Russian War Against Ukraine: Energy Dimension

DiXi Group alert

(status as of 12:00, May 10)

Stop russian nuclear terrorism!
Stop the atrocities!
Introduce full embargo on russian oil and gas imports now!

#StopRussianAggression
#StandWithUkraine

Summary

- In general in Ukraine, almost 723,300 consumers did not have access to electricity supply and over 215,600 did not have gas supply.

- Chornobyl NPP SE denied the information about the flask with radioactive substance reportedly stolen during the occupation; the personnel of the ChNPP site secured a full control over nuclear and radioactive materials.

- Ukraine filled in and handed over to the EU the second part of the questionnaire for obtaining the status of a candidate for EU membership.

- The International Working Group on Russian Sanctions (‘Yermak-McFaul group’) introduced the Roadmap for Energy Sanctions. The document includes sanction strategies for oil and gas, as well as strategies for mitigating the impact of sanctions.

- The Prime Minister Denys Shmyhal sees Ukraine's restoration process in three stages: operational recovery during the hostilities, rebuilding of cities and towns after military actions end, and structural changes. The government will be interested in the “green” economy and less emissions from enterprises.
The First Vice Prime Minister Yulia Svyrydenko informed that **Ukraine plans to triple procurement of fuel from abroad using the Polish transit**. Potential transit of 200,000 tones per month via combined ways of transportation was discussed.

**Attacks:**

**Donetsk region**

In the last 24 hours, 13 settlements of the Donetsk region, including Mariupol, Slovyansk, Kramatorsk and Avdiivka were shelled from aircraft, missiles, multiple rocket launch systems "Grad", tanks and heavy artillery, with 12 civilians killed and 7 injured, as the National Police reported. The shelling damaged at least 39 residential facilities, homes, school and religious facilities and utilities.

In the blocked city of Mariupol, the enemy continued to destroy the infrastructure of the Azovstal Iron & Steel Works, with artillery and air strikes, and fighting continued. On May 9, the Russian occupiers concentrated their forces on blowing up the bridge used for evacuation, trying to keep the Ukrainian military out of the way. The Mariupol City Council member Oleksandr Lashyn reported that, on May 11, the Russian military will allegedly prepare to use chemical weapons against Ukrainian defenders on the territory of the Azovstal Iron & Steel Works facilities.

**Luhansk region**

During the day, the Russian troops opened fire 22 times on residential facilities in the region, and massively fired on all possible routes out of the region, reported the Luhansk Regional Military Administration Head Serhii Haidai. As a result of the shelling, residential houses, as well as offices and equipment of the National Police in the cities of Severodonetsk and Lysychansk were destroyed. When trying to inspect the destruction in the village of Shypilove, where people remained under the rubble, the Russians opened fire on police, and one employee was injured.

**Kharkiv region**

According to the Kharkiv Regional Military Administration Head Oleh Syniehubov, fierce battles with the Russian military continued in the north and northeast of the region, as well as in the Izyum direction. In the liberated settlements, a large number of destroyed facilities was recorded, as well as mining of residential buildings, educational institutions, roadsides and fields. In the temporarily occupied city of Izyum, the bodies of 44 dead civilians were removed from the rubble of a five-story building destroyed by the occupiers in the first decade of March.

**Chernihiv region**

In the evening of May 9, the Russian aircraft fired unguided missiles at the border area of the Chernihiv region, as the State Border Guard Service of Ukraine reported. In particular, the aggressors made several launches on the territory of Novhorod-Siverskyi and Koryukivka districts, the bursts of missiles caused a fire, which was promptly eliminated by border guards.

**Sumy region**

On the morning of May 9, the Russian troops continued shelling the Sumy region's border areas with multiple rocket launch systems, as the State Border Guard Service of Ukraine reported. About 20 rockets fired from the territory of Russia exploded between two villages of the Khotin' community. At about 22:00 on the same day, the Russians fired on the territories of the
Nova Sloboda and Vorozhba communities, no one was injured, information about the destruction was being clarified.

**Odesa region**

During the day, the Russian troops launched massive missile strikes on the city of Odesa, firing 7 missiles from both the Black Sea vessels and the annexed Crimea, as the Operational Command "South" reported. The President of the European Council Charles Michel and the Prime Minister of Ukraine Denys Shmyhal were in the city during the attack. As a result of the enemy strikes, a fire broke out in the shopping and entertainment center and warehouses, 1 person was killed and 5 were injured.

**Mykolaiv region**

As a result of shelling by the Russian occupation forces on May 9, 3 fires broke out in the region, including garages and farm buildings, an elevator storage facility in the villages of Shevchenkove and Pervomaiske, with 2 civilians killed and 1 injured, as the State Emergency Service of Ukraine reported. According to the Mykolaiv Regional Military Administration, as of May 10, since the beginning of the Russian invasion, 3,206 residential facilities were partially or completely damaged in the region, in particular 2,264 facilities of housing stock, 266 electricity, 132 gas, 53 heat and 10 water supply facilities.

**Kherson region**

In the occupied Kherson region, the situation remained difficult: the region was running out of resources, business had stopped in some places, the enemy was blocking "green corridors" and evacuation, and was detaining civilians. Despite the lack of official "green corridors" for more than 2 months, about 45% of inhabitants left the occupied city of Kherson, and 20% left the region, reported the Kherson Regional Military Administration Head Hennadii Lahuta. The occupiers were demanding lists of vacant apartments from the heads of condominiums in some districts of Kherson to house Russian servicemen and officers of special services.

The Ministry of Defense of Ukraine announced that the Russian occupiers had collected additional artillery units to the north of the Crimean peninsula for future battles for the Kherson region.

**Zaporizhzhia region**

According to the Zaporizhzhia Regional Military Administration, as of May 10, 819 households in the region were completely destroyed or partially damaged. As a result of the shelling in the city of Hulyaipole, residential and commercial premises were on fire, a cabinet gas control point was disconnected, and 320 consumers were left without gas supply. In the city of Orikhiv, a low-pressure inlet gas pipeline was damaged, and residential buildings caught fire. In addition, the 35 kV power transmission line was damaged, leaving 630 consumers of Pryazovskyi district branche and 410 consumers of Melitopol district branche without electricity supply.

In the city of Melitopol, soldiers of the occupying army under the guise of searching for guerrillas and saboteurs broke into private garages, conducted searches and stole cars. In addition, the invaders occupied the apartments of citizens who left for the territory controlled by Ukraine.

**Dniproptovsk region**

On the morning of May 10, the Russian military once again fired artillery at the Zelenodolsk community and damaged homes, with no casualties,
Nuclear and Radiation Safety:

As of 08:00 on May 10, all operating NPPs of Ukraine continued to operate normally; radiation, fire and environmental conditions at station sites and adjacent areas were within current standards.

**Chornobyl NPP Exclusion Zone**

SSE "Chornobyl NPP" called a fake the information published on the Telegram channel of Energoatom on the flask with radioactive substance discovered which was stolen during the occupation of the Chornobyl site. It was reported that no nuclear or radioactive substances were stolen during the occupation of the industrial site. Chornobyl personnel maintained full control over nuclear and radioactive materials at the facility.

Data from the Chornobyl NPP monitoring system is regularly transmitted to the IAEA automatically. Meanwhile, demining work was still underway in the Exclusion Zone.

**Zaporizhzhia NPP**

For the 68th day in a row, the Zaporizhzhia NPP and the satellite city of Energodar have been under the control of Russian terrorists, who are constantly exerting physical, psychological and informational pressure on the station's employees and residents. The ZNPP power units are serviced by Ukrainian personnel with proper rotation, but the nuclear and radiation safety of the plant is under constant threat.

Representatives of Rosatom continue to be at the ZNPP site. They are not directly involved in the operations, but require technical and regulatory documentation about the station.

As of May 10, the radiation background on the territory of the ZNPP industrial site and the sanitary protection zone of the station (8-12 μR/h) remains within the standards, the gamma background in the Zaporizhzhia region is also stable at 7-13 μR/h.

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*

For 8 weeks, Ukraine’s power system has been stably operating in trial synchronous mode with the Continental Europe network (ENTSO-E). Commercial exports of electricity to Poland via the Dobrotvirskaya TPP - Zamosc transmission line remained at the stable schedule (210 MW) during the day.

Ukrenergo continued to rebuild damaged energy infrastructure. In particular, an inspection of two 330 kV lines was completed in the north-eastern region of Ukraine; the restoration works have started. They include eliminating cable breaks, replacement of lightning protection cables and insulators, and installation of struts. In the northern part of Ukraine, repairs were underway at five 330-750 kV substations, and equipment replacement in open switchyards (switches, measuring transformers, etc.) continued.

*Electricity market performance*

**Day-ahead market (DAM):** As of May 10, the DAM weighted average settlement price continued to increase slightly to 2,252.71 UAH/MWh (+2.6% vs the previous trading day). At the same time, significant decrease of exchange prices in the Eastern European markets led to reduction of the gap with Ukraine. Prices in the markets of Romania, Slovakia and Hungary were app. 2.7-2.9 times higher than the Base DAM price index of Ukraine, while the price spread with the Polish market is still lower at 1.8 times.

After stabilization for the last two days, the total volume of trading on DAM started to increase slightly and amounted to 19,540.9 MWh (+8.9% vs the previous day). At the same time, the clear trend of supply reduction, which continued for more than 2 weeks, for the first time was replaced by a slight increase in the volume of sale bids (81,677.4 MWh, +2.4% vs the previous day). At the same time, market surplus - the gap with the volume of purchase bids - slightly decreased to 4.2 times. The structure of electricity purchase on DAM has not changed: 83.2% belonged to suppliers, 16.6% to system operators, 0.2% to traders and producers.

**Intraday market (IDM):** On May 9, the weighted average price of electricity on IDM continued to increase slightly and amounted to 2,849.09 UAH/MWh (+3.4% vs the previous day). At the same time, after dropping to the lowest level in IDM history, the total volume of trading rapidly recovered and amounted to 148.9 MWh (+325.4% vs the previous day). At the same time, a relatively small reduction in supply - up to 37,964.8 MWh (-2.6%) led to a sharp decline in market surplus (gap with the volume of purchase bids) from 1114 to 253 times. However, it remained at an abnormally high level. The structure of purchase on IDM has not significantly changed: 86.5% was occupied by suppliers, 13.5% by network operators.

**Disruption and resumption of supply**

According to the Cabinet of Ministers, as of 20:00 on May 9, 811 settlements were disconnected from electricity, a total of almost 723,300 consumers. During the day, electricity supply was resumed to app. 33,000 consumers.

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

- in the Donetsk region, according to DTEK, 269 settlements remained without electricity (according to the Cabinet of Ministers, 319,900 consumers); supplies to 7,200 consumers in 14 settlements were resumed during day;
- 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, 171,000 consumers were still with no electricity supply;
• in the Kyiv region, according to DTEK, supply to 2,163 consumers was resumed during the day; 7,100 consumers in 12 settlements remained without electricity supply;
• in the Zaporizhzhia region, as of 07:00 on May 10, 23,007 consumers in 80 settlements were left without electricity supply; supplies to more than 1,000 consumers in 6 settlements were resumed during day;
• in the Odessa region, according to the Cabinet of Ministers, supply to 13,800 consumers was resumed during the day;
• in the Kherson region, according to the Cabinet of Ministers, supply to 800 consumers was resumed during the day;
• in the Mykolaiv region, according to the Cabinet of Ministers, supply to 400 consumers was resumed during the day;
• in the Dnipropetrovsk region, according to DTEK, supply almost to 2,000 consumers was resumed on May 2-8;
• there was no up-to-date information on power supply in the Sumy and Chernihiv regions at the time of the review preparation.

Gas Sector:

As of May 8, the transit of Russian gas through the territory of Ukraine increased by 6.7 mcm as compared to the previous day and amounted to 95.7 mcm. These volumes account for less than the capacity contracted by Gazprom (109 mcm per day). Physical imports of gas from the EU were reported from the Hermanowice interconnection point (virtual interconnection point "Ukraine-Poland") at 0.22 mcm.

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

Source: GTSOU
Disruption and resumption of supply

The Donetsk, Luhansk, Zaporizhzhia, Kharkiv, Kyiv, Kherson, and Mykolaiv regions had the most challenging situation in gas supply. According to the Cabinet of Ministers, as of 20:00 on May 9, gas supply was restored to 1,500 consumers; over 215,600 consumers were left with no gas supply.

In the Kyiv region, the local DSO reported restoring gas distribution service in 119 settlements (118 completely and 1 partially) to 136,556 consumer facilities. In the city of Irpin, gas supply was restored by 69%. Restoration works completed in the village of Moshchun. At the same time, 15 consumer facilities in the village of Pocheppyn (Bucha district), where demining work continued, remained without gas supply.

In the Donetsk region, the local DSO reported the resumption of gas supply to 935 apartments in Kramatorsk.

The Mykolaiv Regional Military Administration reported that, as of May 10, the situation remained unchanged: the number of damaged infrastructure facilities amounted to 132, and 4,202 consumers remained without gas supply. Restoration works were underway.

According to the Kharkiv Regional Military Administration, gas distribution was restored in the village of Mala Rohan: 80 damages were repaired, and 400 households received access to gas supply. In 3 settlements of the Derhachi community, gas supply was restored; the necessary measures were taken to avoid disconnections in the city of Bohodukhiv. Kharkivmiskgaz continued repair works in the regional center; gas supply was restored to more than 6,000 households in the Moskovskyi and Nemyshlianskyi districts. In the Kyivskyi district of Kharkiv, emergency crews replaced an inlet valve damaged by enemy shelling on a gas pipeline. As a result, residents of a multi-apartment building remained with an uninterrupted gas supply.

In the Kherson region, as of May 9, the Velyka Oleksandrivka, Vysokopillia, Mylove, Novovorontsovka, Nova Oleksandrivka, Novoraysk, and Tyagynka communities remained without gas supply. The Hola Prystan, Velyka Oleksandrivka and Stanislav communities partially remained without gas supply.

The Zaporizhzhia Regional Military Administration reported that, as of May 10, 69,038 consumers in 87 settlements of the region remained without gas supply. Last night, in the city of Orikhiv, a low-pressure inlet gas pipeline was damaged by shelling. In addition, a cabinet-type gas control point was disconnected due to intense fighting in the city of Huliaipole. As a result, 320 consumers were left without gas supply. At the same time, in Huliaipole, the damage to low-pressure distribution gas pipelines, received earlier that day by shelling, was eliminated.

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

Countermeasures of Ukrainian Companies and Public Authorities

Ukraine is waiting for the adoption of the next package of sanctions against Russia, the President Volodymyr Zelenskyi stated in his conversation with the President of the European Council Charles Michel. In a video meeting with the European Commission President Ursula von der Leyen, the President informed that Ukraine had completed the second part of the questionnaire to obtain the EU candidate status. Zelenskyi thanked for the clear signals of support and the efforts needed to agree on a new sanctions package against Russia. In June, the European Commission is expected to provide its opinion on granting Ukraine the candidate status, and it will be considered by the European Council.
The International Working Group on Russian Sanctions (‘Yermak-McFaul Group’) presented the Roadmap for Energy Sanctions. The document consists of sanctions strategies for oil and gas, as well as strategies to mitigate the impact of sanctions.

In the context of oil embargo, the document predicts two scenarios: if the Russian market smoothly adapts to the EU ban, it suggests a further rapid transition to a full embargo; in case of a shortage of supply, rising prices and supply disruptions, the authors propose the introduction of a regulated import tax for Russian and/or Belarusian traders, which will eventually be spend on Ukraine’s recovery.

A number of steps are proposed in the gas sector, including:

- requiring all Russian gas sales to the EU to arrive through the Ukrainian gas system;
- imposing a levy on Gazprom’s sales in the EU and keeping the balance of payments at escrow accounts;
- suspending the EU gas purchases for a short period, e.g. in June, or stopping the purchase of Russian gas by the least dependent countries.

The Prime Minister Denys Shmyhal stated that the process of Ukraine’s reconstruction can be seen in three stages. The first one is the operational recovery during hostilities (repair of buildings, restoration of critical infrastructure, temporary repair of roads, rail tracks). After the end of hostilities, the second stage is expected - the reconstruction of cities and towns on a regional basis. The third stage provides for structural changes. According to Shmyhal, every city should have a waste processing plant, well-restored networks, drinking water and drainage of high quality, as well as treatment facilities. The government will be interested in a "green" economy, and less emissions from industrial enterprises.

The First Deputy Prime Minister - the Minister of Economy Yulia Svyrydenko stated that Ukraine plans to triple fuel purchases abroad via Polish transit. At the Polish-Ukrainian energy forum in Warsaw, a potential volume of transit at 200,000 tons per month by combined modes of transport was discussed. According to Svyrydenko, Ukraine has reached an understanding on how to obtain additional volumes from Polish traders: to increase transshipment, PERN SA is ready to provide additional capacity, and the schedules of Ukrzaliznytsia and PKP have been synchronized. In addition to the Polish resources, Ukraine plans to import fuel from the United States, the Amsterdam-Rotterdam-Antwerp region (ARA), German, Scandinavian and Baltic refineries.

The next meeting of the National Energy and Utilities Regulatory Commission is scheduled for May 10. In particular, draft decisions will be considered on:

- procedures for identifying objects of property rights of the Russian Federation and its residents, which are subject to forced removal for reasons of public necessity;
- revocation / suspension of licenses for a number of companies controlled by residents of states that carry out armed aggression against Ukraine;
- taking into account the projected change in the industrial prices index and the consumer price index when determining the planned costs (including depreciation) in the tariffs for centralized water supply / sewerage;
- the adoption of a number of restrictions on gas DSOs due to the delay in the control readings of household consumers’ meters;
- postponement of fines for a number of licensees in the field of electricity production and distribution until the end of martial law;
- standardization of investigations by the Regulator in electronic form with the use of a qualified electronic signature.
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

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