Russian War Against Ukraine: Energy Dimension

DiXi Group alert

(status as of 12:00, June 10)

#StopRussianAggression

#StandWithUkraine

Summary

- **App. 633,800 consumers all over Ukraine did not have electricity supply, and 174,700 consumers remained without gas supply.**

- Germany agreed to assist Ukraine in purchasing static synchronous compensators (STATCOM) to be installed in the power system, which will contribute to more stable operation and further expand the opportunities for commercial electricity exports to the EU countries. Ambassador Anka Feldhusen stated the intention to provide Ukraine with up to 26 million EUR support for the stability of the power system.

- The Advisor to the Minister of Energy Lana Zerkal announced **Ukraine intends to yield 1.5 billion EUR from electricity exports** to the EU by the end of the year.

- According to the Ministry of Energy, as of June 8, **the share of carbon-neutral electricity (nuclear, wind, solar, hydro and biomass-based generation) in the daily balance reached 87.4%**. At the same time, as Guaranteed Buyer reported, in April-May 2022, the production of electricity from RES was 30% less year-on-year.

- Ukraine could get **20 million EUR of grant support under the European Innovation Council (EIC) 2022 program**, according to the Office of Vice PM for European Integration. About 200 Ukrainian technology startups could receive direct financial support of up to 60,000 EUR each, as well as business advisory service, assistance in finding partners in the EU.
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 10, exports to Moldova reached 142 MW during the day and 100 MW at night hours. At daily auctions for June 10 and 11, Energoatom booked 150 MW of capacity to Moldova (flat schedule); also, for June 11, Soldi Infiniti purchased an additional 2 MW of capacity (during certain hours of the day). Also, technical cross-border flows continued between the energy systems of Ukraine and Eastern Europe countries (Slovakia, Hungary, Poland, Romania, and Moldova).

At the same time, Germany agreed to assist Ukraine in purchasing static synchronous compensators (STATCOM) to be installed in the power system, which will contribute to more stable operation and further expand the opportunities for commercial electricity exports to the EU countries.

According to the Ministry of Energy, as of June 8, the share of carbon-neutral electricity (nuclear, wind, solar, hydro and biomass-based generation) in the daily electricity balance of Ukraine reached 87.4%. At the same time, the production of electricity from RES is further curtailed by the transmission system operator to balance and maintain the reliability of power system. Another part of the RES capacity was affected by hostilities - either destroyed or disconnected. Thus, according to the State Enterprise "Guaranteed Buyer", in April 2022, 0.63 million MWh was produced from RES, which is almost 41% less year-on-year. At the same time, in April-May 2022, the production of electricity from RES was 30% less year-on-year.

As part of Ukrenergo’s restoration of the damaged energy infrastructure, emergency recovery works on a 330 kV overhead line were completed in the eastern region. Repairs of a 110 kV switchgear have started at a 330 kV substation. In the central region, transformer equipment was being restored at a 750 kV substation, a disconnector was planned to be installed, and work on a 750 kV overhead line was underway. In the northern region, relay protection and automation was being repaired at a 330 kV substation.

**Electricity market performance**

**Day-ahead market (DAM):** On June 10, the weighted average settlement price almost did not change and amounted to 2,222.97 UAH/MWh. Also, according to the Energy Map service, in the working days of the week (June 6-10), the price remained relatively stable and fluctuated in the range 2217-2243 UAH/MWh. At the same time, as of June 10, the Base DAM indices of Eastern European countries (Poland, Romania, Slovakia and Hungary) have synchronously decreased to 2.5-2.7 times over the DAM Base index of Ukraine.

The total volume of trading slowly increased up to 15,509.1 MWh (+1.7% vs the previous day). At the same time, according to the Energy Map service, in the working days of the week (June 6-10), the volume of trading ranged from 11.4 to 17.4 GWh. At the same time, supply increased to 100,937.3 MWh (+12.7%), which led to a further increase in market surplus: the gap with the volume of purchase bids increased to 6.5 times. In the structure of purchase, the dominant part (61.95%) was occupied by suppliers, 37.7% by system operators, the remaining 0.35% by producers and traders.

**Intraday market (IDM):** On June 9, the weighted average price of electricity on IDM continued to increase slowly and amounted to 2,446.79 UAH/MWh (+3% vs the previous day). The total volume of trading jumped to 977.2 MWh (+70.5% vs the previous day). At the same time, the relatively smaller increase in supply - up to 49,221.4 MWh (+26.5%) contributed to a decrease in market surplus - the gap with the volume of purchase bids reduced from 68 to 50 times. In the structure of purchase, the dominant part (95%) was occupied by suppliers, 5% by system operators.
Disruption and resumption of supply

According to the Ministry of Energy, as of June 9, due to hostilities, a total of 633,800 consumers in 726 settlements were disconnected from electricity supply. During the day, electricity supply was resumed to app. 15,600 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, electricity supply to 12,408 households in 13 settlements were restored, 11 of them in the Kramatorsk, Pokrovsk and Bakhmut districts. A total of 325 settlements were left without electricity supply (according to the Ministry of Energy - more than 351,600 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, over 67,000 consumers remained without electricity and supply was restored to 8,200 consumers in the day;

- in the Zaporizhzhia region, according to the local DSO, as of 07:00 on June 10, 21,398 consumers in 76 settlements remained without electricity. During the day, the DSO specialists repaired damage and restored supplies to 3,168 households in the Vasylivka district, 1,100 consumers in the Vasylivka district, and 48 consumers in the city of Polohy;

- in the Mykolaiv region, according to the Regional Military Administration, as of June 10, 392 power supply facilities were partially or completely damaged, including 11 in the last 24 hours. 92 settlements (2 of them partially) of the Bashtanka and Mykolaiv districts remained without electricity supply;

- in the Kherson region, according to the Regional Military Administration, as of 11:00 on June 9, due to problems with communication and the Internet, it was not possible to understand the situation in most communities. Among the communities with connection established, 22 settlements in Vysokopillia, 7 in Novovorontsovka, 2 in Muzykivka and 1 in Kochubeivka communities remained without electricity supply;

- In the Chernihiv region, according to the Regional Military Administration, as of 06:00 on June 10, 1,378 consumers in 3 settlements did not receive electricity supply services. According to the Ministry of Energy, electricity supply has been restored to 900 consumers in the region;

- 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 8, the gas transit through the territory of Ukraine increased by 0.8 mcm as compared to the previous day and amounted to 41.7 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 3 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") 3.2 mcm of gas was shipped. The Director General of GTSOU Serhii Makogon confirmed this information the other day.
Gas transit through Ukraine (at Sokhranivka and Sudzha interconnection points), mcm

Source: GTSOU

In May, the average customs value of gas was reported at 990.6 USD/tcm (i.e. 28,740.04 UAH/tcm), which is 5% more than in April. The average customs value is one of the indicators based on which the royalties for natural gas production are calculated.

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 9, 174,700 consumers were left with no gas supply. Supply to 2,300 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 supply. At the same time, 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.

The Kharkiv Regional Military Administration reported new damages to gas infrastructure. Several low- and medium-pressure pipelines were cut off due to enemy’s shelling, leaving 10,000 households in 5 settlements of the Derhachi community without gas supply.

In the Zaporizhzhia region, as of the morning on June 10, the situation didn’t change: 81,094 consumers in 106 settlements were left without gas supply. In the city of Orikhiv, the operation of a cabinet-type gas distribution point, which was shut down on May 30 due to an explosion, was restored. Supply to 66 consumers has resumed.

In the Kherson region, as of 12:00 on June 9, 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, Novavorontsovka, 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 (Tyahynka, Hornostaivka, Velyka Leptetykha and Rubanivka); in the Novoraysk community, LPG supply had run out.

In the Mykolaiv region, as of June 10, the situation became worse: 631 gas infrastructure facilities were destroyed or damaged for the whole period of the war (+39 vs the previous day), and 6,578 (no change) 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 Minister of Energy Herman Halushchenko met with the Ambassador Extraordinary and Plenipotentiary of Germany to Ukraine Anka Feldhusen. The parties discussed the current state of Ukraine's energy sector, the situation on the gas market, plans to accumulate fuel for the heating season, and the need to deoccupy the Zaporizhzhia NPP. Ambassador Feldhusen stated that Germany intends to provide Ukraine with up to 26 million EUR support for the stability of power system. According to her, the Federal Ministry of Economics and Climate Protection (BMWK) will provide Ukrenenergo with up to 3.5 million EUR for the purchase of equipment to repair power grids, and the Federal Ministry for Economic Development and Cooperation - up to 22.5 million EUR loans through the KfW banking group. The Ministry of Energy, in turn, announced its intention to use the German assistance to purchase static synchronous compensators (statcoms) to increase opportunities of electricity exports to Europe.

The Advisor to the Minister of Energy Lana Zerkal told the media that Ukraine intends to yield 1.5 billion EUR from electricity exports to the EU by the end of the year. In the context of the upcoming heating season, Zerkal also called on Ukrainians to save energy: in winter, indoor heating should not reach 22°C with windows opened for ventilation, but a maximum of 19°C. According to her, this will also determine how the country will pass through the winter.

A draft law was registered at the Verkhovna Rada (No.7447 of June 9, 2022) on restoring the solvency of state-owned enterprises that meet the needs of Ukraine's nuclear power plants in uranium. MPs propose to introduce a moratorium on the seizure of funds in the accounts of ShidGZK (also known as VostGOK) during martial law - to avoid shutting down the company activities and damage to the environment from mines' flooding. As noted, the authorities of the State Executive Service systematically freeze the company's bank accounts, and the company also has a significant debt for electricity supply.

The National Energy and Utilities Regulatory Commission announced a meeting on June 14, with the agenda, inter alia, including draft decisions on:

- setting the requirement for licensees in the field of electricity production and supply to comply with the License Conditions for electricity resale (trading), in the case such activities are conducted;
- improvement of the certification procedure for gas and electricity transmission system operators;
- settlement of urgent issues of economic activity during the martial law (draft decision not published);
- resumption of an obligation to submit the reporting form No.20 (on the payment of regulation fees) as a key source of information on the revenue side of the NEURC budget;
- imposing an obligation for DSOs and universal service suppliers to upload consumer identification data to the Datahub platform by August 15, 2022 (address, tax identification number, passport data of each consumer as of July 1, 2022).
The Office of the Vice Prime Minister for European and Euro-Atlantic Integration Olga Stefanishyna announced the intention of the European Commission, under the European Innovation Council (EIC) 2022 program, to offer 20 million EUR of grant support to the Ukrainian innovations community. As expected, about 200 Ukrainian technology startups could receive direct financial support of up to 60,000 EUR each, as well as business advisory service, assistance in finding partners in the EU.

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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