



CENTRAL ASIA PARTNERSHIP PROGRAM

MEETING ENERGY SECURITY PRIORITIES & RENEWABLE ENERGY TARGETS

Providing secure and reliable access to energy is critical to economic growth, while diversifying energy sources strengthens energy security. In Central Asia, increased deployment of renewable generation and enhanced opportunities for cross-border power trade can help the region solve their most urgent energy security challenges and achieve sustainable development goals. To create an enabling environment for a regional transition to cleaner, more reliable power supply, and encourage establishment of an integrated power market, the United States Energy Association (USEA) in cooperation with the U.S. Agency for International Development (USAID) established a Central Asia Partnership within its Energy Utility Partnership Program (EUPP).

EUPP strengthens the capacity of utilities and other energy sector organizations in USAID-assisted countries to effectively manage and operate power systems, run financially viable businesses, adopt new business models, and integrate various energy resources into their grid. In Central Asia, the partnership provides capacity building support and technical assistance to energy stakeholders in all five Central Asian countries to assist them with meeting their energy security priorities and renewable energy targets. The partnership's activities support two key USAID regional energy activities: the USAID Power Central Asia activity and CASA-1000 Secretariat.

The Central Asia Partnership support of these USAID programs will assist in achieving several major objectives:

- Increasing the use of renewable energy
- Establishing a Central Asia Regional Electricity Market (CAREM)

ACTIVITY COUNTRIES AND DURATION

Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan; June 2020 – July 2023

AREAS OF SUPPORT

- Grid Integration of Renewable Energy
- Power Sector Modeling & Planning for Renewable Energy
- Energy Sector Digitization & Cyber-Security
- Improvement of Transmission Networks
- National Electricity Markets
- Hydroelectric Energy Development

ACCOMPLISHMENTS TO DATE

- A peer review of the draft **Wholesale Electricity Market Concept and the Rules of the Wholesale Electricity Market of the Kyrgyz Republic**, developed by the Kyrgyz Electricity Settlement Center (KESC), provided recommendations to refine these concept papers and improve the initial design of the wholesale electricity market and associated institutions in the Kyrgyz Republic. In the long run, this effort will facilitate regional power trade, which will lower wholesale energy costs and improve energy security not only in the Kyrgyz Republic but in all other Central Asian states.
- A **Strategic Roadmap for Adopting a Digital Substation Technology**, provided to the Kazakhstan Electricity Grid Operating Company (KEGOC), will enhance the capacity of KEGOC for reliable and efficient operation of Kazakhstan's national electric grid, improving reliability and efficiency and reducing operational costs.
- **Dynamic models for the existing network topology and planning models of the national grids** developed for the National Electricity Transmission Company of Uzbekistan and the Electric Transmission Networks of Tajikistan will create an enabling environment for expanded integration of renewable energy and for the establishment of a unified power system in Central Asia.
- A 4-session training series on **Central Asia Power System Modeling with DigSILENT PowerFactory** software enhanced the capacity of the regional Coordinating Dispatch Center Energia (CDC Energia) for power system modeling and long-term planning. This will further advance expanded integration of renewable energy and the establishment of a unified power system in Central Asia.

ONGOING PROJECTS

- Central Asia Regional Power System Modeling and Stability Study for CDC Energia
- Flexible Alternating Current Transmission System for Reactive Power Compensation for the Kazakhstan Electricity Grid Operating Company (KEGOC)
- Power System Stability and Reliability Study – Prospective State for the Electric Transmission Networks of Tajikistan
- Power System Stability and Reliability Study – Prospective State for the National Electricity Transmission Company of Uzbekistan

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