



2 Thailand Promotion of Electricity Energy Efficiency Project

Contributing to the reduction of greenhouse gases and air pollution

Loan Amount / Disbursed Amount 2.8 billion yen / 1.425 billion yen
Loan Agreement September 1993
Terms & Conditions 3.0% interest rate, 25 year repayment period (7 year grace period), General untied
Final Disbursement Date January 2002
Executing Agency Electricity Generating Authority of Thailand (<http://www.egat.co.th/english>)



Project Objectives

The objective of this project was to strengthen the capacity of the energy sector and related private businesses to supply energy-saving products and services by supporting demand side management for five years nationwide, and thereby contribute to the promotion of energy saving, the reduction of global-warming gases and air pollution, the restraint of increases in power generation capacity, and the increase of economic benefits.

Effectiveness and Impact

Rating **a**

This is the first project implemented together with the Global Environment Facility (GEF), which was established by the World Bank initiative. This project achieved an annual power savings of approximately 4,200 GW and restrained demand by about 740 MW in 2002, thereby reducing carbon dioxide (CO₂) emissions by around 3.1 million tons. Thus, the project achieved significant reductions relative to 1997 levels (annual power savings of approximately 1,700 GW, demand restrained by about 300 MW, and CO₂ emissions of around 1.3 million tons). According to a questionnaire survey given to 3,000 people by the Electricity Generating Authority of Thailand (EGAT), 87% of the public is aware of the implementation of this project and 45% of the public is aware of commercials implemented by the project. Progress has been made in switching to energy-saving lighting, refrigerators, and air conditioners in the household sector as a result of the educational activities carried out through the project. In parallel with the project, EGAT pressed consumer electronics makers to produce energy-saving products, which contributed to the reduction of greenhouse gases. Therefore,

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

Relevance

Rating **a**

This project has been highly relevant with Thailand's national policies both at the time of the appraisal and at the time of the ex-post evaluation.

Efficiency

Rating **b**

The project period greatly exceeded the planned period (152% of planned period) while the project costs were kept within planned amount; therefore the evaluation for efficiency is moderate.

Sustainability

Rating **a**

No major problem has been observed for capacity of the executing agency nor the operation nor its maintenance system, therefore, sustainability of this project is high, since the installed heat condenser equipment is being properly managed and operated and informational and educational activities are continuing actively in the public sector following the project implementation.

Conclusion, Lessons Learned, Recommendation

In light of the above, this project is evaluated to be highly satisfactory. Projects that attempt to popularize energy saving products by educating the public through PR activities have the possibility to sustain the effect of reducing CO₂ as a result of their advertising effect. Accordingly, it is advisable that educational and popularization activities be continued.

Actual Energy-Saving and Demand the Strain

Year	Energy-Saving (GWh)		Strained Demand (MW)	
	1997	2002	1997	2002
Household	1,698.56	4,152.4	303.8	732.8
Commercial	4.8	10.3	0.7	2.7
Industrial	1.2	1.2	0.2	0.2
Total	1,704.8	4,163.9	304.7	735.7

Source: EGAT

Third-Party Opinion

As concern about climate change and environmental problems mounts, this project is contributing to the improvement of energy efficiency. Its relevance and sustainability will likely increase even more in the future.

Name of specialist: Mr. Charit Tingsabath (academia)
 Earned a Ph.D. in development economics from University College London. Currently, director of the Centre for European Studies (CES) and professor in the Faculty of Economics at Chulalongkorn University. Specializes in economics, the environment, and project evaluation.