### India

# Gandhar Gas-based Combined Cycle Power Project (I)(II)(III)



Gandhar gas-based combined cycle power plant

## **Outline of Loan Agreement**

Loan Amount / Disbursed Amount	75,183 million yen / 67,808 million yen
Loan Agreement	March 1990 - December 1992
Terms & Conditions	Interest rate 2.5%/ 2.6%p.a. Repayment period 30 years (Grace period 10 years)
Final Disbursement Date	September 1997 - April 1998

### **Project Outline**

The project covered the construction of a combined cycle thermal power plant fueled by natural gas produced in Gujarat State, western India, targeting the mitigation of electricity shortages and, contributing to the improvement of living standards, and industrial development in the region.

### **Results and Evaluation**

This project was comprised of three phases. Power plant construction was completed at the end of 1995 and transmission system with substations in May 1998. The power plant consists of three 144.3MW gas turbines and one 224.5MW steam turbine, resulting in a total output capacity of 657.4MW.

Although it was difficult to supply planned amount of natural gas immediately after the project completion, the construction of a pipeline from another power plant made it possible to procure a steady supply of gas from other sources. Also, generating efficiency was improved thanks to the modifications made to equipments, etc. Thus, actual output reached the target levels (300GWh/month), and the plant has been operating smoothly. Since the operating rate of the transmission and distribution system is also close to 100%, the project is evaluated as having made a significant contribution to mitigating the demand-supply imbalance and to stabilizing electricity supply in the western region of India.

Moreover, since the project also involved the development of social infrastructure in neighboring residential areas, it is considered to have contributed to the improvement of livelihoods and convenience of residents.

The financial status of both executing agencies, the National Thermal Power Corporation Ltd. (NTPC) and Power Grid Corporation of India, Ltd. (Power Grid) has been sound. No problem has been detected in terms of project operation and maintenance.