



# Russian War Against Ukraine: Energy Dimension

DiXi Group alert

(status as of 12:00, July 11)

#StopRussianAggression

#StandWithUkraine

## Summary

- The occupiers organized **another provocation at the Zaporizhzhia NPP**, having forced to allow a well-known Russian propagandist blogger with a representative of Rosatom to the block control panel of one of the power units and to other premises with limited access. Accompanied by armed soldiers, they conducted filming and forced the personnel to participate in propaganda "interviews".
- About **589,000 consumers** were disconnected from electricity supply due to damage caused by hostilities. App. **181,300 consumers** remained without gas supply. The sharp deterioration of the situation is connected with the damage of main gas pipelines in the Zaporizhzhia region, with 226,676 consumers in 267 settlements with no gas supply (as of July 11).
- According to Minister of Energy Herman Halushchenko, Ukraine is technically capable of **exporting up to 1.7 GW to the EU countries**, in future it is planned to increase the cross-border capacity to 6 GW.
- In a joint statement, the Ministry of Foreign Affairs and the Ministry of Energy expressed deep disappointment in regard to the **decision of the Canadian government to issue a permit** to return Germany the repaired turbines for Nord Stream pipeline. Such an agreement is a dangerous precedent against the principle of the rule of law, which would strengthen Moscow's sense of impunity. The ministries explained that Russia has the ability to continue supplying gas to Germany, also through the Ukrainian gas system, as currently Gazprom uses less than 40% of the booked capacity.
- The Verkhovna Rada adopted several laws - in particular, on **thermal modernization of buildings** (provides for development of a strategy, creation of a database of performance characteristics of buildings, reduction in the number of procedures, using the Energy

Efficiency Fund for reconstruction), on improving the permitting system for emissions and air pollution control, on increasing payments of benefits and housing subsidies by 3.3 billion UAH, and on postponing the conversion of metering and settlements for gas to energy units.

- The Security Service of Ukraine reported the **seizure of corporate rights** and real estate of 11 enterprises with Rosneft, Rosatom, and Gazprom as final beneficiaries.

## Attacks

Fighting near the **Vuhlehirsk TPP** continues, as the General Staff of the Armed Forces of Ukraine reported. On [July 9](#), the Russian military tried to take control over the territory of the facility, but did not succeed. On [July 10 and 11](#), the enemy launched rocket and air strikes on the TPP territory.

## Nuclear and Radiation Safety

### Zaporizhzhia NPP

According to Energoatom, on July 10, the occupiers organized another [provocation](#) at the ZNPP with the participation of the Russian mass media. The Russian military forced the management of the station to allow a well-known Russian propagandist blogger with a representative of Rosatom, accompanied by armed soldiers, to the block control panel of one of the power units and to other premises with limited access, where they conducted filming and forced the Ukrainian personnel to participate in propaganda "interviews". The Ukrainian authorities plan to send a corresponding note about the criminal actions of the occupiers at the ZNPP to the international nuclear safety authorities.

## Electricity Sector:

### *Power system operation*

**Interaction with ENTSO-E:** As of July 11, Ukraine increased commercial exports of electricity to [Poland](#) via the Dobrotvirsk TPP - Zamosc transmission line from 200 MW to 205 MW on a flat schedule; exports to [Romania](#) continued at 50 MW on a flat schedule. Also, [according](#) to Ukrenergo, exports to Slovakia continued at the level of 50 MW (flat schedule). [Exports](#) to Moldova amounted to 160 MW. Technical [cross-border flows](#) continued between the energy systems of Ukraine and Eastern European countries (Romania, Hungary, Poland and Moldova).

[According](#) to Minister of Energy Herman Halushchenko, Ukraine is technically capable of exporting up to 1,700 MW to the EU countries. At the same time, in future it is planned to increase the cross-border capacity to 6,000 MW.

### **Daily capacity allocation auctions ([for July 11](#)):**

*Ukraine->Poland:* DTEK Zakhidenergo purchased all available 65 MW on a flat schedule; marginal price - "zero".

*Ukraine->Moldova:* out of 600 MW available capacity, 500 MW was distributed among two companies: Energoatom - 400 MW (except 00:00-01:00, where it booked 200 MW) and Ukrhydroenergo - 100 MW (flat schedule); marginal price - "zero".

*Ukraine->Romania:* 50 MW available capacity was distributed among 6 companies, 11 companies competed at the auction. At the same time, the concentration of distributed capacity remains relatively high, with the largest total share (42.8%) booked by Energoatom, 39.5% by DTEK Zakhidenergo, and the remaining 17.7% distributed among 4 companies. The marginal price for

different hours of the day continued to grow and fluctuated in a range from 5,391 UAH/MWh (for 02:00-03:00) to 10,743.6 UAH/MWh (for 16:00-17:00), which allowed Ukrenergo to receive about 10.2 million UAH in revenues from the auction.

*Ukraine->Slovakia:* 50 MW available capacity was distributed among 7 companies, 8 companies competed at the auction. The results were characterized by high concentration, since the largest total share of the cross-border capacity was purchased by Energoatom (38.9 %) and DTEK Zakhidenergo (38.3%), and the remaining 22.8% were distributed among 6 companies. The marginal price for different hours of the day ranged from 5,791.5 UAH/MWh (for 03:00-04:00) to 10,151 UAH/MWh (for 15:00-17:00), which allowed Ukrenergo to receive over 10.3 million UAH in revenue from the auction.

**Infrastructure restoration:** According to Ukrenergo, in the northern region, the repair of cables at a 330 kV substation [continued](#); the 110 kV circuit breaker was [repaired](#), two more circuit breakers, cable equipment were being fixed, and adjustment of 330 kV circuit breakers continued. In the eastern region, emergency and recovery works on a 750 kV overhead line have been completed. Repairs of the transformer at a 330 kV substation in the central region was [planned](#).

## **Electricity market performance**

**Bilateral contracts market (BCM):** On July 4-8, [10 auctions](#) for the purchase/sale of electricity were held at the Ukrainian Energy Exchange (UEEX): 3 in commercial sections, 7 in specialized ones. The bidders included Energoatom-Trading, Guaranteed Buyer, Nyzhniodnistrovska HPP, distribution system operators (DSOs) and universal service suppliers (USSs). In total, 259.13 GWh were purchased at UEEX with supply periods in July and August.

Energoatom-Trading sold 93.58 GWh of base load at prices in the range 2,050-2,051.96 UAH/MWh with delivery in July. Guaranteed Buyer sold 25.36 GWh of daytime block positions at a price of 2,380 UAH/MWh and 1.3 GWh of block positions exclusively for 07:00 at a price of 1,240.35 UAH/MWh with delivery in July; 43.71 GWh of daytime block positions at a price of 2,380 UAH/MWh and 81.84 GWh of base load at a price of 2,087.41 UAH/MWh with delivery in August. In addition, auctions for the purchase of electricity from USSs and DSOs were successful.

**Day-ahead market (DAM):** As of July 11, the weighted average settlement price continued to [slowly increase](#) to 2,669.51 UAH/MWh (+4.7% vs the previous day). Due to changes in supply and demand, the Base and Peak price indices continued to [increase](#) to 2,590.28 UAH/MWh (+5.4%) and 2,833.88 UAH/MWh (+1.6%), respectively, and the Offpeak index decreased to 2,346.69 UAH/MWh (+10.3%). To note, in some hours of the day (18:00-23:00), the actual price was close to the upper price cap of 4,000 UAH/MWh, set by the NEURC. At the same time, exchange prices in the Eastern European markets have shown a synchronous increase. The Base DAM indices of Romania, Slovakia and Hungary were 4.2-4.3 times [higher](#) than the Base DAM index of Ukraine; while the price spread to Poland was 2.9 times.

The total volume of trading on DAM [increased](#) to 23,224.6 MWh (+30.2% vs the previous day), and the supply increased to 71,824.3 MWh (+1.4%). In general, these factors caused a decrease in the market surplus: the gap between the volume of sale and purchase bids was 3 times. At the same time, one certain hour of the day (in particular, 23:00-24:00) was characterized by a deficit. In the [structure of purchase](#), 77.6% was occupied by suppliers, 21.3% by system operators, 1% by traders, and 0.1% by producers.

**Intraday market (IDM):** On July 10, the weighted average price [decreased](#) slowly to 2,381.57 UAH/MWh (-7.2% vs the previous day). At the same time, the total volume of trading increased significantly to 1,472 MWh (+167.3% vs the previous day), and the supply increased to 30,097.6 MWh (+1.3%). Together, these factors resulted in the decreased market surplus: the gap with the volume of purchase bids dropped from 54 to 20.5 times. In the [structure of purchase](#), the dominant part (98.1%) was occupied by suppliers, 1.9% by system operators.

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

[Accordinging](#) to the Ministry of Energy, as of July 10, due to damage caused by hostilities, a total of app. 589,000 consumers in 759 settlements were disconnected from electricity supply. During the day, electricity supply was resumed to app. 12,850 consumers.

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

- in the **Donetsk region**, according to the local DSO, despite the difficult situation with hostilities, during the week specialists restored electricity supply to over 96,000 households. [Accordinging](#) to the Ministry of Energy, app. 349,500 consumers were still without electricity supply;
- in the **Luhansk region**, [according](#) to the Ministry of Energy, more than 128,200 consumers were left without electricity supply. [Accordinging](#) to the Regional Military Administration, the occupiers were trying to reconnect electricity supply to the city of Lysychansk from Luhansk;
- in the **Kharkiv region**, [according](#) to the Ministry of Energy, app. 29,500 consumers remained disconnected. [Accordinging](#) to the information of the local DSO, power supply to a school for children with visual impairments, which was damaged by a rocket attack on the night of July 7, was restored;
- in the **Zaporizhzhia region**, [according](#) to the local DSO, as of 07:00 on July 11, 21,448 consumers in 77 settlements remained without electricity. During the day, DSO specialists restored supplies to 1,131 consumers (1,064 in the Polohy and 67 in the Vasylivka districts);
- in the **Mykolaiv region**, [according](#) to the Regional Military Administration, as of July 11, 485 power supply facilities were partially or completely damaged. 89 settlements (including 2 partially) of the Bashtanka and Mykolaiv districts were disconnected ([according](#) to the Ministry of Energy - a total of 30,200 consumers). [Accordinging](#) to the Ministry of Energy, electricity supply to 500 consumers was restored during the day;
- in the **Kherson region**, [according](#) to the Regional Military Administration, as of 12:00 on July 10, among the communities with connection established, the Velyka Oleksandrivka, Vysokopillia and Kochubeivka communities (70 settlements in total) were completely without power supply, and the Novovorontsovka, Novooleksandrivka, Muzykivka and Bilozerka communities (at least 13 settlements) - partially. Electricity supply to the village of Trokhymivka (Ivanivka community) has been restored;
- in the **Dnipropetrovsk region**, [according](#) to the local DSO, during the day specialists restored electricity supply to 4,584 consumers in 30 settlements disconnected due to bad weather. As of July 11, more than 8,000 consumers in 41 settlements remained offline; in addition, the operation of 13 power lines and 245 transformer substations has been disrupted;
- in the **Chernihiv region**, [according](#) to the Regional Military Administration, as of 6:00 on July 11, due to weather conditions and other technical reasons, electricity supply service to 14 settlements (4,065 consumers) was not provided. In addition, 4 power lines with a voltage of 10 kV were completely damaged and 9 power lines were partially damaged;
- in the **Sumy region**, [according](#) to the Ministry of Energy, electricity supply to 350 consumers was restored during the day;
- in the **Kyiv region**, [according](#) to the local DSO, on July 9 due to difficult weather conditions, 23 settlements were completely left without electricity and 27 partially (the town of Baryshivka, the cities of Berezan, Yahotyn and Pereiaslav-Khmelnytskyi were the most affected), 22 power lines were disrupted; also, DSO specialists plan to restore the normal power supply scheme in the areas affected by hostilities. According to preliminary estimates, the restoration of grids to the quality and reliability of pre-war times would require about 1 billion UAH of investments, with 30% already implemented. Restoration of backup power sources requires investments of another 600-700 million UAH in 2022-2023;

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

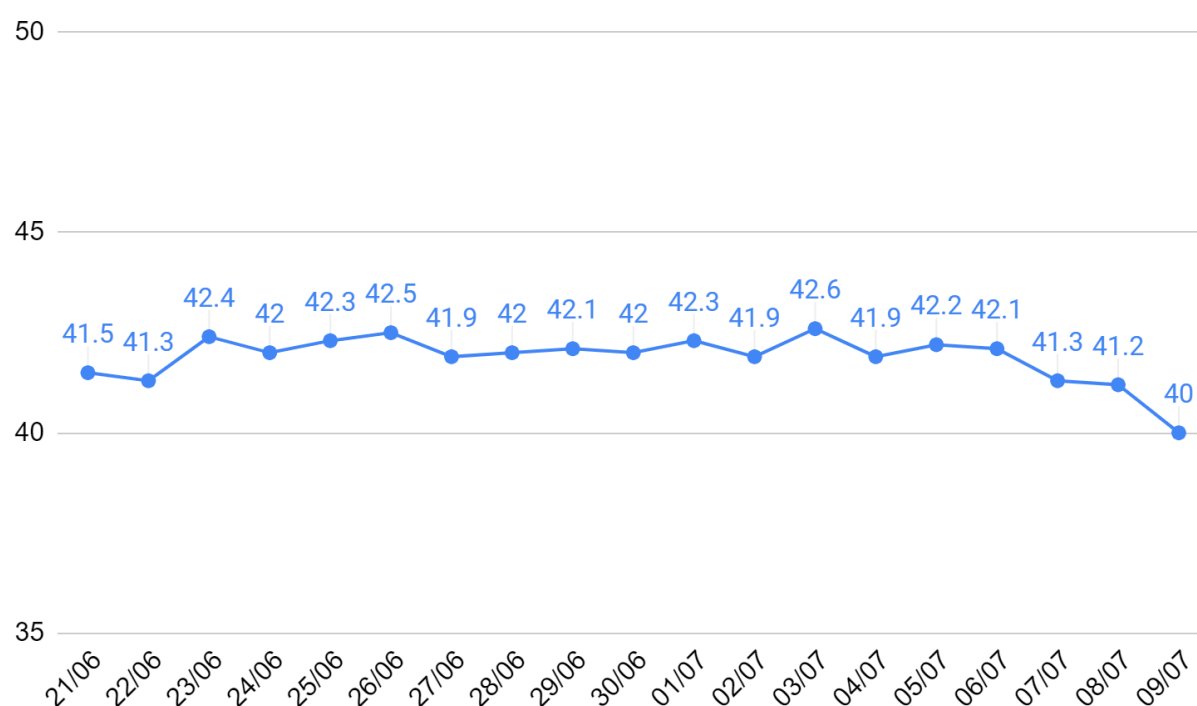
## Gas Sector:

### **Gas system performance**

On July 7-9, the gas transit through the territory of Ukraine fluctuated between 40-41.3 mcm/day, which is 0.8-2.1 mcm/day more as compared to July 6. These volumes were only 37-38% of the capacity contracted by Gazprom (109 mcm per day). There were no transit flows via the Sokhranivka interconnection point.

In this period, physical imports of gas from the EU were reported from the Hermanowice interconnection point (virtual interconnection point "Ukraine-Poland") at 1.2-1.5 mcm/day. Also, on July 7-9, physical imports at 0.5 mcm/day were reported through the Budince interconnection point (from Slovakia). At the same time, on Ukraine's gas system exit via the Berehove interconnection point (virtual interconnection point "Bereg") 0.8 mcm was shipped on July 7 and 0.6 mcm on July 8. On July 9 there were no transit flows via this interconnection point.

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



Source: [GTSOU](#)

### **Functioning of natural gas market**

GSC Naftogaz of Ukraine LLC [stated](#) that three DSOs (which had previously reported Naftogaz's refusal to supply gas for technological needs) did not meet the conditions of the new government regulation on the imposition of public service obligations (PSO). It is about the requirement to conclude agreements on the contractual debiting of funds from an operator's accounts to collect debts to Naftogaz. According to Naftogaz, the other 32 DSOs fulfilled all the requirements for obtaining gas at a fixed price of 7.42 UAH/cm.

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

The **Donetsk, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, and Kharkiv regions** had the most challenging situation in gas supply. [According](#) to the Cabinet of Ministers, the situation has deteriorated sharply: as of July 10, app. 245,800 consumers were left with no gas supply (+65,400 as compared to July 7). It is mainly a result of the damage to main gas pipelines in the Zaporizhzhia and Donetsk regions.

In the **Donetsk region**, the situation didn't change: almost the whole region remained without gas supply due to the main gas pipeline damage. As of July 2, only 1,900 consumers in 2 settlements [had](#) supply.

In the **Luhansk region**, there were no changes in gas supply: it was completely suspended due to hostilities which were deeply destroying the region's critical infrastructure. [According](#) to the Luhansk Regional Military Administration Head Serhii Haidai, gas supply restoration by the occupiers in Lysychansk is impossible under current conditions. Restoration of infrastructure in the region will require hundreds of billions of UAH.

In the **Kharkiv region**, the local DSO [restored](#) supply to 5,000 consumers of the Saltivka-2 district of Kharkiv. In the village of Andriivka (Izyum district), gas specialists repaired the damage to an underground distribution pipeline.

In the **Kherson region**, [as of 12:00 on July 10](#), 2 communities (Vysokopillia and Velyka Oleksandrivka) have completely remained without gas supply. In the Velyka Oleksandrivka community, a gas distribution point was damaged by Russian shelling. Three communities (Novovorontsovka, Stanislav and Bilozerka) remained without gas supply partially. However, there was no mobile connection in some of these communities, so there was no up-to-date information on gas supply. Problems of LPG supply were reported in the Kochubeivka community.

In the **Zaporizhzhia region**, the situation has deteriorated: according to the Regional Military Administration, as of July 11, 226,676 consumers (+124,908) in 267 settlements (+130) [remained](#) without gas supply. Due to the damage to main gas pipelines on the territory of the Zaporizhzhia and Donetsk regions, 260 settlements were completely and 7 partially disconnected from gas supply (in particular, the cities of Berdyansk, Prymorsk and Melitopol, 4 town of the Vasylivka district and 5 towns of the Polohy district).

In the **Mykolaiv region**, as of the morning on July 11, 691 gas infrastructure facilities were [damaged](#) for the whole period of war (+1 as compared to July 8). As a result, 7,230 consumers (+2) were left without gas supply.

[According](#) to the **Chernihiv** Regional Military Administration, as of the morning on July 11, about 700 consumers in 22 settlements have not received gas supply service.

## Countermeasures of Ukrainian Companies and Public Authorities

The Ministry of Foreign Affairs of Ukraine and the Ministry of Energy of Ukraine expressed [deep disappointment](#) in regard to the decision of the Canadian government to issue a permit to return Germany the turbines repaired by Siemens Canada for Nord Stream pipeline. According to the ministries, the Canadian-German agreement is a dangerous precedent against the principle of the rule of law with only one consequence - strengthening Moscow's sense of impunity.

The ministries explained that Russia has the ability to continue supplying gas to Germany in full capacity without that turbine which was the reason for bypassing sanctions. In particular, the Nord Stream compressor station Portovaya is equipped with several turbines, including backup ones, and only one turbine was under repair in Canada. According to Gazprom's decision, only three turbines are working now, the rest have been turned off without explanation, so the volume of transmission

has decreased from 167 to 67 mcm/day. In addition, Russia can transport gas to Europe through the Ukrainian gas system, as currently Gazprom uses less than 40% of the booked capacity. In addition, there is a gas transportation route through Poland, but Russia refused to use it by its own choice.

The parliament [adopted](#) in the second reading and in general the law (draft under registration No. 6485), which creates conditions for comprehensive thermal modernization of buildings in Ukraine. In particular, it provides for development of a thermal modernization strategy, creation of a national database of energy and operational performance characteristics of buildings, reduction in the number of procedures, creation of the possibility to carry out partial (not only comprehensive) thermal modernization with the support of the Energy Efficiency Fund; attraction of the Fund to the reconstruction of damaged and destroyed buildings.

Also, the Verkhovna Rada adopted the [law](#) (draft under registration No. 7523) on increasing state budget expenditures by 81 billion UAH at the expense of increased borrowing. As part of the budget review, payments of benefits and housing subsidies will be increased by 3.3 billion UAH, and 32.3 billion UAH will be additionally spent on targeted assistance to internally displaced persons.

In addition, the law (draft under registration No. 7305) on postponing the conversion of metering and settlements for gas to energy units was [adopted](#). The date of conversion has been moved to May 1 of the year following the date of termination or cancellation of the martial law. As stated in the explanatory note, it is impossible to implement full-fledged metering and settlements for gas in energy units due to the Russian military aggression.

The Verkhovna Rada also [adopted](#) the law (draft under registration No. 5339), which changes the algorithm for issuing permits for emissions and air pollution control. It is planned to change the permitting procedure to an online format by launching the module "e-Air" under the Unified National Online Platform "EcoSystem". The law also implies a provision on the need to create regional programs to improve the state of the environment, and introduces mandatory automated systems for controlling pollutant emissions (so-called "control at a pipe").

The Verkhovna Rada also [adopted](#) the law (draft under registration No. 7426), which expands the authority of local self-government bodies. It is about the possibility during the martial law to make inter-budgetary transfers or to direct funds from the special fund to the general fund in order to ensure top-priority expenses: support of local infrastructure, provision of territorial defense needs, implementation of social protection measures.

In addition, the Verkhovna Rada approved in the first reading the draft law [No. 6003](#), which sets a mechanism for verifying information about ultimate beneficial owners or corporate ownership structure. The check shall be performed in the event of discrepancies between the results of the primary financial monitoring and the single registry data; in case of violation, a fine of 3,720 UAH shall be paid.

The Security Service of Ukraine [reported](#) the seizure of corporate rights and real estate of 11 enterprises with the Russian state corporations Rosneft, Rosatom, and Gazprom as final beneficiaries. The SSU investigation revealed that some of the profits of these enterprises were spent on the preparation and conduct of an aggressive war of Russia against Ukraine, as well as on financing of the activities of sabotage and intelligence groups. The estimated total cost of the corporate rights seized by the court exceeds 2.1 billion UAH, and 46 real estate objects were also seized.

The Minister of Energy Herman Halushchenko [confirmed](#) that the government is studying the possibility of decreasing the standard of minimum temperature in residential premises in winter. According to him, the Cabinet of Ministers is analyzing the experience of European countries, but there is no specific decision yet. Earlier, media reported that the government discussed plans to lower the minimum temperature to +16°C.

**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.*

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