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23 Tianjin No. 3 Gas Works **Project**

This project was to stabilize gas supply in the city as a substitute for coal and heavy oil by constructing a coal gasification plant with a production capacity of 1 million m³/day in Tianjin, and thereby contribute to eliminating the gas supply-demand gap, enhancing gas supply coverage and improving the natural environment.

Loan Amount/Disbursed Amount: 5,722 million yen/ 5,720 million yen

Loan Agreement: January 1995

Terms and Conditions: Interest rate 2.6%; Repayment period 30 years (grace period 10 years); General untied

Final Disbursement Date: February 2000 **Executing Agency: Ministry of Construction**



External Evaluator: Yuko Kishino (IC Net Limited) Field Survey: September 2004

Evaluation Result

In this project, the coal gasification plant and pipelines were constructed almost as planned, except for a part of the pipeline construction work which was cancelled due to the commencement of natural gas supply. The project period was much longer than planned because of a shortage of local currency; the project cost was also higher than planned.

Gas production in 2003 was 0.94 million m³/day, as against the initially planned 1 million m³/day. The production of coke as a by-product reached 1 million tons/year in 2003, as against the planned 0.86 million tons/year. The ratio of gas supply for household and other use against industrial use is 25% to 75%. The number of beneficiaries is estimated as 350,000 households, and most of the gas for industrial use is supplied to the steel industry. Compared the situation in 1994 with that in 2003, before and after the project, gas demand in Tianjin (population: approx. 10 million; population of Tokyo: 12 million) increased 60%, which indicates that this project is contributing to stable gas supply in the city. Under this project, a completely sealed-off large-scale chamber-type coke oven and additional desulfurization equipment were installed as environmental measures. As a result, emission of sulfur dioxide from coal combustion has been successfully reduced. Gas supply coverage increased from 80.9% in 1993 to 97.1% in 2003, and the problem of soot and dust emitted from household use of briquettes has been resolved. Thus, the project contributed to the improvement of living environment. There is no problem with technical capacity and the operation and maintenance system of Tianjin Tianti Coking and Chemical Co., Ltd., and its financial status is also favorable.

Third-Party Evaluator's Opinion

In addition to eliminating the gas supply/demand gap, this project generated profit from the production of coke, which is a byproduct. It also contributed to reduce the environmental load by improving energy efficiency and controlling sulfur dioxide emission.

Third-Party Evaluator: Mr. Lin Jiabin (academia)

Obtained a doctoral degree in regional development planning from Tokyo University. Presently holds the posts of Senior Research Fellow of the Department of Social Development Research, Development Research Center of the State Council and Vice President of China Regional Science Association. Specializes in regional development, etc.

Project Area



Tianjin No. 3 Gas Works



Gas tanks that store the gas produced by the project.