

USEA Reduces Investment Risk Through Strategic Grid Planning in Moldova

The United States Energy Association is reducing investment risk in Moldova by driving strategic grid planning that strengthens reliability and unlocks new opportunities for renewable integration. Through advanced system modeling and cross-border planning, USEA identified the Strășeni–Gutinaș 400 kV interconnection as the most viable path forward—boosting transfer capacity, enhancing regional power flows, and providing investors with greater confidence in Moldova’s energy future.



Since 2018, the United States Energy Association (USEA) has been a trusted partner in Moldova’s journey toward full integration with the European energy system. This collaboration helped Moldova and Ukraine achieve a historic milestone in 2022 when they successfully synchronized their power systems with the Continental European grid. As Moldova looks ahead to deeper regional cooperation and grid modernization, developing a third 400 kV interconnection with Romania has become a national and regional priority.

From 2023 to 2024, USEA collaborated with the Moldovan and Romanian power system operators to assess three strategic cross-border

transmission corridors connecting the Strășeni substation in Moldova with Romanian nodes in Iași, Roman Nord, and Gutinaș. Using advanced system modeling and long-term planning scenarios, the study identified the Strășeni–Gutinaș 400 kV line as the most technically feasible and economically sound option. This line could increase Moldova’s cross-border transfer capacity by up to 1,191 MW, which would support regional power flows, renewable integration, and enhanced system stability.

By selecting the Strășeni–Gutinaș 400 kV line, USEA’s study not only charts a path to strengthen Moldova’s internal grid but also positions the country as

a more reliable and competitive energy partner within the region. The additional cross-border transfer capacity of up to 1,191 MW will give power producers and investors a more secure and predictable means of exporting surplus electricity from Moldova to European markets. This capability is especially critical as Moldova expands its renewable energy portfolio, where flexible export options are essential for balancing variability and maximizing market value. Gutinaș’s strategic location – at the intersection of five major Romanian 400 kV transmission lines – further enhances this advantage by enabling more efficient regional power flows, improving system stability, and increasing long-term

operational predictability. Beyond national benefits, this interconnection will reinforce the resilience of the Continental European grid, generating lasting economic and energy security gains for Moldova and its neighbors.

This project highlights USEA’s unique ability to accelerate critical infrastructure projects that reduce uncertainty for new generation projects by enhancing regional energy flows. In Moldova and across Southeast Europe, USEA continues to pave the way for resilient, integrated, and forward-looking energy systems that align with European market and decarbonization goals.