Russian War Against Ukraine: Energy Dimension

DiXi Group alert

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#StopRussianAggression
#StandWithUkraine

Summary

- Energoatom and Westinghouse signed a new agreement to deepen cooperation in the matter of construction of two new AP1000 power units at the Khmelnytskyi NPP. It would allow updating the feasibility study for the construction and starting the licensing process for the AP1000 reactor technology in Ukraine.

- As of July 12, about 619,800 consumers were disconnected from electricity supply due to damage caused by hostilities. App. 244,000 consumers remained without gas supply.

- The government announced the launch of the state service for the protection of critical infrastructure and ensuring the national resilience system of Ukraine. The new central executive body will have a special status, its activities will be coordinated by the Cabinet of Ministers.

- Naftogaz appealed to the holders of securities for almost 1.5 billion USD with a proposal to postpone coupon payments for two years, in particular to postpone the repayment of 335 million USD in 2022 Eurobonds for the same period. Among reasons for its request, Naftogaz indicated the obligation set by the government to ensure the accumulation of gas reserves by October 1 for a stable passage of the autumn-winter period, as well as to provide gas to protected consumers (primarily, households) at fixed prices. As noted, the borrower needs to purchase and import up to 5.6 bcm for a total of over 230 billion UAH (app. 7.8 billion USD).

- The NEURC adopted a number of decisions in electricity, namely defined the procedure for applying tariffs for distribution for energy storage operators, the tariff for transmission for "green" electrometallurgy enterprises, approved the schedule for providing 2023 investment programs by TSO and DSOs, and canceled public discussions (regarding the setting of 2023 tariffs for transmission, dispatching, universal services, distribution, approval
of 2023 investment programs for transmission/distribution, development plans for transmission/distribution systems).

Electricity Sector:

*Power system operation*

**Interaction with ENTSO-E:** As of July 13, commercial exports of electricity to *Poland* via the Dobrotnivska TPP - Zamosc transmission line were reported at 205 MW on a flat schedule (except night hours 00:00-06:00, where it fluctuated between 135-185 MW). *Exports* to Romania amounted to 50 MW on a flat schedule. Also, according to Ukrenergo, exports to Slovakia continued at the level of 50 MW (flat schedule). *Exports* to Moldova amounted to 160 MW. Also, technical *cross-border flows* continued between the energy systems of Ukraine and Eastern European countries (Romania, Hungary, Poland and Moldova).

**Daily capacity allocation auctions (for July 13):**

*Ukraine-*-*Poland*: DTEK Zakhidenergo purchased all available 65 MW on a flat schedule; marginal price - "zero".

*Ukraine-*-*Moldova*: out of 600 MW available capacity, 160 MW was booked by Energoatom (flat schedule); marginal price - "zero".

*Ukraine-*-*Romania*: 50 MW available capacity was distributed among 8 companies, and 12 companies competed at the auction. At the same time, the distribution concentration remains relatively high - the largest total share (52.3%) was booked by DTEK Zakhidenergo, 20% by ERO Trading, the remaining 27.7% was distributed among 6 companies. The marginal price for different hours of the day fluctuated in a range from 6,133.11 UAH/MWh (for 15:00-16:00) to 9,976.7 UAH/MWh (for 23:00-24:00), which allowed Ukrenergo to receive over 9.1 million UAH in revenues from the auction.

*Ukraine-*-*Slovakia*: 50 MW available capacity was distributed among 6 companies, and 9 companies competed at the auction. The results were characterized by slow concentration, since the largest total share of cross-border capacity was purchased by DTEK Zakhidenergo (38.9%) and Energoatom (38.3%), the remaining 31.5% were distributed among 4 companies. The marginal price for different hours of the day ranged from 6,290.92 UAH/MWh (for 15:00-16:00) to 10,500.87 UAH/MWh (for 22:00-23:00), which allowed Ukrenergo to receive about 9.6 million UAH in revenue from the auction.

**Infrastructure restoration:** According to Ukrenergo, in the northern region, at a 330 kV substation, repair of the gas circuit breaker was completed, part of the damaged disconnector cable was replaced, and part of the new equipment was installed. In the eastern region, two autotransformers at a 330 kV substation were put back into operation. Two 330 kV overhead lines were inspected in the southeastern region.

**Electricity market performance**

**Day-ahead market (DAM):** As of July 13, the weighted average settlement price continued to slowly *increase* to 2,694.89 UAH/MWh (+0.3% vs the previous day). Due to changes in the supply and demand, the Base and Offpeak price indices continued to *increase* - to 2,644.33 UAH/MWh (+0.8%), 2,494.28 UAH/MWh (1.8%), respectively, and the Peak index decreased slowly 2,451.39 UAH/MWh (+4.1%). To note, in some hours (18:00-23:00), the actual price was close to the upper price cap of 4,000 UAH/MWh and fluctuated between 3,750-3,800 UAH/MWh. At the same time, exchange prices in the Eastern European markets have shown diverse dynamics. The Base DAM indices of Romania, Slovakia and Hungary were app. 3.9-4 times *higher* than the Base DAM index of Ukraine; while the price spread to Poland increased to 1.8 times.

The total volume of trading continued to *increase* to 26,693.8 MWh (+4.6% vs the previous day), and the supply decreased to 54,589.3 MWh (-20.8%). Altogether, these factors caused a decrease in the
market surplus: the gap between the total volume of sale and purchase bids reduced from 2.6 to 2 times. At the same time, certain hours of the day (in particular, 00:00-01:00 and 02:00-04:00) were characterized by a deficit. In the structure of purchase, 79% was occupied by suppliers, 20.7% by system operators, 0.3 % by traders and producers.

Intraday market (IDM): On July 12, the weighted average price decreased moderately to 2,284.94 UAH/MWh (-16.9% vs the previous day). To note, same as on the DAM, in some hours (18:00-23:00), the actual price was close to the upper price cap of 4,000UAH/MWh and fluctuated between 3,866-3,876 UAH /MWh.

At the same time, the total volume of trading increased significantly to 690.8 MWh (+23.5% vs the previous day), and the supply increased by almost a quarter to 24,519.5 MWh (+24.4%). Together, these factors did not change the market surplus: the gap with the volume of purchase bids was app. 35 times. In the structure of purchase, the dominant part (91.7%) was occupied by suppliers, 7.8% by system operators and 0.5% by traders.

Disruption and resumption of supply

According to the Ministry of Energy, as of July 12, due to damage caused by hostilities, a total of app. 619,800 consumers in 790 settlements were disconnected from electricity supply. During the day, electricity supply was resumed to app. 18,700 consumers.

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

- in the Donetsk region, according to the local DSO, during the day specialists restored electricity supply to app. 18,000 households in 16 settlements of the Bakhmut, Pokrovsk and Kramatorsk districts. Residents of 320 settlements remained offline (according to the Ministry of Energy - about 358,100 consumers);
- in the Luhansk region, according to the Ministry of Energy, more than 128,200 consumers were left without electricity supply;
- in the Kharkiv region, according to the Ministry of Energy, app. 35,100 consumers remained without electricity supply and supply to 3,000 consumers was restored during the day. In particular, DSO specialists started repair works on power lines damaged by enemy shelling in the Kyivskyi and Saltivka districts of Kharkiv. The repairs aim to reconnect 70 private households and about 10 two-story buildings;
- in the Zaporizhzhia region, according to the local DSO, as of 07:00 on July 13, 21,688 consumers in 82 settlements remained without electricity supply. During the day, DSO specialists restored supplies to 25,000 consumers, in particular for 16,079 consumers in the Orikhivi and 383 in the Vasylivka districts, which were left without electricity due to hostilities. In addition, its specialist eliminated technological disruptions in power grids caused by the weather and restored electricity supply to 8,350 consumers in the Khortytsia district of Zaporizhzhia and another 154 consumers in the city, which were disconnected the day before due to bad weather conditions. Additionally, electricity supply to 179 consumers in the Berdyansk and 150 in the Vilnyansk districts was restored. However, at night there was a technological disruption in power grids of the Vilnyansk district, with 470 settlements left offline, there were also 4 single disconnections in the city of Zaporizhzhia;
- in the Mykolaiv region, according to the Regional Military Administration, as of July 13, 489 power supply facilities were partially or completely damaged. 89 settlements (including 2 partially) of the Bashtanka and Mykolaiv districts were disconnected (according to the Ministry of Energy - a total of 30,200 consumers);
- in the Kherson region, according to the Regional Military Administration, as of 12:00 on July 12, the situation in the temporarily occupied communities became worse, dozens of villages remained offline. Due to a lack of specialized equipment or intense shelling there was no possibility to provide repair works;
in the Dnipropetrovsk region, according to the local DSO, as of July 13, as a result of enemy fire on the territory of the Nikopol district, power lines in the Chervonohryhorivka community were damaged. As a result of the damage, app. 6,000 resident in the Chervonohryhorivka village and two nearby settlements were partially left without electricity supply. Emergency crews were working on the spot;

in the Chernihiv region, according to the Regional Military Administration, as of 6:00 on July 13, due to weather conditions and other technical reasons, electricity supply service to 6 settlements (1,400 consumers) was not provided;

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

Gas Sector:

**Gas system performance**

As of July 11, the gas transit through the territory of Ukraine amounted to 41.4 mcm (+1.4 mcm as compared to July 10). 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 via the Hermanowice interconnection point (virtual interconnection point "Ukraine-Poland") at 1.2 mcm. Also, on July 11, physical imports at 0.5 mcm/day were reported through the Budince interconnection point (from Slovakia). At the same time, on Ukraine’s gas system exit via the Berehove interconnection point (virtual interconnection point "Bereg") 1.2 mcm of gas was shipped.

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

![Graph of gas transit through Ukraine](image)

Source: [GTSOU](#)

**Disruption and resumption of supply**
The Donetsk, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, and Kharkiv regions had the most challenging situation. According to the Cabinet of Ministers, as of July 12, app. 244,000 consumers were left with no gas supply.

In the Donetsk region, the situation didn’t change: almost the whole region remained without gas supply due to the main gas pipeline damage. As of July 2, only 1,900 consumers in 2 settlements had supply. The Regional Military Administration Head Pavlo Kyrylenko said that in the heating season, it is planned that the population in the controlled territory of the region should not exceed 230,000 people, so the evacuation should continue. The heating season in the Donetsk region will be without gas supply, but the regional authorities have already collected the needs regarding the necessary equipment.

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. According to the Regional Military Administration Head Serhii Haidai, the occupiers can theoretically reconnect gas supply to the cities of the region, but its distribution within the cities will be impossible, as considerable funds will be needed to restore the networks.

In the Kharkiv region, the gas infrastructure in the town of Zolochiv was again damaged by enemy shelling. At the same time, restoration works continued in Kharkiv: during the past day, supply was restored to 250 households, and about 10 meters of a damaged low-pressure gas pipeline was replaced.

In the Zaporizhzhia region, the situation didn’t change: according to the Regional Military Administration, as of July 13, 226,677 consumers (+1) in 268 (+1) settlements remained without gas supply. In the day, a medium-pressure gas pipeline was damaged by shelling in the town of Komyshuvakha.

In the Mykolaiv region, as of the morning on July 13, 703 gas infrastructure facilities were damaged for the whole period of war (+12 as compared to July 12). As a result, 7,272 consumers (+42) were left without gas supply.

According to the Chernihiv Regional Military Administration, as of the morning on July 13, the situation didn’t change: about 700 consumers in 22 settlements have not received gas supply service.

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

Countermeasures of Ukrainian Companies and Public Authorities

The government announced the launch of the state service for the protection of critical infrastructure and ensuring the national resilience system of Ukraine. The new central body of executive power will have a special status, its activities will be coordinated by the Cabinet of Ministers. It will ensure the formation and implementation of state policy in the field of critical infrastructure protection and ensure the national resilience system in compliance with the Law "On Critical Infrastructure".

On July 11, Energoatom and Westinghouse Electric Company signed a new agreement to deepen cooperation in the matter of construction of two new AP1000 power units at the Khmelnitckyi NPP. Under the agreement, Westinghouse will provide technical information on the technology to update the feasibility study for the construction, which will allow the licensing process for the AP1000 reactor technology to begin in Ukraine.

Naftogaz through the issuer of its Eurobonds (Kondor Finance plc) appealed to the holders of securities for almost 1.5 billion USD with a proposal to postpone coupon payments for two years, in
particular to postpone the repayment of 335 million USD in 2022 Eurobonds for the same period. Currently, there are three issues of Naftogaz Eurobonds in circulation, all of them were placed in 2019: three-year bonds for 335 million USD under 7.375%; five-year for 600 million EUR at 7.125%; 7-year for 500 million USD at 7.625%. Maturity date of the 335 million USD issue is July 18, 2022. Naftogaz offers to pay all coupons for 2022 and 2024 Eurobonds on July 19, 2024, and to repay 2022 Eurobonds on the same day. Naftogaz plans to pay coupons for 2026 Eurobonds on November 8, 2024. The offer also includes a waiver of any event of default arising as a result of deferred payment.

In the justification of its request, Naftogaz indicated that the government, by Resolution No. 691 of June 17, 2022, obliged the group to ensure the accumulation of gas in storage facilities as of October 1 in volumes sufficient for a stable passage of the autumn-winter period, including to ensure needs of household consumers and district heating companies. As noted in the notification, the borrower needs to purchase and import gas in the volume of up to 5.6 bcm for a total of over 230 billion UAH (app. 7.8 billion USD). Naftogaz is also obliged to provide gas to protected consumers (primarily, households) at fixed prices, which in many cases are many times lower than the market prices in Ukraine and Europe.

At the meeting on July 12, the NEURC adopted a number of decisions, in particular:

- approved the schedule for providing the NEURC with 2023 investment programs by licensees in electricity transmission and distribution;
- cancelled public discussions in the electricity sector regarding the setting of 2023 tariffs for transmission, dispatching, provision of universal services, distribution, approval of 2023 investment programs for transmission/distribution, development plans for transmission/distribution systems, as well as drafts of the relevant NEURC decisions;
- defined the procedure for applying tariffs for electricity distribution for the operators of energy storage facilities;
- set the mechanism for calculating heat losses in district heating networks, fuel and electricity costs for further consideration in the tariffs for heat, its production and transmission;
- defined the tariff for electricity transmission for "green" electrometallurgy enterprises, in particular the allocation of a component of forecasted cost for the RES-related PSO execution.

According to the results of YouControl study, six large Russian financial and industrial groups - Gazprom, Rosneft, USM, Lebedev group, Oleg Deripaska and Aleksei Mordashov - have connections with Ukrainian enterprises. Analysts have discovered that Gazprom has connections with four enterprises in Ukraine: it owns a share in the authorized capital of International Consortium for the Management and Development of the Gas Transmission System of Ukraine LLC, Gazprom Zbut Ukraine LLC, and YuzhnIIIGiproGaz JSC, as well as indirectly through Gazprom Dobycha Orenburg LLC owns more than 90% of Sanatorium Oren-Krym LLC. Rosneft is represented in Ukraine by two companies: Lysychansk Oil Investment Company PrJSC and RN Commerce LLC.

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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