

Project Summary

Project Background

Transmission and distribution losses in the Pakistan power system amounted to 25% in 2005. In the transmission system, these high losses are caused by the excess load on the transmission lines and at substations.

Pakistan's transmission system faces three major challenges: (i) the heavy power flow through the 500 kV system, (ii) a shortage of supply capacity for the 220 kV system, and (iii) high transmission losses. Although the capacity of the 500 kV system is expected to increase after the commissioning of two 500 kV transmission lines, this issue may recur in the near future because of the uneven distribution of additional power plants. There are system constraints in the 220kV system, mainly shortages of supply at the 220/132 kV substations and related 220kV transmission line systems. These supply shortages cause load shedding, low voltage profiles, and high transmission system losses. The Government has approved some enhancement schemes to address these, but forecasted high growth in electricity demand will require further strengthening of the 220 kV system.

Project Objectives

The Government of Pakistan requested assistance to prepare a power transmission system project to enhance overall power system efficiency and ensure a sufficient and stable power supply. The purpose of the project preparatory technical assistance (PPTA) was to support the Government's strategy of increasing electricity supply to its urban and rural population.

Project Activities

Key activities under the PPTA covered four major areas:

- Technical project design of transmission lines and associated components;
- Economic and financial evaluations;
- Compliance with national and ADB safeguard policies, i.e. environmental, indigenous peoples and resettlement;
- Links among economic growth, poverty, and the power sector.

Implementation Features

The work undertaken in this project has led to the financing of \$236 m of loans for investment in new power transmission assets and the preparation and monitoring of financing tranches and capacity strengthening of National Transmission and Despatch Company (NTDC).

Services Provided

- Detailed review of load forecasts
- Technical project design
- Feasibility studies
- Economic and financial evaluations
- Preparation of a procurement plan
- Detailed field surveys in the areas of environment, involuntary resettlement, and indigenous peoples
- Socio-economic studies

Pakistan

Power Transmission Enhancement Project

Client

Asian Development Bank (ADB)

Duration

06/2006 - 02/2007

Personnel

- 11,5 PM of international STE
 - Environmental expert
 - Resettlement expert
- 35 PM of domestic consulting services

