MEMORANDUM AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
IN AN AMOUNT EQUIVALENT TO US$60 MILLION
TO
JAMAICA
FOR AN
ENERGY SECTOR DEREGULATION AND PRIVATIZATION PROJECT

JUNE 11, 1992
CURRENCY EQUIVALENT

Currency Unit = Jamaica Dollar (J$)

US$ = J$ 24 (March, 1992)

MEASURES AND EQUIVALENTS

1 megawatt (MW) = 1,000 kilowatts (kW)
1 kilowatt hour (kWh) = 1,000 watt-hours (Wh)

ABBREVIATIONS AND ACRONYMS

EA - Environmental Assessment
GOJ - Government of Jamaica
ICB - International Competitive Bidding
IDB - Inter-American Development Bank
JPSCo. - Jamaica Public Service Co.
LPG - Liquified Petroleum Gas
MPUTE - Ministry of Public Utilities, Transport and Energy
NIBJ - National Investment Bank of Jamaica
PCR - Project Completion Report
RFP - Request for Proposals

GOJ AND JPSCo.'s FISCAL YEAR

April 1 - March 31
JAMAICA

ENERGY SECTOR Deregulation and Privatization Project

Loan and Project Summary

Borrower: Government of Jamaica
Beneficiary: Jamaica Public Service Company

Private sector subprojects, which meet the eligibility criteria and qualify for financing, through the Private Sector Energy Fund (Fund) to be administered by the National Investment Bank of Jamaica (NIBJ).

Amount: US$60 Million equivalent
Terms: Repayment over 17 years, including a 5 year grace period at the Bank’s standard variable interest rate.

Onlending Terms:
1. The Government of Jamaica (GOJ) will make the proceeds of the loan available to JPSCo. at the Bank’s standard variable interest rate and a fee of 0.5% per annum.
2. The onlending from the Fund to the eligible private sector subprojects will be denominated in U.S. Dollars at an initial interest rate of 11%, adjusted annually.

Financing Plan:

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<th>Local (US$ million)</th>
<th>Foreign (US$ million)</th>
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<td>Totals</td>
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Rate of Return: 26%

Staff Appraisal Report: Report No. 10665-JM
Map No.: IBRD 23863
MEMORANDUM AND RECOMMENDATION OF THE PRESIDENT
OF THE IBRD TO THE EXECUTIVE DIRECTORS
ON A PROPOSED LOAN TO JAMAICA
FOR AN ENERGY SECTOR DEREGULATION AND PRIVATIZATION PROJECT

1. I submit for your approval the following memorandum and recommendation on a proposed loan to the Government of Jamaica (GOJ) for the equivalent of US$60 million. The loan would be at the Bank's standard variable interest rate, with a maturity of 17 years including 5 years' grace. The proceeds of the loan would be lent to: (a) Jamaica Public Service Company, Ltd. for 17 years including 5 years' grace, with interest at the Bank's standard variable rate plus a guarantee fee of 0.5% per annum; and (b) private sector power companies for up to 17 years including up to 5 years' grace with interest determined on the basis of a risk free market-based benchmark rate plus a risk premium; the onlending to private companies will be denominated in U.S. Dollars at an initial interest rate of 11%. The Inter-American Development Bank (IDB) would cofinancing the proposed loan in an amount of US$56 million equivalent. JPSCo. and the private sector power companies will bear the foreign exchange risk.

Background

2. Macroeconomic Adjustment Program. GOJ is currently undertaking a macroeconomic adjustment program which is being supported by an IMF Standby Agreement and sector adjustment loans from the Bank for the trade and finance sectors and a proposed loan for private sector development. GOJ's reform program focuses on substantially reducing the size and scope of the public sector, further improvements in efficiency, through trade policy reform, deregulation, privatization and the reform of the legal and regulatory framework for business, and creating an appropriate environment for foreign and domestic investment. Reforms in this area will address the elimination of barriers to competition, streamlining of administrative procedures and institutions. The Government's extensive privatization program covering public utilities and a large number of commercially oriented entities and services, together with the deregulation of sugar, petroleum and power sectors constitute a key component of the reform agenda. The proposed Project would support the Government's program in this area through deregulation of the energy sector and privatization of two large Government-owned entities, Jamaica Public Service Company (JPSCo.), the electric utility, and the Petrojam refinery. As part of this support, the Project will assist GOJ in the formulation and implementation of a regulatory framework for the power and petroleum sectors, prior to these planned privatizations, which will help ensure the sustainability of the privatization efforts. The Project is also supporting the creation of a framework to attract private investment to the power sector.

3. Energy Sector. Jamaica's sources of indigenous energy are limited (i.e., relatively limited hydropower potential, bagasse and peat), and hence the country relies on imports, almost exclusively oil, to meet its energy needs. This renders the economy extremely vulnerable to international oil price increases or disruptions in supply. In 1991, imported oil accounted for about 83% of Jamaica's total net primary energy supply, the remainder being supplied by non-commercial sources (16%), which includes fuelwood and bagasse, with a small contribution from imported coal and hydroelectric power (1%). The economy is highly energy intensive, and hence energy consumption per capita is high in comparison with countries at a similar income level. Total gross energy consumption increased at an average annual rate of 3.1% during the period 1983-91. Consumption of electricity, as measured by sales, has increased at an average annual rate of 4.3% during the period 1980-91. However, sales have fluctuated during this period, primarily reflecting changes in economic performance and retail tariff levels. Petroleum product consumption is closely linked to the bauxite sector which consumes over 50% of all petroleum products, and therefore is fairly volatile depending on the conditions in that sector. From 1980-86 total product consumption declined by an average annual rate of about 5.4%, which primarily
reflected a significant decline in bauxite/alumina output caused by unfavorable international market conditions. From 1986-91, however, consumption of petroleum products increased rapidly at an average annual rate of about 10%.

4. Domestic retail petroleum product prices, as measured by a weighted average price of gasoline, diesel, fuel oil, LPG and jet fuel, fell by about 11% per year in real terms during the period 1985-90, matching the trend in international prices during that period. However, prices are still regulated at the ex-refinery level through a formula administered by the government-owned refinery Petrojam, which results in prices above international prices. Although this pricing formula establishes a linkage to international benchmark prices, it is still set administratively and does not reflect market conditions or make possible efficiency savings. Marketing companies and transport contractors, however, are free to set their prices on a commercial basis since this market was deregulated in 1990. The scope and modalities for complete liberalization of the petroleum sector at all levels, including prices, is a central issue addressed in a petroleum sector regulation and privatization study under the proposed Project. Electricity pricing policy in the past has been ad hoc and base tariffs have been adjusted only sporadically in the past v. the significant time periods between adjustments. As a consequence, during the period 1985-91 average revenue per kilowatt hour in real terms decreased by about 12% per year which prevented JPSCo. from recovering significant portions of its costs. Recent adjustments, however, have resulted in the present adequate level of tariffs (para 12). A power sector regulatory framework and privatization study, to be carried out under the proposed Project, would address the rate setting mechanism and principles, as well as the necessary institutional arrangements required for the regulation of the privatized power sector.

5. Power Sector. JPSCo. has an installed capacity of 544 MW, about 97% of which consists of oil-fired units. As a result of a shortage of installed generating capacity, the current unreliability of base load plants and, therefore, a heavy reliance of gas turbines for base load, power outages occur on an almost daily basis. In order to improve reliability of service JPSCo. is implementing a major rehabilitation program, involving investments in generation, and transmission and distribution with financing from IDB. Although JPSCo.'s operational efficiency has improved over the years, system losses have remained above 19% of total generation since 1986 of which about 48% were due to non-technical losses. During the last two years, JPSCo. has taken various steps to reduce these losses. JPSCo.'s future loss reduction program form a part of a Corporate Action Plan. Electricity demand is forecast to grow at an annual average rate of 3.7% for the period 1993-2010, based on current GDP growth projections and price increases required to maintain tariffs constant in real terms. In order to meet this demand and given the current unreliability of JPSCo.'s generating plant, the least cost expansion plan for generation reveals the need for one 30 MW combustion turbine plant by end-1993, followed by a 3 x 20 MW low speed diesel plant by 1995 and another 30 MW combustion turbine unit by 1996. This expansion plan was reviewed by the Bank and found acceptable. Given the current capacity shortages, the first 30 MW combustion turbine unit is urgently required in order to meet critical peak loads and avoid costly outages. Initially, these plants were all to be financed in the private sector. In view of the complexities of mobilizing private sector financing and the consequent uncertainty regarding the timing of the commissioning of the first combustion turbine unit, GOJ requested the Bank to finance this unit. The Bank agreed to finance this unit in the public sector with the provision that the unit would be operated by private operators.

Project Objectives

6. The proposed project would: (a) provide urgently required power generation capacity; (b) establish the enabling environment for attracting private investments in the power sector including the legal and regulatory framework; and (c) support GOJ's deregulation and privatization program in the energy sector.
Project Description

7. The proposed Project would comprise: (a) the installation of about 120 MW of power generation capacity consisting of a 60 MW low-speed diesel plant in the private sector and a 60 MW combustion turbine plant, of which the first 30 MW would be in the public sector and the second 30 MW would be in the private sector; (b) the installation of associated transmission lines and substations; (c) establishment and operation of the Private Sector Energy Fund to provide long-term financing for private power projects; and (d) consulting services to: (i) assist in the operation of the Private Sector Energy Fund; (ii) prepare the 60 MW diesel power station and the second 30 MW combustion turbine unit for solicitation of private sponsors; (iii) assist GOJ in the solicitation, evaluation, appraisal, negotiation and supervision of the private projects; (iv) develop a contractual framework for the build-own-operate projects and a regulatory framework for the operation of the power sector; and (v) develop and implement a privatization strategy for Jamaica Public Service Company, Ltd. and Petrojam.

Project Implementation

8. The National Investment Bank of Jamaica (NIBJ) would act as administrator and executing agency of the Private Sector Energy Fund, established under the proposed Project, on behalf of GOJ. A Private Power Unit, which would be staffed by a small group of professionals, would be established within NIBJ to administer the Fund. NIBJ would administer the Fund under an Administration Agreement with GOJ, which would specify the duties and authority of NIBJ including the guidelines and policies for the Fund's operations. NIBJ would be paid for its cost to administer the Fund plus a management fee. The cost to NIBJ as administrator of the Fund would include the cost of staff, including salaries, transport, insurance, etc. The Fund would charge the project companies a loan application fee, a loan documentation fee to be paid by project sponsors at financial closure, and a project monitoring fee. Loans to project companies would also carry a commitment fee.

9. Subproject selection, approval and finalization of the necessary contractual arrangements involves extensive inter-ministerial coordination. The contractual arrangements comprise the set of agreements setting out the rights and obligations of the subproject company and the Government and its entities for, inter alia, project implementation, the purchase and supply of power and the supply and purchase of fuel. In order to ensure that the approval of subprojects is handled expeditiously, GOJ has entrusted this responsibility to an inter-ministerial committee, the Ministers' Steering Committee on Private Sector Participation in the Energy Sector. The Steering Committee functions through small working groups responsible for specific areas. JPSCo., which is represented on the Committee, would assess the technical and environmental acceptability of each project, and the Private Power Unit would assess the financial viability of proposed subprojects and consolidate the technical and financial review in an assessment report. JPSCo. and NIBJ would be assisted by consultants. Based on this report, a recommendation to make a loan would be forwarded to the Minister's Steering Committee, who would be responsible for sub-loan approval. Financing of subprojects by the Fund would only be approved when subprojects are found to be technically, economically, and financially viable, and environmentally acceptable. The implementation of private sector sub projects would be the responsibility of the project company to be established by the selected developer. The performance of the privately owned project company would be supervised by the Fund, assisted by consultants.

10. In terms of the proposed generating capacity to be implemented by the public sector, JPSCo. has experience of operation and maintenance of combustion turbines and diesel engines. However, because of the small size of the utility, it depends upon consultants to assist in design, engineering as well as supervision of construction of these facilities. It is, therefore, being assisted by consultants in design, engineering and construction of the 30 MW combustion turbine. Preparation of a feasibility study and preparation of the environmental impact assessment was initiated by consultants financed under the Japanese Grant Facility for the proposed Project in
February 1992, after it was agreed by the Bank to finance the first combustion turbine in the public sector to meet JPSCo.'s urgent requirements of generation capacity. The feasibility study and the Environmental Impact Assessment have been completed. The bidding documents for a turnkey contract for the supply and installation of the first combustion turbine are currently being prepared by consultants. GOJ has also agreed that the first combustion turbine, although installed in the public sector, will be operated by the private sector. GOJ is simultaneously undertaking the preparation of documentation to seek proposals for operation of the combustion turbine by the private sector.

11. GOJ is undertaking a two-pronged strategy for the introduction of the private sector in the energy sector. This involves induction of private generating companies in the power sector and steps to minimize public investments in the petroleum sector, followed by privatization of JPSCo. and Petrojam. The proposed Project includes two studies to assist GOJ in the development and implementation of a regulatory framework and privatization strategy for the power and petroleum sectors. These studies would be undertaken by consultants financed by the Japanese Grant Facility, and would be coordinated by MUPTE and would form the basis of GOJ's future privatization program. GOJ has submitted a letter of policy on private sector participation in the power sector, and deregulation and privatization of the sector, which has been reviewed by the Bank and found satisfactory. The study for the power sector is expected to be completed by February, 1993.

**Project Sustainability**

12. The Bank loan would be to GOJ and would have two components. The first component of US$19.5 million would support the initial capacity addition of 30 MW, in the public sector, to meet the urgent generating capacity requirements and consultancy services. This component of the proposed loan would be onlent to JPSCo. who would, in addition to the interest be charged, a guarantee fee of 0.5% per annum. The repayment period of the loan would be 17 years including a grace period of 5 years. The interest and foreign exchange risk will be borne by JPSCo. JPSCo. implemented a substantial increase in the base tariff in December, 1991, and hence the present tariff levels are adequate. Although the base tariff is adjusted on an ad hoc basis, the tariff includes provisions for fuel adjustment and foreign exchange clauses which are passed through to consumers automatically and administered within the billing cycle. Under the proposed Project, an annual review of the base tariff would be undertaken with the Bank, to determine if any adjustments are required to meet JPSCo.'s financial covenants.

13. The second component of $40.5 million would be for the Private Sector Energy Fund to provide long term financing to the privately owned subprojects. The Fund would be financed through loans from the Bank and IDB made to GOJ amounting to US$81 million, of which the Bank would provide US$40.5 million and the IDB US$40.5 million. Maturity and grace period of IDB's loan would be the same as the Bank's. Loans from the Bank and IDB would be made to the Government. The on-lending of funds to private companies would be governed through a sub-loan agreement between NIBJ and the private company. The Fund's on-lending to subprojects would be denominated in US Dollars, but would be repaid in equivalent Jamaican Dollars. Movements in the J$/US$ exchange rate would be assumed by the private sector borrowers, the cost of which would be reflected in the sale price of power, through an indexation provision, and passed on to the consumers. The Fund's on-lending interest rate would be variable and determined annually. The benchmark rate for the Fund would be a risk free long-term benchmark borrowing rate such as the yield on long-term maturity US Treasury bonds. A risk premium would be added to this benchmark rate to cover cross-currency risks to GOJ and a guarantee fee. The premium would also include the cost of managing and administering the Fund. This risk premium has been set initially at 3%. Considering the cost of similar external financing and the risk premium over the benchmark, the initial on-lending rate for the first subproject has been set at 11% per annum. The on-lending rate would be adjusted annually according to the yield on long-term maturity US Treasury bonds. It is also proposed to provide
the Project Company incentive to refinance the debt from the Fund by borrowings on better terms from private foreign (or domestic) sources and relieve GOJ of its debt. Under this arrangement, subproject companies who borrow from the Fund and subsequently refinance would be allowed to retain 50% of the savings in debt service. It is this potential savings to the subproject company which is expected to provide the incentive to refinance.

14. The repayment period for onlending the Fund's resources to subprojects, including the resources received from the Bank, would be no greater than the terms of Bank loans to Jamaica, i.e., up to 17 years including a grace period of up to 5 years. It is expected that sub-loans from the Fund would cover up to 70% of the financing required for the subproject with the remaining 30% being equity. However, in order to provide an incentive for sponsors to minimize borrowing from the Fund, there would be a reduction in equity contributions based on the amount of commercial loans mobilized. If the project sponsor is able to mobilize at least 20% of the total financing required in the form of non-Fund debt without direct GOJ guarantees, an equity of not less than 25% of the financing required would be accepted. If the sponsor is able to raise at least 40% of the total financing required in non-Fund debt, an equity level of not less than 20% would be accepted. Additionally, as an incentive for private sponsors to mobilize non-GOJ guaranteed commercial sources of off-shore debt, subloans from the Fund would be fully subordinated to commercial loans made to subproject.

Procurement Approach

15. Since the Bank is expected to play a major catalytic role in mobilizing private sector financing using limited recourse project financing, it has been decided to pursue the following approach as a test case for a privately owned subproject and as an exception from the Bank's Procurement Guidelines. The 60 MW diesel subproject is being implemented on a limited recourse basis through a competitive process. This process involves prequalification of developers and the selection of a prequalified developer to implement the subproject. The request for prequalification was advertised internationally. As an additional measure to increase competition, the list of prequalified developers was published in the international press so that manufacturers of diesel plant and equipment could contact them. The prequalification criteria included the applicant's technical capability, project development experience with specific reference to diesel plants and in particular privately owned plants, as well as ability to mobilize financing. Seven developers were prequalified. The prequalified developers are required to submit proposals to build, own and operate the diesel plant in response to the bidding documents (request for proposals) approved by the Bank. These documents provide information regarding the contractual arrangements (para 9), plant operating regime, financial parameters to be included in the proposals and the evaluation methodology which is based on price of electricity.

16. The price of electricity is a function of the operating efficiency and cost of the plant, as well as financing terms and the operating regime. The Power Purchase and the Implementation Agreement which form a part of the bidding documents define the operating regime. The developers, in response to the bidding documents, are required to provide for each year of the concession, a Capacity Purchase Price/kW and an Energy Purchase Price/kWh, based on prices for equipment, goods and services as of 30 days prior to bid opening and fuel prices given in the bidding documents (RFP). Based on the plant capacity and annual energy generated as specified in the bidding documents, the revenue stream is computed for each year over the life of the concession. The revenue and generation streams are then discounted using a discount rate specified in the bidding documents to arrive at the “average discounted price” which forms the basis of selection. The investors are also required, in their proposal, to furnish: (i) details of the cost of equipment; (ii) financing terms; (iii) construction schedule; (iv) financing plan; (v) terms of financing; and (vi) details of the calculation of the price of electricity. The loan proceeds will be disbursed against equipment supply and construction costs. The developer is therefore required to provide details of the construction cost, i.e., cost of supply, civil works, and installation, and the calculation for arriving at the Capacity Purchase Price and Energy Purchase Price. The
17. While the proposed methodology meets the requirements of equity, economy and efficiency, it does not strictly comply with the Bank’s procurement guidelines, since ICB according to the Bank’s procurement guidelines should be on a cash basis only. Under the proposed methodology, however, the ability to mobilize equity is considered during prequalification. The selection of a developer based on the price of electricity offered indirectly takes into account the cost of financing. As the principal objective of private sector projects is to maximize private sector financing, it is imperative to consider the ability to mobilize equity and financing in the selection process. It is therefore suggested that, in view of the above, an exception to the guidelines is justified as a test case. It is proposed that the second combustion turbine unit (para 7) be procured using a similar methodology unless otherwise agreed by the Bank based on the outcome of the above selection process for the diesel subproject.

Lessons Learned from Previous Bank Involvement

18. Four loans have been made for the power sector in Jamaica, the latest one for the Fourth Power Project (Loan 2869-JM) in 1987. After some initial delays, this project is being implemented satisfactorily. Additionally, one project has been made in the petroleum sector, the Petroleum Exploration Project (Loan 2017-JM) in 1981, which, following negative results of the exploration activities was closed in 1986, and 50% of approved funds cancelled. The recently completed PCR for the Third Power Project (Loan No. 2188-JM) (Report No. 10252 dated April 30, 1992) articulates many of these lessons, while other pertinent lessons can be drawn from the ongoing Fourth Power Project. The PCR for the Third Power Project summarized the main lessons learned from that project as: (a) financial viability can be maintained if early action is taken to increase tariffs to compensate for increasing costs caused by currency depreciation; (b) loss of qualified staff, through inadequate compensation, can dilute the effectiveness of training programs; (c) where there are insufficient local staff to carry out timely procurement and construction steps, consultants should be engaged to avoid delayed project benefits; (d) appraisal forecasts of the pace of implementation and disbursement were too optimistic, particularly when the weak situation of JPSCo. is taken into account; and (e) remedial actions should have been taken early, at appraisal, to address the problem of salaries adjustment in order to keep the personnel and to avoid negating the benefits of the training program.

19. Some of these lessons have already been addressed through the Fourth Power Project, while measures to mitigate other persistent problems have been incorporated in the design of the proposed Project. The issues related to staffing and salaries have been addressed by JPSCo. through adjustments in the staff grading system which effectively increased salaries. In order to address the ad hoc nature of adjustments in the base tariff (para 4) under the proposed Project, annual reviews of the base tariff and adjustments required to sustain the financial health of the company would be instituted. In regard to the delays in procurement and other construction related activities, provision is being made under the proposed Project for the use of consultants to prepare feasibility studies and assist in procurement to avoid delays in project implementation. Additionally, under the Fourth Power Project the establishment and subsequent strengthening of the Project Execution Unit has improved JPSCo.'s capacity for project implementation.

20. In terms of the private sector component of the proposed Project, while there is no similar project in Jamaica from which to draw lessons, several lessons can be drawn from the Bank's experience with similar operations in other countries. In order to minimize the possibilities for delay in the implementation of privately developed power projects to be financed under the proposed loan, several steps have been taken. These are: (a) preparation of a well defined security package within which developers will commit their resources to implement the project, should reduce the time required to finalize all the agreements that comprise the security package;
(b) selection of developers through an open and competitive process based on the lowest guaranteed bid price for the supply of electricity would ensure selection of the most competitive proposal; and (c) preparation of the feasibility studies for the private projects as well as environmental assessments will reduce the time required for the selected developers to prepare the projects and the risk of developers abandoning the project in initial stages.

Rationale for Bank Involvement

21. Currently long-term non-recourse financing for private sector energy projects in Jamaica is lacking. The Fund to be established under the proposed Project would fill this gap and establish a vehicle to channel long-term financing to private sector projects. The Bank would also play a significant role in mobilizing cofinancing resources for the Fund to provide additional long-term financing for subprojects, as well as private sources to finance subprojects. The Bank's role in establishing the regulatory framework and institutional capability for the introduction of private sector into the energy sector through new investments and privatization is also critical. Given the Bank's previous experience in developing private sector involvement in the energy sector, the transfer of this knowledge would expedite the establishment of privately owned generation capacity and privatization of JPSCo.

Agreed Actions

22. The following agreements have been obtained:

During negotiations:

GOJ agreed: (a) on the outline mitigation plan for Hunts Bay; (b) to furnish to the Bank and the other cofinanciers of the Fund: (i) quarterly progress reports in a format satisfactory to the Bank; and (ii) annual financial statements audited by an independent auditor acceptable to the Bank, no later than six months after the end of each financial year; (c) to undertake a mid-term review of the implementation of the proposed Project, jointly with the Bank, by December 1, 1994; (d) to cause National Water Commission to obtain the guarantee of a commercial bank, acceptable to the Bank, guaranteeing NWC's electricity payments to JPSCo. in an amount equivalent to not less than 90% of the last 3 months billing. NWC shall review with JPSCo. the adequacy of this letter of credit on an annual basis and adjust it if required to an amount necessary to continue to guarantee NWC's payments for electricity; (e) with the Bank on the final scope and content of the Corporate Action Plan (FY93-97), and to review annually with the Bank JPSCo.'s performance against the parameters agreed in the plan and to take corrective measures acceptable to the Bank to remedy any shortcomings in performance; (f) that JPSCo.'s existing financial covenants would be repeated under the proposed Project, which provide for JPSCo. achieving an 8% rate of return on revalued net fixed assets for each fiscal year, as well as debt service and liquidity covenants; (g) on the scope and substance of the Administration Agreement between GOJ and NIBJ and that NIBJ would be required to appoint consultants, satisfactory to the Bank by October 1, 1992, to assist in subproject assessment, preparation of loan documentation, negotiations, and supervision and monitoring of the subprojects; (h) (i) to eligibility criteria for approval of private power subprojects; (ii) to submit an assessment report for each subproject; and (iii) that subloans would be subject to prior review and approval by the Bank; (i) on the organization and staffing of the private power unit in NIBJ; (j) to review with the Bank by April 1 of each year beginning with 1993, the Fund's onlending interest rate and to make any adjustments in the lending rate in accordance with the agreed methodology; (k) to: (i) execute an Implementation Agreement with the subproject company; and (ii) cause the subproject company to enter into a Power Purchase Agreement, Construction Agreement, Operation and Maintenance Agreement, and any other agreement required for the implementation and operation of the subproject.
satisfactorily; (l) to guarantee the payment obligation of JPSCo. in the Power Purchase Agreement; (m) to submit to the Bank for review and approval a strategy for the privatization and deregulation of the power subsector, including the ownership and organization of all power sector entities, as well as a plan for its implementation acceptable to the Bank, within three months of the submission of the consultants' report, and shall implement the strategy as agreed with the Bank; and (n) to review the conclusions and recommendations of the petroleum subsector study by January 1993.

In addition, GOJ confirmed: (a) that no additional environmental approval is required from any of its agencies; and (b) that the loan agreement between the Fund and the subproject companies would include specific provisions regarding compliance with environmental guidelines, satisfactory to the Bank.

JPSCo. agreed: (a) to submit to the Bank by July 31, 1992, the consultants' report on the modified tariff structure for review and comments; (b) to update by December 1, 1992 the existing marginal cost studies using consultants acceptable to the Bank; (c) to convert all accounts receivable from National Water Commission as of May 31, 1992 to a loan to be repaid over 30 months effective September 1992, with terms and conditions satisfactory to the Bank.

As conditions of effectiveness:

(a) Execution of a subsidiary loan agreement between GOJ and JPSCo. satisfactory to the Bank; (b) GOJ would be required to have made arrangements, satisfactory to the Bank, with cofinanciers for cofinancing of the proposed Project; (c) Receipt of responsive proposals by JPSCo. for the installation of the first combustion turbine; (d) Submission of an environmental mitigation plan for the Hunts Bay site whose timing, scope and execution strategy are acceptable to the Bank; and (e) Execution of the Administration Agreement between GOJ and NIBJ.

Environmental Aspects

23. GOJ's consultants have prepared Environmental Assessment (EA) Reports for the installation of: (i) 2 x 30 MW combustion turbines; (ii) 3 x 20 MW diesel power plant; and (iii) transmission lines. While these summaries are broadly acceptable to the Bank, the EAs would be revised satisfactory to the Bank before their finalization. The 30 MW combustion turbine at Hunts Bay which will be owned by JPSCo. is located at Hunts Bay adjacent to the site of the existing generating facilities. Based on the draft EA for the combustion turbine plant, the proposed Project site could be contaminated from previous activities of the existing Hunts Bay generating facilities. The draft EA concludes that the incremental environmental impacts of the proposed Hunts Bay facility are marginal, but that the SO2 and noise levels associated with the existing generation facilities already exceed the Bank's environmental criteria. An outline for the "clean closure," which includes site assessment and removal of all hazardous materials from the site of the proposed Hunts Bay facility, has been prepared by the consultants as a supplement to the EA. In addition, an environmental audit of the existing Hunts Bay facilities has been already conducted by consultants financed by IDB. A comprehensive mitigation plan, defining the measures to comply with the Bank's requirements, will be prepared to reflect the recommendations of EA report, the environmental audit of the existing facilities and clean closure requirements of the proposed site. The proposed Loan includes a provision for consulting services to assist GOJ in implementing the mitigation plan.

24. The 60 MW diesel plant at Rockfort and the second 30 MW combustion turbine at Hunts Bay would be owned and operated by the private sector. The developer selected to implement the subprojects would be required to meet the World Bank's environmental guidelines and would be
required to submit, as part of the feasibility study and as a condition of financing from the Fund, an environmental assessment for each subproject. An environmental screening of the facilities to be privatized in the energy sector would be undertaken. Provisions are included in the privatization studies under the proposed Project, to analyze and recommend mechanisms to be included in the regulatory framework for the energy sector to ensure compliance with environmental regulations.

Project Benefits

25. The proposed Project would provide urgently needed capacity in the power sector and mobilize significant cofinancing resources to provide long-term financing to private sector energy projects. It would establish a framework for the operation of privately owned energy projects and assist in mobilizing private debt and equity capital for these subprojects. It would also support GOJ's program of deregulation and privatization in the energy sector by establishing a regulatory framework to enhance operating efficiency and attract private investment thereby reducing public sector investment.

Risks

26. There are four major risks associated with the proposed Project: (a) inadequate capability to appraise the two private sector subprojects to be financed under the proposed loan, negotiate the agreements required for the lenders' and investors' security and supervise and monitor the subprojects. This risk would be addressed through technical assistance being provided under the Japanese Grant Facility and also a consultant to be financed under the proposed Project; (b) unsatisfactory proposals being submitted by the private sector to develop and finance the two subprojects. In order to minimize this risk, potential investors are being prequalified to ensure that only qualified and capable sponsors bid on each subproject; (c) financial closure may not be achieved in a timely manner and consequently new investments would be delayed. In order to minimize this risk and in recognition that private power projects financed under limited recourse arrangements is an untested approach in Jamaica, provision would be made for the Fund to finance up to 100% of the debt financing required for each subproject, while incentives would be given to the potential sponsors to mobilize debt from other commercial sources on a limited recourse basis (para 12); (d) privatization of JPSCo. and Petrojam could be delayed or hindered because of the limited capacity of the local capital market and the inability to raise the relatively large amounts of capital required. Phased approaches to divestiture and incentives to attract foreign investors would be explored in the privatization studies to mitigate against this risk.

Recommendation

27. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank and recommend that the Executive Directors approve the proposed loan.

Lewis T. Preston
President

Attachments
Washington, D.C.
June 11, 1992
### Schedule A

#### Summary of Estimated Project Cost
(US$ Million)

<table>
<thead>
<tr>
<th></th>
<th>(J$ Million)</th>
<th>(US$ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>3 x 20 Low Speed Diesel</td>
<td>410.8</td>
<td>1313.2</td>
</tr>
<tr>
<td>2 x 30 Combustion Turbine</td>
<td>193.0</td>
<td>771.2</td>
</tr>
<tr>
<td>Interconnection and</td>
<td>39.0</td>
<td>118.0</td>
</tr>
<tr>
<td>Transmission Facilities</td>
<td></td>
<td>60.5</td>
</tr>
<tr>
<td>Technical Assistance</td>
<td>-</td>
<td>60.5</td>
</tr>
<tr>
<td>Total Base Cost</td>
<td>642.9</td>
<td>2262.8</td>
</tr>
<tr>
<td></td>
<td>49.2</td>
<td>126.6</td>
</tr>
<tr>
<td>Physical Contingencies</td>
<td>471.9</td>
<td>886.7</td>
</tr>
<tr>
<td>Total Project Cost</td>
<td>1164.0</td>
<td>3276.0</td>
</tr>
<tr>
<td>Interest During Construction</td>
<td>-</td>
<td>256.3</td>
</tr>
<tr>
<td>Total Financing Required</td>
<td>1164.0</td>
<td>3532.3</td>
</tr>
</tbody>
</table>

#### Financing Plan
(US$ million)

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th>Foreign</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBRD</td>
<td></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>IDB</td>
<td></td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Private Sector</td>
<td>26</td>
<td>8</td>
<td>34</td>
</tr>
<tr>
<td>JPSCo.</td>
<td>15</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Totals</td>
<td>41</td>
<td>124</td>
<td>165</td>
</tr>
</tbody>
</table>
## Schedule B

**Procurement Arrangements**<sup>1/</sup>

(US$ million)

<table>
<thead>
<tr>
<th>Project Element</th>
<th>Procurement Method</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICB</td>
<td>NBF</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>1. Combustion Turbine I</td>
<td>27.6</td>
<td>--</td>
<td>--</td>
<td>27.6</td>
</tr>
<tr>
<td></td>
<td>(18.0)</td>
<td></td>
<td></td>
<td>(18.0)</td>
</tr>
<tr>
<td>2. 60 MW Diesel Plant</td>
<td>--</td>
<td>93.1</td>
<td>93.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(32.5)</td>
<td>(32.5)</td>
<td></td>
</tr>
<tr>
<td>3. Combustion Turbine II</td>
<td>--</td>
<td>24.1</td>
<td>24.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(8.0)</td>
<td>(8.0)</td>
<td></td>
</tr>
<tr>
<td>4. Transmission System</td>
<td>--</td>
<td>8.6</td>
<td>--</td>
<td>8.6</td>
</tr>
<tr>
<td>5. Consulting Services</td>
<td>--</td>
<td>--</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1.5)</td>
<td>(1.5)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27.6</td>
<td>8.6</td>
<td>119.9</td>
<td>156.1</td>
</tr>
<tr>
<td></td>
<td>(18.0)</td>
<td></td>
<td>(42.0)</td>
<td>(60.0)</td>
</tr>
</tbody>
</table>

---

**Note:** Figures in parenthesis indicate Bank financing.

**1/** Contract value includes taxes and contingencies.

**2/** Competitive bidding, based on exception as discussed in paras 15-17.

**3/** Selection of consultants according to Bank guidelines.

**ICB** International Competitive Bidding.

**NBF** Not Bank financed.
Timetable of Project’s Key Processing Events

Time taken to prepare the project: September, 1990-June, 1992 (22 months)
First Bank Mission: September, 1990
Appraisal Mission Departure: February 20, 1992
Negotiations: June, 1992
Planned Date of Effectiveness: August 15, 1992

Relevant PCRs:

<table>
<thead>
<tr>
<th>Loan No.</th>
<th>Project</th>
<th>PCR Date</th>
<th>Report No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2188-JM</td>
<td>Third Power Project</td>
<td>April 30, 1992</td>
<td>10252</td>
</tr>
</tbody>
</table>

The Project was prepared by: Suman Babbar (Task Manager), Abderrahmane Megateli (Sr. Financial Analyst), David Baughman (Economist), Maria Elena Barrientos (Operations Officer).
STATUS OF BANK GROUP OPERATIONS IN JAMAICA

A. Statement of Bank Loans as of March 31, 1992

<table>
<thead>
<tr>
<th>Credit Fiscal No.</th>
<th>Year/ i</th>
<th>Borrower Purpose</th>
<th>Bank</th>
<th>Undisbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>43 Loans fully disbursed 1/</td>
<td>US$ Million</td>
<td>(Less Cancellation)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


2/ Approved during or after FY80.
B. Statement of IFC Investments as of March 31, 1992

<table>
<thead>
<tr>
<th>Investment Fiscal Number</th>
<th>Year</th>
<th>Borrower</th>
<th>Business</th>
<th>Loan</th>
<th>Equity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>038</td>
<td>1961</td>
<td>Jamaica Pre-Mix Ltd.</td>
<td>Cement &amp; Constr. Materials</td>
<td>0.2</td>
<td>-</td>
<td>0.2</td>
</tr>
<tr>
<td>136</td>
<td>1969</td>
<td>Pegasus Hotels of Jamaica</td>
<td>Tourism</td>
<td>2.2</td>
<td>0.7</td>
<td>2.9</td>
</tr>
<tr>
<td>542</td>
<td>1981</td>
<td>West Indies Glass Company</td>
<td>Glass Containers</td>
<td>2.3</td>
<td>-</td>
<td>2.3</td>
</tr>
<tr>
<td>598</td>
<td>1982</td>
<td>Jamaica Flour Mills Limited</td>
<td>Food and Food Processing</td>
<td>5.0</td>
<td>-</td>
<td>5.0</td>
</tr>
<tr>
<td>818</td>
<td>1985</td>
<td>The Falcon Fund</td>
<td>Guarantee Facility</td>
<td>2.5</td>
<td>-</td>
<td>2.5</td>
</tr>
<tr>
<td>815</td>
<td>1985</td>
<td>Eastern Banana Estates 1/</td>
<td>Food and Food Processing</td>
<td>3.7</td>
<td>0.4</td>
<td>4.1</td>
</tr>
<tr>
<td>907</td>
<td>1986</td>
<td>St. Mary's Banana Estates Ltd.</td>
<td>Food and Food Processing</td>
<td>3.8</td>
<td>1.1</td>
<td>4.9</td>
</tr>
<tr>
<td>1129</td>
<td>1989</td>
<td>Eagle Merchant Bank</td>
<td>Commercial Bank</td>
<td>5.0</td>
<td>-</td>
<td>5.0</td>
</tr>
<tr>
<td>1130</td>
<td>1989</td>
<td>Jamaica Citizens Bank</td>
<td>Commercial Bank</td>
<td>5.0</td>
<td>-</td>
<td>5.0</td>
</tr>
<tr>
<td>1131</td>
<td>1989</td>
<td>Mutual Security Bank</td>
<td>Commercial Bank</td>
<td>5.0</td>
<td>-</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Total Gross Commitments 34.7  2.2  36.9

Less Cancellations, Terminations, Participations Sales and Repayments 21.9  1.1  23.0

Total commitments now held by IFC 12.8  1.1  13.9

Total Undisbursed (Including Participants) 0.4

1/ Investment was totally canceled

C. Bank Assistance Strategy

The 1992 program includes a proposed Private Sector Development Adjustment Loan designed to support trade reforms, the privatization program and other measures to increase the incentives for private investment; and an Energy Sector Deregulation and Privatization Loan supporting private sector investment in power generation and other energy development. Future Bank lending would consist largely of sector investment loans financing transport and other infrastructure development, social investments, and the private sector.