

USEA Helps De-Risk Moldova's Energy Investment Environment Through Grid Modernization

The United States Energy Association is helping to reduce the risk of energy investments in Moldova by modernizing the country's transmission grid and improving transparency for renewable energy developers. Through advanced grid assessments and custom digital planning tools, USEA has reduced technical and regulatory uncertainty, building investor confidence and supporting Moldova's clean energy transition.



For nearly two decades, the United States Energy Association (USEA) has been a trusted partner to Moldova, working with Moldelectrica, the country's national transmission system operator, to strengthen the power sector and align it with European energy standards. From planning cross-border interconnections to supporting Moldova's 2022 synchronization with the European Network of Transmission System Operators for Electricity (ENTSO-E), USEA has partnered with Moldelectrica to provide strategic technical assistance strengthening resilience, integration, and modernization. Most recently, through a series

of targeted interventions from 2022 to 2023, USEA helped de-risk Moldova's investment climate for renewable energy development.

As Moldova seeks to integrate a growing pipeline of wind and solar projects, an efficient and transparent interconnection process is essential for attracting investment. USEA partnered with Moldelectrica to conduct a grid integration and hosting capacity assessment for over 1,200 MW of proposed variable renewable energy projects. Using advanced power flow simulations, contingency analysis, and international

interconnection standards, the study identified grid constraints, such as overloaded lines and substations, and outlined the necessary infrastructure upgrades to integrate renewable energy sources safely.

These technical findings were translated into a clear investment roadmap, enabling Moldova's government, donors, and private sector stakeholders to prioritize grid reinforcement projects with confidence. The roadmap reduces uncertainty for investors and developers by clarifying where and how renewable projects can be connected to the

grid. A customized software, provided by USEA, enables Moldelectrica to automatically calculate and publish substation-level hosting capacity in real time. This transparency provides developers with reliable data for making siting decisions, accelerates permitting timelines, and fosters trust in the technical planning process. By embedding this capability within Moldelectrica, USEA has established a repeatable, objective approach to grid analysis that reduces investment risk and increases market predictability.

Through a combination of technical expertise, digital innovation, and long-term partnerships, USEA has helped Moldova mitigate investment risks, paving the way for sustainable development, energy diversification, and fostering greater investor confidence in the country's evolving power sector.