



1. Project Data:		Date Posted : 08/13/2003	
PROJ ID: P002411		Appraisal	Actual
Project Name: SI Power Rehab	Project Costs (US\$M)	74.5	99.9
Country: Sierra Leone	Loan/Credit (US\$M)	21.0	29.2
Sector(s): Board: EMT - Power (100%)	Cofinancing (US\$M)	36.2	42.6
L/C Number: C2356			
	Board Approval (FY)		92
Partners involved : European Investment Bank (EIB), Commission of the European Community (EC), Japan International Cooperation Agency (JICA), United Nations Office for Project Services (UNOPS)	Closing Date	03/31/1997	06/30/2002

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2. Project Objectives and Components

a. Objectives

The project had three objectives :

- 1) Assist the National Power Authority (NPA) to implement long-delayed maintenance and rehabilitation of its Western Area generation, subtransmission, and distribution facilities, as well as replace some generating units so as to restore an adequate and reliable supply of electricity .
- 2) Strengthen NPA as an institution in order to lay the foundations for an autonomous and commercially viable entity capable of providing a reasonably priced and reliable service to its customers .
- 3) Assist the government in developing a comprehensive power sector development policy .

b. Components

The project had 4 components:

- 1) Maintenance and rehabilitation of generation facilities, and replacement of three decommissioned generators with two new ones** (\$27.8 million). Includes the rehabilitation of the Kingtom powerhouse and two Sulzer units and their auxiliary systems; installation of two 5 MW diesel generating units in the Kingtom or Blackhall Road power plants; provision of spare parts for the rehabilitated and for new generating units; and installation of an oil -water separator and an incinerator.
- 2) Rehabilitation and improvements in the subtransmission and distribution network** (\$8.4 million). Includes replacement, expansion and/or rehabilitation of switchgear substations; expansion of transformer capacity and construction of a new substation; construction and rehabilitation of overhead lines; replacement of 5,000 meters and house service drops; minimum rehabilitation of the public lighting system; and purchase and installation of distribution transformers, and other associated equipment .
- 3) Institutional strengthening of the NPA** (\$ 5.8 million). Includes revision of the NPA Act of 1982; contracting of a utility consulting firm to manage NPA under a performance -based management contract; and training of NPA staff .
- 4) Other components** :(\$17.9 million). Include studies for sector development; procurement of a general plant, communication and data processing; engineering and consultancy services; supervision of the civil works for Bumbuna hydro-electric power project; and procurement of lubricants for generating units .

Revised components :

In late 1999, after the country emerged from a five-year conflict situation, the government requested the Bank to finance an additional component of emergency program for the power sector (see section 2c), with the following sub-components:

- 1) Procurement of 3 additional high speed 1.2 to 1.5 MW generators.

- 2) Overhaul of the Sulzer 5 unit.
- 3) Repair to an existing Mitsubishi 5 MW unit.
- 4) De-watering of the Kingtom Power station .
- 5) Acquisition of spare parts for the Kingtom generators .

c. Comments on Project Cost, Financing and Dates

Total project cost was \$ 98.9 million, compared to the appraised estimate of \$ 74.5 million. The Bank provided an IDA credit of \$29.1 million, compared to the appraised estimate of \$ 21.0 million. The government provided counterpart financing of \$28.2 million, compared to the appraised estimate of \$ 17.3 million. Co-financing of \$42.6 million, compared to the appraised estimate of \$36.2 million, was from the following sources: the European Investment Bank (EIB) (\$16.8 million); the Commission of the European Community (EC) of \$15 million; Japan International Cooperation Agency (JICA)(\$10.3 million); and the United Nations Office for Project Services (UNOPS)(\$0.50 million).

Actual project cost was higher than the appraised estimate because additional funding was required to finance the emergency program for the power sector . Additional funds of \$7.2 million allocated for the emergency component of the project were sourced from other IDA financed projects : \$3.5 million from Cr. 2827-SL (Health Project); \$1.7 million from CR. 2702-SL (Urban Water Supply); and \$2.0 million from Cr. 3586-SL (ERRCII).

The project's closing date was extended four times, to December 2002.

3. Achievement of Relevant Objectives:

1) Assist the National Power Authority (NPA) to maintain and rehabilitate the Western Area generation . *This objective was partially achieved.* At project's closing, gross generation was reported at 112.4 GWh, compared to the SAR target of 175.2 GWh. According to the ICR, because of the emergency needs of the country especially after 1999, the focus was on quick restoration of power generation capacity which was made partly through the procurement of quick- to- install additional diesel power generators, rather than through the rehabilitation of existing units. Transmission and distribution components were only partially completed, and although these improvements contributed to power loss reduction, overall losses are still high at about 37 percent.

2) Strengthen NPA as an institution to lay the foundations for an autonomous and commercially viable entity . *This objective was partially achieved* . A management team was put in place in 1992 to operate NPA but was changed by the government four times in a span of 10 years. In 2000, the team hired to manage NPA was able to reduce accounts receivables and increase tariffs . Customer-per-employee ratio has improved from 23:1 to 63:1; although the ratio is still lower than the industry standards in Africa . At project's closing, NPA remains unprofitable, with average cost per unit of sales exceeding tariff by as much as 54 percent. Only 50 percent of the required training program for NPA staff was completed. Although the short-term and in-house training courses enhanced job performance, most of the overseas trainees did not return to the country . Although the 1982 NPA Act was revised, which provided the framework for enabling NPA to operate as an autonomous entity, and for clarifying the functions and responsibilities of NPA's Board and management; the government continued to interfere with NPA operations .

3) Assist the government in developing a comprehensive power sector development policy . *This objective was partially achieved.* The following draft reports have been completed : (i) a 20-year generation and transmission master plan for NPA; (ii) an environmental impact assessment of Bumbuna hydroelectric project; (iii) a study on the consolidation of energy-related activities under the Ministry of Energy and Power; and (iv) options for power restructuring (funded by PPIAF and completed in 2002). Although the government has implemented two of the recommendations of the Master Plan (technical/financial and managerial audit of NPA, and award of contract for the interim power supply in Freetown through a competitive bidding process); it has not fully implemented all the other recommendations of the studies .

4. Significant Outcomes/Impacts:

None.

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

- NPA remains unprofitable. Several factors had deleterious effects on NPA's commercial and financial performance, including high turnover in the management team of NPA (4 changes in 10 years), failure of the government and its entities to pay electricity bills, and the government's continued interference on NPA's operations.
- The project design lacked adequate risk analysis . The Bank's lack of analysis of political risks, which were clearly evident before and during the appraisal phase, and the absence of mitigating measures for the ensuing political instability, had adversely affected the implementation of the project .
- The project's ERR was 8 percent, compared to the projected 28 percent in the SAR. Various factors had adversely affected the project's efficiency performance, including delays in planned rehabilitation, cost overruns, loss of project property, increase in technical losses, and the delayed commissioning of the Bumbuna hydropower project (which was expected in 1998).

6. Ratings :	ICR	OED Review	Reason for Disagreement /Comments
Outcome :	Unsatisfactory	Unsatisfactory	
Institutional Dev .:	Modest	Modest	
Sustainability :	Unlikely	Unlikely	
Bank Performance :	Unsatisfactory	Unsatisfactory	
Borrower Perf .:	Unsatisfactory	Unsatisfactory	
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 ICR provided various lessons which are summarized, as follows :

- 1) The design of institutional reforms should take into account existing institutional capacity and political conditions, especially in countries transitioning from a post-conflict situation.
- 2) Political risk analysis is as important as economic, environmental and financial risk analysis; and mitigating measures need to be put in place to address political risks .
- 3) For projects interrupted by a prolonged conflict, it is important to revise objectives to reflect changes in institutional capacity and in the country's priority for rehabilitation .
- 4) A follow-on project can hardly be justified if it purports to implement objectives that were not achieved by previous interventions; and it is not likely to achieve desired outcomes, if similar macroeconomic, institutional and political conditions persist.
- 5) Employing local consultants to assist in policy reforms may have an advantage over foreign managers when local consultants are more adept at preparing and selling the reform package to the public, and have better knowledge of local conditions.

8. Assessment Recommended? Yes No

9. Comments on Quality of ICR:

- The quality of the ICR is rated as Satisfactory . The ICR is thorough and candid . It provided insightful lessons and a good analysis of quality-at-entry issues. The summary on Borrower's comments was useful, and provided additional information to the main ICR document .
- Some aspects of the ICR could be further improved by providing : (i) a clear distinction on the achievements between the emergency components and the original physical components of the project; and, (ii) consistent figures on project financing in Annex 2; and between Annex 2 and the main text of the ICR.
- The ICR is too long (it is 50 percent more than the prescribed length of 7-10 pages, per BP 13.55), and provides some unnecessary information .
- Some editing would have helped to make the points sharper and direct .