

## Ukraine on the verge of an energy crisis

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The Ukrainian electricity production sector is in an almost critical situation. On 7 November, stocks of coal reserves amounted to 584,000 tonnes, which is the lowest amount in history to be available at the start of the heating season. This state of affairs was significantly exacerbated by Russia's suspension of sales of anthracite coal to Ukraine as of 1 November, and its blockade of imports from Kazakhstan, which further complicates the situation. Due to the electricity deficit, on 2 November Kyiv applied to Minsk to receive emergency supplies of Belarusian electricity. These began on 8 November on commercial terms, but their long-term reliability is dubious. In addition, imports from Belarus may not meet Ukraine's demand, and it will then be necessary to purchase energy from Russia. At present, though, Moscow has refused to allow this: on 20 October the Russian Inter RAO company announced an electricity auction for customers in Ukraine, but the next day it cancelled the sale.

### Commentary

- Thermal energy is responsible for the generation of only about 30% of Ukraine's electricity, but it is of key importance for balancing the network during peak consumption periods. Coal stocks at power plants have been constantly decreasing since 20 September (by 10,000 tonnes per day on average). At the same period in 2020 they amounted to over 2.5 million tonnes, five times more than today's figure. In November, Ukraine should receive 200,000 tonnes of coal from South Africa and Poland and 225,000 tonnes from the USA; however, this will not be enough to see the country through the heating season, when energy consumption increases significantly. Moreover, the deficit of coal on global markets may make it difficult, or even impossible, to import additional quantities over the coming months. The lack of available coal meant that (as of 9 November) 22 units of power plants and combined heat & power plants were out of operation. It is hard to assess the situation at specific power plants, because in October the Energy Ministry stopped publishing individual reports on their stocks.
- The coal deficit has made it necessary to import electricity from Belarus. On 8 November, however, the local operator, the Belenergo network, sent a letter to Ukrainian traders informing them that it would not provide electricity despite having previously signed contracts to do so. Nevertheless, it remains unclear whether this applies to all entities or only to selected ones (for example, the nuclear power plant operator Enerhoatom has received some supplies). According to Ukrenerho (the Ukrainian network operator), transmission from Belarus continued on 9 November, but in the context of increasingly tense relations between Kyiv and Minsk, its future reliability may be in doubt. Moreover,

importing energy from Belarus alone may turn out to be insufficient, as the network capacity between the two countries is 900 MW. In February this year, when coal stocks at the end of the heating season were also at a minimum, Ukraine had to import electricity from Russia. In the light of the communiqué from Inter RAO at the end of October, a similar scenario seems impossible at present; this makes it more likely that temporary restrictions on electricity consumption will be introduced (initially by reducing supplies to industry).

- The crisis in the energy sector may delay the integration of the Ukrainian power system with the EU's ENTSO-E, which Ukrenerho had scheduled for the first quarter of 2023. Currently, most of Ukraine's territory is synchronised with the Belarusian and Russian grids. The exception is the so-called 'Burshtyn Island' connected with ENTSO-E. Work on synchronisation has been underway since 2015; tests in a state of isolation from the Belarusian and Russian systems, a key element of this process, are scheduled for 2022. These were originally scheduled to take place during the winter and summer, at peak times of grid load, but if Ukraine continues to depend on energy imports from Belarus and Russia, then they will most likely be postponed.
- Although statements by Russian government representatives regarding energy cooperation with Ukraine usually refer to the gas sector, it is highly likely that Russia's decisions to suspend its coal and electricity exports are politically motivated. This would fit with the Kremlin's strategy of using a wide range of political, military and economic instruments to destabilise the situation in Ukraine and put pressure on Kyiv, particularly to obtain concessions regarding the Donbas conflict. Moscow's decision may also be aimed at forcing the Ukrainian government to delay the national grid's desynchronisation with the interconnected power systems of Belarus and Russia.