



**Central Asia
Regional Economic
Cooperation**

Brief: Energy Sector

ENERGY

I. STRATEGIES AND PRIORITIES

A. Goals and Objectives

Approved at the Eighth Ministerial Conference in Ulanbaatar, Mongolia, in October 2009, the Energy Action Plan Framework aims to strengthen energy security and increase trade. The rationale for energy cooperation includes the following:

- Energy-related infrastructure is inadequate.
- The electricity grid is shared.
- Legal reforms are needed.
- Energy and water resource management requires collaboration among countries.

The vision for the energy sector is to ensure energy security and spur economic growth through energy trade, domestic and cross-border investments, capacity development, knowledge sharing, and adoption of key policy measures.

B. Program Components

The energy sector covers five dimensions:

- cooperation opportunities within Central Asia,
- energy trade and investments between Central Asia and the People's Republic of China (PRC),
- emerging and potential electricity trade between Central Asia and South Asia,
- important energy trading partnership between Central Asia and the Russian Federation, and
- facilitation of energy exports from Central Asia to Europe through Azerbaijan as an energy corridor.

C. Goals

The Energy Action Plan Framework has three goals:

- Strike a balance between energy demand and supply and overcome infrastructure constraints.
- Promote regional dispatch and regulatory development (Central Asia Power System).
- Analyze energy–water links.

These goals are also pursued through regional institutions such as the Energy Sector Coordinating Committee and the Regional Power Dispatch Center. The action plan

acknowledges the presence of extensive and diverse reserves and renewable energy sources, and their unfortunately uneven distribution across countries. The action plan envisions export opportunities in South Asia, the PRC, the European Union, and the Russian Federation.

II. KEY ACHIEVEMENTS

To date, CAREC has embarked on 26 energy projects worth US\$3.8 billion. Energy accounts for about 21% of all CAREC investments. Notable achievements have been

- stronger generation capacity,
- modernized power system,
- expanded bilateral electricity trade, and
- knowledge sharing and training.

Progress has been made in meeting the energy goals:

- **Strike a balance between energy demand and supply and overcome infrastructure constraints.** A 2010 technical assistance project funded the preparation of a regional power sector master plan. The master plan is being completed, with data collected and analyzed from field visits to Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan. The master plan identifies generation and transmission needs and addresses technical conditions for synchronous interconnection of the Afghanistan system with the Central Asian system. The Master Plan Inception Report meeting in March 2011 was attended by representatives of ADB, the World Bank, the United States Agency for International Development (USAID), and the Coordinating Dispatch Center, resulting in amendments to the work plan to accommodate national security as the primary consideration and regional issues as secondary. Field visit findings resulted in a draft 10-year investment plan, which was presented at the 10th Ministerial Conference and incorporated into the Medium-Term Project Plan.
- **Promote regional dispatch and regulatory development (Central Asia Power System).** The original work program has been augmented with the activation of USAID's Regional Energy Security, Efficiency and Trade (RESET) Program. The World Bank also conducted a diagnostic study to identify opportunities and challenges in the combined Central Asia power transmission grid operations, including potential savings of \$1.5 billion over 3 years. The study's main recommendation was to build the countries' confidence in the benefits of regional integration through cooperation. More knowledge-sharing activities are planned through RESET and the CAREC Institute.
- **Analyze energy–water links.** In 2009, consultations on existing regional water and energy modeling identified needs and an action plan for analytic and modeling initiatives. This resulted in a defined work program. The first phase identified strategic issues, criteria, metrics, and the basic architecture of a model acceptable to all players. The second phase consists of developing a prototype demonstration decision support system model using publicly accessible data and modeling platforms, including remote sensing and satellite imagery.

III. FUTURE DIRECTIONS

The energy sector plan is aligned with CAREC 2020. In the next decade, it envisions the following:

- Establish foundations for energy security through regional cooperation.
- Exploit the large potential for intraregional energy trade.
- Promote energy efficiency and renewable energy.