

USEA Drives Grid Modernization in Uzbekistan, Opening Doors for U.S. Energy Companies

The United States Energy Association is driving grid modernization in Uzbekistan through advanced modeling, technical training, and strategic planning that support renewable energy integration and long-term grid resilience. By strengthening institutional capacity and showcasing American engineering expertise, the program is opening new opportunities for U.S. energy companies in a rapidly evolving market.



The U.S. Energy Association (USEA) enabled Uzbekistan to modernize its national power grid, delivering cutting-edge technical assistance, strategic modeling tools, and workforce training that strengthened the country's ability to integrate renewable energy and paved the way for U.S. companies to engage in a growing energy market.

Recognizing the urgent need for a more reliable and resilient grid, USEA partnered with Uzbekistan's national Transmission System Operator (TSO) and the National Electricity Transmission Company (NETC) to implement a comprehensive modernization program. At its core, the initiative provided advanced power system modeling – including dynamic and planning models with 5- and 10-year outlooks – designed to anticipate future scenarios and support informed

infrastructure investment decisions as the country scales up renewable energy.

USEA also led a nationwide System Stability and Reliability Study, identifying technical risks tied to increased solar and wind generation and developing engineering solutions to mitigate those risks. To ensure sustained impact, USEA built local expertise through an intensive training program, equipping grid operators and engineers with hands-on experience using DIGSILENT PowerFactory software – a global standard for power system simulation and analysis.

These efforts are helping Uzbekistan meet its ambitious target to generate 25% of electricity from renewables by 2030 while maintaining grid stability amid a fast-evolving energy landscape.

At the same time, USEA's

work has created significant opportunities for U.S. energy technology firms and service providers. By demonstrating the value of American expertise – from advanced modeling software and control systems to technical consulting and grid management solutions – the program positioned U.S. companies as trusted partners in Uzbekistan's energy transition.

Through this initiative, USEA not only enhanced the resilience and reliability of Uzbekistan's grid, but also helped de-risk renewable integration, improve institutional capacity, and make the power sector more attractive to private investment. The program stands as a model of how targeted U.S. assistance can deliver mutual benefit – supporting a key partner's energy goals while advancing U.S. commercial interests abroad.