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IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF HAITI

FIFTH POWER PROJECT
(Cr. 2053-HA)

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Finance, Private Sector and Infrastructure Department
Caribbean Country Management Unit
Latin America and the Caribbean Regional Office

CURRENCY EQUIVALENTS

(As of December 1998)

Currency Unit = Gourdes (G$)
G$16.00 = US$1.00
G$ 1 million =US$62,500

FISCAL YEAR

October 1 - September 30

ABBREVIATIONS AND ACRONYMS

AFD	*Agence Française de Développement* (French Development Agency)
CAS	Country Assistance Strategy
CMEP	Council of Modernization of Public Enterprises
CIDA	Canadian International Development Agency
EdH	*Electricité d'Haïti* (Electricity of Haiti)
GOH	Government of Haiti
GWh	Gigawatt-hours (1 million kilowatt-hours)
IDA	International Development Association
IDB	Interamerican Development Bank
KfW	Kreditanstalt fuer Wiederaufbau (German Development Financing Agency)
MAP	Management Assistance Program
MEF	Ministry of Economy and Finance
MTPTC	Ministry of Public Works, Transport and Communications
PAD	Project Appraisal Document
PMU	Project Management Unit
SAR	Staff Appraisal Report
TAP	Technical Assistance Program

Vice President:	David de Ferranti
Country Management Unit Director:	Orsalia Kalantzopoulos
Sector Management Unit Director:	Danny Leipziger
Task Manager:	Philippe Durand

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PREFACE

This is the Implementation Completion Report (ICR) for the Fifth Power Project in Haiti, for which Credit 2053-HA in the amount of SDR 18.6 million (US$24.0 million equivalent) was approved on June 27, 1989, and made effective on January 16, 1990. The Project was restructured in 1996. The credit was closed on January 31, 1999, compared with the original closing date of December 31, 1995. Final disbursement took place on May 5, 1999 for the amount of SDR 111,509.53 equivalent. A balance of SDR 532,942.43 will be canceled from the Credit, assuming full recovery from the Special Account (US$73,542.04 were pending as of 7/31/99). Cofinancing for the project was provided by CIDA.

The ICR was prepared by Philippe Durand, Task Manager (LCSFP) with support from Marcelo Osorio (Consultant) and reviewed by Mrs. María Victoria Lister, Quality Assurance Officer (LCSFP), Mr. Max Pulgar-Vidal, Sector Leader (LCC3C) and Mrs. Orsalia Kalantzopoulos, Country Director (LCC2C).

Preparation of this ICR began during IDA's final supervision/completion mission in November 1998. The ICR is based on the Staff Appraisal Report, Credit and Project Agreements, supervision reports, field visits, discussions with the project staff, materials in the implementing agency files, and the project file. The Borrower and Electricité d'Haïti (EDH) contributed to preparation of the ICR by providing their own report, information for the statistical tables and comments on the draft ICR which have been taken into account. The Borrower's contribution is shown in Appendix 2.

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FIFTH POWER PROJECT

EVALUATION SUMMARY

Introduction

1. The Fifth Power Project was part of the Government's sector strategy aimed at bringing about improvements in the efficiency, reliability and quality of energy services. Project objectives were in line with IDA's objectives of reducing long-run cost of electricity, and improving EdH's institutional and financial performance. This was IDA's fifth operation in the power sector. The first, second and fourth previous operations in 1976, 1980 and 1985, respectively were satisfactorily implemented. The third previous operation in 1982 was rated unsatisfactory.

Project Objectives

2. The main objective of the project was to support Haiti's economic development strategy by providing the reliable supply of power necessary for economic growth and, in particular, for industrial and commercial activities. More specifically, the project aimed at: (a) expanding the generating facilities in the city of Port-au-Prince in accordance with a least-cost expansion program; (b) supplying electricity to the cities of Hinche and Thomonde; and (c) improving EdH's efficiency through the execution of (i) a program to reduce non-technical losses; (ii) institutional improvements; and (iii) training programs to strengthen EdH's managerial and technical capacity.

Implementation Experience and Results

3. The project was approved in June 1989 and became effective in January 1990. It was restructured in July 1996 after the credit disbursements suspension, imposed following the embargo on Haiti by the international community from 1991 to 1994, was lifted. The project was restructured taking into account the conditions of the country after the embargo and the assistance offered to the country by other donors. During the embargo, the electricity system deteriorated dramatically and EdH was in precarious financial condition. Consultants appointed to study a strategy to develop the power sector concluded recommending full privatization of EdH. Following this recommendation, AFD/CIDA from France/Canada funded a Technical Assistance Program to Electricite d' Haiti (EdH) to improve its operations, IDB approved a grant to finance consultant services to assist the Government in analyzing options for privatizing EdH, and IDA restructured the project to focus on expanding badly needed generation capacity in Port au Prince and improving EdH's efficiency prior to its privatization.

4. The project partially achieved its objectives. The power generating facilities were expanded by 31 MW and availability of electricity service at Port-au-Prince increased from four hours in 1995 to eighteen hours in 1998, a pilot loss reduction program was successfully implemented and a pre-feasibility study for the installation of a new 60 MW diesel plant was

completed. However, EdH's overall efficiency was not improved. Electricity losses increased and EdH's financial conditions very greatly deteriorated. Electricity losses increased from 40% in 1989 to 55% in 1997. Rates of return have been negative: –6.2% in FY 96 and -9.66% in FY 97 and total accounts receivable at end of FY 98 were equivalent to 8.2 months of consumption.

5. The Government of Haití (GOH) progressed slowly towards the concession of the electric utility (EdH) to a private operator. In 1996, the GOH implemented two substantive actions, the enactment of the Law of Modernization of Public Enterprises and the establishment of the Council for the Modernization of the Public Enterprises (CMEP). The Law permits the transfer of public enterprise operations to private companies under the modalities of concession, capitalization or management contracts. Following the enactment of the Law, the CMEP, assisted by consultants financed by IDB, conducted studies to assess options for private participation. However, the progress has been very slow, due to lack of high level decisions. It was not until January 1999, that the GOH decided to select the concession option. At present, IDB is preparing a project that would include consultant services to assist the GOH in the implementation of this option.

6. The major factors that affected project implementation were: (i) the three year economic embargo imposed upon the country; (ii) EdH's critical financial situation following the embargo; (iii) the critical economic situation of most of the country's population which aggravated the problem of payment arrears and electricity theft and was an obstacle to tariff increases that were necessary to allow EdH's financial viability; (iv) the country's political instability: there were seven governments during the project implementation period ; (v) government's intervention in EdH's technical operations, which mainly affected the decision on the type of generating units and their procurement process, and the contract for the technical assistance to EdH; and (vi) weak EdH's institutional capability due to lost of qualified staff.

7. Several covenants were not met, primarily those with regards to the financial position of EdH. These shortfalls were as follows: EdH's rates of return have been negative as compared to 4.0% covenant, level of electricity losses is 55% as compared to 35% covenant, and the customers per employee ratio was 78 in FY 1998 as compared to 80 covenant.

Summary of findings, Future Operation, and Key Lessons Learned

8. The project outcome is unsatisfactory. Although the main project objective, the expansion and improvement of EdH's electricity-generating facilities in the city of Port-au-Prince was achieved, the deterioration of EdH's efficiency and the uncertain project sustainability makes the overall outcome unsatisfactory. EdH's electricity facilities in Port-au-Prince were expanded within the project cost estimates and availability of the other EdH's generating facilities improved. As a result of both the expansion of EdH's generating facilities and improved maintenance of the existing ones, generation increased from 466.5 GWh in 1995 to 663.0 GWh in 1998 and availability of electricity service in Port-au-Prince increased from four hours in 1995 to eighteen hours a day in 1998. However, given EdH's critical financial condition and inefficiencies, the maintenance of both the new and existing generating units is likely to decline unless the Government accelerates the actions required to transfer EdH's operations to a private investor.

9. Overall IDA performance was moderately satisfactory: IDA properly identified and prepared the project but failed to adequately assess the status of project readiness for

implementation at the time of appraisal; during supervision IDA's performance was satisfactory but failed to achieve an improvement in EDH operational efficiency and financial situation. The Borrower's performance was unsatisfactory: it did not support EdH's actions to improve its commercial performance and it did not take timely decisions for the restructuring and privatization of EDH. The performance of the implementing agency was less than satisfactory: EDH efficiently contributed to project preparation but during project implementation, EDH was not sufficiently committed to reducing non technical losses of electricity and did not take timely measures to improve its financial management procedures or to balance its financial situation.

10. The discussions held under the project and the lessons learned from its implementation contributed to important Government actions that could permit the participation of a private investor in EdH's operations. Options for private participation in the power sector were discussed with CMEP in several opportunities in 1998, in coordination with IDB. A project to assist the Government with the concession of EdH to a private company is being considered by IDB. This project would also include a component to finance the purchase of the goods and spare parts required for the maintenance of EdH's facilities during a period of two years. Successful implementation of this project and the achievement of its objective are fundamental to the sustainability of the project and the development of electricity service. Finalization of the concession arrangements with a private investor is expected in 2000.

11. EdH has prepared a scheduled maintenance program for all its facilities and quantified the costs to perform it until IDB's proposed operation is effective. The Council for the Modernization of Public Enterprises has prepared a schedule for the appointment of an investment bank, the preparation of documents to invite private companies to bid for the concession of EdH, and the finalization of the concession arrangements with the awarded company.

12. The key lessons learned from the implementation of the project are:

(a) EdH is not financially viable under the present institutional arrangements that do not entail sufficient incentives, autonomy or private involvement. Its income is insufficient to meet its costs of operation and maintenance;

(b) the main cause for EdH's low income is the high level of electricity losses which have not decreased but constantly grown since the First Power Project financed by IDA, despite the fact that four of the five power projects included the reduction of losses as one of their objectives; the magnitude of these losses is such that their reduction will require substantial investment and very different institutional arrangements, with a motivated management;

(c) the lack of adequate maintenance to the power facilities is another crucial issue. EdH is neglecting the maintenance of its facilities due to both lack of financial resources to acquire spare parts and insufficient power capacity reserve to allow stopping operation of its facilities for their maintenance;

(d) the Government has initiated actions to concession EdH to a private company. The private company should bring into EdH new capital which is indispensable for expanding the power facilities and drastically reducing electricity losses;

(e) the failure in achieving the loss-reduction objective in this project and in the previous ones, has been due in part to lack of an adequate preparation of a comprehensive program which include detailed design of its components, list of equipment, implementation schedule and complete cost estimates of the implementation and follow-up actions. The preparation of these elements should have been completed under project preparation, not during its implementation as was done in the project;

(f) the SAR for the project did not include a political risk analysis. The analysis of this kind of risks should be made whenever the political environment is unstable. In the case of the project, the political environment was very unstable at the time of the SAR;

(g) the risk analysis in SARs/PADs should include the preparation of the utility's financial projection based on historical levels of efficiency, not on expected and uncertain improved levels. In the case of the project, EdH's financial projections assumed substantial efficiency improvements, in particular an unrealistic drastic reduction of electricity losses;

(h) the support from government, including use of public force, is essential to successful implementation of a loss-reduction program. The project pilot program for loss reduction showed that EdH's employees did not have safe access to many neighborhoods and that the resale of electricity by customers not paying EdH was a problem;

(i) Technical Assistance Programs (TAP), and even performance-based management contracts, proved once more that they are ineffective and should be avoided. These arrangements lack accountability, incentives, power to implement measures and financial resources to implement such measures;

IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF HAITI

FIFTH POWER PROJECT

PART I – IMPLEMENTATION ASSESSMENT

A. BACKGROUND

1. From 1986 to 1999 Haiti has passed through one of its worst political and economic crises. After a civil rebellion obliged President Duvalier to resign power in 1986, there were several military governments until February 1991 when a democratic government was elected. This government did not last long; in September 1991, following a *coup d'état,* a period of dictatorship came with a military government. The international community did not recognize this military government and applied an economic embargo to the country. The embargo was lifted in December 1994, when the democratic Government of President Aristide was reestablished. Following the embargo decision, IDA suspended credit disbursements to Haiti. At the time when credit disbursements were suspended, only a few preliminary activities had been started and only about US$0.1 million of the credit had been disbursed. During the project implementation period (1989-1999), the country has had seven different governments.

2. The breakdown of civil discipline subsequent to the several changes of government and the political situation began to seriously undermine EdH's performance. Frequent changes in management, due to political considerations, shortage of qualified staff and inadequate coordination among the various departments, aggravated EdH's condition. Skilled professionals, attracted by higher salaries and more stability in developed countries, started to leave the country. The main problems confronting the sector were extremely high energy losses and poor conditions of the power thermal plants. Energy losses escalated rapidly, reaching an average of 35% of total production in 1987 compared to 30% in 1986. Electricity service was very unreliable, with frequent outages and breakdowns. The four thermal plants that served the Port-au-Prince area (Janvier, Delmas, Varreux and Carrefour, totaling 101.3 MW) were old and unreliable or poorly maintained. Extensive work was carried out under the Fourth Power Project, including complete overhauling of the Delmas' four units as well as maintenance and improvements of the Varreux and Carrefour plants. As a consequence of high electricity losses and the shortage of qualified staff, EdH's financial performance deteriorated dramatically. Rate of return on revalued fixed assets decreased from 5% in 1986 to 1.5% in 1987, and accounts receivable from private customers increased from an equivalent average of 60 days in 1986 to 75 days in 1987.

3. At the end of the embargo, the political, economic and social conditions of the country were critical. Politically, the government faced the need to restore political stability as its first priority. Economically, after more than three years of embargo, the country was devastated. The power sector was not the exception: the conditions of the power facilities, specifically the thermal plants, were catastrophic due to the extended period without spare parts required for their proper maintenance. Socially, the situation was calamitous. Poverty had dramatically increased and consequently, people's capacity to pay for basic services, including electricity, decreased. Four years after the embargo was lifted, the country has not been able to recover political stability.

Government has lacked a Prime Minister for almost two years and no Prime Minister has remained in power for more than one year

4. The project was appraised in June 1987 and negotiated in November 1987. After the change in government in 1988, it was updated in March 1989 and renegotiated in April 1989. The project was restructured in July 1996 following the lift of the international embargo.

B. STATEMENT/EVALUATION OF PROJECT OBJECTIVES

Project Objectives

5. The main objective of the project was to support Haiti's economic development strategy by providing the reliable supply of power necessary for economic growth and, in particular, for industrial and commercial activities. More specifically, the project aimed to: (a) expand the generating facilities in the city of Port-au-Prince, in accordance with a least-cost expansion program, (b) supply electricity to the cities of Hinche and Thomonde; (c) improve EdH's efficiency through the execution of (i) a program to reduce non-technical losses; (ii) institutional improvements; and (iii) training programs to strengthen EdH's managerial and technical capacity.

6. The project was initially comprised of seven components: (i) installation of two 20-MW gas turbine generating units in Port-au-Prince; (ii) construction of a single-circuit, 42 km-long sub-transmission line of 23 kV from the Peligre hydropower plant to Hinche; (iii) procurement of equipment and tools for maintenance of distribution systems and a loss-reduction program; (iv) preparation of feasibility studies for future medium-speed diesel units; (v) a pre-investment study to assess the economic merits of serving the Ciment d'Haïti plant from EdH's main grid; (vi) preparation and implementation of a program to reduce non-technical losses; and (vii) a program to carry-out EdH's institutional development, including the implementation of a training program.

7. In 1995, after the lift of the embargo, IDA and the Borrower agreed to restructure the project taking into account the country needs for urgent addition of power capacity and to extend the closing date from December 31, 1995 to December 31, 1998. During the embargo, the electricity system deteriorated dramatically. Electricity service was only available four hours a day and EdH was in precarious financial condition. Consultants were appointed to study a strategy to develop the power sector; their recommendation was full privatization of EdH. Following this recommendation, several donors were willing to assist the Government in improving EdH's performance and its further privatization. In 1995, the French Agency for Development (Agence Française de Développement, AFD) and the Canadian International Development Agency (CIDA) funded a Technical Assistance Program to enable EdH to improve its operations. In 1996, IDB approved a grant to finance consultant services to assist the Government in analyzing options to transfer EdH's operations to a private company through concession, capitalization or management contract. Considering that EdH's institutional development would be widely covered by the support to be provided by other donors, IDA accepted Government's request to reallocate most of the credit funds in support of the institutional component to increase the category for the generating component and restructured the project accordingly.

8. The restructured project was comprised of five components; (i) installation of additional power generation capacity for EdH in Port-au-Prince, including the acquisition and utilization of medium-speed diesel power units at Varreux and a low-speed diesel unit at Carrefour; (ii) preparation and implementation of a program for the reduction of EdH's energy losses; (iii) a study on the site location and cost estimate of medium-speed generating plants to be constructed by EdH; (iv) a study to examine the current structure of EdH's tariffs; and (v) a reduced institutional development program limited to finance technical assistance for a loss reduction program, improvements of EdH's information, accounting and inventory control systems, and a training program for managers and high-level staff of EdH. The review of EdH's by-laws and the revision of its organizational structure were eliminated since the new goal was the privatization of EdH.

Evaluation of Objectives

9. The project objectives were clear and similarly interpreted by the Borrower and the implementing agency at the time of project appraisal. Given the urgent need of the country for additional power capacity and the need for EdH to improve its efficiency, the objectives were also appropriate at the time of project appraisal and in line with IDA's objectives. IDA's objectives for the energy sector were to foster energy conservation, to reduce the long-run cost of electricity, and to improve EdH's institutional and financial performance.

C. ACHIEVEMENT OF PROJECT OBJECTIVES

Overview

10. Overall, the project partially achieved its objectives. The objectives of expanding generating facilities at Port-au-Prince and supplying electricity to the cities of Hinche and Thomonde were achieved, but the improvement of EdH's efficiency was not achieved. Electricity losses have increased and EdH's financial condition has deteriorated dramatically.

Sector Policies

11. The project did not include sector policy objectives. However, with the extreme deterioration of electricity service during the economic embargo, the need for substantial sector policy reforms was evident during project implementation as recommended by consultants appointed to study a strategy to develop the power sector. Based partly on the recommendations of this study, the Government prepared and enacted the Law of Modernization of Public Enterprises. This law permits the participation of private companies in the public enterprises under the modalities of management contracts, concession or capitalization. Additionally, the law created the Counsel of Modernization of Public Enterprises (CMEP) to promote private participation in public enterprises and carry out the transfer of operations of public enterprises to private companies.

Financial Objectives

12. The financial objectives of the restructured project were not achieved and financial covenants were not met. EdH's financial performance has been very unsatisfactory. In FY 98, its financial losses amounted to US$ 5.0 million. Rate of return was –6.2% in FY 96 and it even

worsened in FY 97 to -9.66%. Accounts receivables are equivalent to 8.2 months of consumption. The auditor certified the project accounts and the SOEs without qualification, but issued a disclaimer of opinion for EdH's 1996 and 1997 financial statements. Audit report for FY 98 was not yet available at the time of the ICR preparation.

Institutional Development

13. The institutional development objectives were partially achieved. Maintenance of the generating facilities improved considerably and availability of electricity service increased from four hours in 1995 to eighteen hours in 1998. However, these improvements were overshadowed by the extremely high electricity losses that reached the level of 55% in 1998. The causes for the increase of electricity losses are several: lack of the utility's commitment to this objective; lack of Government's support to enforce the cut of service to illegal customers; and lack of financial resources to implement a comprehensive loss-reduction program. The credit amount allocated to this program was intended to finance only consultant services, and not the large amount of equipment and goods required for this kind of program like meters, labs, vehicles and cable; thus, only a pilot program was financed from the project. Due to the high level of losses, EdH's operational deficits were also high, thus limiting its ability to financially afford loss control measures and to properly maintain its facilities. As a result, if no external financial resources are injected to EdH, it is likely that even the improvements obtained in the maintenance of generating facilities will be lost; this injection of resources would materialize if EdH was privatized.

14. The technical assistance provided under grants given by AFD from France and CIDA from Canada did not contribute much either to the improvement of EdH's performance. The program was provided during a three and a half year period, from July 1995 to December 1998 and was a positive factor in improving the operation of EdH's generating facilities. However, deficient terms of reference, lack of incentives for consultants' performance, lack of performance indicators and insufficient financial resources were the main constraints preventing better or lasting results from this assistance.

15. Some positive actions have been taken towards the concession of EdH to a private company, which would be the most effective long term solution for the power sector. The enactment of the Law of Modernization of Public Enterprises in 1996 was undoubtedly a substantive action. Following the enactment of the Law, the CMEP, assisted by consultants financed by IDB, conducted studies to assess options for private participation in the power sector and, as a result, has selected the concession option. At present, IDB is preparing an operation that would include consultant services to assist the GOH in the implementation of this option.

Physical Objectives

16. The physical objectives were substantially achieved. The power generating facilities were expanded by 31 MW at the Varreux and Carrefour power stations, electricity generation increased from 466.5 GWh in 1995 to 663.0 GWh in 1998, the cities of Hinche and Thomonde have electricity service, a pilot loss reduction program was implemented, a tariff study was conducted and a pre-feasibility study for the installation of a new 60 MW diesel plant was completed.

17. The Varreux power station was expanded by six medium-speed diesel generating units with a total installed capacity of 21 MW. Out of the six units, four units totaling 15 MW were

financed by the Credit and the other two units, totaling 6 MW, were financed by CIDA from Canada. Installation of these units was completed by mid-1996, and the plant has been in operation since that date, but the units still have some problems pending of fixing by the contractor, namely defects in the speed regulation and steam generators. Final acceptance of the units is pending the repair of the above problems and successful completion tests that are scheduled for July 1999.

18. The Carrefour power station was expanded with a 10 MW low-speed diesel unit. Consultants prepared the technical specifications for this unit which was procured under ICB modality. This unit is under provisional operation since January 1999, but its final commission is scheduled for June 1999 in order to correct some deficiencies found at the rotor.

19. At the cities of Hinche and Thomonde, EdH installed small power generators financed from their own resources. The portion of the credit allocated to finance a transmission line to these two cities was reallocated to increase the category for power expansion capacity.

20. The pilot loss-reduction program executed under the project comprised a zone with some 10,500 customers. The program included the installation of new meters and the monitoring of the electricity supplied and electricity billed within the pilot zone. Electricity losses were reduced by some 16% in the pilot zone but this achievement was not sustained because EdH lacked the financial and human resources to continue monitoring the zone.

21. A pre-feasibility study on a new 60 MW diesel plant, including site selection, was completed satisfactorily. This plant will have to be developed soon to meet the country's needs for additional power.

22. Actions to improve environmental conditions, especially the recovery of liquid effluents, at the Carrefour and Varreux power plants were completed.

D. IMPLEMENTATION RECORD AND MAJOR FACTORS AFFECTING THE PROJECT

Implementation Record

23. The project was originally scheduled to be completed by June 30, 1995 and close on December 31, 1995. It was restructured after the suspension of credit disbursements was lifted in July 1996 and the closing date was extended to December 31, 1998. A further extension to January 31, 1999 was granted. Final project cost was US$ 26.8 million equivalent, compared to US$27.6 million estimated at appraisal. Total IDA disbursements amounted to US$25.4 million.

24. Implementation was not always satisfactory. Procurement of the generating units at Varreux was particularly troublesome. Due to the emergency situation the country was facing after the embargo, the Government requested, and IDA accepted, two modifications to the procurement of these units so as to hasten their availability. The first change was related to the type of generating units (small medium-speed diesel units instead of the gas turbine specified in the project description); the second change was on the procurement modality. A shopping modality was accepted instead of ICB. The results of these changes were negative. During project preparation and again in the first year of project implementation, EdH, assisted by consultants, had prepared bidding documents and technical specifications for the procurement of gas turbines. For the procurement of diesel units, EdH did not have bidding documents ready and

did not have consultants to assist them. Given the urgency of the requirements for the generating units, staff from the Ministry of Public Works, Transport and Communications (MTPTC) and EdH prepared simplified, broad specifications and issued bid invitations to potential bidders by fax. Some problems developed because of this procedure. First, EdH received bids including equipment that met the broad specifications, but with substantial differences in design, thus making difficult the comparison of bids. Second, the award criteria was unclear for this kind of situation and, as a result, there were disagreements on the award recommendations between the MTPTC and the consultants appointed by EdH to assist them in the bid evaluation. Third, the Ministry of the MTPTC decided to terminate the contract with the consultants because of the above disagreements. Fourth, EdH's award decision made on the basis of the recommendations of a new consultant was materially contested by one of the bidders. Finally, the equipment supplied under this component has had technical and operational problems which have been due, in part, to incomplete specifications.

25. The Technical Assistance Program (TAP) financed by grants from AFD from France and CIDA from Canada was ineffective. This program was intended to assist EdH in improving the electricity service during the transition period after the lift of the embargo until EdH would be privatized. At that time, privatization of EdH was expected to be completed within one year. Since the expected duration of the TAP was short, AFD, CIDA and GOH agreed on very simplified terms of reference and contract with the consultants; they did not include any efficiency target nor performance indicators. However, since the process for the intended privatization of EdH progressed much slower than expected, at Government's request, AFD and CIDA extended twice the TAP from July 1996 to December 1998. Unfortunately, due to the unrealistic expectation on the quick privatization of EdH, the extensions of the contract with the consultants were made on the same terms as the initial contract and the consultants were unable to program their assistance with long-term objectives. The consultants focussed their assistance on short-term objectives only, mainly the increase of electricity service availability. The TAP had no impact on reduction of power losses nor on improvement of EdH's financial situation.

26. The extension of the credit closing date to December 31, 1998 followed the lift of the disbursement suspension, and was linked to project restructuring in July 1996. It reflected a revised project implementation schedule that had been prepared by EdH and reviewed by IDA. The extension of the closing date to January 31, 1999 was to cover the expected period to complete the installation of the 10 MW diesel unit at Carrefour. However, due to unforeseen problems encountered lately at this unit, final acceptance of this unit is still pending and the credit closed without making the expected final disbursement in the amount of US$ 0.7 million, equivalent to 10% of the contract amount. This payment is offset, however, by a penalty in an equivalent amount that was assessed by EdH for delay by the contractor in meeting the contractual implementation schedule.

Major Factors Affecting Implementation

27. *Factors outside the control of the Borrower and the Implementing Agencies.* The major factors that affected project implementation were the political instability and the three-year economic embargo imposed upon the country and the multiple negative consequences derived from it. The first consequence was the suspension of disbursements of the IDA's credit which interrupted the procurement process of the generating units. A second consequence was the deterioration of the economic situation of most of the country's population, which reduced customer affordability and aggravated the problem of electricity theft and was an important

obstacle to tariff increases. This, in turn, aggravated the already critical financial situation of EdH and affected all its other operations, including implementation of the project.

28. *Factors subject to Government control.* These factors included: (i) lack of decision on the process for the privatization of EdH. The Government changed several times its decision on the modality of EdH's privatization, which caused a substantial delay on the process. This in turn, aggravated EdH's performance because of its uncertain future; (ii) the lack of public support, including the use of public force to EdH's actions devoted to reduce electricity thefts; (iii) the government's intervention in EdH's technical operations. The Government intervened extensively on the procurement process for the generating units at Varreux. The MTPTC disagreed on the award recommendation made by the consultant appointed by EdH and fired the consultant. This action put project implementation in serious danger. Another intervention that proved to be very negative was the preparation and agreement of terms of reference and contract for the TAP without participation of the power utility which had to deal with them.

29. *Factors subject to implementing agency control.* The main factors were as follows: (i) weak institutional capability. EdH had lost most of its qualified staff prior to project implementation due to lack of incentives, low salaries and political interference in the utility's management. During project implementation the job conditions were even less attractive for qualified staff; (ii) EdH did not make good use of the extensive consulting services made available to it through the Technical Assistance Program financed by AFD/CIDA (the Program included some thirteen consultants during a three and half year period). Much of the blame for this was the lack of EdH's supervision on the consultants work; and (iii) the Commercial and Financial Directorates lacked adequate management during most of the project implementation period. EdH's financial statements deserved a disclaimer of opinion by the auditor.

E. PROJECT SUSTAINABILITY

30. Sustainability of the project achievements is uncertain. It is highly dependent on the availability of financial resources for the proper maintenance of the generating units. The most likely solution to this issue is the project IDB is considering in support of GOH's plans to concession EdH's to a private company. This project would include an investment component to meet the maintenance requirements for two years, after which time the private operator will be fully responsible for all maintenance costs. However, finalization of this operation is subject to (i) GOH's full support to the proposed concession of EdH's operations to a private company; and (ii) response from the private sector to the invitation to submit bids for the proposed concession agreement. At present there are no clear answers to either of these two conditions and, consequently, sustainability of the achievements of the project is uncertain.

F. IDA PERFORMANCE

31. IDA's performance was satisfactory during the identification and preparation phases. At the identification phase, IDA properly assessed project objectives that were consistent with the GOH's strategy for development. At preparation, IDA rightly assessed the main project issues and the project components necessary to deal with these issues and assisted the borrower in the preparation of the project components concurrently with the supervision missions for Credits 1281-HA and 1527-HA.

32. At appraisal, IDA satisfactorily assisted the Government on defining project components consistent with the project objectives and properly assessed the least cost expansion program for the power sector, but failed to adequately assess the status of project readiness for its implementation. Completion of the bidding documents for the procurement of the gas turbines took more than one year after project appraisal. Preparation of the loss reduction program was still at a very incipient level. It did not include a plan of action to implement concrete measures, a list of equipment and goods, nor a detailed cost estimate of the entire program. It only included terms of reference for the appointment of consultants to assist EdH in the implementation of a loss reduction program. With that level of preparation in this program, the target to reduce losses from 40% to 16% was totally unrealistic. IDA had not learned from the previous three operations in which EdH had failed for similar reasons.

33. During supervision, IDA's performance was satisfactory, but ineffective. IDA was very sensible in its decision to restructure the project, taking into account the GOH's requests and the assistance offered by other donors, and to extend the closing date for three years at once. IDA was also sensible in approving an expedited procurement process for generating units in view of the urgently needed increase in electricity supply. The supervision documentation provides a good and realistic assessment of the status of the project, the environment in which it was being implemented, and the options IDA management faced. It also contributed with recommendations for permanent sector reforms, particularly with regards to a long-term solution - the privatization of EdH's operations. However, despite IDA's support, EdH's was unable to comply with the credit's financial covenants due mainly to the external factors mentioned above and IDA did not exercise the remedies available in accordance with the Credit Agreement. This lack of drastic actions by IDA was likely due to the fact that after the severe consequences the embargo had for the country, the general attitude of all international organizations assisting the country was one of leniency.

34. Overall IDA performance was moderately satisfactory: IDA properly identified and prepared the project but failed to adequately assess the status of project readiness for implementation at the time of appraisal; during supervision IDA's performance was satisfactory but failed to achieve an improvement in EdH operational efficiency and financial situation.

G. BORROWER PERFORMANCE

35. Borrower's performance was unsatisfactory. Overwhelmed by the political and economic problems the Government faced after the embargo, its commitment to project objectives faltered. The Government was more interested in short-term results, such as the immediate increase of availability of electricity service at any price, than in taking unpopular measures for long-term results, such as supporting EdH's actions to cut electricity service to illegal customers and allowing the necessary tariff restructuring. However, the Government provided some financial support to EdH by arranging direct payments by the GOH of fuel procured by EdH, that were later settled towards Government electricity consumption. The main problem has been the slow progress in sector restructuring and the privatization of EdH, which was due to lack of high level decisions by Government, caused in part by the lack of a Prime Minister during almost two years.

36. The performance of the implementing agency was less than satisfactory. At preparation stage, EdH was diligent in taking actions and preparing all the information required for project

appraisal, including the appointment of consultants, review of consultant reports, preparation of a least-cost expansion plan and financial projections for the sector. However, during project implementation, EdH's performance was unsatisfactory. Specifically, its commercial performance has been highly unsatisfactory. The extremely high level of electricity losses at the beginning of project implementation not only was not reduced, but actually increased. It is true that this problem has several causes, but lack of EdH's commitment on attacking this problem was undoubtedly one of the causes. EdH's financial performance has also been unsatisfactory although has improved as of late, based on EdH's provisional financial results for 1998. The audit reports repeatedly issued disclaimer opinions in reference to EdH's financial statements, mainly due to problems with billing and customer receivables, asset accounting, long-term debt, deficiencies in financial management and accounting software and financial management procedures. In May 1998, based on the auditor's report, EdH prepared a detailed action plan to improve its financial management system. Implementation of the action plan was substantial in December 1998.

H. ASSESSMENT OF OUTCOME

37. Overall, the outcome of the project is unsatisfactory. Although the main project objective, the expansion and improvement of EdH's electricity-generating facilities in the city of Port-au-Prince was fully achieved, the deterioration of EdH's efficiency and the uncertain project sustainability makes the overall outcome unsatisfactory. EdH's electricity facilities in Port-au-Prince were expanded within the project cost estimates and experienced a delay of only a few months with respect to the revised project implementation schedule. Additionally, the maintenance and availability of EdH's other generating facilities improved. As a result of both the expansion of EdH's generating facilities and improved maintenance of the existing ones, availability of electricity service in Port-au-Prince increased from eight hours to eighteen hours per day. However, given EdH's critical financial condition and inefficiencies, the maintenance of both the new and existing generating units is likely to be inadequate if Government does not accelerate the actions required to transfer EdH's operations to a private investor, which would allow the sustainability of project-financed investments..

38. An ex-post analysis of the internal economic rate of return (IERR) for a time slice of EdH's investment program was conducted utilizing the same format as the analysis included in the SAR for a different period. Revenues derived from incremental sales were used as a proxy for benefits. The benefits attributed to EdH's 1995-1998 investment program was assumed at 10% of incremental sales, billed and non-billed, in 1995, 20% in 1996, 40% in 1997, 60% in 1998, 80% in 1999 and 100% from 2001 on. EdH's 1995-1998 investment program's ex-post IERR and NPV discounted at 10% were estimated at 8.0% and US$-10.6 million, respectively. Incremental sales were calculated as the total energy delivered by EdH's power plants less the technical electricity losses estimated at 16%. Non-technical losses (electricity thefts), which amounted to about 40% in 1998 were included in the sales as non-billed electricity, considering that although they were not paid to the utility, they still represent an economic benefit.

I. FUTURE OPERATION

39. The discussions held under the project and the lessons learned from its implementation contributed to important Government actions that could permit the participation of a private investor in EdH's operations. A project to help the Government to concession EdH to a private

company is being considered by IDB. This project would also include a component to finance the purchase of goods and spare parts required for the maintenance of EdH's facilities for a period of two years. Successful implementation of this project and the achievement of its objectives are fundamental to the sustainability of the project and the development of electricity service in Haiti. Finalization of the concession arrangements with a private investor is expected next year.

40. The Council for the Modernization of Public Enterprises has prepared a schedule for the preparation of documents to invite private companies to bid for the concession of EdH, to appoint an investment bank, and to finalize the concession arrangements with the awarded company.

41. Until the concession arrangements are finalized, EdH will continue monitoring customer connections to avoid further increase of electricity losses.

42. If the concession of EdH to a private company is successfully implemented, the Government should focus its efforts in rural electrification, in particular through the use of solar and other renewable energy, and in promoting the rational use of energy in the rural areas. Deforestation is one of the major energy issues in Haiti caused mainly by the inefficient production and use of charcoal and wood for cooking. It could be mitigated by the development of forest management schemes by rural communities and the dissemination of practices and private delivery mechanisms for the efficient use of woodfuels and their substitution with LPG and kerosene.

43. EdH has prepared a scheduled maintenance program for all its facilities and the budget required for its implementation until IDB's proposed operation is effective. EdH already procured under the project the spare parts for maintenance of the project units during 1999 and included the cost of the spare parts for its other generating units in its 1999 overall budget.

44. EdH will continue implementing the action plan prepared in May 1998 to correct the deficiencies signaled by the auditor. This implementation should be concluded by September 1999.

J. KEY LESSONS LEARNED

45. The key lessons learned from the implementation of the project are:

(a) EdH is not financially viable under the present institutional arrangements that do not entail sufficient incentives, autonomy or private involvement. Its income is insufficient to meet its costs of operation and maintenance;

(b) the main cause for EdH's low income is the high level of electricity losses which have not decreased but constantly grown since the First Power Project financed by IDA, despite the fact that four of the five power projects included the reduction of losses as one of their objectives; the magnitude of these losses is such that their reduction will require of substantial investment and of very different institutional arrangements, with a motivated management;

(c) the lack of adequate maintenance to the power facilities is another crucial issue. EdH is neglecting the maintenance of its facilities due to both lack of financial resources to acquire spare parts and insufficient power capacity reserve to allow stopping operation of its facilities for their maintenance;

(d) the Government has initiated actions to concession EdH to a private company. The private company should bring into EdH new capital which is indispensable for expanding the power facilities and drastically reducing electricity losses;

(e) the failure in achieving the loss-reduction objective in this project and in the previous ones, has been due in part to lack of an adequate preparation of a comprehensive program which include detailed design of its components, list of equipment, implementation schedule and complete cost estimates of the implementation and follow-up actions. The preparation of these elements should have been completed under project preparation, not during its implementation as was done in the project;

(f) the SAR for the project did not include a political risk analysis. The analysis of this kind of risks should be made whenever the political environment is unstable. In the case of the project, the political environment was very unstable at the time of the SAR;

(g) the risk analysis in SARs/PADs should include the preparation of the utility's financial projection based on historical levels of efficiency, not on expected and uncertain improved levels. In the case of the project, EdH's financial projections assumed substantial efficiency improvements, in particular an unrealistic drastic reduction of electricity losses;

(h) the support from government, including use of public force, is essential to successful implementation of a loss-reduction program. The project pilot program for loss reduction showed that EdH's employees did not have safe access to many neighborhoods and that the resale of electricity by customers not paying EdH was a problem;

(i) Technical Assistance Programs (TAP), and even performance-based management contracts, proved once more that they are ineffective and should be avoided. These arrangements lack accountability, incentives, power to implement measures and financial resources to implement such measures;

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PART II. STATISTICAL ANNEXES

TABLE 1: SUMMARY OF ASSESSMENTS

A. Achievement of Objectives	Substantial	Partial	Negligible	Not applicable
Macro policies				x
Sector policies			X	
Financial objectives			X	
Institutional development			X	
Physical objectives	x			
Poverty reduction				x
Gender issues				x
Other social objectives				x
Environmental objectives		x		
Public sector management			X	
Private sector development			X	
Other (capacity building)		x		
B. Project sustainability	**Likely**	**Unlikely**	**Uncertain**	
			X	
C. IDA performance	**Highly satisfactory**	**Satisfactory**	**Deficient**	
Identification		x		
Preparation assistance		x		
Appraisal			X	
Supervision		x		
D. Borrower performance	**Highly satisfactory**	**Satisfactory**	**Deficient**	
Preparation		x		
Implementation			X	
Covenant compliance			X	
Operation (if applicable)				
E. Assessment of Outcome	**Highly satisfactory**	**Satisfactory**	**Unsatisfactory**	**Highly unsatisfactory**
			X	

TABLE 2: RELATED IDA CREDITS

Loan/credit title	Purpose	Year of approval	Status
Preceding Operations			
645-HA	Partially finance the first stage of a two-stage development program for 1976-1981, including installation of diesel generating units and distribution network expansion.	1976	Concluded on 03/31/1979 and rated satisfactory
895-HA	Finance expansion of diesel generating capacity and renovation of the distribution network in Port-au-Prince.	1980	Concluded on 06/30/1984 and rated satisfactory
1281-HA	Finance expansion of thermal generation, renovation of the Port-au-Prince distribution network.	1982	Concluded on 12/31/1986 and rated unsatisfactory
1527-HA	Finance expansion of thermal generation, renovation of the Port-au-Prince distribution network.	1985	Concluded on 06/30/1989 and rated satisfactory

TABLE 3: PROJECT TIMETABLE

Steps in project cycle	Date planned	Date actual
Identification	06/86	06/86
Preparation	09/86	09/86
Pre-Appraisal	03/87	02/87
Appraisal	06/87	06/87
Negotiations	11/87	11/87
Post-Appraisal		03/89
Board Presentation	03/88	06/89
Signing	06/88	08/89
Effectiveness	10/88	01/90
Project Restructuring		07/96
Project Completion	06/95	01/99
Closing	12/95	01/99

TABLE 4: CREDIT DISBURSEMENTS (CUMULATIVE)
(In US$ Dollars)

Year	Appraisal Estimate	Actual	Actual as % of estimate
FY 90	0.8	0.0	0.0
FY 91	3.4	0.0	0.0
FY 92	7.8	0.1	0.1
FY 93	12.6	0.1	0.8
FY 94	16.8	0.1	0.6
FY 95	20.4	0.1	0.5
FY 96	24.0	9.9	41.3
FY 97	24.0	16.3	67.9
FY 98	24.0	23.2	96.7
FY 99	24.0	25.4[a/]	112.5

[a/] The Credit was for SDR 18.6 million, equivalent to US$24.0 million at the time of project appraisal and to US$25.4 million based on actual disbursements.

TABLE 5: KEY INDICATORS FOR PROJECT IMPLEMENTATION

Key implementation indicators in SAR	Estimated 1995	Actual 1998
Electricity Losses (%)	15.0	55.0
Annual return (%)	8.0	-9.6
Ratio of customers per staff	100:1	81:1
Accounts Receivable (days)	60	181
Modified indicators at Project Restructuring	**Estimated 1998**	**Actual 1998**
Electricity Losses (%)	35.0	55.0
Annual return (%)	4.0	-9.6
Ratio of customers per staff	85:1	81:1
Accounts Receivable (days)	60	181

TABLE 6: KEY INDICATORS FOR PROJECT OPERATION

Key operating indicators in SAR	Estimated 1995	Actual
Electricity Losses (%)	15.0	
Annual return (%)	8.0	
Ratio of customers per staff	100:1	
Accounts Receivable (days)	60	
Modified indicators	**Estimated**	**Actual**
Electricity Losses (%)	30 (in 2005)	
Accounts Receivable (days)	60 (in 2002)	
Maintenance on Varreux Project units (date)	06/99	
Maintenance on other Varreux' units (date)	12/99	
Maintenance on Carrefour Project unit (date)	06/00	
Maintenance on Carrefour's other units (date)	12/99	
Invitation to submit qualification for concession EdH	09/99	
Invitation to submit bids for concession EdH	03/00	

Finalization concession of EdH	06/00	

TABLE 7: STUDIES

Study	Purpose as defined at appraisal	Status	Impact of Study
Site location and cost estimate of medium-speed diesel generating plants	Define the site, size and cost of a next power generating project	Completed, but final report is pending	Important for the future expansion of the power generating facilities
Frequency conversion on the Ciment d'Haiti Plant	Feasibility of converting the frequency of the Ciment d'Haiti plant from 50 hertz to 60 hertz	Not Completed	The study was not needed because the transmission line to feed the Cement plant was not constructed.
Institutional development of EdH	Review of EdH's by-law, revise its organizational structure and improve its information, accounting and inventory control system	Partially Completed	Improvements to EdH's information, accounting and inventory control system will positively contribute to the privatization of EdH
Tariff Study	This study was not included in the appraisal	Completed	Provided basis for the tariff increase implemented in 1997 and is providing elements for the concession of EdH.
Training Program	Implement a training program for manager and higher-level staff	Completed	Helped to gain support from EdH's management and high-level staff to the privatization of EdH but it did not contribute very much to improve EdH's performance

TABLE 8A: PROJECT COSTS

	Appraisal Estimate (US$million)			Actual (US$million)		
Item	Local	Foreign	Total	Local	Foreign	Total
Generation Capacity	2.8	19.3	22.1	2.4	21.6	24.0
Subtransmission Line	0.3	1.1	1.4			
Distribution Equipment		1.9	1.9	0.2	0.7	0.9
Consultant Services	0.4	1.1	1.5		1.7	1.7
Training	0.1	0.6	0.8		0.2	0.2
Total	3.6	24.0	27.6	2.6	24.2	26.8

TABLE 8B: PROJECT FINANCING

	Appraisal Estimate (US$ million)			Actual (US$ million)		
Source	Local	Foreign	Total	Local	Foreign	Total
IDA	0.0	24.0	24.0	1.2	24.2	25.4
EdH	3.6	0.0	3.6	1.4	0.0	1.4
Total	3.6	24.0	27.6	2.6	24.2	26.8

TABLE 9: ECONOMIC EVALUATION

Internal Rate of Return of EdH 1989-1999 Investment Program
(In US$ million, 1998 constant prices)

	Incremental Costs				Incremental Benefits		
Year	Capital Investment	O & M Costs	Fuel Costs	Total	Sales GWh	Revenues from Sales	Net Benefits
1995	0.1			0.1		0.0	-0.1
1996	28.5	0.4	3.3	32.2	14.0	2.0	-30.2
1997	15.1	0.6	6.3	22.0	24.0	3.4	-18.6
1998	6.9	1.0	4.9	12.8	38.6	5.4	-7.4
1999	3.7	1.6	4.9	10.2	61.5	8.6	-1.6
2000		2.3	4.9	7.2	90.1	12.6	5.4
2001		2.3	4.9	7.2	90.1	12.6	5.4
2002		2.3	4.9	7.2	90.1	12.6	5.4
2003		2.3	4.9	7.2	90.1	12.6	5.4
2004		2.3	4.9	7.2	90.1	12.6	5.4
2005		2.3	4.9	7.2	90.1	12.6	5.4
2006		2.3	4.9	7.2	90.1	12.6	5.4
2007		2.3	4.9	7.2	90.1	12.6	5.4
2008		2.3	4.9	7.2	90.1	12.6	5.4
2009		2.3	4.9	7.2	90.1	12.6	5.4
2010		2.3	4.9	7.2	90.1	12.6	5.4
2011		2.3	4.9	7.2	90.1	12.6	5.4
2012		2.3	4.9	7.2	90.1	12.6	5.4
2013		2.3	4.9	7.2	90.1	12.6	5.4
2014		2.3	4.9	7.2	90.1	12.6	5.4
2015		2.3	4.9	7.2	90.1	12.6	5.4
2016		2.3	4.9	7.2	90.1	12.6	5.4
2017		2.3	4.9	7.2	90.1	12.6	5.4
2018		2.3	4.9	7.2	90.1	12.6	5.4
2019		2.3	4.9	7.2	90.1	12.6	5.4
						ROR=	5.3%
						NPV=	-16.6

TABLE 10: STATUS OF LEGAL COVENANTS

Agreement	Section	Covenant Type	Fulfill Date	Present Status	Description of Covenant	Comments
Development Credit						
	4.01	12	Feb-98	CD	The Borrower shall enable EdH to set electric tariffs as required to fulfill its obligations.	Tariff increased by 5% in Feb 1998 (customer resistance in view of poor service quality). The results of tariff study will help to design a tariff structure in the modernization of EdH.
	4.02	02		CD	The Government shall settle outstanding electric bills to EdH by Gov. departments and agencies.	Government arrears to EDH have been significant all along project implementation (e.g. the equivalent of 4 months of electricity consumption 09/30/98) but are usually settled every tear through cross-debt settlement (taking into account tax & debt due by EDH and fuel payments made by GOH).
	4.04	01		CP	Audit of SOEs, Special Account and Project accounts	Reports for FY96/97 submitted on 4/30/98. Reports for FY 97/98 are still due, because of EDH difficulties in closing its financial statements.
Project						
	2.02	05		C	Procurement to be made in accordance with Schedule 1.	
	2.05(c-i)	05		C	EdH to furnish IDA quarterly reports	
	2.05(c-ii)	05		C	Progress reports on plan of action for Part C of the Project	Report prepared since 1996 by EDF/HQI Technical Assistance to EdH management
	2.06(a)	05	12/30/98	CD	Preparation of a program for reduction of losses	EdH does not have the financial resources to implement this program.
	2.06(b)	05		CP	Employment of Consultants for Part C of the project	TA under AFD/CIDA financing from Jun 1995 to Dec 1998.
	3.01(a)	05		CP	EdH's operations in accordance with sound practices under qualified management.	Some improvements under above TA but sector/EdH reform/ privatization needed for adequate incentives and autonomy.
	3.01(b-i)	05		C	EdH's management positions filled by persons with qualifications satisfactory to IDA and Gov.	The qualifications of Directors are generally adequate. Main problem is lack of incentive.
	3.01(b-ii)	05		CP	Plan of action for recruitment or assignment of EdH's staff.	Completed: staff census, position definition, staff assessment. Not done: job description, staff policy.
	3.01(b-iii)	05		NC	Carrying out the action plan	Action plan was not completed and thus not implemented.
	3.01(b-iv)	05		NC	EdH's ratios of customers per staff not lower than 75 in 1996; 80 in 1997 and thereafter.	EdH's ratios are close to targets 72 in 1996; 75 in 1997; 78 in 1998.
	3.02	05		CP	EdH to operate and maintain its facilities in accordance with sound practices	Plant maintenance is at risk (particularly in production) because of EdH's cash flow constraints.
	3.03	05		NC	Insure EdH's property	Self insured
	3.04	05	May-98	C	Monitoring EdH's dams and associated structures by experts once a year.	1998 inspection for five year period is satisfactory
	3.06	05		NC	Reduce total distribution losses	Total losses of 55% in 1996; 56%

					to 50% in 1996; 42% in 1997; and 35% in 1998 and thereafter.	in 1997; 55% in 1998.
	4.01	05		CD	Financial statements and audit report produced at the latest five months after the end of each fiscal year.	Audit report for 1992 through 1995 submitted on 4/23/97. Report for 1996 (disclaimer of opinion) submitted on 10/23/97. Report for 1997 submitted 4/30/98.
	4.02	02		NC	EdH's rate of return not less than 0.5% in 1996; 1.5% in 1997: and 4% in 1998 and on.	EdH's actual rate of return was minus 4.0% in 1996, minus 9.6% in 1997.
	4.03	02		NC	EdH's net revenue at least 1.5 times its debt service.	Debt service coverage was 0.23 in 1995, 0.15 in 1996 and –0.15 in 1997.
	4.04	02		CP	Unless agreed with IDA, EdH shall not make capital expenditures that would exceed by more than 1% the current net value of its fixed assets in operation, nor enter into any PPA for more than 10 MW of capacity or 40 GWh/year.	All capital expenditure over US$1 million were financed in agreements with donors. Power Purchase Agreement signed by GPH/EdH for an IPP in Cap Haitien (2x5.72 MW, 52.6 GWh) without being reviewed by IDA, but agreement not made effective.
	4.05	02		C	EDH shall not use its resources for any purpose other than to pay the costs of its capital expenditures, total operating expenses and debt service requirements	Resources were insufficient but used for the specified purposes.
	4.06	02		NC	EdH to annually value its fixed assets in operation.	No inventory has been carried out since 1989. File record for fixed assets is unreliable (transfer ongoing to new software, SAP). Index for asset revaluation not published by GOH.

Status:

- C - Complied with
- CD - Compliance after Delay
- NC - Not Complied with
- CP - Complied with Partially

Covenant Class:

- 1 Accounts/audit
- 2 Financial Performance
- 5 Management aspects of the Project
- 12 Sectoral or cross-sectoral regulatory

TABLE 11: COMPLIANCE WITH OPERATIONAL MANUAL STATEMENTS

Statement number and title	Description and comments on lack of compliance
No non-compliance	

TABLE 12: IDA RESOURCES-STAFF INPUTS

Project Code	Actual	
	Staff Weeks	US$
Through Appraisal	26.5	51,530
Appraisal-Board	38.7	77,575
Board-Effectiveness	8.9	16,836.5
Supervision	81.1	290,358.5
Completion	6	17,312
Total	161.2	453,612

TABLE 13: IDA RESOURCES-MISSIONS

Stage of Project Cycle	Month/ Year	Number of Persons	Days in Field	Specialized Staff Skills	Rating Impl. Status	Rating Develop. Impact	Type of Problem
Preparation	Sep-86	2	5	FA,EE			
Pre-Appraisal	Feb-87	2	11	FA,EE			
Post-Appraisal	Jan-89	1	8	EE			
Appraisal	Jun-87	2	10	FA,EE			
Supervision	May-90	2	10	EE, EC	3	1	F, M
Supervision	Mar-91	1	15	EE	3	2	F, PR, M
Supervision	Aug-91	2	14	ES, EE	4	2	F, PR, M
Supervision	Nov-94	1	4	EE	4	2	F, PR, M
Supervision	Jun-95	2	5	EE, EC	U	S	F, PR, M
Supervision	Feb-96	2	5	EE, EC	U	S	F, PR, M
Supervision	May-96	1	4	EE	U	S	F, M
Supervision	Sep-96	1	6	EE	U	S	F, M
Supervision	Apr-97	2	5	FA, EE	U	U	F, M
Supervision	Feb-98	2	5	ES,EE, SL	U	U	F,M
Supervision	Jun-98	3	12	EE, FA, ES	U	U	F,M
Supervision/ICR	Nov-98	3	7	FA, ES, CON	U	U	F, M

EE	Electrical Engineer	S	Satisfactory	F	Financial problems
ES	Energy Specialist	U	Unsatisfactory	PR	Procurement problems
EC	Energy Economist	1	Highly satisfactory	M	Management problems
FA	Financial Analyst	2	Satisfactory		
SL	Sector Leader	3	Unsatisfactory		
CON	Consultant	4	Highly unsatisfactory		

APPENDIX 1

Aide Memoire
IDA Implementation Completion Mission to Evaluate the Fifth Power Project (Cr. 2053-HA)

Port-au-Prince, Haiti, November 2-9, 1998

1. A mission of the International Development Association (IDA) comprised of Mr. Philippe Durand, Task Manager, and Mr. Marcelo Osorio, Consultant, visited Port-au-Prince on November 2-9, 1998 to: (a) assess the achievements obtained under the above project; (b) collect information for the preparation of the ICR Report; and (c) assist EDH in the preparation of its own Completion Report for the Power Fifth Project financed under Credit 2053-HA. The Mission wishes to express its gratitude for the efficient cooperation and the courtesies provided to the Mission both by Government authorities and by the officials and staff of EDH. Annex A included a list of the officials and staff with whom the Mission met. Following is a summary of the most important issues covered by the Mission and the corresponding agreements. The mission findings reflected in this Aide Memoire will be subject to the approval of IDA management and the final version of the Aide Memoire will be attached to the Implementation Completion Report.

Project Objectives and Components

2. The objectives of the Project were: (a) to expand and improve EDH's electricity-generating facilities in the city of Port-au-Prince in accordance with a least-cost expansion program; (b) to supply electricity to the cities of Hinche and Thomonde; and (c) to improve EDH's efficiency. To meet these objectives, the Project included eight components grouped into three Parts: Part A: Physical Investments, Part B: Studies, and Part C: Institutional Development. The Credit was approved on June 27, 1989 and became effective on January 16, 1990.

3. The project objectives were consistent with the country economic objectives and development strategy, but the project components were not sufficient to meet those objectives, especially to improve EDH's efficiency.

Project Restructuring

4. Project implementation was interrupted in 1991 at a very initial stage due to the suspension of credit disbursements that followed the political crisis in the country. In 1994, when the suspension was lifted, the electricity system had deteriorated dramatically, electricity service was only available during some six hours per day, and EDH was in precarious financial condition. Consultants were appointed to study a strategy to develop the power sector and they concluded recommending full privatization of EDH. In 1996, IDB approved a MIF grant to finance consultant services to assist the Government in transferring EDH to a private company. The Government requested IDA to eliminate part of the institutional development component from the project, specifically the review of EDH's by-laws and the revision of its organizational structure, while maintaining the project institutional sub-component for the improvement of EDH's information, accounting and inventory control systems. Funds from this component were reallocated to increase the installation of additional power capacity. Additionally, the Peligre-

Hinche transmission line was substituted by small power generators installed in the cities of Hinche and Thomonde, under EdH self financing.

5. In addition to IDA Credit, several donors have contributed to the development of the power sector during the period 1995-1998. USAID financed the consultants to advise the Government on a strategy to reform and develop the power sector. The European Union financed the installation of a 10 MW diesel unit at Varreux, the rehabilitation of existing power generating units at Varreux and some improvements at Peligre hydroelectric power plant. The Government of Canada financed the installation of small diesel units. KfW financed the installation of a 350 KW mini hydro plant. IDB financed some improvements of the electricity network. France and Canada financed a management assistance program to strengthen EDH's management during the transition period until its expected privatization.

Project Evaluation and Achievements

6. The Government and EDH acknowledge that project objectives have only been partially achieved and that sustainability of the achievements obtained under the Project is uncertain at present. The power generating facilities were expanded, but conditions of the existing facilities have not improved. However, thermal power production increased from 220 GWh in 1988 and 203 GWh in 1995, to 409 GWh in 1997. The project had a positive impact on end-use customers, since electricity service was provided during 18 hours on average in 1998, as compared to only 8 hours in 1995. The supply of electricity to the cities of Hinche and Thomonde has been achieved through the installation of small generating units financed with local funds. Improvement of EDH's efficiency has not been achieved. On the contrary, EDH's efficiency has significantly decreased. Financial losses have consistently increased since 1994. Electricity losses increased from 29% in 1989 to 48% in 1994 and to 56% in 1995, although they remained stable at this level thereafter. Despite significant improvements in EDH's financial management since 1994, the auditor still expressed a disclaimer of opinion on the 1996/97 financial statements.

7. The main achievements obtained under the Project are: (i) installation of 31 MW of new power generation capacity, out of which 21 MW were co-financed be ACDI from Canada and were installed at the Varreux power plant, and a 10 MW diesel unit installed at the Carrefour power plant is expected to be commissioned by January 1999. Regarding the Varreux extension, the mission was informed by EDH that the schedule of completion tests will be agreed with the contractor by the end of November 1998 and that some claims presented by both the contractor and EDH are still to be settled in accordance with contract dispositions, (ii) preparation of pre-feasibility studies for the installation of a new 60 MW diesel plant, (iii) execution of a pilot loss-reduction program to be completed by EDH in 1999, (iv) preparation of a tariff study; (v) acquisition of new software for accounting. Implementation of this software and training of the corresponding staff would be completed by mid-1999, and (vi) implementation of a training program on management skills for EDH's staff.

Privatization of EDH

8. The CMEP has conducted studies since 1996, under IDB financing, to assess options for increasing private participation in the power sector. Three options have been examined, as entailed in the Law that created CMEP: (i) capitalization; (ii) concession; (iii) management contract. The Mission was informed by CMEP that they are considering capitalization as the

preferred option and plans to consult the interest of potential investors early in 1999. If the response is favorable, the capitalization would be implemented during 1999 with support from a financial adviser or an investment bank.

9. Since the capitalization could require an extended period for its implementation, in the mission's opinion, strengthening of EDH's management during this period will be crucial to avoid further deterioration of its facilities and operations. A qualified and experienced small team with total management control could be appointed expeditiously. Additional resources will also be needed for proper operation of generation facilities and improvement of commercial performance.

Factors that affected Project Implementation

10. In the mission's opinion, the main factors that affected negatively project implementation included the following; on the Borrower's side, (i) political instability that characterized the country during the period 1986-1995 which caused, in turn, instability in EDH's management and technical staff. The General Director was changed eight times, the technical staff left the utility or was moved from their posts without explanation, and unqualified staff increased for political considerations, (ii) deterioration of the country economic conditions during the embargo period (1991-94). This circumstance promoted a large exodus of the poorest population living in the rural areas to the capital and increased the number of electricity consumers well above EDH's capacity to control them. It also facilitated the establishment of fraudulent networks to steal electricity from EDH and resell to poor neighbors, (iii) poor EDH management with lack of delegation and incentives to improve performance. Management has been further weakened by Government's delay in taking decisions on EDH's future, (iv) an ineffective management assistance program, due in part to a poorly designed assistance contract without incentives linked to results, (v) lack of a legal framework that permits effective and timely sanctions to fraudulent consumers; and (vi) insufficient measures by the Government and EDH Board to address EDH's deteriorating financial situation; and on IDA's side, (i) changes in project supervision teams, (ii) complex procurement procedures, and (iii) design of project restructuring that underestimated the lead time necessary for power sector reform and EDH financial recovery.

Borrower's Completion Report

11. In accordance with the Credit Agreement, the Borrower is committed to prepare a Completion Report at the end of project implementation. The mission advised the Government and EDH on the preparation of this report, which should include:

(i) an assessment of the project objectives, design, implementation, and operation experience;

(ii) an evaluation of the borrower's own performance during the evolution and implementation of the project, with special emphasis on lessons learned that may be relevant in the future; and

(iii) an evaluation of the performance of IDA and any co-financiers during the evolution and implementation of the project, including the effectiveness of the relationship between the borrower, IDA, and co-financiers, with special emphasis on lessons learned.

12. A more detailed scope of the report is included in Annex B to this Aide Memoire. Preferably the report should be limited to ten pages. If it is more than ten pages, it should include a summary. The Borrower Completion Report will be sent to IDA by February 28, 1999 (see timetable in Annex C).

13. EDH informed the Mission that Mr. Jules André Joseph will be responsible for preparing EDH's contribution to the report and for coordinating with the Ministry of Economy and Finance (MEF) for the preparation of the complete report. The MEF will inform IDA shortly of the name of a senior official that will be responsible for the report.

Project Sustainability

14. In the mission's opinion, sustainability of the power facilities installed under the Project will be highly dependent on the success of the ongoing process to engage a private operator and investor for the electricity service. Given EDH's precarious financial situation, it will not be in a position to properly maintain the facilities installed under the Project solely with its own resources. If a private operator is not engaged soon, within an adequate legal and regulatory framework for the power sector, sustainability of the Project is unlikely.

Operation Plan

15. The Mission discussed with EDH the preparation of an Operational Plan for the Project, which must be attached to the Borrower's Completion Report. It was agreed that this plan would include:

(i) a five-year scheduled maintenance program for the Varreux and Carrefour Power Stations;

(ii) a plan for the maintenance of the efficiency component achieved through two pilot loss-reduction programs during 1999;

(iii) a plan of actions for the improvement of the environmental conditions of the Varreux and Carrefour Power Stations;

(iv) annual cost estimates of the above maintenance programs;

(v) EDH's budget for FY 1999 that includes the provisions for the above maintenance programs and a mechanism for actual mobilization and commitment of these funds; and

(vi) a schedule for the privatization process of EDH's.

Performance Indicators

16. It was agreed to adopt the following performance indicators to monitor future operations and development impact of the Project:

(i) level of electricity losses;
(ii) percentage of the population with access to the electricity service;
(iii) availability, in percentage of time, of the generating units installed under the project;

(iv) number and duration of electricity outages;
(v) average electricity tariff;
(vi) actual vs. scheduled actions for EDH's privatization.

Additional information

17. EDH agreed to provide IDA, by December 31, 1998, with the detailed information that is still required for the preparation of the ICR, in particular the necessary data for the assessment of project benefits.

Claude Elisma	Philippe Durand
General Director	Task manager
EDH	IDA

APPENDIX 2

REPUBLIC OF HAITI

SECRETARIAT OF FINANCE

FIFTH ENERGY PROJECT (Cr. 2053-HA)

BORROWER CONTRIBUTION TO THE ICR

5ème CREDIT PROJET ENERGIE HA-2053

REPUBLIQUE D'HAITI

BANQUE MONDIALE

RAPPORT D'ACHEVEMENT

JUIN 1999

TABLE DES MATIERES

PREFACE

Le rapport intitulé rapport d'achèvement est rédigé pour répondre aux termes qui étaient convenus dans les accords de Crédit et de Projet d'une part, de l'autre pour dresser un bilan des actions qui ont été entreprises dans le cadre de ce financement. C e rapport présente une évaluation du projet qui tient compte des circonstances difficiles particulières dans lesquelles il a évolué ces dernières années.

Afin de permettre d'apprécier la portée des réalisations de ce financement, la Direction Générale de l'Electricité d'Haïti s'associe au Gouvernement de la République d'Haïti pour présenter ce rapport qui analyse les efforts, les faiblesses, les attentes des divers partis associés dans l'exécution des différentes composantes du projet.

5ème CREDIT PROJET ENERGIE HA-2053

RAPPORT D'ACHEVEMENT

EVALUATION SOMMAIRE .-

(i) INTRODUCTION.-

Dans le cadre du plan quinquennal d'investissements de l'Electricité d'Haïti, le Gouvernement de la République d'Haïti a signé avec la Banque mondiale un accord de Crédit d'un montant de ***DTS 18 600 000*** pour financer le ***5ème Projet d'Energie.*** Cet Accord visait particulièrement à améliorer l'efficience, la viabilité et la performance du secteur de l'énergie électrique.

Deux accords auxiliaires furent ainsi signés pour expliciter les conditions d'utilisation du financement et faciliter la mise en oeuvre: le premier dénommé ***Accord de Projet*** établi entre l'unité d'exécution ***Electricité d'Haïti*** et ***la Banque Mondiale*** qui définit les modalités de décaissements, de passation des marchés, les indicateurs de performance et de suivi des activités, le second dénommé ***Accord de prêt subsidiaire*** établi entre ***le Gouvernement Haïtien et l'Electricité d'Haïti*** qui fixe les conditions de remboursement de ce financement fait sous forme de prêt à Electricité D'Haïti par le Gouvernement.

Le rapport qui suit dresse le bilan des réalisations et des objectifs atteints.

(ii) OBJECTIFS DU PROJET. -

L'objectif du Projet visait à contribuer à la croissance économique du pays par la fourniture d'une énergie électrique fiable pour l'expansion de la production industrielle et commerciale, à améliorer la performance du secteur de l'énergie électrique et à renforcer la capacité managériale de EDH.

A ce titre, plusieurs activités furent retenues, à savoir :

- Installation de 20 MW de turbines à gaz
- Etude de site pour une nouvelle centrale thermique
- Construction d'une ligne de 42 kms à partir de Péligre pour alimenter Hinche et Thomonde
- Développement de programmes et acquisition de matériel pour la réduction des pertes
- Conversion de la fréquence du courant de Ciment d'Haïti de manière à pouvoir l'alimenter à partir du réseau de EDH. (Fréquence Ciment : 50 HZ, fréquence EDH 60 HZ)
- Renforcement institutionnel
- Programme de formation sur 3 ans

En vue d'évaluer le niveau d'atteinte des objectifs, des indicateurs de contrôle furent établis et présentés comme suit :

INDICATEURS	1989	1990	1991	1992	1993	1994	1995	1996	
CLIENTS / EMPLOYES	Min 64	72	78	83	88	92			
TAUX DES PERTES		Max 25%	20%	18%	16%				
RETOUR SUR INVESTISSEMENTS	Min 3.5%	4.5%	55	5.5%	6%	7%	8%		

(iii) EXPERIENCES DANS LA MISE EN ŒUVRE ET RESULTATS

La mise en œuvre du Crédit n'a pas suivi exactement le profil qui était planifié à la conception même du Projet. Plusieurs modifications et ajustements furent opérés pour tenir compte d'une part des données sociales, économiques et politiques qui ont de beaucoup changé comparativement aux prévisions , de l'autre, des situations conjoncturelles particulières pour lesquelles une urgence ou une priorité se faisait sentir.

- ***Relatif à la définition des composantes :***
  - Les 20 MW de turbines à gaz ont été remplacés par la construction d'une centrale de 15 MW et l'installation d'une nouvelle unité de 10 MW à Carrefour.
  - Le projet de ligne pour alimenter Hinche et Thomonde à partir de Péligre a été annulé ; EDH a installé de nouveaux groupes Diesel dans ces deux villes.
  - La conversion de la fréquence du courant de Ciment d'Haïti a été annulée, ce projet n'était plus justifié en raison du projet de Réseau national qui a été discontinué par faute de financement promis par la BID
  - Une nouvelle activité a été ajoutée : la mise à jour de l'étude tarifaire réalisée par Monenco en 1986.

- ***Relatif aux indicateurs :***

De nouvelles valeurs d'indicateurs ont été convenues et fixées à la baisse lors de l'amendement de 1996 et celles-ci figurent dans le tableau qui suit. Y sont également inscrits les résultats obtenus pour chacun de ces indicateurs.

INDICATEURS	1996		1997		1998		1999		
	VALEUR A OBTENIR	VALEUR OBTENUE	VALEUR A OBTENIR	VALEUR OBTENUE	VALEUR A OBTENIR	VALEUR OBTENUE	VALEUR A OBTENIR	VALEUR OBTENUE	
CLIENTS / EMPLOYES	Min 75%	77%	80%	78%	85%	85%	>85%		
TAUX DES PERTES	Max 50%	56%	42%	56%	35%	55%	<35%		
RETOUR SUR INVESTISSEMENTS	Min 0,5%	(4%)	1,5%	(9.66%)	4%	(%)	>4%	(15%)	

- ***Relatif à la réalisation des composantes***

- La composante construction de la centrale de Varreux (II) 15/21 MW, et celle de l'unité de 10 MW à Carrefour ont occasionné des coûts supplémentaires pour assurer une supervision plus soutenue en raison des retards occasionnés par une mauvaise évaluation des paramètres de chantier et des conditions environnementales de la part des entrepreneurs. De même, pour l'étude de site de la nouvelle centrale thermique de 60 MW, les termes de référence ont été modifiés pour prendre en compte l'exécution du processus de modernisation.
- Dans le domaine de la réduction des pertes, les interventions réalisées dans la zone pilote I ont permis de mesurer le degré de mobilisation et de supervision à consentir pour obtenir et conserver des résultats. Ainsi, dans le projet de la deuxième zone, la stratégie adoptée a été de préférence la réhabilitation des branchements en mauvais état et non de tous les branchements comme dans la première zone pilote .
- La composante du renforcement institutionnelle n'a pas été reprise au déblocage du Crédit. Toutefois, ce volet a été pris en compte dans le contrat d'assistance technique opérationnelle signé avec le groupement EDF-HQI sous financement de l'AFD (Agence Française de Développement) et de l'ACDI (Agence Canadienne pour le Développement International) pour le redressement. De plus, l'État Haïtien, par l'intermédiaire du CMEP (Conseil de Modernisation des Entreprises Publiques), prend en charge l'ensemble de la réforme du secteur.

(iv) OPERATIONS FUTURES ET LECONS APPRISES

Dans le domaine de la production, les 6 unités de la Centrale thermique de Varreux II qui totalisent 21 MW et celle de 10 MW de Carrefour, sont programmées pour permettre leur exploitation normale. Toutes les pièces d'urgence et d'entretiens programmés sont commandées ou en processus de commande. Le personnel d'exploitation a bénéficié d'une formation sur site ; d'autres sont programmées chez les fournisseurs Caterpillar et Pielstick.
L'étude de site de la nouvelle centrale de 60 MW a été soumise à certains bailleurs de fonds pour information et participation financière éventuelle.
Le programme de réduction des pertes tel qu'engagé au niveau des zones pilotes I et II, a été repensé. Les approches retenues et appliquées avaient impliqué de grandes mobilisations de ressources dans une aire concentrée de commercialisation et de ce fait ont ralenti l'avancement des autres actions commerciales. Ainsi, de nouveaux programmes moins contraignants en matière de ressources et d'un impact plus étendu ont été identifiés et engagés comme le CCN (remplacement des compteurs à consommation nulle), PREIPIREF (programme d'enlèvement intensif des prises illicites et de récupération des fraudeurs), numérotation des poteaux, repérage automatique des clients, compression des délais de satisfaction des demandes.
Les résultats de l'étude de la révision tarifaire sont disponibles et la mise en application d'une première tranche de 10 % est soumise aux autorités de tutelle pour approbation.
Du point de vue du renforcement institutionnel, le programme de modernisation retient la priorité ; toutefois un nouveau plan d'actions à court terme allant d'Avril 1999 à Mars 2000 est en application actuellement.

PARTIE I

EVALUATION DE LA MISE EN ŒUVRE DU PROJET

(i) OBJECTIFS DU PROJET

Les objectifs tels que présentés dans l'évaluation sommaire couvrent les domaines de la production, de la réduction des pertes, du tarif, de la formation. Les activités qui étaient retenues en 1989 ont été ajustées en cours d'exécution pour adapter le Projet aux priorités des situations nouvelles comme en 1991 avec la réalisation des élections démocratiques nationales, et en 1996 le rétablissement de l'ordre constitutionnel. Le tableau suivant fait une présentation de ces activités :

Objectifs	Description des différentes activités identifiées durant le cycle du projet	Remarques
Augmenter et améliorer la capacité de production de EDH	• Installation de 20 MW de turbines à gaz	• Cette activité a été remplacée par l'installation de 25 MW Diesel, en deux tranches, c-à-d une tranche de 15 MW à Varreux et une unité de 10 MW à la centrale de Carrefour.
	• Etude de site pour une nouvelle centrale de 60 MW	• Cette étude a été maintenue. Des options supplémentaires ont été prises en compte dans l'étude comme l'option barge, les divers types de financement
	• Conversion de la fréquence du Réseau de Ciment d'Haïti	• Activité remplacée
	• Alimenter en énergie les villes de Thomonde et de Hinche	• Activité annulée
Améliorer la performance de EDH	• Réduction des pertes	• Activité maintenue
	• Révision de l'étude tarifaire	• Activité ajoutée
	• Formation sur 3 ans	• Activité maintenue

	• Nouveau système de comptabilité informatisé	• Activité ajoutée

(ii) ATTEINTE DES OBJECTIFS

Les tableaux qui suivent décrivent le degré d'atteinte des objectifs fixés tant en matière de travaux réalisés qu'en matière de niveaux d'indicateurs:

OBJECTIFS VISES	DESCRIPTION DES COMPOSANTES	NIVEAU DE REALISATION JUIN 1999	REMARQUES
a) Augmenter et améliorer la capacité de production	A-1-a-).- Installation de 15 MW Diesel à Varreux	**REALISEE** 100% La centrale a une capacité de 21 MW dont 15 MW financés par IDA et 6 MW par l'ACDI. Elle est en service depuis 1996 et fonctionne au mazout et au gasoil avec une puissance de 18 MW soit 85% des 21 MW installés.	Des retards furent enregistrés dans la construction et la mise en service (environ 8 mois). L'entrepreneur HQI-VIBEC a été pénalisé à cet effet. Les tests de performance ne sont pas encore faits. Ils sont prévus après la révision des 10000 h des groupes qui doit prendre fin d'ici Août 1999.
	A-1-b).- Installation d'une nouvelle unité de 10 MW à Carrefour	**REALISEE** 100% L'unité C6 est en service depuis Avril 1999, soit 4 mois après la date prévue pour la réception provisoire.	L'entrepreneur SEMT PIELSTICK a été pénalisé à cet effet. Le rotor qui présentait des anomalies en Décembre 1998 et qui a été réparé à la réception d'Avril 1999, sera remplacé par un rotor neuf d'ici Novembre 1999. La banque refuse de payer le dernier paiement de10%, raison : la date de clôture du crédit a expiré.

	B-1).- Etude de site pour une première tranche de centrale de 60 MW Diesel	**REALISEE** 100% La firme DECON a remis les rapports prévus au contrat : Analyse et choix du site, étude de l'environnement, développement de la zone, faisabilité du projet. Le site retenu parmi une dizaine est celui de St Christophe.	Les résultats de l'étude ont été présentés à certains bailleurs de fonds qui avaient manifesté leur intérêt
OBJECTIFS VISES	**DESCRIPTION DES COMPOSANTES**	**NIVEAU DE REALISATION JUIN 1999**	**REMARQUES**
b) Alimenter en énergie électrique les villes de Hinche et de Thomonde		**REALISE AUTREMENT**	Projet abandonné en 1995, en raison d'une sous-estimation des coûts et délais de réalisation de l'étude d'une part, et d'autre part, des nouvelles unités de production qui ont été installées dans ces villes par EDH
a) Améliorer la performance de EDH	A-2).- Programme de réduction de pertes	**REALISEE** 100% Deux programmes pilotes ont été executés : le premier financé par EDH, AFD, BID, dans une zone du centre ville touchant 6000 clients, le deuxième dans une autre zone du centre ville et qui touche 5000 clients.	Les résultats sont appréciables : la première zone a accusé une baisse de 16% du niveau des pertes, la deuxième est en cours d'évaluation. Néanmoins, il faudra souligner que les résultats obtenus dans la première zone n'ont pas pu être maintenus à leur niveau en raison des moyens de suivi énormes et complexes à mettre en place pour les garantir.

	B-2).- Révision étude tarifaire	**REALISEE** 100% La révision de l'étude tarifaire a été réalisée par MONENCO. Les rapports ont été remis, présentant la nouvelle structure du tarif à adopter en fonction du contexte économique actuel et futur.	Cette composante remplace celle de la conversion de la fréquence Ciment d'Haïti qui a été abandonnée en raison du projet réseau national qui n'a pas été financé comme prévu.
OBJECTIFS VISES	**DESCRIPTION DES COMPOSANTES**	**NIVEAU DE REALISATION JUIN 1999**	**REMARQUES**
c) Améliorer la performance de EDH (suite)	C-2).-Assistance technique	**REALISEE** 100% De l'assistance technique a été engagée au niveau de : • La réforme institutionnelle (courte période en 1991) • L'unité de gestion du 5eme crédit (6 mois) • L'exécution du programme des pertes (2 ans) • La supervision des travaux de construction des centrales : 15/21 MW et 10 MW (pendant toute la durée des travaux)	Les services de supervision qui étaient prévus au démarrage des contrats de construction de la centrale de 21 MW et celle du groupe de 10 MW ont été extensionnés en raison des retards et des difficultés enregistrés dans l'exécution des travaux.

	C-1).-Programme de formation sur 3 ans	**REALISEE** 100% Programme de formation tenu en Haïti (3 mois, 36 cadres supérieurs) et à l'extérieur (15 jours, 6 cadres parmi les 36). Le thème principal a été la gestion moderne d'une entreprise d'énergie électrique.	D'autres programmes de formation avaient été également organisés et financés par EDH et touchaient tous les autres niveaux : 100 cadres intermédiaires.

(iii) FACTEURS AYANT AFFECTE LA MISE EN OEUVRE DU PROJET

D'une manière générale :

a) Le choix des objectifs du Projet en 1989 par rapport aux réalités socio-économiques dans la période d'exécution
b) La crise socio-politique qui a secoué le pays de 1991 à 1994
c) Le faible niveau d'accompagnement de la police et des autorités judiciaires dans l'application des programmes de réduction des pertes
d) Le gel des programmes d'équipements dans le secteur sur la période 1991-1999
e) L'effet démotivant du processus de privatisation sur le personnel
f) La faiblesse des investissements par rapport aux besoins du secteur

D'une manière spécifique :

Les modalités de gestion et de suivi du cofinancement de la centrale de 21 MW par l'ACDI n'avaient pas été clairement définies. L'entrepreneur présentait directement les factures corrélatives directement à l'Agence, sans être soumises au préalable à une approbation du maître d'ouvrage.

Au niveau de l'installation du groupe du 10 MW, les difficultés rencontrées résidaient particulièrement dans les mauvaises coordinations des activités des sous-traitants du constructeur.

(iv) VIABILITE DU PROJET

Tel qu'il a été déjà dit, les activités réalisées dans le cadre de ce Projet sont toutes inscrites dans des programmes réguliers d'exploitation ou de gestion de l'entreprise.

Ainsi, les unités de production qui sont installées à Varreux et à Carrefour sont pourvues de pièces de rechange pour l'entretien. Le personnel suit présentement une deuxième phase de formation. Un plan d'ajustement salarial et de promotion interne est en place pour maintenir la motivation à l'intérieur de ces unités.

L'étude de site de la nouvelle centrale a été réalisée en prenant en compte toutes les options qui pourraient se présenter tant du point de vue technique que financier telle option barge,

financement semi-privé avec ou sans participation de bailleurs de fonds. Aussi, les résultats peuvent –ils être utilisés par n'importe quel opérateur qui aurait à gérer l'entreprise.
Les expériences effectuées au niveau des zones pilotes I et II pour la réduction des pertes ont permis de retenir des approches plutôt simples qui ne nécessitent pas de trop grandes mobilisations ; les ressources humaines qualifiées étant limitées.
Le nouveau logiciel utilisé pour la comptabilité informatisée, le SAP-R3, est opérationnel. Le personnel du département informatique est formé à cet effet pour son exploitation et son entretien.
La révision de l'étude tarifaire par Monenco prend en compte tous les aspects qui pourraient influencer la structure du tarif comme des tarifs modérés ou forfaitaires pour les clients dans les zones marginales.....

(v) PERFORMANCE DE LA BANQUE

Dans son ensemble, la performance de la Banque mondiale est acceptable bien que certaines remarques soient à formuler, à savoir :

- Les changements de comportement de la Banque qui a fait montre de souplesse au déblocage du Crédit en 1995, et de rigidité à la fermeture du Crédit en 1998
- Les délais enregistrés dans le traitement de certains dossiers soumis pour approbation, comme les demandes de décaissements, les documents d'appel d'offres
- Les changements de chargé de projets sur la durée du Crédit
- Le non réalisme de l'Accord tel que reconduit en 1996 en ce qui a trait particulièrement aux indicateurs de performance

(vi) PERFORMANCE DE L'EMPRUNTEUR

Tels qu'inscrites dans les accords de crédit, de projet et subsidiaire, les obligations de l'Emprunteur peuvent être appréciées comme suit :

Clause	DESCRIPTION SOMMAIRE	Statut	OBSERVATIONS
C 4.01	Le Gouvernement doit autoriser EDH à fixer les tarifs d'électricité à un niveau lui permettant de s'acquitter de ses obligations	Respecté partiellement	Deux ajustements ont été effectués par EDH et approuvés par le Gouvernement, un de 25% en 1995-1996 et un autre de 5% en 1997. Un troisième de l'ordre de 10% est soumis aux autorités pour approbation .
C 4.02	Le Gouvernement doit régler ses factures d'électricité	Respecté	Le Gouvernement a convenu et respecté l'accord qui a été signé à cet effet. De plus, des protocoles d'accord ont été signés entre EDH et le Ministère des Finances qui fixent des avances de paiement du Gouvernement
P 3.01 (b) (i)	Les postes de Direction de l'EDH doivent être comblés par des personnes aux qualifications jugées satisfaisantes par l'IDA et le Gouvernement	Respecté	Respecté
P 3.06	Ramener les pertes totales à 35 % en 1998	Non respecté	Les réductions des pertes doivent impliquer l'Etat aux plus hauts niveaux
C 4.04	Audit annuel du Compte spécial et des relevés de dépenses	Respecté	Le dernier en cours c-à-d pour l'exercice 97-98 sera achevé sous peu. Une première partie, celle du compte du 5ème Projet est déjà terminée et remise à la Banque .
P 2.02	Passation des marchés conformément aux directives de la Banque	Respecté	
P 2.05 (c) (i)	Fourniture de rapports trimestriels	Respecté	Les rapports trimestriels n'ont pas été remis pour les deux derniers trimestres. Le rapport d'achèvement avait la priorité
P 2.05	Fourniture de rapports annuels sur le volet renforcement	Respecté	

(c) (ii)	institutionnel		
P 2.06 (a)	Préparation d'un programme de réduction des pertes de distribution	Respecté	Les résultats auraient pu être plus satisfaisants s'il y avait eu des mesures d'accompagnement
P 2.06 (b)	Emploi de consultants pour le volet renforcement institutionnel du projet	Respecté	Assistance fournie par EFD et HQI depuis 1996 sous financement AFD et ACDI
P 3.01 (a)	EDH doit mener ses opérations selon les méthodes appropriées et sous la supervision de cadres qualifiés	Respecté partiellement	Amélioration constatée avec l'assistance du Groupement EDF et HQI.
P 3.01 (b) (ii)	Plan d'action pour le recrutement ou l'affectation du personnel d'EDH	Respecté partiellement	En raison de la pression de modernisation, il s'est avéré difficile de convenir une politique de carrière. Toutefois un plan d'action a été mis en application comme le gel des embauches. le redéploiement du personnel. la formation.
P 3.01 (b) (iv)	Le ratio clients/employes ne peut être inférieur à 75% en 1996, 80% en 1997, 85% à partir de 1998	Respecté en 1998	Ce ratio est de 85% en 1998
P 3.02	EDH doit exploiter et entretenir ses installations selon les méthodes appropriées	Respecté	EDH a engagé environ 10% de ses dépenses pour l'entretien de ses installations
P 3.03	EDH doit assurer ses biens	Non respecté	Le contrat d'assurances a été discontinué en raison des coûts élevés réclamés. EDH assure elle-même ses biens
P 3.04	Contrôle du barrage et de ses structures correspondantes assuré par des experts une fois par an	Respecté	Contrôle fait par la Société Coyne et Bélier
P 3.06	Edh doit ramener les pertes totales à 50% en 1996, 42% en 1997, 35% en 1998 et par la suite	Non respecté	Les supports attendus des autorités judiciaires pour le traitement des cas de fraudes ont été insuffisants. De plus, EDH n'a pas pu maintenir un stock minimum régulier de matériel de branchements
P 4.01	Préparation des états financiers et de rapports d'audit dans les 5 mois suivant la date de clôture de chaque exercice (avant le 1er Mars)	Respecté avec retard	Les états financiers pour l'exercice 97-98 sont prévus pour Juin 1998
P 4.02	Le taux de rentabilité de EDH ne doit pas être de moins de 0.5% en 1996, 1.5% en 1997, 4% en 1998 et par la suite	Non respecté	Actuellement, il est de (15 %). La quantité d'énergie produite est encore insuffisante pour garantir les dépenses de fonctionnent et d'exploitation d'une part et de l'autre permettre de stabiliser la balance financière. De plus le montant de la dette a été réévalué en fonction du coût de la devise, contrairement au montant des actifs qu i eux-mêmes n'ont pas été réévalués. Un tel processus sous-entend un cadre juridique approprié..
P 4.03	Le revenu net de EDH doit être d'au moins 1.5% son service de la dette	Non respecté	Actuellement il est de 7 %.
P 4.04	A moins qu'il n'en soit convenu autrement avec l'IDA, EDH ne doit pas effectuer des dépenses d'équipement d'un montant supérieur de plus de 1% à la valeur actuelle nette de ses immobilisations en exploitation, ni conclure d'Accord d'Achat d'énergie électrique pour plus de 10 MW de capacité ou de Gwh /an	Respecté partiellement	Deux contrats furent signés pour l'achat d'énergie, l'un en 1997 avec Interselect pour une puissance de 12 MW, l'autre avec West Indies Power en 1996 pour 30 MW. Ces deux contrats ne furent jamais opérationnels
P 4.06	L'EDH doit réévaluer annuellement ses immobilisations en exploitation	Non respecté	Cette opération implique une décision administrative et juridique très complexe à obtenir puisqu'elle modifiera le bilan financier de l'entreprise

(vii) EXPLOITATION DES RESULTATS

Production

La centrale de Varreux II (21 MW) mise en service depuis déjà un an fonctionne jusqu'à date au mazout (40%) et au gasoil (60%), avec une puissance de 18 MW c-à-d 85% de la puissance maximale installée. Celle du 10.8 MW installée à Carrefour fonctionne depuis Avril 1999 avec une puissance disponible de 10 MW. Les dispositions financières et administratives sont prises pour l'exploitation de ces unités pendant les deux prochaines années.

Les résultats de l'étude du choix du site de la nouvelle centrale sont utilisés dans l'établissement du plan d'équipement en vue de prochaines démarches de financement.

Réduction des pertes
Les interventions effectuées dans les zones pilotes I et II ont permis de généraliser certains résultats obtenus dans le cadre de ces activités, à savoir :

1. Avec un programme soutenu de réalisation, dans un délai raisonnable, des nouveaux branchements, la population fait davantage confiance au service offert par l'EDH plutôt que d'utiliser des entités parallèles parasites
2. A la fin des interventions dans la zone I, le rapport des énergies mesurées comparées à l'énergie fournie a occasionné une réduction des pertes de 16%. Cette diminution n'a pas duré longtemps, les dispositifs de suivi et de contrôle étant insuffisants. Néanmoins, les expériences effectuées ont permis d'évaluer le niveau de mobilisation qu'il faut engager pour mener de pareilles activités. Ainsi, de nouvelles actions sont programmées actuellement qui ne nécessitent pas de grandes mobilisations de ressources humaines.

Environnement

L'environnement à la Centrale de Varreux a été grandement amélioré avec l'installation sur le site d'un puisard muni d'un tambour oléophile pour retenir les effluents qui dans le temps allaient directement dans les canaux à ciel ouvert traversant la zone de Cite Soleil. Du côté de Carrefour, la récupération a été aussi améliorée, le littoral ne reçoit plus de déversements directs de résidus huileux provenant du trop plein des fosses de récupération qui ont été réhabilités et agrandis. La maintenance et l'exploitation de ces installations sont assurées par le personnel régulier des centrales en question. Un comité de suivi évalue régulièrement la qualité des effluents déversés après filtrage.

Révision tarifaire
Un ajustement de 10 % est programmé pour la fin de l'exercice. Le dossier est soumis aux autorités de tutelle pour approbation.

Formation
Un plan de redéploiement du personnel est en application. Les embauches sont gelées. Le service de formation a été restructuré en département de formation de manière à renforcer cette action.

(viii) OPERATIONS FUTURES

Production
Toutes les pièces de rechange et d'entretiens préventifs sont budgétées. Certaines sont déjà commandées. Un programme de formation est planifié pour l'ensemble du personnel des centres de production.

Réduction des pertes
Plusieurs actions sont en cours actuellement pour maintenir la mobilisation amorcée dans le programme de réduction des pertes.

(ix) LECONS APPRISES

Les expériences acquises tout au cours de la réalisation et de l'exploitation des installations électriques sont nombreuses et complexes. L'entreprise a du faire face à des situations contraignantes et difficiles en raison de conjonctures socio-politiques, et ces situations ont eu des incidences et sur les délais de réalisation des composantes et sur l'atteinte des indicateurs.

a) Bien que les précautions majeures aient été prises au niveau du contrat d'installation du groupe de 10 MW suite aux expériences enregistrées au niveau de la construction de la centrale de 21 MW, des retards furent malgré tout enregistrés et firent l'objet d'applications de pénalités.
b) La conception d'un projet de financement ne devrait pas seulement prendre en compte les obligations du principal bailleur de fonds sur un secteur. Elle devrait aussi intégrer l'impact des engagements des autres bailleurs qui participent sur le secteur dans la même période
c) Les conditions du Crédit n'ont pas permis de prévoir un espace pour réajuster l'enveloppe budgétaire allouée
d) L'ajustement du tarif suivant les recommandations de la Banque n'a pas donné les résultats escomptés. Cette disposition a entraîné en 1997 des attitudes négatives de la part des clients qui avaient déjà des griefs contre la qualité des services offerts par l'entreprise et de certains parlementaires qui en ont profité pour essayer de faire du capital politique.
e) L'instabilité socio-politique affecte considérablement les résultats commerciaux et financiers malgré les efforts de redressement consentis
f) Des résultats durables dans le commercial ne s'acquièrent qu'après des périodes continues de corrections des faiblesses de gestion. La qualité des services des domaines tels la production et le réseau influence énormément les résultats des programmes commerciaux et de gestion

PARTIE II : TABLEAUX RESUMES

(i) Sommaire des investissements
(ii) Cofinancement
(iii) Echéancier des projets
(iv) Décaissements de la Banque : Cumulatif estimé et réel
(v) Indicateurs pour la mise en œuvre du Projet
(vi) Indicateurs pour l'exploitation du Projet
(vii) Etudes réalisées dans le cadre du Projet
(viii) Coûts du Projet
(ix) Financement du Projet
(x) Coûts économiques et bénéfices
(xi) Indicateurs de performance
(xii) Concordance avec le manuel de procédures d'exploitation
(xiii) Ressources de la Banque : personnel
(xiv) Ressources de la Banque : missions

ANNEXE (i)

SOMMAIRE DES INVESTISSEMENTS

DESCRIPTION DE LA COMPOSANTE	MONTANT FINANCE PAR IDA (USD) + AUTRES BAILLEURS	MONTANT FINANCE EN CONTREPARTIE PAR EDH Equivalent en $ USD	MONTANT TOTAL DE L'INVESTISSEMENT
Construction de la centrale de 21 MW : 15 MW financé par IDA, 6 MW financé par ACDI	**IDA** Coût de la centrale : USD 15 658 252 + Coût assistance technique + supervision USD 152000 + **ACDI** CAN 5 500 000	**EDH** USD 1 240 000	USD 21 281 021
Installation d'une unité de 10 MW à Carrefour	**IDA** FRF 33 930 000 + Coût assistance technique +supervision USD 523 494	**EDH** USD 1 200 000	USD 7 378 000
Etude de site pour la nouvelle centrale thermique	**IDA** USD 329 900	**EDH** USD 100 000	USD 429 900
Réduction des pertes	**IDA** USD 2 000 000 **BID** USD 500 000 **AFD** USD 660 000	**EDH** USD 150 000	USD 3 310 000
Révision de l'étude tarifaire	**IDA** USD 100 000	**EDH** USD 20 000	USD 120 000
Formation	**IDA** USD 187 345	**EDH** USD 100 000	USD 287 345
Renforcement institutionnel	**IDA** USD 830 000 + **AFD** FRF 60 000 000 +**ACDI** CAN 2 451 675	**EDH** USD 50 000	USD13 331 675

ANNEXE (ii)

COFINANCEMENT

Le 5ème Projet Energie n'a pas été engagé avec d'autres financements, à part la contribution de EDH qui a été fixée à 15 % pour les dépenses locales. Néanmoins, la composante de la centrale de 15 MW a bénéficié d'un cofinancement pour l'ajout de 6 MW additionnels.

Le tableau suivant résume les montants de ces cofinancements :

DESCRIPTION DE LA COMPOSANTE	COFINANCEMENT	REMARQUES
Centrale de Varreux 15 /21 MW	**ACDI** $CAN 5 500 000 **EDH CONTREPARTIE** USD 1 240 000	Ce cofinancement concerne les 6 MW additionnels
Installation unité 10 MW à Carrefour	**EDH CONTREPARTIE** USD 1 200 000	La banque mondiale n'a pas payé un dernier paiement de USD 700000 à Pielstick . La date de clôture du Crédit arrivait à termes .EDH devra le prendre en charge, malgré la lettre de crédit qui était approuvée par la banque pour le paiement de ces travaux.
Réduction des pertes	**EDH CONTREPARTIE** USD 150 000 **BID** USD 500 000 **AFD** USD 660 000	Ces financements n 'étaient pas convenus dans l'accord de Crédit de la Banque mondiale. Ils concernent des programmes d'accompagnement.

ANNEXE (iii)

ECHEANCIER DES PROJETS

LES COMPOSANTES	1989				1990				1991 1994	1995				1996				1997				1998				REMARQUES
TRIMESTRE	1	2	3	4	1	2	3	4	CREDIT BLOQUE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Centrale 15/21 MW																										
Unité 10 MW Carrefour																										
Étude de site																										
Réduction des pertes																										
Révision tarifaire																										
Implantation SAP R3																										
Formation																										

ANNEXE (iv)

DECAISSEMENTS DE LA BANQUE

(VOIR TABLEAU SUR LES 3 PAGES SUIVANTES)

5ème CREDIT IDA 2053-HA

CONTRÔLE BALANCE DES CATEGORIES

TN		MONTANT DEMANDE	MONTANT PAYE EN US	26150000 BALANCE EN US	MONTANT PAYE EN XDR	16600000 BALANCE XDR	16000000 1-A		800000 1-B	BAL	1300000 1-C	BAL	600000 2	BAL	500000 3	BAL	400000 4	BAL	SA-A	BAL	BENEFICIAIRE
1	FRF	656450	514873,07	26018924,34	84654,73	16515345,3		15000000		800000		1300000	84654,73	615345,27		500000		400000		0	EDF01
2	USD	16230	16268,74	26858657,64	11987,37	16503357,9		15000000		800000		1300000	11987,37	503357,9		500000		400000		0	PRICEWATER
3	USD	864000	959478,82	25898379,02	638113,68	17865244,2	638113,68	14361886,3		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
4	USD	1443261	1445508,07	24452872,45	97184,97	17768049,3	97184,97	14264691,4		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
5	USD	5270446,3	5278473,72	20217398,73	3992203,8	14205845,4	3992203,8	10702467,5		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
6	USD	4972282,5	4979118,84	19776498,89	330961,28	13874864,1	330961,28	10371528,2		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
7	USD	1144308,1	1148313,37	18628172,32	791133,93	13083750,2	791133,93	9580392,27		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
8	USD	732 941,50	733870,8	17894301,52	603354,55	12580395,6	603354,55	9077037,72		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
9	USD	75905,5	76906,81	17752302,71	52812,7	12527582,9	52812,7	9024225,02		800000		1300000		503357,9		500000		400000		0	HQI-VIBEC 21 MW
10	USD	7113,2	7113,2	17745182,51	4908,1	12522878,8		9024225,02		800000		1300000	4908,1	498451,8		500000		400000		0	CROWN 21 MW
11	DEM	63427	41867,45	17703502,03	28752,56	12483824,3		9024225,02		800000		1300000	28752,56	469699,24		500000		400000		0	DECON TAG
12	USD	853498,34	854038,02	16848463,71	576040,82	11917783,5	576040,82	8448184,4		800000		1300000		469699,24		500000		400000		0	HQI-VIBEC 21 MW
13	USD	32693,2	32695,78	16815767,92	22545,1	11895338,5	22545,1	8425639,3		800000		1300000		469699,24		500000		400000		0	HQI-VIBEC 21 MW
14	USD	23256,85	23214,06	16792768,84	16096,41	11879242,1		8425639,3		800000		1300000	16096,41	453602,83		500000		400000		0	ARCHER 21 MW
15	USD	53845	53877,89	16738887,95	38702,03	11840540,1	38702,03	8386937,27		800000		1300000		453602,83		500000		400000		0	HQI-VIBEC 21 MW
16	USD	696350,87	696743,23	16080148,6	482575,32	11357964,8	482575,32	7904361,95		800000		1300000		453602,83		500000		400000		0	HQI-VIBEC 21 MW
17	USD	92648,92	92647,97	15987501,92	38089,88	11321894,9	38089,88	7866272,08		800000		1300000		453602,83		500000		400000		0	HQI-VIBEC 21 MW
18	USD	218975,66	219100,78	15768987,14	146904,55	11174989,4	146904,55	7721367,54		800000		1300000		453602,83		500000		400000		0	HQI-VIBEC 21 MW
19	USD	342876	343181,63	15445789,38	241156,38	10933834	241156,38	7480231,16		800000		1300000		453602,83		500000		400000		0	HQI-VIBEC 21 MW
20	DEM	37339	24539,3	15423249,76	16999,74	10916934,3		7480231,16		800000		1300000	16999,74	436603,09		500000		400000		0	DECON DAO 10 MW
21	USD	18419,4	18411,7	15404831,56	12694,68	10904139,4		7480231,16		800000		1300000	12694,89	423908,2		500000		400000		0	EDFHENRI
22	USD	7484,06	7606,22	15397225,34	5137,78	10899001,6		7480231,16		1400000		0	5137,78	418770,44		200000		400000		0	ARCHER 21 MW
23	USD	950958	950958	14446267,34	652951,11	10246050,5	652951,11	7827280,05		1400000		0		418770,44		200000		400000		0	HQI-VIBEC 21 MW
24	USD	437160,7	437160,7	14009216,64	300158,4	9945892,09	300158,4	7527121,65		1400000		0		418770,44		200000		400000		0	HQI-VIBEC 21 MW
25	DEM	74878	49868,21	13959526,41	33707,57	9912184,52		7527121,65		1400000		0	33707,57	385062,87		200000		400000		0	DECON DAO 10 MW
26	USD	89043,9	89219,77	13870306,64	48152,6	9864031,92		7527121,65		1400000		0	48152,6	336909,27		200000		400000		0	EDFHENRI
27	USD	815000	815520,14	13054786,5	568924,29	9295097,63	568924,29	6958197,36		1400000		0		336909,27		200000		400000		0	HQI-VIBEC 21 MW
28	USD	51826,5	51823,17	13002963,33	36176,35	9258919,28		6958197,36		1400000		0	36176,36	300721,92		200000		400000		0	ARCHER 21 MW
29	USD	1000000	1 000 000	12002963,33	722261,65	8536657,73		6958197,36		1400000		0		300721,92		200000		400000	722261,55	-722261,55	COMPTE SPECIAL
30	DEM	12446	7378,47	11995484,86	5355,91	8531301,82		6958197,36		1400000		0	5355,84	295366,08		200000		400000		-722261,55	DECON DAO 10 MW
31	USD	818030,7	818920,66	11176564,2	466531,61	8064650,21	466531,61	6511545,75		1400000		0		295366,08		200000		400000		-722261,55	HQI-VIBEC 21 MW
32	USD	10113	10077,75	11166486,45	10944,7	8053705,51		6511545,75		1400000		0	10944,7	284421,38		200000		400000		-722261,55	DECON 21 MW
33	FRF	1142021	206249,73	11163842,72	145985,35	7907720,16		6511545,75		1400000		0	145985,55	138435,98		200000		400000		-722261,55	EDF01
34	USD	12564,63	12558,72	11170984	9373,33	7898346,83		6511545,75		1400000		0	9373,33	129062,63		200000		400000		-722261,55	ARCHER 21 MW
35	USD	86941	86925,07	11083958,93	62925,45	7835421,38		6511545,75		1400000		0	62925,45	66137,18		200000		400000		722261,55	EDFHENRI
36	FRF	3770000	647194,75	10436764,18	466448,36	7368973,02	466448,36	6045097,39		1400000		0		66137,18		200000		400000		722261,55	PIELSTICK 10 MW
37	USD	52600	52648,38	10384267,8	38305,54	7331667,48		6045097,39		1400000		0	38305,54	27831,64		200000		400000		-722261,55	EDF ROELS
38	USD	1103885,27	1102744,32	9281539,58	805266,82	6640400,66	805266,82	5240800,77		1400000		0		27831,64		200000		400000		-722261,55	HQI-VIBEC 21 MW
39	USD	2065000	2078000,453	9073739,127	151626,55	6394574,21	151626,55	5089004,22		1400000		0		27831,64		200000		400000		-722261,55	HQI-VIBEC 21 MW
40	USD	39000	38187,9681	9043341,449	22209,64	6372364,67	22209,64	5066794,58		1400000		0		27831,64		200000		400000		-722261,55	VARREUX TRANSP
41	USD	26949,42	26950,805	9016481,428	19617,607	6352747,06	19617,607	5047176,97		1400000		0		27831,64		200000		400000		-722261,55	BRH1-A
42	USD	100	99,8644958	9016381,783	72,518492	6352674,24		5047176,97		1400000		0	72,518492	27758,892		200000		400000		-722261,55	BRH2
43	USD	60000	59798,4884	8956583,072	43691,095	6308983,15		5047176,97		1400000		0	43691,095	-15932,27		200000		400000		-722261,55	DECON 60 MW
44	USD	10000	10066,7943	8946781,279	28127,397	6279855,75		5047176,97		1400000		0	28127,397	-45059,67		200000		400000		-722261,55	DECON 10 MW
45	USD	10000	10733,5902	8936993,71	14418,081	6265437,69	14418,081	5032758,91		1400000		0		-45059,67		200000		400000		-722261,55	CANEZ 1 COMPT
46	USD	105000	103000	8781993,71	77814,09	6187623,6		5032758,91		1400000		0	77814,09	-122873,8		200000		400000		-722261,55	EDF ROELS
47	USD	220210	220210	8571783,71	183194,68	6004428,92	183194,68	4889564,23		1400000		0		-122873,8		200000		400000		-722261,55	SAP
48	USD	838,8	838,8	8570945,91	634,99208	6003793,93		4889564,23	634,99208	1399365		0		-122873,8		200000		400000		-722261,55	ARTARAMA

40	USD	43780	43780	4527148,81	32444,774	6001349,19		4869564,23	32444,774	1368920		0		-122673,8		200000		400000		-722261,55	TOYOTA
40	USD	18100	18100	5309048,01	13413,687	5977935,52		4869564,23	13413,687	1353507		0		-122673,8		200000		400000		-722261,55	CWE
40	USD	4280	4280	2624785,01	3171,8508	5974763,67		4869564,23	3171,8508	1350335		0		-122673,8		200000		400000		-722261,55	TELECOM
40	USD	37500	37500	3447200,01	27790,747	5946972,92		4869564,23	27790,747	1322544		0		-122673,8		200000		400000		-722261,56	MAZDA
40	USD	1780	1780	8483456,81	1319,1341	5845653,79		4869564,23		1322544		0	1319,1341	-124192,9		200000		400000		-722261,55	OAO A & G
41	USD	270601,6	270601,6	8185806,81	207941,86	5737711,93	207941,86	4661622,37		1322544		0		-124192,9		200000		400000		-722261,55	HQI-VIBEC 21 MW
42	USD	368726,58	368726,58	7797075,83	286114,21	5449597,72	286114,21	4373508,16		1322544		0		-124192,9		200000		400000		-722261,55	CANEZ 2
43	FRF	420175,01	68649,6	7727421,81	51778,84	5397819,18	51778,84	4321729,62		1322544		0		-124192,9		200000		400000		-722261,55	PIELSTICK 10 MW
44	USD	28358	28454,7068	7698973,613	21103,733	5376715,44		4321729,62	21103,733	1301440		0		-124192,9		200000		400000		-722261,55	SIGNET SUN
44	USD	15816,8	15872,5464	7683108,284	11772,02	5364943,42		4321729,62	11772,02	1289668		0		-124192,9		200000		400000		-722261,55	COGIQ
44	USD	66879,57	66914,232	7615187,012	49627,503	5315315,92		4321729,62	49627,503	1240041		0		-124192,9		200000		400000		-722261,56	UTECO
44	USD	4160	4174,64130	7612012,371	3096,157	5312219,76		4321729,62	3096,157	1236945		0		-124192,9		200000		400000		-722261,56	DIGICOM
44	USD	674	676,372178	7611336,999	501,83897	5311718,13		4321729,62	501,83897	1236443		0		-124192,9		200000		400000		-722261,55	LITTLE EUROPE
44	USD	374473,21	375791,157	7235544,812	278708,61	5033009,51	278708,61	4043021,01		1236443		0		-124192,9		200000		400000		-722261,55	CANEZ 2
44	FRF	90000	14687,0658	7220881,726	10874,998	5022134,52	10874,998	4032146,01		1236443		0		-124192,8		200000		400000		-722261,55	EGIE
44	USD	34295	34209,9814	7186671,744	25372,113	4996762,4		4032146,01		1236443		0	25372,113	-149565		200000		400000		-722261,55	AGRA MONENCO
44		80000	80241,564	7106102,18	59541,48	4937220,92		4032146,01		1236443		0	59541,48	-209106,5		200000		400000		-722261,56	DECON 60 MW
44	USD	110000	110187,15	6995003,03	81889,535	4855331,39		4032146,01		1236443		0		-209106,5	81889,535	118130,5		400000		-722261,55	HEC CETAI
45	FRF	13600366,3	3000891,04	3995111,59	2226163,8	2629167,6	2226163,8	1805882,22		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
46	FRF	889498,21	149181,75	3845930,24	111319,7	2517867,9	111319,7	1694682,52		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
47	FRF	602188,34	101908,22	3744062,02	75884,58	2441983,32	75884,58	1618777,94		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
48	FRF	869472,5	149202,8	3594859,22	111780,82	2330202,5	111780,62	1506997,12		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
49	FRF	528745	86849,69	3508009,53	64777,7	2265424,8	64777,7	1442219,42		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
50	FRF	1144869,8	192913,99	3318296,34	143823,03	2121601,77	143823,03	1298396,39		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
51	FRF	1582678,18	275309,75	3042985,59	208167,43	1913434,34	208167,43	1090228,96		1236443		0		-209106,5		118130,5		400000		-722261,55	PIELSTICK 10 MW
52	USD	109534,21	109564,28	2933431,35	80099,301	1833335,04	80099,301	1010129,66		1236443		0		-209106,5		118130,5		400000		-722261,55	CANEZ 2
52	USD	6646,92	6646,92	2924384,40	6466,3238	1826866,71	6466,3238	1003661,34		1236443		0		-209106,5		118130,5		400000		-722261,55	SAGATRANS
52	FRF	510000	83533,97	2841050,43	61074,902	1765791,61	61074,902	942588,433		1236443		0		-209106,5		118130,5		400000		-722261,55	EGIE
52	USD	3005,55	3005,55	2838044,84	2197,4733	1763594,34	2197,4733	940388,96		1236443		0		-209106,5		118130,5		400000		-722261,55	BRH1-A
52	USD	7540	7540	2830504,84	5512,7818	1758081,56		940388,96		1236443		0	5512,7818	-214619,3		118130,5		400000		-722261,55	DANIEL
52	USD	14810	14810	2815694,94	10681,828	1747399,83		940388,96		1236443		0	10681,828	-225301,2		118130,5		400000		-722261,55	AGRA MONENCO
52	USD	152800,16	152800,16	2663094,78	111718,07	1635681,58		940388,96	111718,07	1124725		0		-225301,2		118130,5		400000		-722261,55	UTECO
52	USD	-379890,81	-379890,85	3042985,59	-277752,78	1913434,34		940388,96		1124725		0		-225301,2		118130,5		400000	-277752,8	-444508,77	COMPTE SPECIAL
53	FRF	42278,8	7711,55	3035274,04	5581,61	1907852,53	5581,61	934807,15		1124725		0		-225301,2		118130,5		400000		-444508,77	PIELSTICK 10 MW
54	FRF	558469,97	101436,71	2933837,33	71658,63	1836196,7	71656,63	863151,32		1124725		0		-225301,2		118130,5		400000		-444508,77	PIELSTICK 10 MW
55	USD	78390,1	78492,46182	2855344,868	54404,697	1781792		863151,32		1124725		0	54404,697	-279705,9		118130,5		400000		-444508,77	DECON AVE1-10
55	USD	40000	40050,65544	2317294,31	28485,683	1753306,34		863151,32		1124725		0	28485,683	-308191,6		118130,5		400000		-444508,77	DECON AVE1-80
56	USD	96660,43	96660,43	2120634,18	89695,695	1663610,74	89695,695	790455,725		1124725		0		-308191,6		118130,5		400000		-444508,77	CANEZ 2
56	USD	161325	161325	2559309,18	116321,4	1587289,34	116321,4	677134,323		1124725		0		-308191,6		118130,5		400000		-444508,77	HQI-VIBEC 21 MW
56	USD	4721,491	4721,491	2554587,689	3404,3729	1583884,97	3404,3729	673729,95		1124725		0		-308191,6		118130,5		400000		-444508,77	BRH1-A
56	GDES	131719,3	7845,18	2546742,529	5656,6599	1558228,31		673729,95	5656,6599	1119068		0		-308191,6		118130,5		400000		-444508,77	ECEM
56	USD	4142,5	4142,5	2542600,029	2986,9007	1555241,41		673729,95	2986,9007	1116081		0		-308191,6		118130,5		400000		-444508,77	UTECO
56	USD	2188	2188	2540411,029	1576,1695	1553665,22		673729,95	1576,1695	1114505		0		-308191,6		118130,5		400000		-444508,77	COGIQ 2
56	USD	29220	29220	2511191,029	21068,723	1532596,5		673729,95		1114505		0	21068,723	-329260,3		118130,5		400000		-444508,77	AGRA MONENCO
56	USD	8700	8700	2502494,029	6273,0264	1526323,47		673729,95		1114505		0	6273,0264	-335533,3		118130,5		400000		-444508,77	DANIEL
56	USD	40000	40000	2462494,029	28841,51	1497481,96		673729,95		1114505		0	28841,51	-364374,8		118130,5		400000		-444508,77	DECON AVE1-80
56	USD	32741,8	32741,8	2429752,029	23607,569	1473874,39		673729,95		1114505		0	23607,569	-387982,4		118130,5		400000		-444508,77	DECON AVE1-10
56	USD	50000	50000	2379752,029	36051,88	1437822,51		673729,95		1114505		0		-387982,4	36051,88	82078,59		400000		-444508,77	HEC CETAI
56	USD	-337541,30	-337541,34	2717294,309	-243380,06	1681202,57		673729,95		1114505		0		-387982,4		82078,59		400000	-243380,1	-201128,71	COMPTE SPECIAL
57	USD	2900	2900	2714394,309	2074,61	1679127,96		673729,95		1114505		0	2074,61	-390057		82078,59		400000		-201128,71	DANIEL
57	USD	3765	3765	2710629,309	2693,4229	1676434,54	2693,4229	671036,527		1114505		0		-390057		82078,59		400000		-201128,71	HQI-VIBEC 21 MW
57	[illegible]	328,84	328,84	2710300,469	235,247	1676199,29	235,247	670801,28		1114505		0		-390057		82078,59		400000		-201128,71	BRH1-A
57	GDES	328867,8	19896,06	2690404,419	14233,324	1661965,97		670801,28	14233,324	1100272		0		-390057		82078,59		400000		-201128,71	ECEM

57	USD	111773,47	111773,47	2578830,948	79960,998	1582004,97		670801,28	79960,998	1020311		0		-390067		62078,39		400000		-201128,71	UTECO
58	FRF	5 806 444,64	870 180,91	1580482,038	694 126,05	687878,82	694 126,05	-23324,77		1020311		0		-390057		62078,59		400000		-201128,71	PIELSTICK 10 MW
59	USD	27 345	27348	1572117,099	19510,12	688368,6		-23324,77		1020311		0		-390057	19510,12	62568,47		400000		-201128,71	HEC CETAI
60	USD	80000	80000	1492117,039	57279,658	611089,141		-23324,77		1020311		0	57279,658	-447336,7		62568,47		400000		-201128,71	DECON 10 MW
60	USD	80000	80000	1412117,039	57279,658	753809,483		-23324,77		1020311		0	57278,658	-504616,3		62568,47		400000		-201128,71	DECON AVE3-10
60	USD	29730	29730	1382387,099	21300,673	732508,81		-23324,77		1020311		0	21300,673	-525917,2		62568,47		400000		-201128,71	DECON AVE2-10
61	USD	11295	11295	1371072,028	8208,61	724302	8208,61	-31531,38		1020311		0		-525917,2		62568,47		400000		-201128,71	FKH-VIBEC 21 MW
62	USD	95150	95150	1275922,038	69133,133	655168,867		-31531,38		1020311		0	69133,133	-595050,3		62568,47		400000		-201128,71	DECON 60 MW
62	USD	14750	14750	1261172,039	10716,907	644451,96		-31531,38		1020311		0	10716,907	-605767,2		62568,47		400000		-201128,71	DECON AVE1-60
63	USD	150 474,31	150474,31	1110697,729	111509,53	532942,43		-31531,38	111509,53	908801,3		0		-605767,2		62568,47		400000		-201128,71	UTECO
64	USD	274,52	274,52	1110423,209	201,853	532740,577	201,853	-31733,233		908801,3		0		-605767,2		62568,47		400000		-201128,71	BRH1-A
64	GDES	774 585,24	46743,22	1063677,989	34371,485	498369,091		-31733,233	34371,485	874429,8		0		-605767,2		62568,47		400000		-201128,71	ECEM
64	USD	11 600,00	11600	1052077,989	8529,411	489839,66		-31733,233		874429,8		0	8529,411	-614296,6		62568,47		400000		-201128,71	DANIEL
64	USD	52 500,00	52500	999577,9889	38602,941	451236,739		-31733,233		874429,8		0	38602,941	-652899,6		62568,47		400000		-201128,71	EDF ROELS
64	USD	4 100,00	4100	995477,9889	3014,705	448222,034		-31733,233		874429,8		0	3014,705	-655914,3		62568,47		400000		-201128,71	EDF GRUE
64	USD	51 450,00	51450	944027,9889	37830,882	410391,152		-31733,233		874429,8		0	37830,882	-693745,2		62568,47		400000		-201128,71	DECON 10 MW
64	USD	22 878,00	22878	921151,9889	16820,588	393570,564		-31733,233		874429,8		0	16820,588	-710565,8		62568,47		400000		-201128,71	DECON AVE3-10
64	USD	19480	19480	901671,9889	14323,529	379247,034		-31733,233		874429,8		0	14323,529	-724889,3		62568,47		400000	-153695,4	-47433,29	AGRA MONENCO

ANNEXE (v)

INDICATEURS POUR LA MISE EN ŒUVRE DU PROJET

PARAMETRES DE SUIVI	1996		1997		1998		1999	
	(P)	(R)	(P)	(R)	(P)	(R)	(P)	(R)
Clients/employés	75	72	80	78	85	81	>85	85
Taux des pertes	50%	53.6	42%	56%	35%	55%	<35%	55%
Retour sur investissements	0.5%	-4	1.5%	-9.6	4%	-12%	>4%	-14%
Ratio service dette/revenu net	<1.5	3.63	<1.5		<1.5		<1.5	7
Nombre d'heures d'alimentation	Min 18		Min18		Min 18	12	Min 18	15-18
Taux de recouvrement	>100%	80	>100%		>100%	95	>100%	

(P) : PREVU (R) : REEL

ANNEXE (vi)

INDICATEURS POUR L'EXPLOITATION DU PROJET

PARAMETRES DE SUIVI	1999	2000	2001	
Clients/employés	90	100		
Taux des pertes	50	45		
Retour sur investissements	-5	0		
Ratio service dette/revenu net	3	.1.5		
Nombre d'heures d'alimentation	Min 18	Min 18		
Taux de recouvrement	>100%	>100 %		

ANNEXE (vii)

ETUDES REALISEES DANS LE CADRE DU PROJET

Les études suivantes ont été réalisées dans le cadre du Projet :

1) Etude de site pour une nouvelle centrale thermique Diesel de 120 MW dont une première tranche de 60 MW

2) Etude tarifaire

ANNEXE (viii)

COUTS DU PROJET

Les dépenses suivantes ont été effectuées dans le cadre du Projet :

DESCRIPTION DE LA COMPOSANTE	MONTANT FINANCE PAR IDA (USD) + AUTRES BAILLEURS	MONTANT FINANCE EN CONTREPARTIE PAR EDH Equivalent en $ USD	MONTANT TOTAL DE L'INVESTISSEMENT
Construction de la centrale de 21 MW : 15 MW financé par IDA, 6 MW financé par ACDI	**IDA** Coût de la centrale : USD 15 658 252 + Coût assistance technique + supervision USD 152000 + **ACDI** CAN 5 500 000	**EDH** USD 1 240 000	USD 21 281 021
Installation d'une unité de 10 MW à Carrefour	**IDA** FRF 33 930 000 + Coût assistance technique +supervision USD 523 494	**EDH** USD 1 200 000	USD 7 378 000
Etude de site pour la nouvelle centrale thermique	**IDA** USD 329 900	**EDH** USD 100 000	USD 429 900
Réduction des pertes	**IDA** USD 2 000 000 **BID** USD 500 000 **AFD** USD 660 000	**EDH** USD 500 000	USD 3 310 000
Révision de l'étude tarifaire	**IDA** USD 100 000	**EDH** USD 20 000	USD 120 000
Formation	**IDA** USD 187 345	**EDH** USD 100 000	USD 387 345
Renforcement institutionnel	**IDA** USD 830 000 + **AFD** FRF 60 000 000 + **ACDI** CAN 2 451 675	**EDH** USD 50 000	USD 13 331 675

ANNEXE (ix)

FINANCEMENT DU PROJET

Le 5eme Projet ENERGIE a été financé par la Banque mondiale au montant de DTS 18600000, c-a-d l'équivalent de USD 26 000 000 (ref taux 1998). Aucun autre cofinancement n'a été associé contractuellement à ce Projet, à part la contrepartie de EDH qui était officiellement fixée à 15% des dépenses locales, et la mise à disposition de ressources foncières ou d'infrastructures existantes. Le gouvernement Canadien a octroyé un don au Gouvernement haïtien d'un montant de CAN 5 500 000 pour la fourniture de 6 MW additionnels dans la composante du 15 MW financé par IDA.

ANNEXE (x)

COUTS ECONOMIQUES ET BENEFICES

L'augmentation de la capacité de production de 31 MW additionnels a permis :

1) d'augmenter la quantité d'énergie électrique fournie à la clientèle industrielle qui de ce fait réduit ses dépenses en autogénération qui sont de l'ordre de 2.5 à 3 fois le coût unitaire de production de EDH
2) de réduire les coûts d'improductivité de EDH
3) d'augmenter le nombre d'heures de fonctionnement des écoles du soir
4) d'augmenter le chiffre d'affaires des commerces de nuit
5) de réduire la tension d'insécurité pendant la nuit

ANNEXE (xi)

INDICATEURS DE PERFORMANCE

Le tableau suivant décrit les indicateurs de performance qui avaient été fixés au déblocage du Crédit en 1996. Les valeurs de 1989 étaient plus élevées ; elles ont été réduites pour tenir compte de la situation post-embargo.

INDICATEURS	1996		1997		1998		1999	
	VALEUR A OBTENIR	VALEUR OBTENUE	VALEUR A OBTENIR	VALEUR OBTENUE	VALEUR A OBTENIR	VALEUR OBTENUE	VALEUR A OBTENIR	VALEUR OBTENUE
CLIENTS / EMPLOYES	Min 75%	72%	80%	78%	85%	81%	>85%	85%
TAUX DES PERTES	Max 50%	56%	42%	56%	35%	55%	< 35%	
RETOUR SUR INVESTISSEMENTS	Min 0.5%	(4%)	1.5%	(9.66%)	4%	(%)	>4%	(15%)

ANNEXE (xii)

CONCORDANCE AVEC LE MANUEL DE PROCEDURES D'EXPLOITATION

Les diverses réalisations effectuées dans le cadre de ce financement sont toutes conçues selon les normes en vigueur à Electricité d'Haïti. De plus, leur exploitation rentre dans la pratique habituelle de fonctionnement des divers intervenants et ne nécessite aucune modification majeure de structures ou de procédures.

ANNEXE (xii)

RESSOURCES DE LA BANQUE : PERSONNEL

Au cours de l'exécution du Projet, le personnel suivant de la Banque a participe au suivi et à la gestion des activités :

- Marcelo OSORIO : chargé de Projet
- Philippe DURAND : chargé de Projet
- Jorge GORRIO :
- Max PULGAR-VIDAL : Chef division de crédit
- Varella : Avocat
- Clive Harris : Economiste
- Mac GAYE GAYE : Economiste
- Martin Staab : Evaluation des offres
- Carolle Carr : représentant résident
- Michael AZEFOR : représentant résident
- P. Gregory Fazzari : Expert
- Garry Charlier : Expert

ANNEXE (xiii)

RESSOURCES DE LA BANQUE : MISSIONS

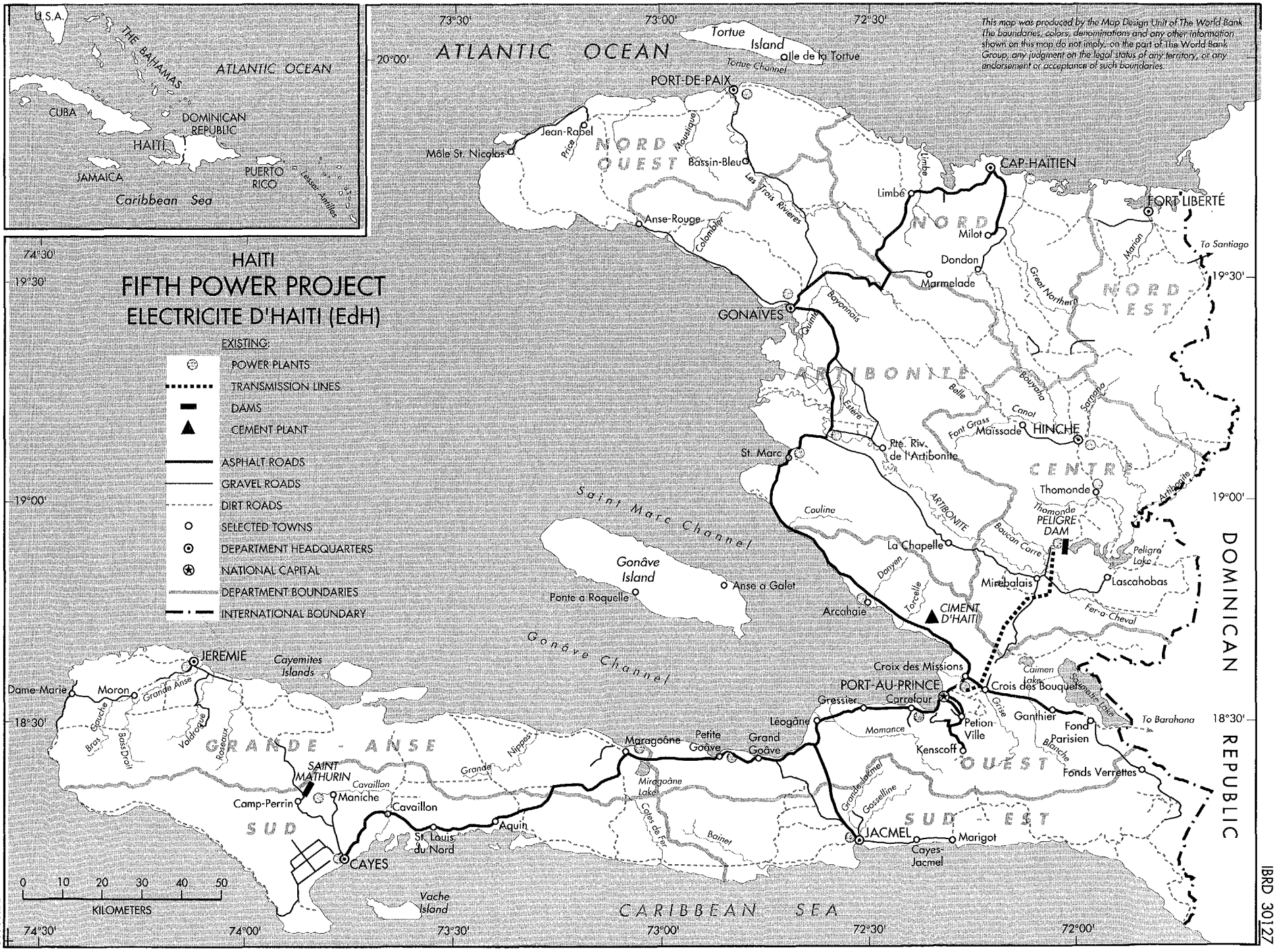
Au cours de l'exécution du Projet, les missions suivantes furent exécutées :

- Mission de suivi et d'évaluation : Ces missions ont eu lieu 2 à 3 fois par an. Un ou deux membres de la Banque composent généralement ces missions : le chargé de Projet assisté d'un technicien ou d'un économiste

- Visites de courtoisie : une visite du représentant de la division décaissements, Ms Tua Nguyen, pour évaluer le bilan des décaissements et des montants engagés

- Mission de formation : séminaire de 1 semaine organisé par 2 représentants de la division décaissements à l'Hotel Christopher sur les opérations de décaissements

- Rencontres de mise au point organisées par le représentant du bureau résident en Haïti : deux rencontres, une au bureau résident, une autre au bureau de l'EDH



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