



<b>1. Project Data:</b>		<b>Date Posted :</b> 05/21/2001	
<b>PROJ ID:</b> P004836		<b>Appraisal</b>	<b>Actual</b>
<b>Project Name:</b> Power Sector Rehabilitation & Expansion	<b>Project Costs (US\$M)</b>	239.09	175.58
<b>Country:</b> Vietnam	<b>Loan/Credit (US\$M)</b>	165.0	137.1
<b>Sector(s):</b> Board: EMT - Power (95%), Central government administration (5%)	<b>Cofinancing (US\$M)</b>	0.9	0.9
<b>L/C Number:</b> C2724			
	<b>Board Approval (FY)</b>		95
<b>Partners involved :</b> ASTAE	<b>Closing Date</b>	06/30/1999	06/30/2000

<b>Prepared by :</b>	<b>Reviewed by :</b>	<b>Group Manager :</b>	<b>Group:</b>
Kevin Warr	Fernando Manibog	Alain A. Barbu	OEDST

**2. Project Objectives and Components**

**a. Objectives**

The project had five objectives :

1. Assist the Government in optimizing its investment decisions and help meet demand growth;
2. Help improve the efficiency of the power supply system by : (i) rehabilitating and reinforcing transmission and distribution systems; (ii) converting generating plants from open to combined cycle operation; and (iii) installing modern load dispatch centers;
3. Strengthen the planning, administrative and management capabilities of the power companies through technical assistance and training;
4. Rationalize and strengthen the training system for the power sector; and
5. Assist in the review of issues and options in the promotion of electricity energy efficiency and demand side management.

**b. Components**

The Project originally financed : (a) for PC2: (i) rehabilitation and reinforcement of the distribution system in Ho Chi Minh City; (ii) conversion of three 37.5 MW open cycle turbines to a 170 MW combined cycle unit at Ba Ria; (iii) establishment of the Southern Region Load Dispatch Center; (iv) establishment of the Southern Region Training Center; (v) resettlement and/or compensation of persons affected by components a (i) and a(ii); and (vi) consulting services for detailed engineering, procurement and construction supervision, and an engineering study for the Dai Ninh Hydropower project;

(b) for PC3: (i) rehabilitation and reinforcement of the distribution systems of the cities of Hue and Nha Trang (ii) construction of the 220 kV Krong Buk-Nha Trang transmission lines and 220 kV substations at Krong Buk and Nha Trang, and expansion of the 110 kV substation at Nha Trang, Cau Do and Lien Tri; (iii) establishment of the Central Region Load Dispatch Center (due to shortfall of funds it was financed by EVN; (iv) establishment of the Central Region Training Center; (v) resettlement and/or compensation of persons affected by component b (i) and b(ii); and (vi) consulting services for detailed engineering, procurement, and construction supervision .

The Project also included : (a) for MOE: (i) expansion of the National Load Dispatch Center; (ii) procurement of equipment for the National Training Center; and (iii) engineering studies for the Son La Hydropower project; and

(b) for the Power Sector: (i) technical assistance in strategic planning, MIS, human resource development, financial management and materials management; and (ii) technical assistance in demand-side management and electricity efficiency improvement.

Also, in association with ESMAP, a study was conducted on Power Sector Reform and Restructuring, based on the principles of (a) improving the operational efficiency of the sector; (b) commercializing and corporatizing of the constituent operations to provide greater managerial and financial autonomy; (c) developing an appropriate legal and regulatory framework that would allow for greater autonomy and requisite government regulatory oversight; and (d) a

financially viable and open sector structure that allows the increased private involvement in financing sector expansion.

### c. Comments on Project Cost, Financing and Dates

Total project cost was US\$137.96 million, compared to an appraisal figure of US\$239.09. The reason for the cost savings was due to the lower cost of materials and equipment for the Ba Ria conversion, lower cost for consulting services and savings in compensation to people affected by the project. The Government provided US\$48.7 million, compared to the appraisal figure of US\$82.0 million. Cofinancing was provided by the Asia Technical Alternative Energy Unit, now EASAE, in the amount of US\$0.9 million. The project closed one year later than the appraisal date.

### 3. Achievement of Relevant Objectives:

- 1. Assist the Government in optimizing its investment decisions and help meet demand growth** : This objective was achieved. The infrastructure investments carried out under the project were all part of Electricity of Vietnam's (EVN) and the respective power companies' least cost plan and investment program. Electricity sales increased by about 14 percent on average during the 1995-2000 period. Because of the investments under the project, the reliability and quality of service increased and demand was met.
- 2. Help improve the efficiency of the power supply system** : This objective was achieved. Nontechnical losses were reduced considerably with reported losses less than 3 percent. The conversion of Ba Ria from open cycle to combined cycle improved the efficiency and environmental impact of the existing gas turbines. Plant factors improved from 0.895 before conversion to 0.98 currently. Also, unit heat rates, which are reflected in plant efficiency, decreased considerably. Moreover, the modern load dispatch centers improved the efficiency of the system by allowing for economic dispatch to be implemented, enabling better monitoring and supervisory control of the power system for a more efficient utilization of available resources, and increased security of supply by shortening the time for power supply restoration after a disturbance.
- 3. Strengthen the planning, administrative and management capabilities of the power companies** : This objective was achieved. An Environmental Management Unit at Ba Ria Power Station was established and its guidelines and principles are being used in other projects, thus strengthening the management capacity of the entities involved. Several institutional strengthening studies were carried out and were instrumental in the reform and restructuring of the sector and the commercialization of the power companies as well as EVN. Under the project, the first independent audit of the financial statements of EVN and the power companies was undertaken. However, progress has been slow in promoting power sector reform. EVN's status as a monopoly has been identified as a constraint to efficiency, but competition does not appear to be on the horizon in the near future. Moreover, the Electricity Law is in its 12th draft and is being discussed by a Working Group before its presentation to the National Assembly. Overall, however, the project did strengthen the planning, administrative and management capacities of the power companies.
- 4. Rationalize and strengthen the training system for the power sector** : This objective was achieved. The training centers were established, which allowed for (a) an improvement in the quantity of students and teaching personnel, and the management of the training centers; (b) a more cost effective and well coordinated procurement of testing equipment; and (c) a revision of outdated teaching materials. The end result is an improvement in the effectiveness and efficacy of the training centers.
- 5. Assist in the review of issues and options in the promotion of electricity energy efficiency and demand side management:** This objective was achieved. The recommendations of the study provided the basis for the formulation of the demand side management components of the Transmission Distribution and Disaster Reconstruction Project (C3034). The Hydropower Ranking Study on the five hydropower schemes selected following the consultant's inception report was completed in December 1997. The Institutional Development Study, financed by a Japanese Grant Facility, was completed in February 1997. Based on the findings and recommendations of this study, EVN prepared a training program (financed and implemented under IDA Cr. 2820).

### 4. Significant Outcomes/Impacts:

The Government's efforts to gain stakeholder ownership of sector reforms has the potential for a significant outcome in terms of the sustainability of the reforms, once they are implemented. To date, the sector reform process in Vietnam has proceeded slower than expected; however, in order to expedite matters, three workshops were held by MOI in late 1999 to obtain suggestions and comments from provincial authorities and large electricity consumers. In addition, a Working Group completed the last version of the Electricity Law, which incorporates the findings and recommendations of the workshops. MOI also held a Roundtable Session in September 2000, in consultation with the Bank and ADB, to identify the issues constraining the finalization of an effective electricity law for Vietnam, and provide a review of the 12th Draft of the Electricity Law and draft decrees on tariffs and regulation. Approval by the National Assembly is expected this year.

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

None.

--	--	--	--

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

- While extensive consultation with stakeholders may delay reforms, in the long run stakeholder ownership of major reforms is necessary for successful implementation . However, effective dissemination of practice, and of other countries' experiences with reforms, and efforts to build up stakeholders' support should be integral parts of project preparation .
- Bank policy embraces the use of resettlement as an agent for change, including economic development . All the surveys show that resettlers, including tribal people, themselves seek new opportunities . Yet project planning and implementation is normally preoccupied with compensation and relocation, to the detriment of planning productive activities and services to support them . Establishing productive activities to restore, or increase, former standards of living is difficult to accomplish within the normal timeframe of an investment project. One solution would be to move the resettlement process upstream in the project cycle . Resettlement could start immediately after project initiation and be completed a minimum of two years before project closing to help ensure that incomes are fully restored by project completion .
- The appointment of Independent Monitoring Agencies for RAP is instrumental to control RAP implementation. Thorough RAP preparation is absolutely essential in avoiding complaints by PAPs during implementation. They were able to identify problem areas quickly on land clearance and compensation and provide timely support to avoid disputes later on . As well, the Project PMUs must coordinate closely with local authorities and PAPs so that mutual acceptable solutions are found .
- There are no short cuts to a successful complex operation such as this Project : above-average inputs of IDA resources and broad skills mix for project design, appraisal and supervision are required .

8. Assessment Recommended?  Yes  No

#### 9. Comments on Quality of ICR:

The ICR is satisfactory. It competently covers all the relevant issues and pays special attention to the resettlement issue.