Uzbekistan: Takhiatash Power Plant Efficiency Improvement Project

Project Name: Takhiatash Power Plant Efficiency Improvement Project
Project Number: 45306-001
Country: Uzbekistan
Project Status: Active
Project Type / Modality of Assistance: Loan

Source of Funding / Amount:
- Loan 3141-UZB: Takhiatash Power Plant Efficiency Improvement Project
  - Ordinary capital resources: US$ 300.00 million
- Loan: Takhiatash Power Plant Efficiency Improvement Project
  - Uzbekistan Fund for Reconstruction and Development: US$ 270.00 million

Strategic Agendas:
- Environmentally sustainable growth
- Inclusive economic growth
- Governance and capacity development
- Private sector development

Drivers of Change:

Gender Equity and Mainstreaming:
- Effective gender mainstreaming

Project Rationale and Linkage to Country/Regional Strategy:
Uzbekistan is one of the fastest-growing economies in Central Asia, aspiring to become an upper-middle-income country by 2020. The country has sustained a high growth rate averaging over 8% (2007–2013). Generally, stable macroeconomic conditions and robust growth are set to continue as Uzbekistan aims to develop a highly developed and diversified industrial and export base. In particular, the Karakalpakstan and Khorezm regions, inhabited by 3 million people and located in the western part of Uzbekistan, will continue to attract important investment projects. Reliable power supply is critical to support industrial development in these regions. Indeed, these regions expect power demand to grow at 3%, double the expected medium-term national average rate of 1.5%. The Takhiatash TPP is the main source of power supply in the Karakalpakstan and Khorezm regions. In 2012, power consumption in these regions was 2,293 gigawatt-hours (GWh) with maximum load of 466 megawatts (MW). By 2020, the power consumption is expected to exceed 3,620 GWh, with maximum load of 620 MW. With 730 MW of installed capacity, the Takhiatash TPP now comprises five gas-fired steam turbine generation units. Three units totaling 310 MW have passed their designed economic life, and have been operating with derated capacity (130 MW), low thermal efficiency (23.7%), and limited plant availability (25%). The other two units, totaling 420 MW, are 26 years old or less. However, their capacity is derated by 15%, the efficiency is low at 31%, and they are overutilized to meet demand, which prevents regular maintenance.

To ensure reliable power supply, the government and Uzbekenergo, the state-owned power utility, identified the project as a priority, and decided to: (i) construct two CCGT units (230–280 MW each); (ii) decommission three existing power units (Nos. 1, 3); and (iii) maintain two power units (Nos. 7–8) for backup. This approach construction of energy-efficient units while decommissioning old and inefficient ones will be the first integrated modernization model and will pave the way to restructuring a power sector that faces acute issues with aging assets.

Impact:
- More reliable power supply in Uzbekistan

Project Outcome

Description of Outcome:
Increased energy-efficient power supply in Karakalpakstan and Khorezm regions

Progress Toward Outcome:
Project Implementation Consultant mobilized. Bidding documents for turnkey contract was issued on 2 Dec 2015. Bid submission deadline on 9 Mar 2016 (1st stage). EA organized a pre-bid meeting for potential bidders on 19 January 2016. The main contract was signed on 23 December 2016 and registered on 19 July 2017. The works are on-going.
Description of Project Outputs

Energy-efficient power generators operational in Takhiatash TPP
Developed Uzbekenergo's capacity to become commercially bankable
Community social service center becomes operational

Status of Implementation Progress (Outputs, Activities, and Issues)

1. Energy efficient power generators operational in Takhiatash TPP: the works are on-going.
2. Developed Uzbekenergo's capacity: not yet started
3. Community social service center: not yet started

Geographical Location

Safeguard Categories

Environment A
Involuntary Resettlement B
Indigenous Peoples C

Summary of Environmental and Social Aspects

Environmental Aspects
EIA was prepared and disclosed on website on 20 May 2013.

Involuntary Resettlement
Land acquisition and resettlement plan has been prepared and disclosed on website.

Indigenous Peoples
No adverse impact is expected. No people defined by ADB SPS 2009 as IP are present in project area.

Stakeholder Communication, Participation, and Consultation

During Project Design
As a part of the preparation of environmental impact assessment and land acquisition and resettlement plan, stakeholder consultations has been conducted by the project executing agency with the assistance of project preparatory technical assistance consultant.
In addition, as a part of poverty and social assessment, a total number of 900 households was surveyed in Karakalpakstan and Khorezm region, including 100 households in Takhiatash city, 400 households in Karakalpakstan AR, and 400 households in Khorezm region.
Further, PPTA consultant organized Focus Group discussion (FGD) in Takhiatash city and 20 structured interviews with major stakeholders in Karakalpakstan and Khorezm regions.

During Project Implementation
Civil society will be involved for the operation of the community service center in Takhiatash, and implementation of the energy efficiency campaign. A local social/gender specialist will be hired to ensure implementation of the key gender activities.
The implementation consultant includes a safeguard specialist with responsibility for ongoing consultation and participation.
Grievance redress mechanism will be established using existing community society and assigning a focal at project management unit.

Business Opportunities

Consulting Services
A supervision consulting firm will be recruited using the quality- and cost-based selection method, with a 90:10 ratio for quality and cost, and following ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) to help the executing agency implement the project.
Under capacity development component, there will be one contract package for corporate management, cashflow analysis, and tariff study, one contract for risk profile assessment, an audit package (2 multi-year contracts), and two individual consultants (capacity development program manager and social and gender specialist).
The project envisages advance contracting and retroactive financing of up to 20% of total financing.

Procurement
A turnkey contractor, which is expected to undertake both the construction and decommissioning works, will be selected under international competitive bidding, following ADB's Procurement Guidelines (2013, as amended from time to time).
The project envisages advance contracting and retroactive financing of up to 20% of total financing.

Responsible ADB Officer
Shokhimardon Musaev

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Timetable

Concept Clearance 16 Aug 2012
Fact Finding 20 May 2013 to 31 May 2013
MRM 23 Apr 2014
Approval 15 Jul 2014
Last Review Mission -
Last PDS Update 24 Sep 2018

Loan 3141-UZB

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Project Page: https://www.adb.org/projects/45306-001/main
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