule; marginal price - "zero".

Ukraine->Moldova: out of 490-530 MW of available capacity (for different hours of the day), 100 MW was booked by Ukrhydroenergo on a flat schedule; marginal price - "zero".

Ukraine->Slovakia: The available capacity of 125 MW for every hour of the day was distributed among 7 companies out of 9 companies that competed at the auction. Due to keeping the previous number of participants and distribution of shares, the distribution concentration did not change (HHI was 3,818). According to the results, the largest total shares were booked by ECU (50.4%) and DTEK Zakhidenergo (34%); the remaining 15.6% were distributed among 5 companies. The marginal price for various hours of the day continued to increase and ranged from 14,763 UAH/MWh (for 05:00) to 19,429 UAH/MWh (for 09:00). This allowed Ukrenergo to receive over 50.83 million UAH (+3.7% vs the previous day auction) in revenues from the auction.

Ukraine->Romania: The available capacity of 125 MW for every hour of the day was distributed among 6 companies competing at the auction. Due to the increasing number of participants there was a decrease in the concentration of distribution. The largest total shares were booked by ECU (49.6%) and DTEK Zakhidenergo (41%); the remaining 9.4% were distributed among 4 companies. Herfindahl-Hirschman Index (HHI) decreased from 4,345 to 4,181. The marginal price for various hours of the day ranged from 14,227 UAH/MWh (for 02:00) to 18,107 UAH/MWh (for 09:00), which allowed Ukrenergo to increase revenues from the auction to over 48.68 million UAH (+5.2%).

Electricity market performance

Day-ahead market (DAM): The smoothing of the ratio of supply and demand contributed to the growth of the Base and Offpeak price indices while the value of the Peak index [decreased](#). As of August 23, the Base, Peak and Offpeak indices amounted to 2 727,59 UAH/MWh (+0.76% vs the previous day), 2 567,33 UAH/MWh (+2,39%) and 2 887,85 UAH/MWh (-0.65%) respectively. The weighted average [electricity](#) purchase sale price was 2,848.31 UAH/MWh (-0.95% to the previous day). The highest prices were reported in the morning (08:00) and in the evening (19:00-22:00).

peaks, and ranged 3,679 - 3,850 UAH/MWh. Meanwhile, exchange prices in the Eastern European markets continued to increase: the Base DAM indices of Romania, Slovakia and Hungary were 8.3 times [higher](#) than the Base DAM index of Ukraine; while the price spread to Poland was at 5.5 times.

The total volume of trading [increased](#) to 17,096 MWh (+5.5% vs the previous day); the supply decreased to 44,000 MWh (-3%). Together, these factors resulted in a slight decrease of market surplus: the gap between the volumes of purchase and sale bids was 2.45 times. A deficit was observed on the market at the end (24:00) of the day. In the structure of purchase, 79.7% was occupied by suppliers, 20.1% by system operators, and 0.2% by producers and traders.

Intraday market (IDM) continued to demonstrate volatility. On August 22, the weighted average price of electricity slowly [increased](#) to 2,795.44 UAH/MWh (+2.5% vs the previous day). At the same time, the highest prices were observed during the morning (08:00) and evening (19:00-23:00) peaks and fluctuated at range of 3,559 - 3,965 UAH/MWh.

The total volume of trading increased to 860 MWh (+162%); at the same time, supply increased to 26,340 MWh (-17.5%). Together, these factors resulted in further increase of market surplus: the gap with the volume of purchase was 30 times. Deficit hours were reported at the end of the day (24:00). In the [structure of purchase](#), the dominant part (96%) was occupied by suppliers, 4% by system operators.

Disruption and resumption of supply

[According](#) to the Ministry of Energy, as of August 22, a total of app. 628,400 consumers in 855 settlements were disconnected from electricity supply due to damage caused by hostilities, while supply to app. 29,500 consumers was restored during the day.

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

- in the **Donetsk region**, [according](#) to the local DSO, during the week specialists restored electricity supply to app. 5,800 consumers, particularly, 3,300 consumers in Bakhmutka, 1,500 consumers in Avdiivska and more than 1,000 consumers in Slavyanska communities. [According](#) to the Ministry of Energy, a total of app. 381,400 consumers remained without electricity supply in the region;
- in the **Luhansk region**, [according](#) to the Ministry of Energy, more than 128,200 consumers remained without electricity supply;
- in the **Kharkiv region**, [according](#) to the Ministry of Energy, about 30,400 consumers remained without electricity supply and electricity supply to 8,700 consumers was restored ;
- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on August 23, 18,246 consumers in 71 settlements remained offline (data not including 11 district offices, where the occupation "authorities" restricted access). During the day, emergency crews repaired the damage to equipment and restored power supply to 9,000 consumers in the Zaporizhzhia, 5,960 in Stepanohirsky and 1,235 in Pologiv power grids. As of the morning of August 23, 15 single outages remained without electricity supply.
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of August 23, 573 electricity supply facilities were partially or completely damaged (+3 during the day). 89 settlements in the Bashtan and Mykolaiv districts and 4 - partially without power ([according](#) to the Ministry of Energy - a total of 30,500 consumers). In addition, electricity supply to 400 consumers was restored during the day;
- in the **Dnipropetrovsk region**, [according](#) to the Regional Military Administration, as of August 23, the enemy attacked three districts, with power lines disabled in Kryvyi Rih district and Nikopol region. As a result of shelling, power lines were damaged in Nikopol, app. 5,300 consumers lost power supply, a high-voltage line was damaged in Marganets, and more than 2,200 homes were left without electricity supply. [According](#) to the Ministry of Energy, over the last day, experts have restored electricity supply to 1,300 consumers in Dnipropetrovsk region;

- in the **Kherson region**, according to the Regional Military Administration, the situation with electricity supply remains difficult - many settlements remained completely without electricity, and the regional center of Kherson "holds" on one line, mentioned [president](#) "VS Group Management" company Mykola Lavrenko. According to him, in the distribution networks of the Belozersk community of the Kherson district, some electricity networks partly or completely remain without electricity supply. According to preliminary estimates, at least 30% of Khersonoblenergo's energy assets were destroyed by the Russian military;
- there was no up-to-date consolidated information on power supply in the **Odesa, Sumy and Chernihiv regions** at the time of the review preparation.

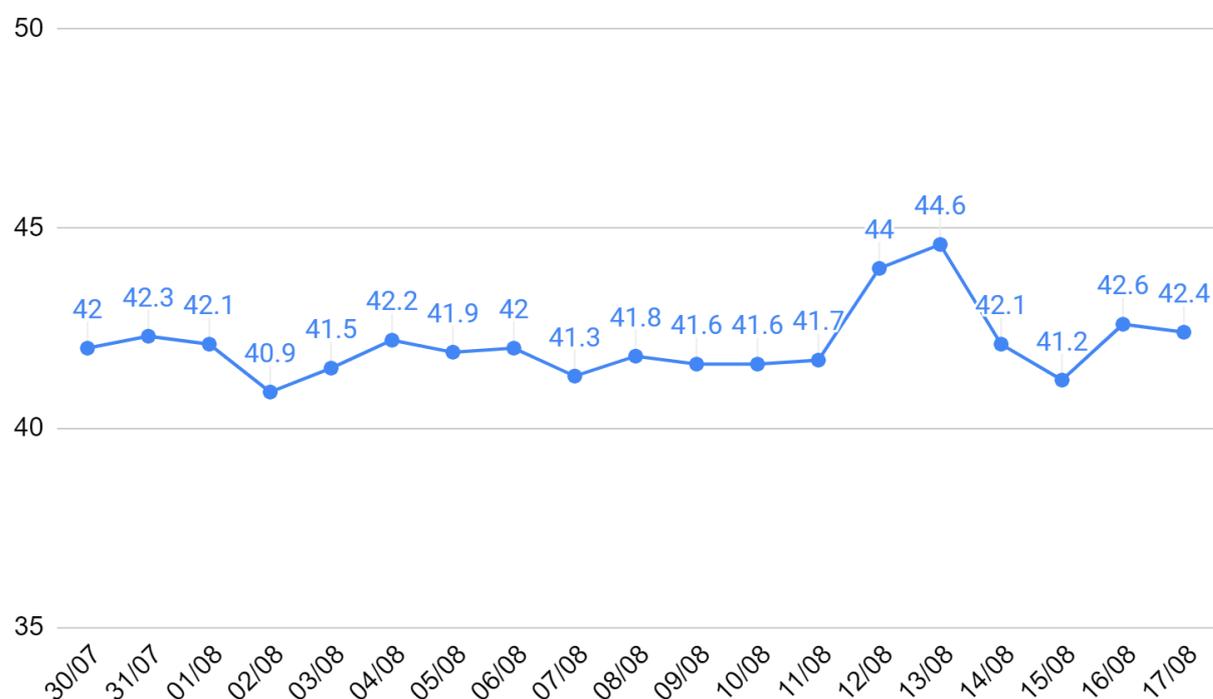
Oil&Gas Sector:

Gas system performance

On August 21, the gas transit through the territory of Ukraine amounted to 42.2 mcm (-0.3 mcm as compared to August 20). These volumes were only 39% of the capacity contracted by Gazprom (109 mcm per day). There were no transit flows via the Sokhranivka interconnection point.

The total physical imports of gas from the EU amounted to 3.8 mcm: 2 mcm were reported via the Hermanowice interconnection point (Poland), 1.1 mcm were reported through the Budince interconnection point (Slovakia), 0.7 mcm via the Beregdaroc interconnection point (Hungary). On August 21, no gas was shipped on Ukraine's gas system exit via the Berehove interconnection point (virtual interconnection point "Bereg").

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



Source: [GTSOU](#)

Mahistralni Gazoprovody Ukrainy JSC (GTSOU parent company) [stated](#) that following the results of two MGU's Supervisory Board meetings on August 18 and 20, the company made several urgent decisions aimed at improving the financial situation of GTSOU. However, the measures exactly

were not specified. Also, the JSC decided to apply to the State Audit Service to conduct GTSOU's financial audit.

Disruption and resumption of supply

The **Donetsk, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, and Kharkiv regions** had the most challenging situation. [According](#) to the Ministry of Energy, as of August 22, app. 234,800 consumers remained without gas supply. There was no information regarding the number of consumers to whom gas distribution was restored during the reporting 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.

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 **Mykolaiv region**, as of the morning on August 23, 836 gas infrastructure facilities (+28 as compared to August 22) were [damaged](#) for the whole period of war. As a result, 6,696 consumers (no changes) were left without gas supply.

[According](#) to **Zaporizhzhia** Regional Military Administration, on August 23, 226,681 consumers in 269 settlements remained without gas supply. The specialists will immediately carry out emergency restoration work after obtaining access to the damaged sites.

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

Countermeasures of Ukrainian Companies and Public Authorities

The [Reuters](#) media agency cited an American official, while reporting that the United States has intelligence about Russia's intention to carry out new attacks on the civilian infrastructure of Ukraine and state facilities in the upcoming days. The Main Directorate of Intelligence of the Ministry of Defense also [called on](#) Ukrainians to be especially careful on August 24, Independence Day, due to the threat of missile attacks and provocations from Russia.

The Cabinet of Ministers registered in the Verkhovna Rada [a draft law](#) that defines the conditions of reservation from conscription for military service of employees of state authorities, enterprises, institutions and organizations (reg. No. 7687). Employees, who ensure the functioning of government bodies, employees of defense enterprises, and employees of enterprises critical to the economy (determined by the government) are subject to reservation.

A group of MPs has registered a [draft law](#), which gives the right to the management body of home owner's associations to temporarily reduce the amount of contributions and payments of co-owners, if such a change is due to a reduction in the scope of functions for management, maintenance and use of common property (register No. 7676).

In addition, the Verkhovna Rada has registered a [draft law](#) on the allocation of funds from the state road fund to meet the needs of the defense sector (Register No. 7669-1). As noted, the government's intention to direct potential revenues from the fuel excise tax in the amount of €100.00 per 1,000 liters to debt servicing and road rehabilitation is inappropriate. Therefore, the MPs propose to direct such revenues to finance the priority needs of the security sector.

The government also [proposed](#) to the Verkhovna Rada to cancel 17 documents of a permissive nature as part of deregulation (reg. No. 7689). In particular, it is planned to cancel the permits of the state sanitary-epidemiological service and other state bodies for work with radioactive substances and other sources of ionizing radiation; permission to carry out activities aimed at artificial changes in the state of the atmosphere and atmospheric phenomena for economic purposes.

The National Energy and Utilities Regulatory Commission (NEURC) [announced](#) a meeting on August 23, where, in particular, it planned to consider:

- [establishing](#) the size of the volumes of normative and production-technological losses/expenditures of gas of the Russian Federation for 2023 at the level of 2022;
- [amendments](#) to the Transmission System Code, which regulate the application of the emergency regime in the united energy systems (UES) of Ukraine;
- [definition](#) of a unified approach to calculation and reporting of net income of electricity suppliers;
- [changes](#) to the license conditions of the market operator, in particular regarding ensuring compliance, certification of the quality management system, occupational safety and anti-corruption;
- [changes](#) to the Electricity Market Rules and DAM/IDM Rules for the purpose of creating a new participant - an energy storage facility operator;
- [settlement](#) of fees for the use of technological electrical networks of major consumers by network operators.

For subscriptions, comments and other questions, please email to: 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 10.000 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](#)
[More information](#)

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To financially support Heroic Ukrainian Army, please follow the [link](#) (The National Bank of Ukraine)