



# Russian War Against Ukraine: Energy Dimension

DiXi Group alert

(status as of 12:00, May 25)

**Stop russian nuclear terrorism!**

**Stop the atrocities!**

**Introduce full embargo on russian oil and gas imports now!**

#StopRussianAggression

#StandWithUkraine

## Summary

- **App. 639,200 consumers all over Ukraine did not have electricity supply, and over 161,000 consumers remained without gas supply.**
- **Because of the damaged main pipeline there is practically no gas supply to the Donetsk and Luhansk regions.** The distribution system operator in the Donetsk region managed to keep supply for the operation of 3 bakeries for the next few days; also, 2 communities (about 1,900 consumers) still can be supplied with gas. The Luhansk region remains completely with no gas, water and electricity supply.
- **The Deputy Minister of Energy Yaroslav Demchenkov called the international community to immediately take action to deoccupy the Zaporizhzhia NPP.** According to him, Russia violates international nuclear law and the UN Charter, as well as UN nuclear conventions to receive full control over the ZNPP. At the same time, in the IAEA, Russia continues to spread propaganda as well as false narratives about the situation at the ZNPP. In reality, the occupiers use the ZNPP site for storing large volumes of explosives, shells and mines, and any intentional or accidental explosion can lead to catastrophic consequences.
- The Regulator (NEURC) made a number of decisions, in particular on **suspension of the implementation of 2022 investment programs for electricity DSOs with facilities in the**

**zone of hostilities, as well as conducting unscheduled off-site inspections for the period of martial law.**

- At the Ukrainian Breakfast in Davos, **the President Volodymyr Zelenskyi criticized the authorities of Hungary because of their reluctance to impose an embargo** on Russian oil supplies.
- The Prime Minister Denys Shmyhal announced **the international presentation of the draft Ukraine Recovery Plan at the Ukraine Reforms Conference to be held on July 4-5** in Lugano (Switzerland). The plan, inter alia, structural modernization and restart of the economy, and implementation of the European standards in all areas of life.

## Attacks:

**Donetsk region** In the last 24 hours, 18 settlements of the Donetsk region, including Avdiivka, Slovyansk, Kramatorsk and Bakhmut, were shelled from aircraft, tanks, heavy artillery and multiple launch rocket systems "Grad" and "Tornado", killing and injuring civilians, as the National Police [reported](#). The shelling damaged at least 45 residential facilities, including homes, a medical facility, a railway station, a factory, a construction company, and a critical infrastructure facility. The local gas distribution system operator managed to [keep supply](#) for the operation of 3 bakeries for the next few days, which is critical for the support of civilians; in addition, 2 more communities (about 1,900 consumers) can be supplied with gas. The Russian Defense Ministry [announced](#) the complete demining of the port in the occupied city of Mariupol.

### **Luhansk region**

The Russian troops had concentrated all their efforts on capturing the Luhansk region, for which they had redeployed additional 2,500 units of military equipment, [reported](#) the Luhansk Regional Military Administration Head Serhii Haidai. During the day, at least 4 residential buildings were [damaged](#) in the settlements of Novodruzhesk, Vrubivka and Komyshevukha, 3 - in Zolote and Toshkivka, 2 - in Severodonetsk, Katerynivka and Nyrkove and 1 more in Hirske.

Tactics of the Russian military were [attacking groups of civilians](#). E.g., among the enemy targets were the chemical industry "Azot" and educational institutions, where bomb shelters were arranged and civilians were hiding. Due to enemy's shelling, the last operational gas distribution station in the Luhansk region was [stopped](#), and the region was completely without gas supply. In addition, the region is completely without water and electricity supply, with water for the needs of residents delivered by rescuers.

### **Kharkiv region**

During the day, the Russian troops continued to fire on the regional center and other settlements, [reported](#) the Kharkiv Regional Military Administration Head Oleh Syniehubov. On the night of May 24, the Russian occupiers launched 3 missiles on the city of Merefya, one of the missiles was shot down by the Ukrainian air defense forces, two others hit and damaged an administrative building of the Southern Railway substation. On the same day, the occupiers fired on the Derhachi community, a trade establishment caught fire, 1 civilian was killed and 1 was injured. 2 people were injured due to the shelling on the village of Savyntsi (Izyum district). Critical infrastructure

rehabilitation works were underway in the region. On May 24, the Kharkiv metro resumed passenger transportation, as the National Police [reported](#).

### **Sumy region**

The Russian occupiers continued artillery and mortar shelling of Ukrainian defense positions and civilian infrastructure in the Sumy region from the territory of the Russian Federation, the General Staff of the Armed Forces of Ukraine [reported](#). In the evening of May 24, observers [recorded](#) 7 explosions, probably from mortar, near the village of Boyaro-Lezhachi and 8 explosions near the village of Tovstodubove. There was no information on losses, injuries to the residents or damage to civilian infrastructure. In addition, on the night of May 25, the enemy launched missiles at [the town of Krasnopillya](#) from the Russia territory, about 20 residential houses and power lines were damaged, and half of the town was left without electricity supply.

### **Mykolaiv region**

The Russian military once again hit with multiple rocket launch systems "Smerch" on residential quarters of the city of Mykolaiv and area, having [injured 15 civilians](#), as the Operational Command "South" [reported](#). In addition, the enemy, disguised in the uniform of the Armed Forces of Ukraine, under cover of mortar fire, tried to capture an observation post of the Ukrainian military. [According to](#) the Mykolaiv Regional Military Administration, as of May 25, since the beginning of the Russian invasion, 3,678 residential facilities were partially or completely damaged in the region, in particular 2,610 facilities of housing stock (+11 residential houses), 290 electricity - (+5), 145 gas, 53 heat and 16 water supply facilities.

### **Kherson region**

In the Kherson region, the Russian troops continued to carry out provocative shelling (incl. aircraft strikes) of the occupied settlements and tried to accuse the Armed Forces of Ukraine, as the Operational Command "South" [reported](#). The occupying authorities, with the support of the Russian military, were trying to force the residents to cooperate or agree to the occupation. [According to](#) the Operational Command "South", the Russians intended to mobilize the residents from the occupied territories of the Kherson region for the war against Ukraine. [According to](#) the Kherson Regional Military Administration Head Hennadii Lahuta, about 50% of the residents had left the region and, for almost 10 days, the occupiers had not allowed civilians to leave the region.

### **Zaporizhzhia region**

[According to](#) the Zaporizhzhia Regional Military Administration, as of May 25, 1,140 households in the region were completely destroyed or partially damaged. On the morning of May 25, the Russian military [launched](#) four cruise missiles on the city of Zaporizhzhia: one of the missiles was destroyed by Ukrainian air defense forces, but the other three attacked residential neighborhoods and a shopping center in Shevchenkivskyi and Oleksandrivskyi districts, and damaged at least 62 residential homes, left 1,000 consumers without electricity supply, killed 1 person and injured 3. In addition, the Russian troops did not stop shelling the city of Huliaipole - as a result of artillery attacks, farm buildings, warehouses and elevator equipment have burned down. Liquid chlorine used in the production of drinking water has run out at the treatment facilities of the regional water utility; the company had stopped supplying water to 6 settlements of the Melitopol district; supply of water that did not meet hygienic standards to the city of Berdyansk continued.

## Dnipropetrovsk region

On the morning of May 25, the Russian troops launched 3 missile strikes on the city of Kryvyi Rih and the settlements of the district, [reported](#) the Dnipropetrovsk Regional Military Administration Head Valentyn Reznichenko. In the city of Kryvyi Rih, missiles hit and destroyed an industrial enterprise; in the Kryvyi Rih district, the occupiers fired on the Shyroky and Apostolove communities from multiple launch rocket systems "Uragan", and the city of Apostolove was partially left without electricity supply.

# Nuclear and Radiation Safety:

As of 08:00 on May 25, all operating NPPs of Ukraine were operating normally; radiation, fire and environmental conditions at station sites and adjacent areas were within current standards.

## Chornobyl NPP Exclusion Zone

In the Exclusion Zone, the process of gradual restoration and normalization of enterprises continued. [According](#) to media reports, 84 employees of the State Emergency Service, who remained at the ChNPP site for about 40 days during the occupation, have returned to their duties in the Exclusion Zone. According to them, the Russian occupants have forced them to line up on the square while they were searching personal belongings for food or valuables. After the cases of detonation on Russian mines, rescuers will leave to extinguish fires only accompanied by pyrotechnicians.

The State Nuclear Regulatory Inspectorate of Ukraine [informed](#) about the possible issues of abandoned, lost or stolen sources of ionizing radiation due to the theft recorded in the Exclusion Zone by marauding occupiers. The nuclear regulator called on Ukrainians to follow radiation safety rules when detecting and responding to any radiation-hazardous findings.

## Zaporizhzhia NPP

The Zaporizhzhia NPP and the satellite city of Enerгодar [have been](#) under the control of Russian terrorists for 83 days in a row. ZNPP power units are serviced by Ukrainian staff with proper rotation. As of 08:00 on May 25, the [radiation background](#) at the ZNPP industrial site was 11  $\mu\text{R/h}$ , in the sanitary protection zone - 8-12  $\mu\text{R/h}$ ; gamma background in the Zaporizhzhia region was also [stable](#) (6-13  $\mu\text{R/h}$ ) and did not pose a threat to life and public health.

At the same time, [according](#) to the Ministry of Energy, ZNPP personnel and members of their families are under constant psychological pressure from Russian troops at the NPP site and the satellite city of Enerгодar. The occupiers use the site for storing large volumes of explosives, shells and mines, and any intentional or accidental explosion can lead to catastrophic consequences.

The Deputy Minister of Energy for European Integration Yaroslav Demchenkov [called](#) the international community to immediately take action to deoccupy the Zaporizhzhia NPP. According to him, Russia as an IAEA member state, is violating international nuclear law and the UN Charter, as well as UN nuclear conventions to receive full control over the ZNPP. At the same time, Russia's permanent representatives at the IAEA continue to spread propaganda, misleading images, false narratives and misconceptions about the situation at the ZNPP.

The presence of Russian terrorists at nuclear facilities poses extremely high threats to nuclear and radiation safety on a global scale! Ukraine demands to recognize the actions of Russia and Rosatom as nuclear terrorism, which aims to intentionally violate the security of nuclear power plants, international law and basic human rights with the aim of genocide, ecocide and encroachment on the country's sovereignty.

We call on international partners to increase pressure on the IAEA, whose actions may prevent acts of nuclear terrorism by Russia. At the same time, it is critical to minimize Russia's influence on IAEA policies and activities, in particular by removing all Russians from key positions in the Agency's Secretariat and restricting their access to information about Ukraine's nuclear power plants.

We also emphasize the need to impose tough sanctions on the management, staff, products, international projects of Rosatom and, in general, the nuclear industry of the aggressor country!

## Electricity Sector:

### ***Power system operation***

Ukraine's power system continues stable operation in trial synchronous mode with the Continental Europe network (ENTSO-E). Commercial exports of electricity to Poland via the Dobrotvirsk TPP - Zamosc transmission line [remained](#) at the stable flat schedule (210 MW hourly). Technical [cross-border](#) flows continued between the energy systems of Ukraine and other Eastern European countries: from Slovakia to Ukraine, and from Ukraine to Poland, Romania, Hungary, and Moldova.

According to the Prime Minister of Ukraine Denys Shmyhal [statement](#), in April, the exports of Ukrainian electricity to Poland increased by 35% as compared to January 2022. By the end of the year, the Cabinet of Ministers plans to expand the capabilities of Ukrainian companies to export electricity to the EU to about 800 MW. According to the Prime Minister, this will help the EU to refuse from the Russian coal and reduce the consumption of Russian gas.

Ukrenergo [continued](#) to rebuild damaged energy infrastructure. In the southern region of Ukraine, the inspection of two 330 kV overhead lines has been completed, and repair crews were waiting for a permission from the military. In the central region, 9 crews are working on two 330 kV lines: wires, communication lines, lightning protection cables are being repaired, and inspections of the access roads with sappers were underway. The installation of a metal support on the 750 kV high-voltage line has been completed, and a current transformer has been put into operation at one of the substations in the central region. In the east and north of Ukraine, repairs of a substation and a 330 kV line continued.

### ***Electricity market performance***

**Day-ahead market (DAM):** As of May 25, the DAM weighted average settlement price amounted to 2,268.49 UAH/MWh (+3% vs the previous trading day). The total volume of trading [increased](#) to 10,239.5 MWh (+14.7% vs the previous day). Against the background of a slight increase in the declared supply to 76,620.5 MWh (+4.5%), the market surplus remained high - the gap with the volume of purchase bids was 7.5 times. At the same time, [the structure of purchase](#) distributed as follows: 65.2% was occupied by suppliers, 34.2% by system operators, the remaining 0.6% by producers and traders.

**Intraday market (IDM):** On May 24, the weighted average price of electricity on IDM [amounted](#) to 2,485.38 UAH/MWh (-14.5% vs the previous day). The total volume of trading decreased to 122.2 MWh (-54.2% vs the previous day). At the same time, the supply reached 38,410.5 MWh (+23%). The combination of these factors led to a significant increase in the IDM surplus - the gap with the

volume of purchase bids grew from 117 to 314 times. There were also changes in the [structure of purchase](#): 83.1% belonged to suppliers, 11.9% to system operators, and 5% to producers.

### **Disruption and resumption of supply**

[According](#) to the Ministry of Energy, as of May 24, 639,200 consumers in 708 settlements were disconnected from electricity supply; supply to 38,000 consumers was resumed during the day.

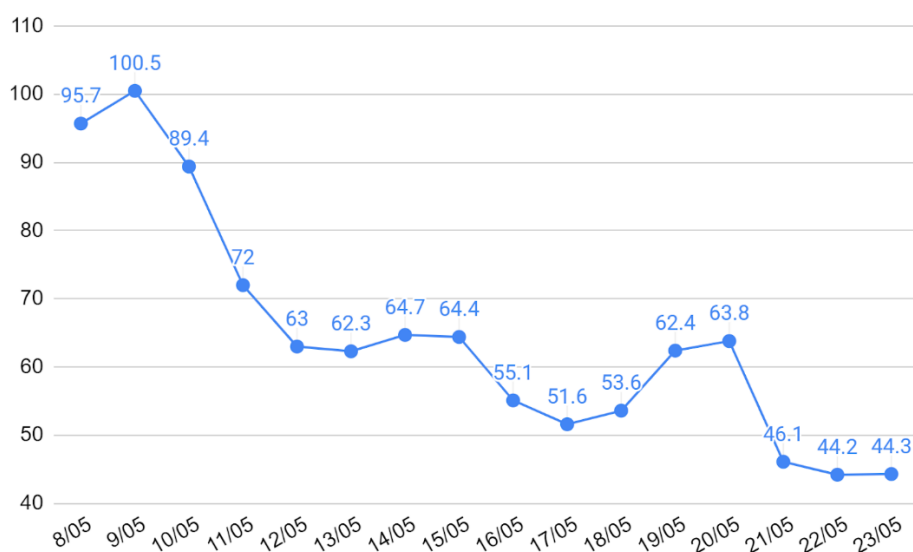
Large-scale power supply disruptions and, consequently, active recovery works were taking place:

- in the **Donetsk region**, according to DTEK, supply to 2,800 consumers in 15 settlements was resumed during the day; 300 settlements were left without electricity supply ([according](#) to the Cabinet of Ministers, 330,700 consumers in total);
- in the **Luhansk region**, [according](#) to the Cabinet of Ministers, 128,200 consumers were left without electricity supply;
- in the **Kharkiv region**, [according](#) to the Cabinet of Ministers, 90,200 consumers were with no electricity supply; supply to 2,400 consumers were resumed during the day;
- in the **Zaporizhzhia region**, as of 07:00 on May 25, 23,787 consumers in 80 settlements were left [without electricity supply](#); supply to 2,891 consumers was resumed during the day;
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, 88 settlements were left without electricity supply (4 of them partially);
- in the **Kyiv region**, [according](#) to the Cabinet of Ministers, supply to 15,000 consumers was resumed during the day;
- there was no up-to-date consolidated information on power supply in the **Sumy, Kherson, Chernihiv, Odesa, Dnipropetrovsk and Kyiv regions** at the time of the review preparation.

## Gas Sector:

As of May 23, the transit of Russian gas through the territory of Ukraine almost didn't change and amounted to 44.3 mcm. These volumes were only 41% 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 0.2 mcm.

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



Source: [GTSOU](#)

## ***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 May 24, over 161,000 consumers were left with no gas supply. Supply to 726 consumers was restored during the day.

In the **Donetsk region**, the local DSO [reported](#) that, despite the damage and blockade of main routes, gas supply is maintained for 3 bakeries, which is critical for providing the population with food. Still, this possibility will remain for only a few days. In addition, despite the destruction, Donetskobgaz has kept gas supply to 1,900 consumers.

The **Luhansk** Regional Military Administration [announced](#) the complete gas supply suspension. The occupiers destroyed the last operating gas distribution station, leaving 36,000 consumers without supply. Currently, the region doesn't have all the essential utilities - electricity, water, and gas supply.

In the **Kharkiv region**, repair works were [underway](#) in the city of Derhachi and the village of Vilkhivka (in particular, preparations for gas flow launch, restorations of in-house communications).

In the **Zaporizhzhia region**, as of 10:20 on May 25, 71,372 consumers in 89 settlements were [without gas supply](#). In the city of Orikhiv, the damage caused earlier that day to a low-pressure distribution gas pipeline was eliminated.

In the **Kherson region**, as of 12:00 on May 25, 1 community (Vysokopillia) has completely remained [without gas supply](#) and 3 communities (Velyka Oleksandrivka, Novovorontsovka, Stanislav) partially. LPG reserves were running out in 3 communities (Hornostaivka, Velyka Lepetykha and Rubanivka); in the Novoraysk community, LPG supply had run out. LPG was delivered to the Novotroitske community.

In the **Mykolaiv region**, as of May 25, the situation with gas supply didn't change: 145 gas infrastructure facilities were [damaged](#) due to Russian aggression, and 3,449 consumers were left without gas supply.

[According](#) to the **Sumy** Regional Military Administration, works on restoration of gas supply were concentrated in the Okhtyrka district.

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

## Countermeasures of Ukrainian Companies and Public Authorities

According to media reports, the President of Ukraine Volodymyr Zelenskyi at the Ukrainian Breakfast (a side event of the World Economic Forum in Davos), [criticized](#) the authorities of Hungary for unwillingness to impose an embargo on Russian oil supplies. Zelenskyi believes that currently there is no unity in the EU regarding the future of Ukraine, nor a strong united West, capable of economic resistance to Russia. The President of the European Commission Ursula von der Leyen [ruled out](#) reaching an agreement on the oil embargo at the EU leaders summit next week - precisely, because of the position of Hungary.

The Prime Minister of Ukraine Denys Shmyhal [announced](#) the international presentation of the draft Ukraine Recovery Plan at the Ukraine Reforms Conference to be held on July 4-5 in Lugano (Switzerland). The plan will include the restoration and development of infrastructure and housing, structural modernization and restart of the economy, implementation of the European standards in all areas of life, taking measures to combat unemployment, providing support for vulnerable groups, restoration and preservation of cultural heritage.

As the State Duma of Russian Federation has passed a draft law providing the introduction of external administration for enterprises with at least 25% of foreign capital, the Minister of Foreign Affairs of Ukraine Dmytro Kuleba [called on](#) the international companies to leave Russia. The Ministry of Foreign Affairs urged to transfer their business to Ukraine, where they will be provided with better conditions and access to the wider European market.

At the meeting on May 24, the NEURC [adopted](#) a number of decisions, including:

- [clarification](#) of the procedure for maintaining the registry of small distribution systems (SDS), including a restriction of 1-year period for the re-submission of documents to the Regulator to obtain the status of SDS;
- [suspension](#) of the implementation of 2022 investment programs for the licensees in electricity distribution with facilities in the zone of hostilities;
- [violation of](#) licensing conditions by a number of licensees in the field of electricity distribution and supply;
- [extension](#) of the period for the non-domestic gas consumers having the right to submit an application for clarification of the annual booked capacity for 2022 to the distribution system operator, namely from the date of entry into force of this decision until September 15, 2022 (inclusive);
- [approval](#) of changes to the reporting forms No. 2-NEURC-electricity-distribution (quarterly), 2a-NEURC-electricity-distribution (monthly) and 4a-NEURC-electricity and heat-production (monthly);
- [ensuring](#) the possibility for the Regulator to conduct unscheduled off-site inspections for the period of martial law.

**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.*

For subscriptions, comments and other questions, please email to: [author@dixigroup.org](mailto:author@dixigroup.org)

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