

A Foundation for Sustained Growth



13 Philippines

Luzon Grid Transmission Project Associated with Private Power Project

Supporting the entry of private companies into the power generation sector through the construction of transmission lines on Luzon Island

Loan Agreement Terms & Conditions

Final Disbursement Date Executing Agencies

Loan Amount / Disbursed Amount 14.972 billion yen / 9.261 billion yen 2.7% interest rate (consulting services: 2.3%). 30 year repayment period (10 year grace period), General untied

> National Power Corporation of the Philippines (http://www.napocor.gov.ph/npc5.asp) National Transmission Corporation of the Philippines

(http://www.transco.ph/)

July 2004

Project Objectives

The objective of this project was to ensure a stable power supply to the Luzon grid by constructing and expanding transmission lines and substation facilities connecting the two power plants to be developed by the private sector on Luzon Island with the existing grid, and thereby contribute to the economic development of the island.

Effectiveness and Impact

The transmission lines constructed through this project connected the Batangas Gas Power Plant and Casecnan Hydropower Plant built by the private sector with the existing grid. The total power generated by these two power plants accounts for 17% of Luzon's total power generation, therefore this project was important for meeting the power demand for Metro Manila. The number of forced outages in the transmission lines for both plants has been kept to a very low frequency since their completion. In addition, it became possible for the substations in the northern and southern parts of Metro Manila to supply power to each other as result of the increase in the transmission capacity of the Luzon grid around Metro Manila. Therefore, the project contributed to a stable power supply throughout Metro Manila. On a beneficiary survey given to companies and industrial complexes located on the outskirts of Metro Manila, respondents indicated that the frequency and length of power outages had decreased compared to before project implementation and that the voltage had become more stable, revealing that the project effects were being recognized. Therefore, this project has largely achieved its objectives, and its effectiveness is highly satisfactory.

This project has been highly relevant with the national policies both at the time of the appraisal and at the time of the ex-post evaluation. Energy sector goals at the time of appraisal were to encourage the entry of private companies and to promote diversification of power sources. This project, connecting two power plants constructed by the private sector to the existing grids, was consistent with the policy. At the time of ex-post evaluation, an emphasis was being placed on increasing the transmission/substation capacity for electricity supply to Metro Manila, and there was a great need to enhance power transmission capacity to Metro Manila.

Efficiency

The project period greatly exceeded the planned period (155% of planned period) although the project costs were less than planned; therefore the evaluation for efficiency is moderate. The project delays were primarily caused by delays in the bidding procedure and the time needed for land acquisition.

Sustainability

No major problem has been observed for the capacity of the executing agency nor its operation and maintenance system. Therefore, sustainability of this project is high. The National Transmission Corporation of the Philippines, which is in charge of operation and maintenance, has no technical, system, or financial problems, and regularly inspects the equipment installed through the project.

SAIDI (length of outages per customer) and SAIFI (frequency of outages per customer)

SAIDI (minutes) 150 155 0.88 100 0.43 0.35 0.26 0.3 31.7 53.5 SAIFI 23.1 2004

Third-Party Opinion

Power sector reforms are encouraging the entry of private companies, and this project is consistent with those reforms. The transmission grid constructed through this project has contributed to a stable power supply.

Name of specialist: Mr. Fernando Y. Roxas, DBA (academia) Earned Masters degrees in engineering geology and business management from the Asian Institute of Management (AIM). Former head of the Privatization and Restructuring External Office of the National Power Corporation. Currently an associate professor at AIM. Specializes in energy and privatization of the electrical power sector.