

## Daily Alert

# Russian War Against Ukraine: Energy Dimension

(status as of 12:00, March 3)

**#StopRussianAggression**  
**#StandWithUkraine**

## Summary (February 28 – March 3)

- **Russia continues deliberate destruction of critical infrastructure facilities.** On February 27 and March 1, the occupiers attempted to attack infrastructure with kamikaze drones. As a result of shelling, transmission system damage is reported in the Dnipropetrovsk region and distribution systems damage in the Kharkiv, Sumy, Donetsk, Kherson and Poltava regions. According to the Prosecutor General's Office, over the past 4.5 months, 255 missiles and drones have impacted energy infrastructure, including 214 at facilities of Ukrenergo.
- **Russia's attacks have damaged the energy infrastructure in the south of Ukraine.** On February 27, an emergency disconnection of the high-voltage line cut off power to 500,000 consumers in the city of Odesa and the Odesa district. Specialists managed to quickly eliminate the accident and reconnect all consumers. **The Kherson CHP resumed operations** after the Russian shelling on February 23-24, and the buildings are fully reconnected to district heating.
- There has been **no capacity deficit in the power system** for 20 days in a row and it is currently not forecasted. The demand is fully covered by generation capacity and a small amount of imports. **Exports of electricity could resume** in a week, given no significant deterioration of the situation - so the Supervision Board member of Ukrenergo Yurii Boyko.
- The IAEA mission reported that **the 330 kV backup power line at the Zaporizhzhia NPP was disconnected three times** during the week after the sound of artillery shelling. The shelling took place on the other side of the Dnipro River, on the territory controlled by Ukraine. Also this week, the rotation of IAEA experts at the ZNPP took place, which had been delayed for several weeks by Russia.
- **According to Naftogaz, given an increase in production, Ukraine can make it without importing gas in 2023.** The CEO of Naftogaz Oleksii Chernyshov noted that 10 bcm are currently accumulated in Ukraine's storages. Naftogaz plans to accumulate at least 15 bcm in storage by the beginning of the next heating period. In that way, with domestic gas production at 18.5 bcm (which includes the planned increase in production of Ukrgezvydobuvannya by 1

bcm) imports may not be necessary. The company will concentrate on the development of assets in western Ukraine and additional 3D seismic surveys.

- **Ukraine plans to replenish its gas stocks, inter alia, using the EU joint purchase mechanism.** The Vice-President of the European Commission Maroš Šefčovič informed that the volume of joint gas purchases in the interests of EU countries will be supplemented by respective requests from Ukraine, Moldova and Serbia, which are interested in purchasing more than 4 bcm within 3 years.
- **Naftogaz will report a 40 billion UAH loss in 2022** - Chernyshov. He associated such financial results with significant accounts receivable: debts for the difference in tariffs (36 billion UAH), debts of DSOs (76 billion UAH), financial gaps due to the performance of public service obligations (158 billion UAH). Also, Naftogaz is **not going to return legacy debts of DSOs to GTSOU**. The settlement should be carried out within the framework of legislative initiatives and laws that are actually being developed - Chernyshov. Gas Distribution Networks of Ukraine LLC, established by Naftogaz to manage assets (including those transferred to its management as arrested DSOs), changed the CEO (Oleksii Skryl instead of Denys Myrhorodskyyi).
- **The case against the ex-CEO of Naftogaz Andrii Kobolyev develops further.** The Appellation Chamber of the High Anti-Corruption Court annulled the decision of the court of first instance and imposed a preventive measure (229.248 million UAH bail) to Kobolyev. Also, the suspect is subject to several restrictions (hand over foreign passport, cannot leave Kyiv without permission etc). To remind, Kobolyev is suspected of illegally rewarding himself for the victory over Gazprom in the Stockholm arbitration, facing 7 to 12 years of conviction.
- The NEURC adopted a decision on **the preliminary certification of the gas storage operator (Ukrtransgaz)**. After this preliminary decision, the Energy Community Secretariat shall provide an opinion, and the Regulator shall make a final decision with due account of the opinion.
- **Energoatom has announced a complete refusal from Russian nuclear fuel in 2024.** Currently, 7 nuclear units have been switched to Westinghouse Electric Sweden AB fuel. Energoatom is also developing a nuclear fuel production facility, with pre-project works underway and the commissioning scheduled for 2026. Meanwhile, the Ministry of Energy has agreed with European partners to create a subgroup to supervise the corporatization of Energoatom.
- **Planning for the upcoming winter season has begun.** The President Volodymyr Zelenskyi chaired an extended meeting to discuss the future operation of the power system. The current tasks include completing the heating season and preparing for the next one, as well as working to protect the system.
- Working groups at the level of the Cabinet of Ministers, the Ministry of Energy, and the NEURC are considering options for **raising electricity prices for households** - so the NEURC Chair Konstantyn Ushchapovskyyi. According to the Advisor to the Prime Minister Yurii Boyko, the tariff for household consumers is about four times lower than the real price of electricity, and more than 140 billion UAH a year is spent on subsidies.
- **Ukraine asks the EU to start preparing the 11th sanctions package as soon as possible.** Reacting to EU Special Envoy on Sanctions statements regarding the change of focus, the Ministry of Foreign Affairs spokesperson Oleh Nikolenko said that Russia still has access to huge financial and technological resources and that it is not the time to ease sanctions. The President Volodymyr Zelenskyi emphasized that Ukrainian diplomats and the entire government are working to extend global and, in particular, European sanctions to the Russian nuclear industry, Rosatom, and all those involved in the missile program and nuclear blackmail of the terrorist state. He also signed three decrees on the sanctions on a number of Russians.
- **Ukraine is also seeking to expand its coalition of allies.** As the Head of the Presidential Office Andrii Yermak informed, during the Saudi Foreign Minister Prince Faisal bin Farhan Al Saud visit, two documents were signed that formalized the provision of a 400 million USD aid package to Ukraine: 100 million USD in humanitarian aid and 300 million USD in oil products. Meanwhile, the UN General Assembly is expected to consider the issue of a special tribunal on Russia's crimes against Ukraine at the end of March - so the Deputy Head of the Presidential Office Andrii Smyrnov.

- **A number of acts aimed at European integration and ensuring the recovery process were adopted.** The Verkhovna Rada has adopted several laws: on transfer of the Recovery Fund from the Ministry of Finance to the Ministry of Communities, Territories and Infrastructure Development, on mandatory appointment of multi-apartment buildings' managers (after the end of martial law), on development of charging infrastructure for electric vehicles, on development of highly efficient cogeneration, on corporatization of Energoatom. The Cabinet of Ministers reduced the list of exceptions introduced during martial law, which allow public procurement without transparent tenders. The government also approved the 2023-2030 Strategy for the Development of Industrial Parks.
- **The government has started self-screening on the compliance of Ukrainian legislation with EU acquis in order to start accession negotiations by the end of the year.** By June 30, 2023, ministries and other central executive authorities have to conduct self-screening and by August 30 - submit a report to the government. The President Volodymyr Zelenskyi called for the start of negotiations on Ukraine's accession to the EU. By the end of 2023, the government will fulfill all recommendations of the European Commission necessary to start negotiations, the Deputy Prime Minister Olha Stefanishyna said.
- **Ukraine expects to strengthen cooperation with the OECD.** On March 1, the OECD Ukraine Liaison Office was opened in Kyiv. The Prime Minister Denys Shmyhal said a program with measures for Ukraine's membership in the OECD could be signed in June. The OECD team was also invited to join the development and implementation of the concept of Russian assets confiscation in its member states
- **The government amended the action plan to prevent the abuse of undue influence by oligarchs, referring to the need to receive the Venice Commission opinion.** For instance, the development of a draft law on regulating the security of electricity and natural gas supply was postponed until April 2023. The amendments assume an update of the Energy Security Strategy, while the assessment of the level and threats to energy security has been postponed to December 2023.
- **The Ministry of Energy, with the support of the EBRD Ukraine MDA and in cooperation with the Reforms Office of the Cabinet of Ministers and DiXi Group think tank, has launched the AidEnergy online platform** to inform donors about the needs of energy companies, process and confirm donors' offers, distribute humanitarian aid, and report. As of March 3, Ukraine has received aid for the energy sector from 30 countries with a total weight of over 5,300 tons. Namely, this week Ukraine has received a powerful autotransformer from Lithuania. Its transportation was the largest logistics operation ever coordinated by the EU Civil Protection Mechanism.

## Attacks

The Security Service of Ukraine [prevented](#) Russian special services from gaining access to the design and construction documents for the Zaporizhzhia and South Ukraine NPPs, which were developed in Kharkiv. The documentation was stored at JSC Kharkiv Scientific Research & Design Institute "Energoproekt", and fictitious persons tried to acquire its shares.

## Nuclear Safety

[According to](#) the IAEA, on March 1, the only remaining 330 kV backup power line for the Zaporizhzhia NPP was disconnected for the third time in a week due to shelling on the Ukrainian-controlled side of the Dnipro River.



On March 2, the IAEA mission of experts rotated at the Zaporizhzhia NPP. The rotation had been delayed for several weeks by Russian occupiers. In addition, experts were rotated at the Rivne, Khmelnytskyi and South Ukraine NPPs.

## Electricity Sector

### *Power system operation*

[According](#) to Minister of Energy Herman Halushchenko, Ukraine won the battle with Russia on the energy front, keeping the lights on throughout the winter in the face of massive Russian attacks. At the same time, preparations for the next heating season are already underway. The key task is the decentralization of generation by installation of gas turbines in various regions of the country with a deficit of generating capacity.

Another mechanism will be the development for solar and wind generation, as well as the modernization and improvement of protection of the electricity transmission system damaged due the Russian attacks. In the medium term, Ukraine will also develop carbon-free nuclear generation, which played a key role this heating season.

At the same time, Halushchenko believes [Ukraine has great prospects](#) of becoming a major energy hub for all of Europe.

[According](#) to Ukrenergo, on March 3, electricity consumption corresponds to the level of a working day, there has been no capacity deficit in the power system for 20 days in a row and it is currently not forecasted. The demand is fully covered by generation capacity and a small amount of imports. All types of power plants are in operation, the available generation capacity contributes to increasing the system's operational safety. There are currently no network restrictions necessitating restriction of supply. As a result of enemy's shelling, distribution systems damage was reported in the Donetsk region.

[According](#) to ENTSO-E, as of March 2, minimal commercial imports of electricity were performed from Slovakia (6-7 MW for different hours during the day). Access to the Slovakia->Ukraine capacity [was booked by two companies](#) for a total volume of 260 MW: D.Trading (250 MW) and Avgusta (10 MW) on a flat schedule. D.Trading booked capacity in the Moldova->Ukraine direction (120 MW). In both auctions, the marginal price was "zero". Capacity in other directions was not offered. At the same time, the Base DAM price indices of Eastern European countries (Poland, Slovakia, Romania and Hungary) [exceeded](#) the similar index of Ukraine by 1.66-1.76 times.

### *Disruption and resumption of supply*

As of March 2, the Ministry of Energy did not update information on the restoration of supply and the number of consumers without electricity.

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

- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on March 3, 24,029 consumers in 70 settlements remained offline (excluding the temporarily uncontrolled territory). During the day, specialists restored power supply to part of the consumers in the city of Zaporizhzhia, which were offline after the missile attack (81 consumers reconnected). In the rest of the territories, the situation did not change: due to active hostilities and lack of access to the damaged areas, no restoration work was carried out, no new outages were recorded;

- in the **Odesa region**, [according](#) to the local DSO, as of March 2, all consumers were provided with electricity supply, all houses receive electricity during the guaranteed "white hours" of the schedule;
- in the **Dnipropetrovsk region**, [according](#) to the local DSO, in February, repair crews restored electricity supply to more than 67,000 households that were disconnected due to power lines and energy facilities damaged by shelling;
- in the **Kherson region**, [according](#) to the Regional Military Administration, as of March 1, 39 crews (220 specialists and 70 units of equipment) were working to restore electricity supply. Specialists performed works on the damaged lines supplying the cities of Kherson and Beryslav, the towns and villages of Bilousove, Olhyne, Myroliubivka, Trudoliubivka, Kalynivske, Starosillia, Pravdyne, Bilozerka, Kirove, Nova Zorya and Posad-Pokrovske. On March 2, the specialists [restored electricity supply](#) to all consumers (43) of the village of Olhyne;
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of March 3, 1,042 electricity supply facilities were partially or completely damaged, while 4 settlements of the Bashtanka and Mykolaiv districts remained offline;
- in the **Donetsk region**, [according](#) to the local DSO, in February, specialists restored electricity supply to 195,762 households in 307 settlements. 107 settlements remained offline, as specialists did not have access to works there. [According](#) to Ukrenergo, on March 3, distribution networks of the region were damaged as a result of Russian shelling;
- in the **Kharkiv region**, [according](#) to the local DSO, in the city of Kupyansk, as a result of the impact by a modified S-300 missile, two 6 kV power transmission cable lines, which provided electricity to the municipal sewerage pumping station, were damaged at once, leaving over 15,000 households without water sewerage. On March 2, specialists restored electricity supply to the sewerage station;
- in the **Sumy region**, [according](#) to the Regional Military Administration, on the night of March 2, the Russians shelled 10 communities, as a result power lines were damaged in the Esman community and a high-voltage line - in the Znob-Novhorodske community;
- in the **Chernihiv region**, [according](#) to the local DSO, as of 06:00 on March 3, as a result of enemy's shelling, 2 sections of 10 kV power lines and 9 transformer substations were damaged and disconnected. 492 consumers remained without electricity supply in 2 settlements of the Novhorod-Siverskyi district;

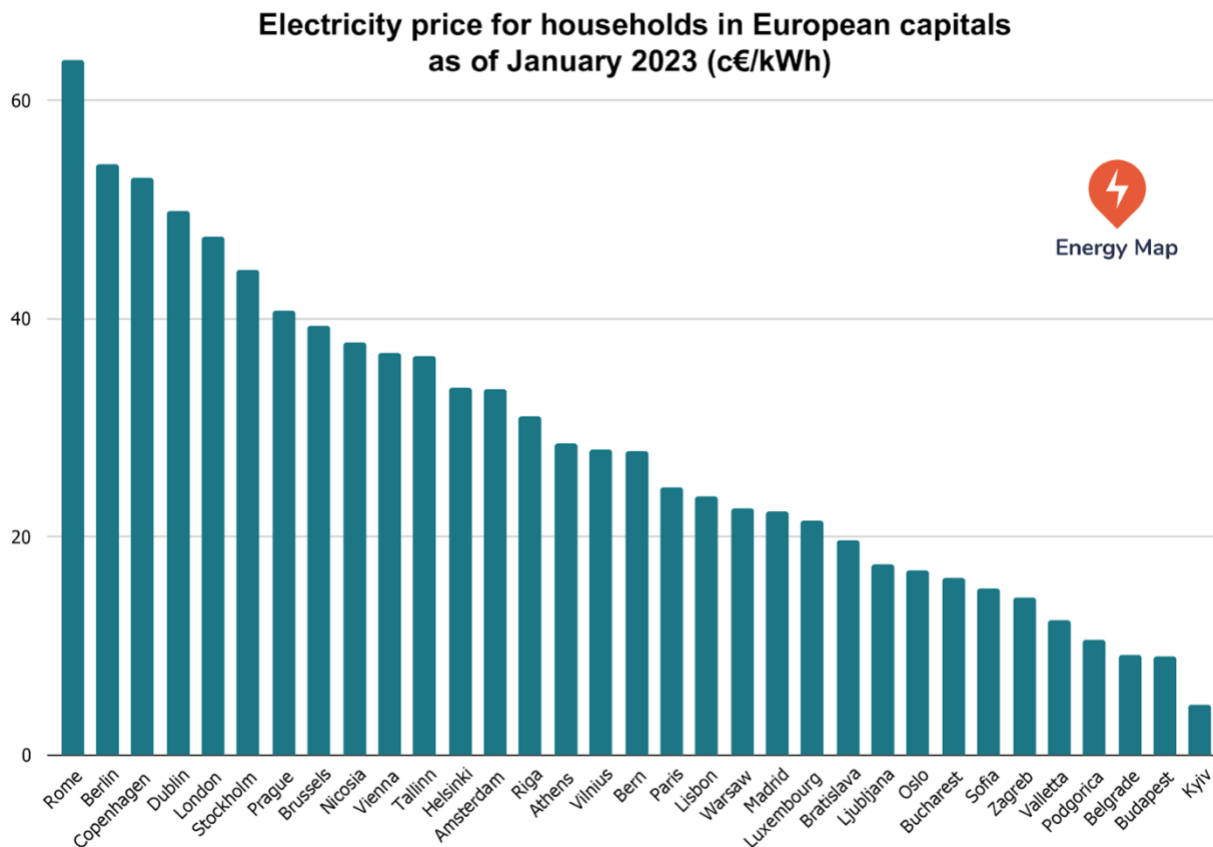
there was no up-to-date consolidated information on power supply in the **Luhansk region** at the time of the review preparation.

## ***Performance of the electricity market***

[According](#) to the Chair of the National Energy and Utilities Regulatory Commission (NEURC) Kostyantyn Uschapovskyi, the government is considering various options for revising the price of electricity for households, and the final decision may be made after this heating season ends. Also, he mentioned that "in addition to international aid, the main source of funds for recovery should be the funds included in the electricity tariff for households, which has not been revised since 2017". Uschapovskyi noted that, while taking the decision to raise prices, the authorities will take into account the interests of vulnerable households, so that it affects them the least.

Given that the current PSO regime which defines the regulated electricity price for households expires on March 31, a review and increase in the price is possible soon.

[According](#) to the Advisor to the Prime Minister Yuriy Boyko, the tariff for household consumers is approximately four times lower than the real price of electricity. Supporting this tariff, the government subsidizes every kilowatt-hour, regardless of the income level. Today, more than 140 billion UAH a year are spent on such subsidies.



Source: [Energy Map](#)

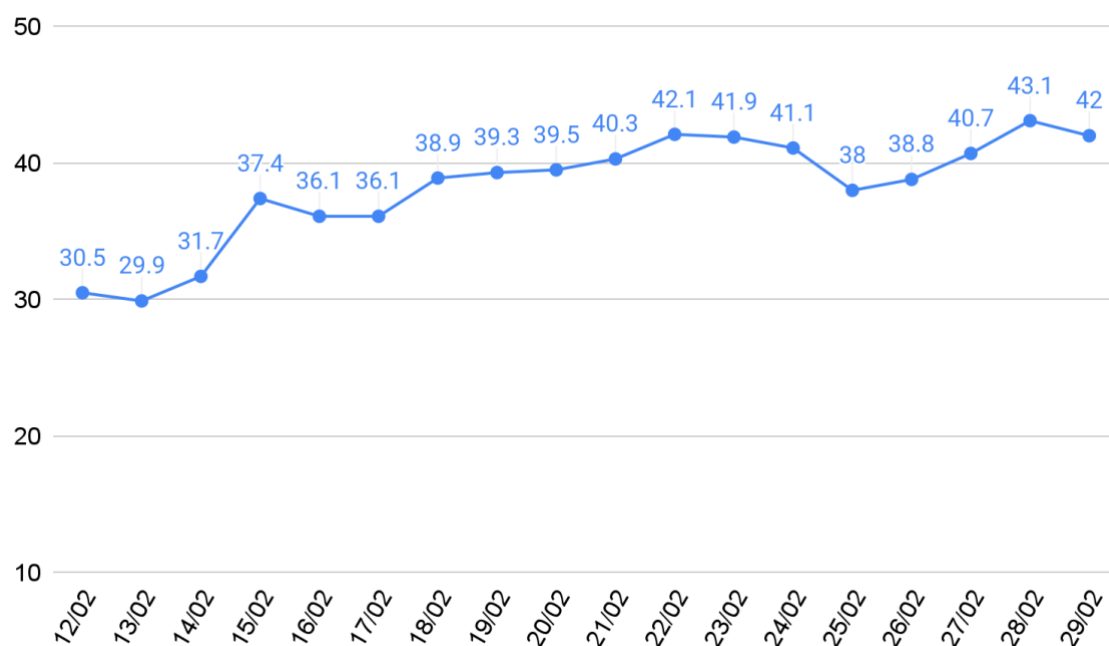
## Oil & Gas Sector

### Gas system performance

On March 1, the volume of gas transit through the territory of Ukraine amounted to 42 mcm (-1.1 mcm as compared to the previous day), i.e. only 40% 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 12.8 mcm and performed via the Beregdaroc interconnection point (VIP Bereg) at 6.6 mcm, via the Hermanowice interconnection point (VIP Ukraine-Poland) at 2 mcm, via the the Budince interconnection point at 3.4 mcm and via the Căușeni interconnection point (Ukraine-Moldova) at 0.8 mcm. On March 1, 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](#)

## Performance of the natural gas market

The former director of Ukrgazvydobuvannya (subsidiary of Naftogaz, the largest producer of natural gas in Ukraine) Oleksandr Romaniuk told about the company's functioning at the early stage of the war. During the occupation of the Kharkiv region, 40 deposits of the company were under occupation. Attacks on UGV facilities began in the second week of the Russian invasion, when the cities of Balakliia and Kupyansk were captured. During occupation, Russians regularly disconnected the sites from electricity supply, shelling the power lines at gas production facilities with artillery. The Russians also destroyed one of the main UGV facilities - Shebelynska gas processing plant. In the summer, approximately 50 mines, projectiles and missiles impacted the facility.

At the same time, UGV reported profits in 2022. According to Romaniuk, since March, the company was the first one to resume drilling and other service operations in the Poltava and Kharkiv regions. In the second half of the year, Ukrburgaz (UGV's service unit) drilled 30+ km per month. In 2023, UGV specialists estimate a possible increase in the company's commercial gas production at 0.7 bcm.

One of the possible ways is the exploration of unconventional gas deposits, estimated at 0.5-1 Tcm. In order to increase the daily production of UGV by 50% with such deposits, the company must drill 55 successful wells and make up to 30 fracking operations at each one, which will cost 1-2 billion USD. Another opportunity for development is exploration of the Black Sea offshore. Romaniuk informed that, before the seismic studies, the offshore resources of UGV licenses were estimated at about 300 bcm. But offshore projects are capital-intensive, Ukraine will be able to implement them only in partnerships with other oil and gas companies. Romaniuk estimated the terms and cost of implementing such projects - at 5-7 years and 10+ billion USD.

## **Disruption and resumption of supply**

As of March 2, 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, and Kharkiv regions** had the most challenging situation.

In the **Zaporizhzhia region**, on the night of March 2, [the enemy shelled](#) a residential building in Zaporizhzhia. The local DSO crews arrived at the scene, located gas leaks and carried out an additional inspection of the networks. On the same day, specialists restarted gas flow and [restored](#) distribution to 500 consumers.

In the **Kherson region**, the local DSO [has completed](#) preparatory works on the restoration of gas distribution to one of the settlements of the Borozenske community. In the next three days, gas distribution will be restored to all consumers of the settlement.

In the **Mykolaiv region**, according to the Regional Military Administration, as of March 3, 1,380 gas infrastructure facilities (no change as compared to March 2) were damaged during the war, as a result, 5,271 consumers (-2) remained with [no gas supply](#).

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

## **Countermeasures of Ukrainian Companies and Public Authorities**

On the EU Special Envoy on Sanctions statements regarding the change of focus from adopting new sanctions against Russia to enforcing the existing ones, the Ministry of Foreign Affairs spokesperson Oleh Nikolenko [said](#) that Russia still has access to huge financial and technological resources and that it is not the time to ease sanctions. According to him, strengthening the EU sanctions policy and ensuring compliance with existing restrictions should go hand in hand. Nikolenko stated that the 10th EU sanctions package did not include a number of restrictions that Ukraine insisted on: nuclear energy, activities of Rosatom, IT technologies, sales of diamond, and maritime logistics. "We are convinced that the EU should start preparations for the adoption of the next, 11th package as soon as possible", Nikolenko said. He added that Ukraine also supports the expansion of the sanctions coalition, in particular by involving Asian and Latin American countries.

Following the EU Energy Platform Steering Board meeting, the Vice President of the European Commission Maroš Šefčovič [said](#) that the volume of joint gas purchases in the interests of EU countries would be supplemented by an application from Ukraine, Moldova and Serbia, which are interested in purchasing more than 4 bcm over a three-year period. In total, 22 EU member states have already expressed preliminary interest in jointly purchasing more than 17 bcm of gas, and five more countries are expected to submit their applications. Šefčovič emphasized that joint gas purchases can help EU member states meet the mandatory filling targets for storage before the winter - by 15%, i.e. about 13.5 bcm.

At the Partnership for Transatlantic Energy and Climate Cooperation (P-TECC) meeting in Zagreb, the Minister of Energy Herman Halushchenko [said](#) Ukraine is already preparing for the next heating season. "Gas turbines to be installed in different regions of the country with a deficit of generating capacity will help us achieve decentralization. We are already working on this issue with our American partners", Halushchenko said. The plan also



envisages the development of renewable energy sources - solar and wind generation - and the modernization of the power transmission system damaged by the attacks.

The Ministry of Energy, with the support of the EBRD Ukraine Stabilisation and Sustainable Growth Multi-Donor Account' (Ukraine MDA) and in cooperation with the Reforms Office of the Cabinet of Ministers and DiXi Group think tank, has [developed](#) the AidEnergy online platform. This is a "single window" for collecting, updating and informing donors about the needs of energy companies, processing and confirming donors' offers, distribution of humanitarian aid, and reporting. According to the Deputy Minister of Energy Farid Safarov, Ukraine has received aid for the energy sector from 30 countries with a total weight of over 5,300 tons; 15,000 requests from more than 140 affected companies have been received.

In a conversation with the Austrian Federal Chancellor Karl Nehammer, the Prime Minister Denys Shmyhal [emphasized](#) that Ukraine is counting on assistance in reconstruction and humanitarian demining. According to him, the situation at the Zaporizhzhia NPP and the expansion of sanctions, including the closing of loopholes to circumvent the restrictions already introduced, were discussed as well.

The ambassadors of the G7 countries once again called on the Verkhovna Rada of Ukraine to resume electronic asset declarations for MPs and officials. The G7 ambassadors also insist on restoring transparency in the Verkhovna Rada and strengthening anti-corruption institutions (Specialized Anti-Corruption Prosecutor's Office and the National Anti-Corruption Bureau).

The city of Mykolaiv needs 3 billion UAH to completely replace its water supply systems, the Mykolaiv Regional Military Administration Head Vitalii Kim told the [media](#). According to him, the military administration expects part of the funds to be allocated from the state budget in March to start the restoration. As noted, the local authorities have a plan to replace water supply systems, and 3 out of 12 projects are developed.

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### **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 \(energy-community.org\)](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).*