

USEA Advances Moldova's Energy Security Through Strategic Grid Expansion

The United States Energy Association (USEA) is advancing Moldova's energy security by spearheading strategic grid expansion that strengthens reliability and deepens integration with the European power system. Through advanced planning and the proposed Străseni-Gutinas interconnection, USEA is boosting cross-border capacity, enabling renewable integration, and reducing Moldova's dependence on Russian energy—paving the way for a more resilient and sovereign energy future.

Since 2018, the United States Energy Association (USEA) has been a key partner in strengthening Moldova's energy security and integrating it with the European power system. A major breakthrough occurred in 2022 when Moldova and Ukraine successfully synchronized with the Continental European grid, reducing dependence on legacy systems and marking a new era of regional cooperation.

Building on this momentum, from 2023 to 2024, USEA collaborated with the Moldovan and Romanian transmission system operators to assess options for a third high-voltage interconnection between the two countries. The technical study evaluated three 400 kV transmission corridors linking Moldova's Strășeni



substation to Romanian nodes at Iași, Roman Nord, and Gutinaș. Using advanced system modeling and regional planning scenarios for 2030, the Strășeni—Gutinaș line was identified as the most viable option: technically sound, economically justified, and strategically significant.

The proposed interconnection would increase Moldova's crossborder transfer capacity by up to 1,191 MW. This would provide critical redundancy, improve system reliability, and enable greater integration of renewable energy. By connecting to Gutinas, a major hub within Romania's 400 kV grid, the project would strengthen Moldova's access to stable, diversified power flows from the European market.

This project is transformative for Moldova. It reduces its vulnerability to Russian fuel and electricity supply disruptions, enhances its ability to manage demand fluctuations, and improves energy security through deeper EU market integration. In an era of growing energy uncertainty, the project improves national resilience by diversifying import routes and fortifying grid infrastructure.

By supporting Moldova's transition to a more secure, reliable, and interconnected energy future, USEA is helping establish the groundwork for long-term energy sovereignty and resilience in Southeast Europe.