

Ukraine: new problems with the electricity system

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In the evening of 27 June, due to a shortage of capacity to cover internal consumption, Ukraine requested 150 MW of power from the electricity systems of Poland and Romania. This was due to the emergency disconnection of one of the nuclear power plant units (although it was reconnected to the grid the following morning). This is another example of the problems the Ukrainian electricity system has been suffering in recent weeks. On 21 June, there was a transmission line failure in Vinnytsia oblast, which led to power cuts for 268,000 consumers in Kyiv and another 116,000 in Kyiv oblast, as well as a temporary interruption of the connection to Moldova. A day later, a failure at a distribution station in the Lviv oblast resulted in 41,000 consumers being cut off from power, while supplies were also interrupted in the neighbouring Volyn and Rivne oblasts. In addition, as a result of shelling and kamikaze drone attacks, damage is continuously being caused to energy infrastructure in the regions close to the front line, particularly in Kharkiv, Donetsk and Kherson oblasts.

Commentary

- This was not the first occasion in recent times when Ukraine has been forced to ask its neighbours for emergency assistance: similar situations arose on 12 June (when they requested transmission from Poland and Romania) and 28 May (from Romania), among others. Although since March there have been no reports of Russian missile strikes on the energy infrastructure on a scale as massive as in the period after October last year, the damage caused during that time, together with a rise in electricity consumption due to the warming weather, is increasingly leading to grid failures. It should be emphasised that the current situation is not as difficult as it was during the autumn and winter of last year, when there were power cuts lasting several hours throughout the country.
- The most likely main cause of the transmission problems is the need for scheduled repairs to the nuclear power plant units, which account for more than half of Ukraine's electricity production. For most of the autumn and winter they operated without interruption, but in April Enerhoatom (the operator of Ukraine's nuclear power plants) reported that it would be necessary to overhaul half of the nine units under Ukrainian control. Although no timetable for the work was issued (presumably for security reasons), a standard examination takes around 50–60 days per unit. On 16 June, the overhaul of one unit (with a capacity of 1 GW) was completed, but it was not stated which power plant was involved. In addition, repairs to conventional power plants which have been damaged are ongoing, which further hinders the stable operation of the system.

- Although Ukraine resumed electricity exports in April (mainly to Moldova and Poland, and Slovakia to a lesser extent), these involved only small volumes (up to 200 MW) and were carried out at times when domestic demand was low (at night and around midday). After 11 June, however, Kyiv stopped selling electricity abroad even at these times (which indirectly indicated how difficult the situation now was), while importing electricity from its neighbours during peak consumption hours (mainly from Slovakia). Energy exports may resume once most of the repair work is completed, but even so these supplies will be neither large nor stable.