

Daily Alert

Russian War Against Ukraine: Energy Dimension

(status as of 12:00, February 20)

#StopRussianAggression
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Summary

- According to the Minister of Environmental Protection Ruslan Strilets, the drop in the Kakhovka Reservoir water level can leave more than 1 million Ukrainians without access to drinking water. The decline below 12 m (with a standard of 16 m) will lead to environmental disaster and failure of the Zaporizhzhia NPP cooling systems.
- On February 18, during another Russia's missile attack, the flight of two cruise missiles were recorded at the South Ukraine NPP site, in dangerous proximity to the nuclear facility.
- Russia continues blocking the rotation of the IAEA experts at the Zaporizhzhia NPP - the Ministry of Foreign Affairs. Ukraine called for the expansion of sanctions against Rosatom, its affiliated companies and institutions, as well as other key factors of Russia's nuclear energy industry.
- The President Volodymyr Zelenskyi emphasized the time has long come for "full sanctions" against the Russian missile industry, including the IT sector, sanctions on the Russian nuclear sector, Russian propagandists, including legal entities and all affiliates. Also, it is necessary to further reduce the price caps on Russian oil and oil products.
- According to Ukrenergo, on February 20, typically for the beginning of the working week, electricity consumption is gradually increasing. There is no capacity deficit in the power system and it is not currently forecasted. Imports of electricity are insignificant and approach zero levels as a result of supply stabilization.

- Ukraine may soon face the issue of resuming electricity exports during the day while preserving the imports in the evening peak - so the Chair of the Verkhovna Rada Committee on Energy Andrii Gerus.
- The Cabinet of Ministers agreed to transfer the seized shares of several gas DSOs to the management of Chornomornaftogaz. According to the media referring to the court register, they include 61% in Ternopilgaz, 81.36% in Korostyshivgaz, 32.9% in Kirovohradgaz, 14.68% in Khmelnytskygaz, 65.77% in Melitopolgaz, as well as one share each in some other DSOs. The government also approved the draft law on state reserves.
- The Prime Minister Denys Shmyhal announced expanding the scope of disclosure of public procurement data during martial law. He added there will also be a reduction in the number of cases where procurements can be performed beyond the ProZorro electronic system.
- By December 2023, 7 million EUR will be transferred under the EU's PHOENIX initiative for green urban renewal of Ukraine. Funds will be used to assist in planning during reconstruction, support in the development of climate neutral strategies, knowledge exchange in the management of green smart cities, and practices in the field of sustainable development and climate neutrality.

Attacks

The large-scale release of water from the Kakhovka Reservoir by the Russian military could turn into an environmental and humanitarian disaster for Ukraine, [said](#) the Minister of Environmental Protection and Natural Resources Ruslan Strilets. According to him, the colossal drop in the water levels in the Kakhovka Reservoir is already leading to negative consequences. However, in the future, this may lead to the fact that more than 1 million Ukrainians will be left without access to drinking water, and a drop in the levels below 12 m (with a standard of 16 m) will lead to environmental disaster, as a large amount of biodiversity will be lost. Such actions by Russia are actually another attempt of nuclear terrorism, as a decrease in the water levels will result in failure of the Zaporizhzhia NPP cooling systems.

Nuclear Safety

On February 18, during another massive Russia's missile attack, at 08:25 and 08:27, the flight of two enemy cruise missiles were [recorded](#) at the South Ukraine NPP site. The missiles were moving along the Southern Bug River in the direction of Pervomaisk (Mykolaiv region), and flew dangerously close to the nuclear facility. The threat of hitting the reactor was high. Energoatom declared this is another act of nuclear terrorism by the Russian Federation, which threatens the security of the entire world.

Russia continues blocking the rotation of the IAEA experts at the Zaporizhzhia NPP. The Ministry of Foreign Affairs of Ukraine issued a [statement](#) calling for the immediate unblocking of the IAEA experts rotation and their immediate safe movement through the temporarily occupied territories of Ukraine to the Zaporizhzhia NPP. In addition, the MFA called for the expansion of sanctions against Rosatom, its affiliated companies and institutions, as well as other key factors of Russia's nuclear energy industry.

The European Parliament adopted a [resolution](#) on the anniversary of the Russian invasion of Ukraine, calling on the EU member states, inter alia, to prohibit Rosatom from making current investments in critical infrastructure in the EU and in general ban all its activities.

Electricity Sector

Power system operation

[According](#) to the CEO of Ukrenergo Volodymyr Kudrytskyi, the situation is still rather uncertain: a few days without large-scale outages is not a guarantee there will be no new shelling in the future and the power system will be able to cover demand. Due to the attacks on almost all large thermal and hydropower plants, a large number of main substations, energy equipment is not in the best condition. Therefore, all consumers need to be energy efficient.

[According](#) to the Chair of the Verkhovna Rada Committee on Energy and Utilities Andrii Gerus, Ukraine may soon face the issue of resuming electricity exports during the day while preserving the imports in the evening peak. For example, on February 19, a significant surplus emerged in the power system and, for the first time in 2023, solar generation was curtailed. In the future, such situations will be repeated, so it is feasible to resume exports. Also, according to him, the implementation of storage systems to accumulate energy during the day and release it to the grid in the evening remains an urgent issue.

[According](#) to the Minister of Energy Herman Halushchenko, on February 20, despite the increase in consumption on the first working day of the week, the generation continues to stably produce electricity, satisfying the needs of consumers, even having a reserve. In some regions, short-term outages related to network repairs are possible.

[According](#) to Ukrenergo, on February 18, during the Russian missile attack, preventive outages were applied to minimize the possible consequences of the attack. Later that day, the power system returned to normal operation. [On February 19](#), the power system was operating in normal mode, there was no deficit, and no consumption limits were set.

[On February 20](#), typically for the beginning of the working week, electricity consumption is gradually increasing, however, there is no capacity deficit in the power system and it is not currently forecasted. All types of power plants are in operation, producing enough to cover demand. Due to favorable weather conditions and the gradual increase in daylight hours, the performance of RES installations has increased, with capacities operating mainly during daytime hours and partially participating in covering the morning peak of consumption. The imports of electricity are insignificant and approach zero levels as a result of the stabilization of electricity supply.

Measurements of actual consumption are carried out in the Lviv and Odesa regions according to the schedule. At the same time, in the city of Odesa and the Odesa district, measurements will be carried out taking into account the volume of limits during the application of hourly outage schedules, which is related to existing network restrictions.

[According](#) to ENTSO-E, on February 20, Ukraine imported insignificant volumes of electricity from Slovakia (9-10 MW) and Moldova (13-25 MW) (for different hours during the day). [Five companies booked](#) capacity in the Slovakia->Ukraine direction for the total volume of 315-317 MW: D.Trading (300 MW), ECU (9 MW), Avgusta (6 MW), Artlex Group (2 MW) and U.Commodities (1 MW). In the absence of significant competition, the marginal price of access was "zero". D.Trading (120 MW) also booked capacity in the Moldova ->Ukraine direction on a flat schedule; the marginal price was "zero". Capacity in other directions was not offered.

Electricity market performance (February 13-17)

Bilateral contracts market (BCM): [19 auctions](#) for the purchase/sale of electricity were held at the Ukrainian Energy Exchange (UEEX) in a one-way auctioning regime (5 in commercial sections, 14 in specialized ones). The bidders included Energoatom-Trading, Ukrhydroenergo, Centrenergo, Guaranteed Buyer, Dniprovska CHP, Kharkiv CHP-5, universal service suppliers and distribution system operators, etc. In general, 310,917.8 MWh was sold at UEEX (+77.9% as compared to the same period previous week). At the same time, the monthly Base DAM index for February remained stable at 3,256.1 UAH/MWh, the index for March was 3,050.1 UAH/MWh.

In particular, Energoatom-Trading sold 34.18 GWh of base load at prices 3,100-3,251 UAH/MWh with delivery in March. Guaranteed Buyer sold block positions of daytime hours: 16.64 GWh at prices 3,795-3,895 UAH/MWh with delivery in February and 5.12 GWh at 3,750 UAH/MWh with delivery in March. Ukrhydroenergo sold 22.4 GWh in block positions (08-23) at 3,900 UAH/MWh and 47.14 GWh at prices 3,050-3,100 UAH/MWh with delivery in February. With delivery in March, the company sold 52.01 GWh of base load at 3,000 UAH/MWh and 4.96 GWh in block positions at 3,800 UAH/MWh. Centrenergo sold 41.54 GWh in block positions at prices 1,800-3,900 UAH/MWh with delivery in March. In addition, in the specialized sections, Dniprovska CHP sold 0.72 GWh of base load at 8,980.29 UAH/MWh. In the commercial sections, the companies purchased electricity by the load of individual profiles.

Day-ahead market (DAM): According to the [Energy Map service](#), hourly prices continued to be close to or at the level of price caps for day and night hours (4,000 and 2,000 UAH/MWh, respectively). Therefore, the weighted average price remained relatively stable and [fluctuated](#) in a narrow range 3,272.11-3,440.22 UAH/MWh. At the same time, the Base DAM indices in the Eastern European countries (Poland, Romania, Hungary, and Slovakia) [exceeded](#) the similar indicator of Ukraine by approximately 1.63-2.09 times.

In general, on February 13-17, the daily volume of trading on the DAM of Ukraine [increased](#) and ranged 62,739,6-77,332.1 MWh. The total volume of electricity sales decreased to 340,193.4 MWh (-10.7% as compared to the same period previous week). In general, surplus increased - the ratio between the total volume of sale and purchase bids was 1.28-1.66, with no deficit hours. The [purchase structure](#) was dominated by suppliers (85.6-88%), the share of system operators was 11.9-14.3%, the rest (about 0.1-0.9%) belonged to producers and traders.

Disruption and resumption of supply

On February 18, due to the threat of missile attack, preventive outages were applied in the [city of Kyiv](#), and the [Kyiv](#), [Odesa](#), [Dnipropetrovsk](#), and [Kirovohrad](#) regions.

The improvements in electricity supply were reflected in the number of consumer complaints to the State Inspectorate of Energy Supervision. Over the previous week, the inspectorate [received 819 appeals](#) from electricity consumers, which is 22% less week-on-week (1,049). The Kyiv (338), Zakarpattia (262) and Odesa (243) regions remained the leaders in the number of complaints in February.

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

- in the **Odesa region**, [according](#) to the local DSO, on February 18, specialists completed the emergency works on the high-voltage line supplying the Kyivskiy and Prymorskiy districts of Odesa, which were performed to prevent it from overloading. All household consumers were reconnected using another line, electricity was supplied only in the "guaranteed hours" of schedule. [On February 20](#), on Ukrenergo's

instruction, measurements of electricity consumption will be carried out, so the outage schedules will not be applied. However, due to network restrictions on the equipment of Ukrenergo in the city of Odesa and the Odesa district, measurements will take place with the outage schedule being applied;

- in the **Dnipropetrovsk region**, [according](#) to the local DSO, on February 20, no consumption restrictions were applied. However, Ukrenergo networks are damaged due to shelling, so power supply restrictions are possible to prevent overload in some nodes. On February [18](#) and [19](#), consumption limits were also not applied. On February 17-19, the enemy repeatedly shelled the Nikopol district with heavy artillery, as a result networks and power lines were damaged in the city of [Nikopol](#) and the [Chervonohryhorivka](#) community. In addition, due to network damage, almost 360 households were left without electricity supply in the Myrove community, which have been partially [reconnected](#);
- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on February 20, 24,001 consumers in 71 settlements remained offline (excluding the temporarily uncontrolled territory). On February 17-19, specialists restored power supply to 23,450 households that were preventively disconnected due to the threat of shelling, and 312 consumers in the city of Zaporizhzhia that were offline due to technological violations. In the rest of the territories, due to active hostilities and lack of access to damage sites, no repairs were carried out, no new outages were recorded;
- in the **Kherson region**, [according](#) to the Regional Military Administration, as of February 18, 24 crews (116 specialists and 45 units of equipment) were working to restore electricity supply. Specialists performed works on the damaged lines supplying the towns and villages of Kostyrka, Arkhangelske, Bilousove, Myroliubivka, Novovoznesenske, Borozenske, Kizomys, Pravdyne, and Posad-Pokrovske;
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of February 20, 1,006 electricity supply facilities were partially or completely damaged, while 7 settlements (-2 as compared to February 17) of the Bashtanka and Mykolaiv districts remained offline;
- in the **Kharkiv region**, [according](#) to the local DSO, the hourly schedule of power outages for the period of February 20-26 was updated. According to the schedule, there will be 12 rounds of outages, each 3 hours per day;
- in the **Donetsk region**, according to the local DSO [[1,2](#)], on February 17-18, specialists repaired equipment damaged by shelling and restored electricity supply to 24,053 households in 42 settlements. Due to constant shelling, 136 settlements remained offline, as specialists did not have access to works there;
- in the **Luhansk region**, [according](#) to the Regional Military Administration, residents in the so-called 'Luhansk People's Republic' were informed about the increase in utility tariffs by 17.6% on average. In addition, within several years, the process of leveling the tariffs with that applicable in the regions of the Russian Federation shall take place;
- in the **Kyiv region**, [according](#) to the local DSO, on February 18-19 due to restoration works, outages were applied according to schedules (from 06:00 to 22:00) in part of the Bucha district. [On February 20](#), no consumption limits were applied, yet in the event of network overload, outages were possible in some areas;

in the **city of Kyiv**, [according](#) to the local DSO, on February 18-19, in some areas of the capital, stabilization outages were applied according to schedules given the repairs - in particular, on February 18, from 09:00 to 22:00 on the Left Bank and the Holiivskyi district, on February 19, from 08:00 to 13:00, in the Holiivskyi, Solomyanskyi,

Darnytskyi, and Dniprovskyi districts. [On February 20](#), no consumption limits were applied, yet in the event of network overload, outages were possible in some areas.

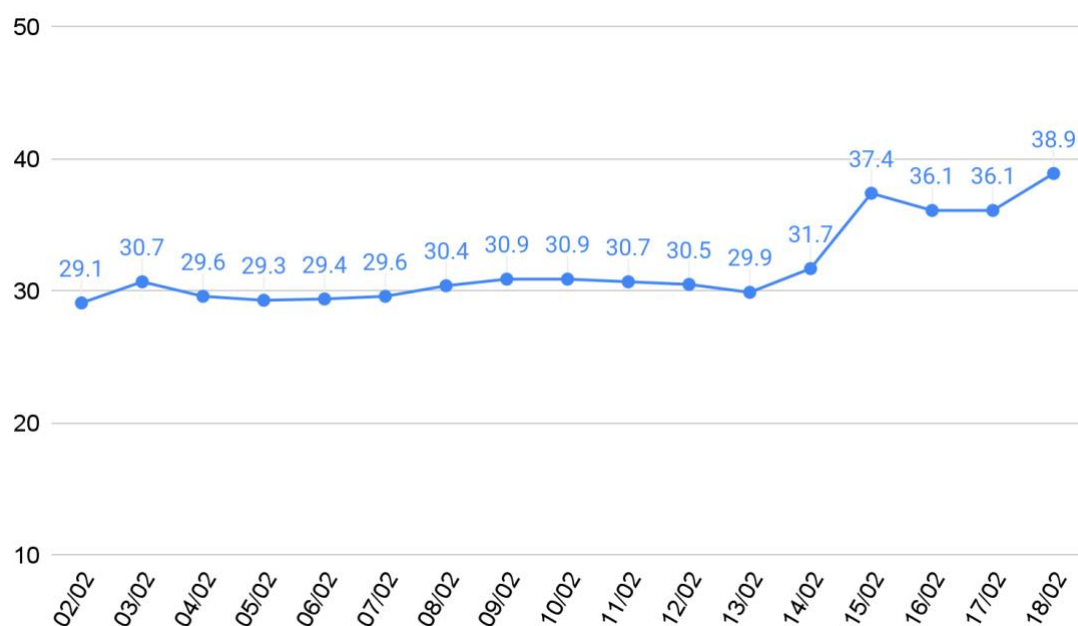
Oil & Gas Sector

Gas system performance

On February 16-18, the volume of gas transit through the territory of Ukraine amounted to 36.1-38.9 mcm, i.e. only 34% of the capacity contracted by Gazprom (109 mcm per day). There were no transit flows via the Sokhranivka interconnection point.

The physical imports of gas from the EU countries were reported at 35.8 mcm (on average 11.9 mcm per day) - via the Beregdaroc interconnection point (VIP Bereg) at 13.5 mcm, via the Hermanowice interconnection point (VIP Ukraine-Poland) at 5.2 mcm, via the Isaccea/Orlovka interconnection point at 2.5 mcm, via the Budince interconnection point at 13.8 mcm, and via the Căușeni interconnection point (Ukraine-Moldova) at 0.9 mcm. On February 16-18, on Ukraine's gas system exit, except for transit flows, no gas was transmitted.

Transit of Russian gas through the territory of Ukraine, mcm



Source: [Gas Transmission System Operator of Ukraine LLC](#)

Functioning of the natural gas market

At a meeting on February 17, the Cabinet of Ministers [agreed](#) to transfer the seized shares of several distribution system operators to the management of Chornomornaftogaz, as reported the government's Representative in the Verkhovna Rada Taras Melnychuk. In particular, according to the [media](#) referring to the court register, the Pechersk District Court of Kyiv previously transferred under the Asset Recovery and Management Agency 61% in Ternopilgaz, 81.36% in Korostyshivgaz, 32.9% in Kirovohradgaz, 14.68% in

Khmelnyskgyaz, 65.77% in Melitopolgaz, as well as one share each in some other DSOs. These shares were earlier seized at the request of the State Bureau of Investigation.

Among the shares transferred to Chornomornaftogaz by the CMU [decision](#) are the assets of Melitopolgaz PJSC. The company's management was among first supporters of the Russian occupation. The city's mayor Ivan Fedorov [said](#) that Oleh Kvach, the CEO of Melitopolgaz, was one of those involved in removing the city's main flag. The official also forced the team to write applications for dismissal and get hired by the occupation authorities, having sent a letter to the Regional Military Administration, informing about the re-registration of the company in a Russian bank. The government's decision will allow to start forming management and technical team of Melitopolgaz, which was not involved in collaboration with the occupiers.

The CEO of Naftogaz Oleksii Chernyshov [announced](#) that Ukrgezvydobuvannya has started 3D seismic exploration works in the west of Ukraine. The company intends to explore an area of over 1,500 km² and obtain detailed geological models of hydrocarbon deposits at depths up to 5 km.

Disruption and resumption of supply

As of February 19, the Ministry of Energy did not update information on the supply restoration and the number of consumers without gas supply.

The **Dnipropetrovsk, Donetsk, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, Kharkiv, and Chernihiv regions** had the most challenging situation.

In the **Luhansk region**, in the occupied city of Lysychansk, due to the absence of centralized utility services in high-rise buildings, sewers [froze](#), and boilers bursted in apartments because not all residents drained water from the systems during evacuation.

In the **Mykolaiv region**, according to the Regional Military Administration, as of February 20, 1,147 gas infrastructure facilities (no change as compared to February 17) were damaged during the war, as a result, 5,130 consumers (-11) [remained](#) with no gas supply.

In the **Zaporizhzhia region**, according to the Regional Military Administration, 14,565 consumers in 37 settlements [remained](#) without gas supply in the controlled territories.

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

At a press conference with the Prime Minister of the Netherlands Mark Rutte, the President Volodymyr Zelenskyi [announced](#) that the registry of damages caused by Russia's military aggression will be located in the Netherlands. According to the President, this will be the first element of the compensation mechanism under which Russia will compensate property losses to Ukraine.

Zelenskyi [emphasized](#) that the time has long come for "full sanctions" against the Russian missile industry, including the IT sector that helps the Russian missile program and drone production, sanctions on the Russian nuclear sector, Russian propagandists, including legal entities and all affiliates. Also, according to him, it is necessary to further reduce the price caps on Russian oil and oil products.

At the same time, the President [put into effect](#) the decision of the National Security and Defence Council of Ukraine introducing sanctions on management of the largest Russian banks. This decision [updated](#) the sanctions on Moscow Exchange MICEX-RTS. 333 persons were included in the individual sanctions list. In his video address, Zelenskyi [noted](#) the authorities are working with partners to strengthen the upcoming 10th sanctions package of the EU.

At the meeting on February 17, the government [approved](#) the draft law on state reserves. The document sets out the procedure for renewing material assets and suggests ways to strengthen responsibility in the field of formation, storage, release, and renewal of reserves. As [reported](#) the Deputy Prime Minister and Minister of Economy Yulia Svyrydenko, the draft law includes:

- determination of balance holders of state material and mobilization reserves;
- powers of the central executive authority which implements the public policy in the field of checking the availability of material assets of state reserves;
- concept of reservation, procedure and criteria for selection of reservists;
- possibility of storing fuel on the territory of European countries.

The Prime Minister Denys Shmyhal [announced](#) expanding the scope of disclosure of public procurement data during martial law. He added there will also be a reduction in the number of cases where procurements can be performed beyond the ProZorro electronic system. "All contracts, annexes and amendments to the contracts based on the results of tenders must be published in the system", emphasized Shmyhal.

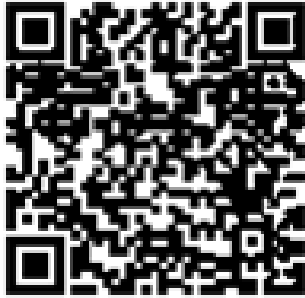
By December 2023, 7 million EUR [will be](#) transferred under the EU's PHOENIX initiative for green urban renewal of Ukraine. The [announcement](#) was made by the Minister of Environmental Protection and Natural Resources Ruslan Strilets and the European Commissioner for the Environment, Oceans and Fisheries Virginijus Sinkevičius. Funds will be used to assist in planning during reconstruction, support in the development of climate neutral strategies, knowledge exchange in the management of green smart cities, and practices in the field of sustainable development and climate neutrality. According to the heads of communities of the Kyiv region, the very first urban reconstruction projects [should be](#) the creation of a modern waste management system, energy efficiency, high-quality water supply and wastewater treatment.

The Ministry for Reintegration of Temporarily Occupied Territories [updated](#) the list of territories with hostilities (were) conducted or temporarily occupied by the Russian Federation. Settlements in the Dnipropetrovsk, Donetsk, Mykolaiv, Sumy, Kharkiv, Kherson, Chernihiv, and Zaporizhzhia regions were included to the updated [list](#). Payments to IDPs are made based on the list.

IMF staff and the Ukrainian authorities have reached a staff-level agreement on the first and final review under the Program Monitoring with Board Involvement (PMB). As the National Bank of Ukraine [informed](#), the agreement is subject to IMF Management approval and paves the way to initiate discussions on a fully-fledged program.

For subscriptions, comments and other questions, please email to: author@dixigroup.org

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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 \(energy-community.org\)](http://energy-community.org)

SUPPORT UKRAINIAN ARMY

To financially support the Armed Forces of Ukraine, please follow the [link](#) (the National Bank of Ukraine special account).