



1. Project Data:		Date Posted : 08/10/2001	
PROJ ID: P008614		Appraisal	Actual
Project Name : Katowice Heat Supply	Project Costs (US\$M)	92.9	59.6
Country: Poland	Loan/Credit (US\$M)	45.0	37.0
Sector(s): Board: EMT - District heating and energy efficiency services (100%)	Cofinancing (US\$M)		
L/C Number: L3809			
	Board Approval (FY)		95
Partners involved :	Closing Date	06/30/2000	10/31/2000
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components

a. Objectives
The project objectives are to:

- (1) enhance energy conservation and efficiency in the district heating (DH) sector;
- (2) extend the life of existing district heating assets through rehabilitation and introduction of modern technologies, thereby significantly reducing capital expenditures and operating and maintenance costs; and
- (3) reduce environmental pollution through investments in energy -efficient equipment and systems as well as by supporting a program to eliminate coal-fired heat-only boilers.

b. Components
The project components include:

- (1) an investment component consisting of network rehabilitation and replacement; substation retrofit, automation and metering; network sectioning systems; network monitoring, interconnection and dispatching systems; and a boiler elimination and conversion program; and
- (2) technical assistance including training on general management practices; investment planning and economic evaluation; international procurement and trade; quality assurance, marketing and customer relations; and modern district heating management and operations based on new techniques and technologies .

c. Comments on Project Cost, Financing and Dates
Actual project costs were US\$59.6 million, 36% less than the appraisal estimate of US\$92.9 million. The actual loan amount was US\$36.6 million, reduced from US\$45 million. The reduction in project costs and loan amount is due to delays in project implementation resulting from the need to coordinate investment activities among five municipalities, difficulties in obtaining right-of-way on private property, and towards project closure, the precarious financial position of PEC Katowice. PEC's ownership is still in the process of being transferred from the state to the municipalities they serve. To complete some project works, the closing date was extended from June 30, 2000 to October 31, 2000.

3. Achievement of Relevant Objectives:

(1) Enhance energy conservation and efficiency in the district heating sector . This objective was substantially achieved. Overall system efficiency has increased from 59% to 69%, resulting in annual energy savings equivalent to 118 thousand tons of coal (12% less than the coal savings estimated at appraisal). These savings were achieved through (i) reduction in overall heat transmission and distribution losses by almost half (from 30% to 18% of heat produced) and (ii) reduction in water losses by 45% (as opposed to the appraisal estimate of 65%).

(2) Extend the life of existing district heating assets through rehabilitation and introduction of modern technologies, thereby significantly reducing capital expenditures and operating and maintenance costs . This objective was substantially achieved. As a result of project investments, the weighted average remaining lifetime has been extended from 23 years in 1992 to 26 years in 2000 for the networks and from 10 to 15 years for the consumer substations. This is equivalent to a reduction in the rate of pipeline and substation replacement by 1.3 km and 36 MW per year, respectively. The preinsulated pipe technologies installed under the project will not be subject to external corrosion and have nearly twice the lifespan of the traditional concrete duct pipe technologies . Internal corrosion has been significantly reduced through the reduction of water losses and improved water quality .

(3) Reduce environmental pollution through investments in energy -efficient equipment and systems as well as by

supporting a program to eliminate coal -fired heat-only boilers . This objective was substantially achieved . Total flue gas emissions from all heat sources were reduced by 21% for sulfur dioxide, nitrogen oxide, and carbon dioxide, and by 31% for particulates. This represents an annual reduction of about 1,150 tons of sulphur dioxide, 550 tons of NOx, 500 tons of particulates and 330 thousand tons of carbon dioxide . This is a significant achievement given the past high levels of air pollution in the region .

4. Significant Outcomes/Impacts:

(1) PEC Katowice customers have enjoyed 85% of the cumulative economic benefits of the project in the form of reduced heat prices. The remaining 15% was shared among all the inhabitants of the region through improved air quality and the Polish economy as a whole through reduced greenhouse gas emissions (mainly carbon dioxide).

5. Significant Shortcomings (including non-compliance with safeguard policies):

(1) Institutional development of PEC Katowice was hindered by its reluctance to implement Management Information Systems (MIS) and focus on financial issues such as financial accounting and billing and collection rather than technical matters.

(2) PEC Katowice has not shared in the substantial economic benefits generated by the project . Its financial performance has deteriorated during project implementation, mainly as a result of unanticipated low levels of heat demand and insufficient tariff increases . The owner of PEC Katowice has since employed an administrative receiver with the mandate to restructure the company's finances and improve its financial performance .

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Satisfactory	
Institutional Dev .:	Negligible	Negligible	
Sustainability:	Likely	Likely	Sustainability depends on improved financial performance of PEC, resolution of corporate governance issues, and future increases in heat tariffs . Rating sustainability is made difficult by the substantial uncertainty surrounding the fulfillment of these conditions . Nonetheless, the likelihood of their achievement is enhanced by recent actions such as the appointment of an administrator receiver . The current audit of the project will further address this issue.
Bank Performance:	Highly Satisfactory	Satisfactory	A performance assessment of this project is currently being undertaken . To date, there is evidence that the rating should be downgraded to "Satisfactory." However, this will be revisited during the assessment.
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR:		Satisfactory	

NOTE: ICR rating values flagged with '*' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

The most important lessons, well-identified in the ICR, are:

- (1) Poor corporate governance resulting from unclear ownership of the Borrower is not conducive to institutional development. Senior management is preoccupied with resolving issues of ownership, strategy and development rather than implementing and enforcing measures to improve financial and institutional performance .
- (2) A technically oriented institution such as PEC Katowice may not be prepared to give correct priority to financial management. Without changes in corporate culture with greater value placed on financial skills, implementation of measures to improve financial and commercial performance may suffer delays .
- (3) When the financial viability of the Borrower depends on heat demand and the approval of sufficient heat tariffs, rigorous assessments of these must be undertaken at appraisal, particularly where there is financial vulnerability of the Borrower and significant debt burden of the loan .

8. Assessment Recommended? ☒ Yes ☐ No

Why? This project is currently the subject of an OED performance assessment (PAR).

9. Comments on Quality of ICR:

The ICR is very well-written and comprehensive. It provides strong evidence of project achievements and helpful cross-comparisons between the performance of this project and the corresponding Poland Heat Supply Restructuring

and Conservation project.
