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The Price of Security: Moldova's Electricity Market in 2025

The year 2025 proved to be a breakthrough year for Moldova in terms of energy security, yet it was also exceptionally challenging due to rising electricity prices. Following the suspension of natural gas deliveries to the MGRES power plant (located in Transnistria) via Ukrainian territory – a facility that for many years served as a pillar of the national power system – Moldova was forced to rely almost entirely on electricity imports from European Union markets, primarily Romania. This structural shift coincided with a period of elevated wholesale prices in Central Europe, which translated directly into a sharp increase in the cost of electricity procurement.

Power System. Moldova's power system is characterised by a low level of domestic electricity generation and a high dependence on external sources, making it one of the most vulnerable countries in Central Europe. Historically, a key role in its operation has been played by the MGRES power plant in Transnistria (["IEŚ Commentaries", No. 1124](#)), a gas-fired facility with a capacity of approximately 2.5 GW, which in 2024 covered as much as 68% of Moldova's electricity demand. Its importance stemmed not only from its production volume but also from its exceptionally low and stable price, administratively set at around 63 EUR/MWh, which for years artificially reduced the average cost of electricity across the entire system. The remaining demand was supplemented by imports, mainly from Romania and Ukraine, with deliveries serving primarily as balancing mechanisms during peak loads. After Moldova's synchronisation with the Continental European network system in 2022, the country was permanently disconnected from the Russian energy area. This shift increased energy security but also fully integrated Moldova into the European Union's market mechanisms. As a result, the previous model based on long-term, low-cost bilateral contracts was replaced with a price formation system driven by regional exchanges, which is highly sensitive to fluctuations in supply, demand, and market conditions. In 2025, following the suspension of natural gas supplies to MGRES, domestic electricity generation ceased almost entirely to have systemic significance, and Moldova became a near fully import-dependent electricity market, lacking any real instruments to stabilise prices and, therefore, compelled to accept conditions set by much larger participants in the regional market.

Energy Prices and Availability. In 2025, imports covered around 80% of Moldova's electricity demand, marking a qualitative shift in the functioning of the entire market. The country purchased a total of approximately 3.4 TWh of electricity, mainly from Romania and to a lesser extent from Ukraine, with Romania effectively becoming the dominant, partially monopolistic supplier. The scale of dependence was evident in physical cross-border flows – January 2025 recorded a peak transfer of 1.4 GW from Romania, corresponding to a significant share of Moldova's peak-hour demand. At the same time, net flows of roughly 2.8 TWh per year were recorded across the Romanian-Moldovan border, part of which represented transit to Ukraine, further complicating system balancing. This shift in supply directions led to a sharp increase in wholesale prices. The average electricity price in Moldova in 2025 reached 122.65 EUR /MWh, representing a year-on-year increase of about 25% and nearly doubling costs compared with deliveries from MGRES. Romania, as the main supplier, became one of the most expensive electricity markets in Europe – monthly contract prices reached 145–150 EUR /MWh, while the day-ahead segment exhibited significant volatility and episodes of extremely high pricing. The situation was further complicated by the structural weakness of the domestic market; the Moldovan power exchange OPEM, launched at the end of 2025 and offering day-ahead and intraday trading, was characterised by extremely low liquidity. On its opening day, only a symbolic 1 MWh transaction was recorded at approximately 153 EUR /MWh, while in the days that followed, reference prices exceeded 800 EUR /MWh despite the absence of any real trading volumes. This indicates that OPEM did not yet serve as an effective price-discovery mechanism, and actual market conditions were, in practice, being determined by prices on Romania's OPCOM exchange as well as cross-border

capacity constraints. As a result, in 2025, Moldova found itself in a situation where energy availability was formally ensured, but at the cost of strong exposure to some of the highest wholesale electricity prices in Europe.

Future of the System. A strategic direction for the development of Moldova's power system is the expansion of cross-border interconnections with Romania, which are intended to replace the lost role of MGRES as the main pillar of energy security. The key project within this is the 400 kV Vulcănești–Chișinău transmission line, whose commissioning at the turn of February and March 2026 is expected to significantly increase import capacity and improve system stability during periods of high demand. The new line will enable the transfer of electricity from the Romanian transmission system directly to central Moldova, reducing the risk of grid overloads and technical constraints that, in 2024, repeatedly forced purchases of electricity at emergency prices. In the medium term, additional interconnectors are planned as follows: Bălți–Suceava, scheduled for commissioning in 2027, and Strășeni–Gutânaș, planned for 2029. The latter project, co-financed by the United States with 130 million USD, is not only technically important but also geopolitically significant, as it aims to permanently integrate Moldova into the European energy architecture and limit the impact of political factors on energy availability. Altogether, the new interconnections are expected to enable Moldova to import volumes far exceeding its current demand, which in theory enhances supply security but in practice reinforces a structural dependence on external markets.

At the same time, Ukraine plays an important role in shaping the future system, as Moldova and Ukraine operate within a shared control area in the European synchronisation zone. The increase of the maximum export capacity to this zone to 2.45 GW by European operators improves system balancing capabilities during deficit periods, particularly in the winter season. However, it also strengthens price coupling with the EU market, as the actual level of imports depends not only on available transmission capacity but also on price differentials in Romania, Hungary, and Slovakia. Despite its own structural challenges and infrastructure damage, Ukraine was a net exporter of around 2.4 TWh of electricity to Romania in 2025, which indirectly benefited Moldova by increasing competition for the same regional energy volumes.

Conclusions

- In Moldova, replacing stable, long-term, but politically dependent electricity supplies from MGRES with power purchased on EU markets not only creates structural dependence on Romania but, above all, fully transfers European pricing mechanisms onto the domestic market. In practice, Moldova has become a *price taker*, with no real influence over wholesale electricity prices, which are shaped by supply–demand conditions across the wider region of Central and South-Eastern Europe.
- While the rapid expansion of transmission infrastructure will improve the technical security of supply and reduce the risk of outages, it does not address the fundamental issue of energy costs. New interconnectors with Romania and Ukraine will increase the availability of electricity, but at the same time will reinforce Moldova's dependence on some of the most expensive markets in Europe. This means that infrastructure investments primarily serve a stabilising rather than cost-reducing function – ensuring continuity of supply but not shielding consumers from both high and volatile wholesale prices.
- Without parallel development of domestic generation sources (which currently cover around 20% of national electricity demand), particularly renewable energy installations (solar PV, wind power, energy storage), Moldova will remain, in the long term, a peripheral participant in the regional energy market. The absence of a domestic production base means persistent exposure of the economy to inflationary pressure, rising industrial energy costs, and an increasing risk of energy poverty among households.