



1. Project Data :		Date Posted : 06/29/2000	
PROJ ID: P003503 OEDID: L3462		Appraisal	Actual
Project Name : Zouxian Thermal Power	Project Costs (US\$M)	795.0	816.2
Country: China	Loan/Credit (US\$M)	310.0	302.8
Sector, Major Sect .: Thermal, Electric Power & Other Energy	Cofinancing (US\$M)	0.9	1.3
L/C Number: L3462			
	Board Approval (FY)		92
Partners involved : Japan	Closing Date	06/30/1999	06/30/1999
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components

a. Objectives

- (i) help alleviate power shortages in Shandong province;
- (ii) support China's policy to develop mine-mouth coal-fired power plants;
- (iii) introduce modern technology in plant design and construction for 600MW units;
- (iv) strengthen the provincial power utility's (SPEPB) capacity in plant operation, environmental planning and financial management; and
- (v) restructure SPEPB's power tariffs

b. Components

- (i) expansion of the Zouxian coal-fired plant by 2 X 600MW (to a total capacity of 2,400MW);
- (ii) construction of associated 500 and 220kv transmission lines and substations;
- (iii) consulting services for: (a) project engineering and procurement; (b) a study of air pollution control for coastal coal-fired plants; (c) tariff study and implementation of tariff action plan; and (d) an environmental monitoring program; and
- (iv) training of SPEPB staff.

c. Comments on Project Cost, Financing and Dates

Project was completed on schedule and at an overall cost of US\$ 816 million, only 2.7% above appraisal estimate. Bank loan was originally on-lent to SPEPB but was transferred in 1997 to SIPDC, a newly created SPEPB limited liability subsidiary which took ownership of several power plants, incl . Zouxian.

3. Achievement of Relevant Objectives :

Physical objectives have been fully achieved and /or exceeded: plant was completed generally within schedule and cost estimates and its operating record has been excellent . The project contributed to the Government's efforts to build more coal-fired thermal plants at mine-mouth. Furthermore, the project contributed to accelerate the mainstreaming within China of modern technology and know-how in the local manufacturing, construction and operation of 600 MW coal-fired units. Environmental objectives have been generally achieved with the units meeting Chinese and Bank guidelines (with some minor exceptions with regard to ash disposal and noise levels). SPEPB and SIPDC's finances have remained generally healthy during the project period -- and SIPDC was finally successful in its 1999 IPO on the Hong-Kong market. And the project's capacity-building components have helped the companies improved their overall efficiency . Finally, some improvements have been made in tariff structure with the introduction of time-of-day pricing (1996) and tariff unification throughout the province (1999).

4. Significant Outcomes /Impacts :
see section 3 above.

5. Significant Shortcomings (including non -compliance with safeguard policies):
The project's only shortcoming relates to the persistence of some deficiencies in the tariff structure (disproportionate weights of capacity and energy charges and the continued subsidization of some consumer categories).

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Satisfactory	
Institutional Dev .:	Substantial	Substantial	
Sustainability:	Likely	Likely	
Bank Performance:	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR:		Satisfactory	

7. Lessons of Broad Applicability :

(i) strong ownership by Borrower/executing agency is key to project success; (ii) procurement packaging should be geared to minimize potential interface problems among contractors; (iii) tariff issues in China need to be thoroughly addressed during project preparation and supervision .

8. Audit Recommended? Yes No

9. Comments on Quality of ICR :

The ICR is of good quality. In particular, it includes specific indicators for future project operation and a good contribution from the Borrower.