

(status as of 12:00, March 14)

#StopRussianAggression #StandWithUkraine

Resume

- Due to artillery shelling of the Russian military, damage to infrastructure facilities was reported in the Kharkiv, Donetsk, and Kherson regions.
- The IAEA Director General Rafael Grossi said there is a viable solution for the safe operation of the occupied Zaporizhzhia NPP, and it requires international support. No details of the possible agreement were disclosed.
- Meanwhile, according to the Acting Head of the State Nuclear Regulatory Inspectorate Oleh Korikov, due to the occupation and hostilities, automated radiation monitoring systems, communication facilities, physical protection systems, roads, bridges, power lines, etc. were damaged.
- Due to the outcomes of Russian attacks, network restrictions remain in the Zhytomyr, Kharkiv, Poltava, Sumy, and Kyiv regions, and the city of Kyiv, outages are possible to avoid overloading of equipment and accidents. The situation remains difficult in the regions along the front line.
- The government approved the 2023 Priority Action Plan, with energy security among its 6 crucial areas. Namely, key tasks identified are: restoration and protection of energy facilities (generation and distribution), preparation for the 2023-2024 heating season, full integration of the electricity markets of Ukraine and EU, increasing the cross-border capacity for exchanges of electricity, renewable energy, Green Deal, improving safety of nuclear power plants, thermal modernization of residential and public buildings.

- The key task for the 2023/2024 season is to start restoring the energy sector to new standards, rebuild new facilities and protect existing ones - so the Prime Minister Denys Shmyhal.
- As part of the High Level International Advisory Council, the first meeting of the working group to supervise the corporatization of Energoatom has convened.
- The High Anti-Corruption Court upheld the preventive measure for Andrii Kobolyev, former CEO of Naftogaz (a bail of 229 million UAH), and obliged him to wear an electronic bracelet.

Attacks

On March 14, the Russian military shelled the village of Kolodyazne, Kupyansk district (Kharkiv region), damaging infrastructure facilities, <u>reported</u> the Regional Military Administration Head Oleh Syniehubov. On the same day, the occupiers shelled the city of Kurakhove (Donetsk region) with artillery, damaging a transformer substation, <u>said</u> the Regional Military Administration Head Pavlo Kyrylenko. Ukrenergo <u>confirmed</u> damage to energy infrastructure on March 14 in the Donetsk and Kherson regions.

Nuclear Safety

The IAEA Director General Rafael Mariano Grossi <u>said</u> in a speech at the Center for Strategic and International Studies in Washington DC there is a viable solution for the safe operation of the Zaporizhzhia NPP which is temporarily seized by Russians, and it requires international support. No details of the possible agreement were provided.

On March 13, representatives of the Ukrainian delegation <u>met</u> with representatives of the U.S. Department of Energy at the 35th Annual Information Conference of the U.S. Nuclear Regulatory Commission (U.S. NRC). The Acting Head of the State Nuclear Regulatory Inspectorate of Ukraine Oleh Korikov noted that the Russian occupiers at the Zaporizhzhia NPP continue to violate all internationally recognised safety principles and requirements enshrined in the IAEA standards. Korikov emphasized that maintaining emergency preparedness at nuclear facilities in times of war has become an additional challenge. Due to the occupation and hostilities, automated radiation monitoring systems, communication facilities, physical protection systems, roads, bridges, power lines, etc. were damaged, and restoration of their functioning is mandatory to ensure proper nuclear and radiation safety.

Electricity Sector

Power system operation

<u>According</u> to the Minister of Energy Herman Halushchenko, on March 15, the generation fully meets the demand of consumers, having a sufficient capacity reserve, the power system continues to operate without restrictions on consumers.

According to Ukrenergo, on March 15, electricity consumption is at the level of a working day, electricity production is sufficient. All types of power plants are in operation, hydroelectric power plants are actively working due to freshet, and one of the power units

has also resumed operation, which has slightly increased the available generating capacity in the power system. Minor imports of electricity continued.

Due to the March 9 massive Russian attack, network restrictions remain in the Zhytomyr and Kharkiv regions. Also, due to the network restrictions in the Poltava, Sumy, and Kyiv regions, and the city of Kyiv, outages are possible to avoid overloading of equipment and accidents. The situation remains difficult in the regions along the front line, in particular, in the Donetsk and Kherson regions. In other regions, consumption restrictions were not applied, limits were not set.

According to ENTSO-E, as of March 15, minimal commercial imports of electricity were performed from Slovakia (0-7 MW) and Moldova (0-5 MW) (for different hours during the day). Access to the Slovakia->Ukraine cross-border capacity was booked by three companies (55-85 MW in total): D.Trading (55 MW), Nexttrade (0-20 MW) and ERU Trading (0-10 MW); in the direction Moldova->Ukraine - by D.Trading (100 MW). In both auctions, the marginal price was "zero". Capacity in other directions was not offered. At the same time, due to increase in electricity prices in the countries of Eastern Europe, the Base DAM indices in Poland, Hungary, Romania, and Slovakia exceeded the similar index of Ukraine 1.65-1.68 times.

Disruption and resumption of supply

According to the Ministry of Energy, on March 15, in some areas, in particular in the Zhytomyr and Kyiv regions, short-term power outages are possible. During the last day, electricity supply was restored to the districts of the Zaporizhzhia and Dnipropetrovsk regions affected by enemy's shelling.

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

- in the Zhytomyr region, according to the Mayor of Zhytomyr Serhii Sukhomlyn, Ukrenergo managed to reconnect and supply power from other regions, so planned outages were not applied. However, there is no capacity reserve, so the increase in electricity consumption can cause outages for half of the regional center. In the coming days, the city will try to launch electric transport (with restrictions during peak hours). According to Sukhomlyn, in about 10 days, the situation will finally improve;
- in the Kharkiv region, <u>according</u> to the Regional Military Administration, operation
 of the power system damaged as a result of enemy's missile attack was stabilized.
 Outages were applied in the morning of March 14, yet were completely lifted after
 13:00;
- in the Kyiv region and the city of Kyiv, according to DTEK, on March 14, in parts of the Holosiivskyi, Sviatoshynskyi, Shevchenkivskyi, and Solomyanskyi districts of Kyiv, as well as the Bucha, Obukhiv, and Fastiv districts of the Kyiv region, disconnections were resumed under stabilization schedules. Damaged energy facilities currently cannot transmit 100% of electricity to all residents of the specified areas. As of 22:30 of the same day, outages in the entire territory of the Kyiv region were lifted;
- in the Odesa region, according to the Regional Military Administration, specialists were able to restore electricity supply to all communities and the regional center. The restoration works on equipment damaged as a result of Russian shelling is still ongoing, but the region has already no need of outages. In Odesa, in terms of capacities, there is no deficit, however, if necessary, network, emergency and planned outages are applied;

- in the **Dnipropetrovsk region**, <u>according</u> to the Regional Military Administration, on March 14, the enemy attacked the Nikopol district once again, as a result power grid was damaged in one of the villages;
- in the Zaporizhzhia region, according to the local DSO, as of March 15, 23,949 consumers in 70 settlements remained without electricity supply (excluding the temporarily uncontrolled territory). During the day, specialists reconnected 3,929 consumers of the Orikhiv district, which were offline due to enemy's shelling. In the rest of the territories, due to active hostilities and the lack of access to the damage sites, no emergency restoration work was carried out, no new outages were recorded,
- in the Kherson region, according to the Regional Military Administration, as of March 13, 41 crews (202 specialists and 73 units of equipment) were working to restore electricity supply. Specialists performed works on the damaged lines supplying the city of Kherson and Beryslav, the villages and towns of Trudoliubivka, Novovoznesenske, Biliayivka, Kalynivske, Novopetrivka, Tokareve, Borozenske, Tomaryne, Pravdyne, Kirove, Bilozerka, Pryozerne and Chornobaivka. The military also inspected 1.1 km of power lines;
- in the Mykolaiv region, according to the Regional Military Administration, as of March 15, 1,093 electricity supply facilities were partially or completely damaged (no change), while 7 legal entities-consumers (-3) still remained offline in the Bashtanka district;
- in the Chernihiv region, <u>according</u> to the Regional Military Administration, on March 15, as a result of bad weather conditions, 4 power lines of 10 kV and 18 transformer substations were damaged and disconnected. 617 consumers in 2 settlements remained without electricity supply;
- in the Sumy region, <u>according</u> to the local DSO, on March 14, given the low voltage levels, schedules of emergency power outages were applied. In less than 2 hours electricity supply was restored;
- in the **Donetsk region**, <u>according</u> to the Regional Military Administration, on March 14, the Russians shelled the city of Kurakhove with artillery, a transformer substation was damaged, and more than 1,000 consumers were left offline. Electricity supply will be restored as soon as the security situation allows;
- there was no up-to-date consolidated information on power supply in the Luhansk region at the time of the review preparation.

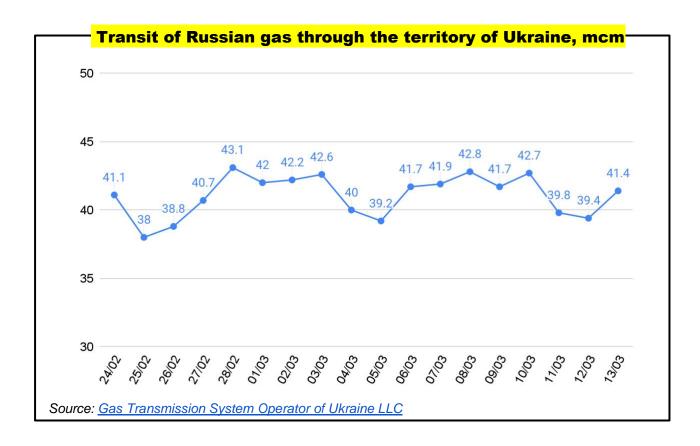
Oil & Gas Sector

Gas system performance

On March 13, the volume of gas transit through the territory of Ukraine amounted to 41.4 mcm (+2 mcm as compared to the previous day), i.e. only 36% of the capacity contracted by Gazprom (109 mcm per day). There were no transit flows via the Sokhranivka interconnection point.

The physical imports from EU countries were reported at 13.9 mcm and performed via the Beregdaroc interconnection point (VIP Bereg) at 7.4 mcm, via the Hermanowice interconnection point (VIP Ukraine-Poland) at 2.4 mcm, via the Budince

interconnection point at 3.4 mcm and via the Căușeni interconnection point (Ukraine-Moldova) at 0.7 mcm. On March 13, on Ukraine's gas system exit, except for transit flows, no gas was transmitted.



Functioning of the natural gas market

Ukrgazvydobuvannia JSC (the largest gas producing company in Ukraine, a subsidiary of Naftogaz) <u>announced</u> completed drilling of a new well (for assessment and production) with a depth of 5,950 m, which yields 340,000 cm of natural gas per day.

The MP Yaroslav Zheleznyak <u>reported</u> that the High Anti-Corruption Court made a decision regarding the preventive measure for Andrii Kobolyev, former CEO of Naftogaz. The court obliged the former manager to wear an electronic bracelet and upheld a bail of 229 million UAH. The Specialized Anti-Corruption Prosecutor's Office <u>confirmed</u> it for the media.

Disruption and resumption of supply

The Ministry of Energy did not update information on the number of consumers without gas supply. The **Dnipropetrovsk**, **Donetsk**, **Luhansk**, **Zaporizhzhia**, **Kherson**, **Mykolaiv**, **and Kharkiv regions** had the most challenging situation.

In the **Mykolaiv region**, according to the Regional Military Administration, as of March 15, 1,387 gas infrastructure facilities (no change as compared to March 14) were damaged during the war, as a result, 5,195 consumers (-18) remained with no gas supply.

In the **Dnipropetrovsk region**, according to the Regional Military Administration, gas infrastructure of the Pokrovske community was <u>damaged</u> due to enemy's shelling.

Operational information on gas supply in other affected regions was not available at the time of the review preparation.

Countermeasures of Ukrainian Companies and Public Authorities

The President of Ukraine Volodymyr Zelenskyi <u>had</u> a meeting with the Prime Minister of Iceland Katrín Jakobsdóttir. The parties discussed bilateral cooperation on the international tribunal for the crime of aggression, the creation of a registry of damages caused by Russian aggression and a full-fledged compensation mechanism, in particular in the context of preparations for the Summit of Heads of State and Government of the Council of Europe in Reykjavik, as well as nuclear safety. In addition, Zelenskyi emphasized the prospects of using Iceland's experience and expertise in the field of green energy and invited Icelandic businesses to invest in relevant projects in Ukraine. Following the meeting, a joint declaration was <u>signed</u>.

At its meeting on March 14, the Cabinet of Ministers of Ukraine <u>approved</u> the 2023 Priority Action Plan. In total, 15 areas have been identified, including 6 as crucial: security and defense, integration into the EU and NATO, energy security, reconstruction, macrofinancial stability, and business support. The key tasks in the area of energy security have been identified as:

- Restoration and protection of energy facilities (generation and distribution);
- Preparation for the 2023-2024 heating season;
- Full integration of the electricity markets of Ukraine and Europe;
- Increasing the cross-border capacity for imports and exports of electricity with the EU countries;
- Renewable energy, Green Deal, Hydrogen Energy Development Strategy;
- Improving safety of nuclear power plants;
- Thermal modernization of residential and public buildings.

Ukraine is successfully completing the current heating season, so the key task for the 2023/2024 season is to start restoring the energy sector to new standards, rebuild new facilities and protect existing ones, said the Prime Minister Denys Shmyhal.

Shmyhal also <u>said</u> that the reconstruction will focus on four areas: energy, housing, demining and critical infrastructure. The government plans to intensify the "financial Ramstein" format to identify sources of funding for reconstruction projects which, according to preliminary estimates, will require 17 billion USD in 2023 alone. In addition, Shmyhal noted that the government, together with the World Bank, the EU and the UN, is conducting the second stage of Rapid Damage and Needs Assessment, and will implement a single digital analytical and information system for managing the infrastructure reconstruction process.

As part of the meeting of the High Level International Advisory Council, the Minister of Energy Herman Halushchenko <u>held</u> the first meeting of the working group to supervise the corporatization of Energoatom. The group was established with the support of the European Commissioner for Energy Kadri Simson, the U.S. Secretary of Energy Jennifer Granholm, and heads of energy departments of leading countries, and includes experts from the G7 countries and representatives of international organizations.

The NEURC considered the following issues at its meeting on March 14:

granting, revoking, suspending licenses, approval of investment programs;

- imposing fines on violators of license conditions for the supply, production of electricity and supply of gas; planning inspections of licensees;
- <u>amendments</u> to the NEURC Resolution No. 352 of March 26, 2022 (regarding the renewal of applicability of certain provisions of the Methodology (Procedure) for the formation of fees for connection to transmission and distribution systems);
- <u>amendments</u> to the Procedure for Development and Submission for Approval of Distribution System Development Plans and Investment Programs of Distribution System Operators (in particular, in terms of providing justifications for relevant measures);
- <u>amendments</u> to the Procedure for Monitoring Compliance by Licensees Operating in the Energy and Utilities Sectors with Legislation in the Relevant Areas and License Conditions (due to amendments to the Electricity Transmission License Conditions);
- approved draft <u>amendments</u> to the Rules of Day-Ahead Market and Intraday Market (regarding the creation of a "special fund" of Market Operator to ensure fulfillment of its tax obligations, by means of revising the calculation of the fixed payment for use of the DAM software and the tariff for purchase/sale transactions on the DAM/IDM);

approved draft <u>amendments</u> to the Procedure for the Distribution of Funds from Special Use Current Accounts of Electricity Suppliers (to prevent emergence of artificial tax liabilities).

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 12,000 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.

Energy Community Homepage (energy-community.org)

SUPPORT UKRAINIAN ARMY

To financially support the Armed Forces of Ukraine, please follow the <u>link</u> (the National Bank of Ukraine special account).