#### External Evaluators: Toshiyuki Katagiri, Yumi Ito





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## Severnaya Gas Combined Cycle Power Plant Project (1) (2)

Supporting a stable power supply and economic development through the construction of a large thermal power plant

 Loan Amount / Disbursed Amount
 39.031 billion yen / 39.004 billion yen

 Loan Agreement
 February 1998/October 1999

 Terms & Conditions
 0.75% interest rate, 40 year repayment

Final Disbursement Date Executing Agency February 1998/October 1999 0.75% interest rate, 40 year repayment period (10 year grace period), General untied (phase 2 partially untied) May 2004/December 2005 Azerenergy (http://www.azerenerji.com/index.php?section=1) Azericas

## **Project Objectives**

The objective of this project was to boost electric power supply capacity and efficiency by converting the existing oil burning thermal power plant (150 MW) in the Severnaya area on the outskirts of the capital city of Baku into a gas combined cycle power plant (400 MW) and by constructing a gas pipeline, and thereby contribute to the stable economic growth of Azerbaijan.

#### **Effectiveness and Impact**

#### Rating **a**

The project, which supplies approximately 10% of the electrical power consumed in Azerbaijan (estimated beneficiaries: nearly 900 thousand people), is vital to meeting basic demand. Outage hours due to malfunctions at the power plant decreased by approximately one fifth from 2003, immediately after completion, to 2005. There are no problems with the operation of the gas pipeline. The volume of gas transported and the gas pressure have remained stable since 2004. Although electricity consumption by the industrial sector in Azerbaijan has increased by 1.8 times, respondents of a beneficiary survey given to companies on the outskirts of Baku mentioned that the stability of voltage had improved after completion of the project. The project contributes to the vitalization of economic activity through the stable supply of electrical power. Therefore, this proj-

#### **Project site**



ect has largely achieved its objectives, and its effectiveness is highly satisfactory.

#### This Project's Energy Production and Power Demand over Time

	2003	2004	2005
Severnaya Gas Combined Cycle Power Plant's energy production (GWh)	1,840	2,145	2,526
Nationwide energy consumption in Azerbaijan (GWh)	22,602	22,725	23,430
Power plant's energy production as a share of nationwide electric power consumption (%)	8.1	9.4	10.8

#### Relevance

This project has been highly relevant with Azerbaijan national policies at the time of the appraisal and at the time of the ex-post evaluation. At the time of appraisal, the electrical power sector was designated as a priority investment sector, and the rehabilitation and improvement of deteriorating equipment was an issue. At the time of ex-post evaluation, increasing power generation capacity is still an issue that should be addressed.

### Efficiency

The project period exceeded the planned period (127% 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 process related to gas pipeline construction.

#### **Sustainability**

Though some problems have been observed in terms of financial status such as the low collection rate of electric power charges, sustainability of this project is moderate. As of 2007, electric power charges have been raised significantly from previous low levels. There is a strong sense of uncertainty about this effect on the financial status of the executing agencies.

#### Conclusion, Lessons Learned, Recommendation

In light of the above, this project is evaluated to be satisfactory. The hike in electric power charges is in accordance with the "user pays" principle and it is a desirable step in the long term. It is advisable that the executing agencies continue efforts to improve the fee collection rate, given the envisioned effect the hike in fees could have on the rate of fee collection.

## **Third-Party Opinion**

In light of the need for electric power sector reform and the rehabilitation of deteriorated facilities, this project has been contributing to the increase in power production output since operations began in 2003.

Name of specialist: Mr. Zeynalov Fakhraddin Gadir Ogli (private sector) Graduate of the Energetic Faculty of Azerbaijan State Oil Academy. Previously head of the Industrial Machinery Bureau of the Ministry of Roads and Transportation and held a position in the Electrical Energy Usage Monitoring Center. Currently Chief of Power Energy Substation of Golvar urban settlement of Tovuz district.

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Rating **b** 

Rating **b**