

## Power

Report No. ; Type: Report/Evaluation Memorandum ; Country: Dominica; Region: Latin America And Caribbean; Sector: Distribution & Transmission; Major Sector: Electric Power & Other Energy; ProjectID: P006973

The Dominica Power Project, supported by an IDA Credit of US\$3.2 million equivalent, was approved in FY87. The Credit was closed on December 31, 1995, one and a half years after the original closing date. Cofinancing was provided by the Canadian International Development Agency (US\$1.9 million), European Investment Bank (US\$4.3 million), Caribbean Development Bank (US\$5.5 million), Caisse Centrale de Cooperation Economique (US\$4.2 million), and the Borrower and DOMLEC (US\$8.8 million). The Implementation Completion Report (ICR) was prepared by the Latin America and the Caribbean Regional Office, and includes an evaluation report on the project provided by DOMLEC, the utility company benefiting from the Credit to the Commonwealth of Dominica.

The main objectives of the project were to: (a) provide adequate expansion of the generation, transmission and distribution facilities to effect fuel savings and growth in consumption; (b) strengthen DOMLEC institutionally by providing outside management services and training for technical personnel; and (c) assist DOMLEC in planning system expansion to meet its long-term energy requirements. The project included: (i) construction for diversion of a fraction of the flow from Clarke's River into Fresh Water Lake, erection of a concrete dam at the lake, construction of a 1131 kW hydro plant on the Rossau River and expansion of the Trafalgar hydro plant by 2,844 kW; (ii) improvement and expansion of the transmission and distribution system, installation of 4 x 150 kVA capacitor banks to reduce system losses, and installation of 1,500 kVA of distribution transformers and metering equipment. The project also included a training program to upgrade technical staff skills, and significant consultant services to provide assistance in project construction management and power system expansion after 1993.

The objectives of the project were only partially realized, even though the project was completed with a 50 percent cost overrun. The transmission and distribution component, including the project element to reduce system losses, was severely curtailed in scope during implementation, and the planning study for system expansion after 1993 was abandoned, in part due to the impending privatization of DOMLEC. Implementation of this project suffered significantly on account of onerous litigation expenses to settle claims on termination issues on the civil works contract. Project cost overruns also resulted from adverse geological conditions found on two elements of the hydro component of the project. The geological difficulties were not anticipated during preparation of the project. Performance indicators for DOMLEC's employees as measured by ratios on energy sales per employee has improved markedly; however, electric energy costs borne by the consumer remain at higher levels than those predicted during appraisal, despite significant reductions in DOMLEC's diesel fuel costs from those assumed at appraisal. The cost overrun for the project has had a significant effect on DOMLEC's finances, making it necessary to maintain high tariffs to yield an appropriate rate of return. Improvement of system losses expected after completion of this project have not materialized to any significant degree, due to the elimination of loss reduction elements of the project.

The Operations Evaluation Department (OED) agrees with the ICR, and rates the overall outcome of the project as marginally satisfactory, its sustainability as likely, and the institutional development impact as substantial. The ICR provides ratings of satisfactory, marginally satisfactory and "deficient" for different aspects/phases of Bank performance; however, overall OED rates Bank performance on this project as unsatisfactory. The Bank should have realized that the project was complex in scope, and there were limitations with respect to DOMLEC's capabilities to implement such projects. Despite such limitations, the Bank accepted appointment of advisory consultants instead of construction management

consultants to supervise the construction of the dam. When contractor performance related problems surfaced, the Bank was overtaken by rapidly escalating events and did not have any effective channels to either provide the utility with sound advice or influence it on the need to use appropriate contract termination procedures, indicating certain deficiencies in the dialogue with the Borrower, despite regular supervision of the project twice a year. In addition, the Bank appears not to have given sufficient attention to the bidding documents since they did not provide adequate provision for variations in work orders: it on the need to use appropriate contract termination procedures, indicating certain deficiencies in the dialogue with the Borrower, despite regular supervision of the project twice a year. In addition, the Bank appears not to have given sufficient attention to the bidding documents since they did not provide adequate provision for variations in work orders at least some of the geological problems arose during construction could have been avoided with more test drilling during the design of the project. Finally, the utility appears to feel that the Bank failed to provide adequate assistance at appraisal on matters relating to the evaluation of tenders and supervision of construction.

The main lesson learnt from the experience on this project is that the Bank should require the appointment of a competent construction management consultants for supervising complex projects for clients that do not have sufficient experience and adequate in-house procurement and project management resources.