



Energy Sector Progress Report

**Senior Officials' Meeting
on Central Asia Regional Economic Cooperation
24 – 25, April 2008
Baku, Azerbaijan**

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REPORT ON ENERGY

1. The purpose of this Report, prepared by the World Bank with contributions from other IFIs involved in CAREC activities, is to capture the developments since the last Senior Officials Meeting in November 2007.

A. Regional Energy Projects

1. Central Asia South Asia Regional Electricity Market (CASAREM).

2. The four CASAREM Governments (Governments of Afghanistan, Kyrgyz Republic, Pakistan and Tajikistan) met at the 3rd CASAREM conference in Kabul in November 2007 and signed a Memorandum of Understanding which:

- agreed on the scope of the CASA 1000 transmission project and confirmed the viability of the CASA 1000 transmission project. The project will transmit 1300 MW of electricity from Kyrgyz Republic and Tajikistan to Afghanistan (300 MW) and Pakistan (1000 MW). The scope of the project was confirmed during the conference: a roughly 750 km High Voltage Direct Current (DC) transmission system between Tajikistan and Pakistan via Afghanistan; a DC to Alternate Current (AC) converter station in Kabul to supply Kabul area; and an AC transmission link between Kyrgyz Republic and Tajikistan to supply Kyrgyz electricity to South Asia via Tajikistan; and the concomitant institutional and legal framework to enable such electricity trade.
- established the Inter-Governmental Council (IGC) to lead the project going forward and provide the policy oversight; (c) agreed to establish the IGC Secretariat in Kabul (which is to shoulder the day to day responsibility of developing the CASA 1000 transmission project further); and (e) last but not least agreed on the method of sharing the financing of the costs. It is expected that the first IGC meeting will be held in April 2008;
- Agreed to continue to seek private sector participation in the development, construction and operation of CASA 1000, while recognizing the difficulty in attracting significant private sector participation. Therefore, private sector participation would be targeted, at least some equity stake, failing which at least as an operations and management contractor;
- Agreed that the CASA 1000 project would be largely funded by the public sector; and in turn requested the participating IFIs (ADB, IsDB and World Bank) to assist with the financing and,
- Agreed to share the financing of the project on the basis of project assets to be built on a country's territory.

3. **Transmission Links for electricity exports** continue to be developed under several projects that would enable electricity trade between Central Asia and South Asia:

4. **Afghanistan-Tajikistan 220kV transmission project.** Evaluation of separate technical proposals is underway for the construction of the Tajik section of 118 km and the Afghan section of 156 km of the transmission line. Contracts are expected to be signed in May 2008 and the implementation period is expected to be about 18 months for the Tajik Section and a bit longer

for the Afghan section. Consultations are underway between Afghanistan and Tajikistan on a PPA which is expected to be signed by June 2008 for delivery of 300MW annually from May to September to Afghanistan.

5. ***Afghanistan and Uzbekistan continue with the implementation of their June 2007 Protocol*** for delivery of 300 MW to Afghanistan upon rehabilitation of the relevant transmission network.

- IsDB is expected to approve in June 2008 \$83 million financing for the 500kV transmission line to connect the Surkhan and Guzar substation (S/S) in Uzbekistan which will enable increasing the export potential to Afghanistan to 150 MW and eventually to 300 MW.
- A high level delegation from Afghanistan visited Uzbekistan in January 2008, to hold further discussions on power imports arrangements and PPA. Uzbekistan requires funding from Afghanistan of \$15 Million USD for the design and construction of the double circuit 220 kV transmission line from the Surkhan S/S to the Afghanistan border, which is likely to be authorized by Afghanistan. A follow up ministerial visit is planned soon to continue discussions.
- A one year extension of the existing power purchase agreement for about 25 MW of electricity for Mazar-e-Sharif was agreed between the two countries.

6. ***Afghanistan's request for accession to the Energy Charter Treaty was approved by the 18th Energy Charter Conference held in December 2007 in Istanbul***, which enhances the country's opportunities for energy trade, transit and investments.

7. ***EBRD*** is considering a loan to JSC Kazakhstan Electricity Grid Operating Company (KEGOC) to finance the second stage of modernisation of substations and high-voltage equipment to ensure efficiency, reliability and safety of Kazakhstan's transmission system.

2. Generation Projects

8. ***Tajikistan proceeds with the development of its coal resources in an integrated manner***. Pre-feasibility studies for development of new coal-based generation capacity were completed in January 2008 with financing from the US Trade and Development Agency.

9. ***Two consultants' short-lists*** have been prepared for carrying out an environmental and a technical, economic and financial feasibility study respectively for the construction of the Rogun HPP in Tajikistan.

10. ***Sangtuda I Hydropower Project in Tajikistan***. The first unit was commissioned in January 2008 and the full capacity is to be installed by end-March 2009. Sangtuda's generation from unit 1 was critical providing additional 100 MW during the energy crisis in winter 2008 in Tajikistan.

11. ***A severe energy crisis in winter 2008 in Tajikistan*** was triggered by a dramatic drop of the water levels of the Nurek reservoir in Tajikistan, due to 25 year low freezing temperatures, which affected 90% of the predominantly hydro-based generation in the country. The World Bank reacted swiftly to support the Government's Energy Emergency Mitigation Action Plan through a \$5million emergency operation package to improve supply of electricity, gas and fuel

oil, along with critically needed equipment for the operations of the electricity and gas grids, with co-financing from ADB (\$1.8 million), UNDP (\$1.8 million) and IsDB (\$0.3 million).

B. Energy Sector Strategy

12. The first draft of the Energy Sector Strategy was presented at the Senior Officials Meeting in November 2007, which subsequently reported to the Ministerial Conference on the progress in strategy preparation. The Ministerial Conference recommended “further country consultations and efforts to finalize the CAREC Energy Strategy...” A new round of consultations with the member countries on a revised version of the Strategy is about to be launched in end-March focusing with priority on China, and Azerbaijan and then on the other member-countries.

C. Energy Efficiency and Opportunities Offered by Clean Development Mechanism

13. ADB, WB and EBRD continue to develop energy efficiency and CDM programs and projects as summarized below.

- ADB will host the third “Asia Clean Energy Forum” at the ADB Headquarters in the Philippines on 3–5 June 2008 with the theme “Investing in Solutions that Address Climate Change and Energy Security.”
- The World Bank is completing the Kyoto Protocol documentation for two carbon finance projects in Uzbekistan. After the October 2007 Tashkent CDM Carbon Forum jointly sponsored by the World Bank and the UNDP, approximately 60 carbon finance projects were offered by various project developers from Uzbekistan to interested buyers. In China, an Emissions Reduction Purchase Agreement (ERPA) was signed on January 3, 2008 for the Bao Steel Group, based on using recovered heat from coke production for electricity generation and heat supply. An ERPA for a similar project with the Bao Tou Iron and Steel Company is expected to be signed this spring. Another ERPA based on energy saving technology for iron and steel production is expected to be signed by June 2008.
- In November 2007 EBRD signed a \$30 million loan agreement with the second largest power plant in Kazakhstan PavlodarEnergo for efficiency improvement and upgrading leading to CO₂ emissions reduction. In March 2008, the Government of Kazakhstan and the EBRD agreed on a jointly developed “Sustainable Energy Action Plan,” which promotes the conservation and rational use of energy resources as well as the efficient and sustainable energy supply.

D. Enabling Legal and Regulatory Environment for Energy Sector Development

1. CAREC Member Electricity Regulators Forum

14. A training workshop on tariff setting principles and practices for energy regulators will be conducted in Baku, Azerbaijan in April 2008, co-hosted by Tariff (Price) Council of Azerbaijan and ADB.