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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

MEMORANDUM

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN

TO

CENTRAL ELETRICA DE FURNAS S.A.

FOR

HYDROELECTRIC PROJECT IN THE STATE OF MINAS GERAIS

IN

BRAZIL

September 12, 1958

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

MEMORANDUM FROM THE PRESIDENT

Re: Proposed loan for the Furnas hydroelectric project in Brazil

PART I - INTRODUCTION

1. As the Directors know, negotiations for a \$73 million loan to finance the foreign exchange costs of the first stage of the Furnas hydroelectric project have been under way since late August. While the negotiations are sufficiently advanced to indicate the basic terms and conditions to be incorporated in the loan documents, it has not been possible to reach the type of detailed agreement necessary to place the documents before the Directors in final form. In view of the long absence of many Directors in connection with the meetings in New Delhi, and in order to avoid any unnecessary delay in acting upon this important loan proposal, I am asking the Directors to consider and approve the bases of the proposed operation, as set forth in this memorandum. The final documents should be completed by late September; they will then be submitted for formal approval by the Executive Directors or Alternates available in Washington at that time and it is hoped that the agreements will be signed around October 1.

PART II - HISTORICAL

2. In February 1957, on the recommendation of the Brazilian Development Council, President Kubitschek approved the organization of the Furnas Company to exploit for purposes of electric power the Furnas rapids on the Rio Grande river in the State of Minas Gerais, Brazil. In the autumn of 1957 the Bank was informally requested by the Brazilian authorities to consider assisting in financing the Furnas project. This request was renewed and supported by the Minister of Finance at a meeting held during the 1957 meeting of the Board of Governors.

3. The Furnas Company is the first power undertaking in Brazil in which Federal agencies have entered into a joint venture with state agencies and with private foreign-owned companies. Three of the entities participating in Furnas are already directly or indirectly Bank borrowers; namely: (a) CEMIG (Loan 76 BR), a state corporation of the State of Minas Gerais; (b) the Departamento de Aguas of the State of Sao Paulo which owns USELPA, a borrower under loans 95 BR and 187 BR; and (c) Sao Paulo Light, a subsidiary of Brazilian Traction Light and Power Company - a borrower under loans 11 BR, 11 BRS and 95 ER. These entities together own 91% of the preferred stock and 49% of the common stock in Furnas. The capital will be half common and half preferred. The Federal Government will have a controlling interest with 51% of the common stock.

4. By letter of March 1, 1958 (Annex A to R 58-19), I informed the Minister of Finance that the Bank was prepared to send a mission to Brazil to appraise the project. The mission visited Brazil in April and May 1958. Negotiations began in Washington on August 26. The report on the project (R 58-98) was distributed to the Executive Directors on September 9, 1958.

5. The Bank has made the following loans to Brazil:

(As of August 31, 1958)

<u>Year</u>	<u>Serial No.</u>	<u>Borrower</u>	<u>Purpose</u>	<u>Amount of Loan</u> <u>Net of Cancellations</u> <u>(\$ or equiv.)</u>
1949	11 ER	Brazilian Traction	Electric Power	\$ 75,000,000
1951	11 BRS	Brazilian Traction	Electric Power	15,000,000
1950	25 BK	CHESF	Electric Power	15,000,000
1952	75 BR	Highways	Highway	2,961,000
1952	65 BR	Central	Railway	12,500,000
1953	76 BR	CEMIG	Electric Power	7,300,000
1953	92 BR	Central	Railway	12,500,000
1953	93 BR	USELPA	Electric Power	10,000,000
1954	95 BR	Brazilian Traction	Electric Power	18,790,000
1958	187 BR	USELPA	Electric Power	13,400,000
Total net of cancellations				\$ 182,471,000
Amount sold				<u>5,075,000</u>
				\$ 177,396,000
Amount repaid				\$ 20,939,000
Less repayments to third parties				<u>4,604,000</u>
				<u>16,335,000</u>
Net amount held by the Bank				\$ 161,061,000
(includes \$15,056,000 net of cancellations undisbursed and \$13,400,000 not yet effective).				

6. Approval of the present loan would bring the total amount of loans which the Bank has made to Brazil to \$255 million, net of cancellations. The only other loan to Brazil now under consideration is the proposed loan of \$11.6 million to Brazilian Traction Light & Power Company, the documents for which were distributed on September 3. As the Directors have been advised, further consideration of this loan is awaiting clarification of the company's prospective financial position and of the prospects of the enactment of new power legislation in Brazil.

PART III - DESCRIPTION OF THE PROPOSED LOAN

7. The proposed loan would finance the foreign exchange cost of constructing a large dam on the Rio Grande river, the first stage of the related hydroelectric power plant and two high voltage transmission lines, one to the city of Sao Paulo and the other to the vicinity of Belo Horizonte.

8. The Loan would have the following characteristics:

<u>Borrower:</u>	Central Eletrica de Furnas S. A., a corporation established in 1957 under the laws of Brazil.
<u>Guarantor:</u>	The United States of Brazil.
<u>Amount:</u>	The equivalent in various currencies of \$73 million.
<u>Term:</u>	The loan would be for a period of 25 years and be amortized by semi- annual instalments of principal from April 1, 1964 to October 1, 1983.
<u>Interest Rate:</u>	5-3/4% per annum including 1% commission.
<u>Commitment Charge:</u>	3/4% per annum.

PART IV - PRINCIPAL PROVISIONS OF LOAN AND GUARANTEE AGREEMENTS

Loan Agreement

9. The Loan Agreement will follow the general pattern of the Bank's loan agreements. Special provisions will be included to assure the availability to the Borrower of sufficient funds for the timely completion of the Project.

10. Paragraph 53 of the Technical Report indicates the expected sources of finance for the local currency costs of the Project. Annex 8 to the Technical Report shows the expected equity contributions to Furnas throughout the period of construction. Accordingly, the Loan Agreement will provide that, as a condition of effectiveness of the proposed loan, the Bank shall be satisfied that the following sources of finance have been secured:

A. The loans to be granted by the National Development Bank (BNDE) from its own funds and on behalf of the Federal Electrification

Fund. The terms and conditions of these loans must be satisfactory to the Bank.

B. Undertakings from the shareholders of Furnas with respect to the provision of the equity capital as required.

C. An undertaking of BNDE to put up additional equity in the event any of the other shareholders should fail to make their capital contributions.

D. An undertaking from BNDE to supply additional funds by way of loan in the event the available funds are insufficient to meet the cost of the Project.

11. Attention is also drawn to the following covenants which will be included in the Loan Agreement:

A. Furnas will from time to time take all steps necessary or desirable to obtain such adjustments in its rates as may be required to ensure the maximum revenues permissible under the laws of Brazil and the expansion and continued operation of its business in accordance with sound financial and public utility practice;

B. Furnas will not undertake any works or incur any expenditures not directly related to the project, except with the prior consent of the Bank.

12. The Borrower is prepared to give the standard negative pledge but a problem which has not yet been resolved arises because it is the practice of BNDE to obtain security for its loans and it is impossible, under Brazilian law, to secure two lenders equally by mortgage. We expect to be able to resolve the matter either by agreeing on some way for Furnas to secure IBRD and BNDE equally, or by BNDE agreeing not to take security for its loans to Furnas, or to permit IBRD to have a prior lien.

Guarantee Agreement

13. The Guarantee Agreement between The United States of Brazil and the Bank would be similar to other guarantee agreements between Brazil and the Bank and would include a full performance covenant.

PART V - APPRAISAL OF THE PROPOSED LOAN

The Project and Its Justification

14. The principal components of the project are as follows:
- a) An earth and rock fill dam 120 meters high and 500 meters long. It will create a reservoir with a usable storage of 14 billion cubic meters, sufficient to provide year-to-year regulation.
 - b) Five generating units having the capacity of 92 Mw each or four units having a capacity of 110 Mw each.
 - c) Two high voltage transmission lines connecting Furnas, respectively, to Sao Paulo, 320 km south, and the vicinity of Belo Horizonte, 260 km east.

15. The area in which the Furnas energy will be distributed will include virtually all of the States of Sao Paulo, Minas Gerais and Rio de Janeiro and the Federal District. The population of this area is about 24 million people - 40% of the population of the entire country. From this area come about 78% of Brazil's industrial production and 69% of the principal agricultural production. In 1955 about 65% of the national income originated in this area and the growth of both industry and agriculture in this area is above the national average.

16. The power demand in the areas to be served by Furnas is expected to grow at rates between 8% and 14% per annum. With growth of this order, the output of the first stage of Furnas is likely to be fully absorbed as soon as it is built (1963), even assuming that other power plants with a capacity of 1425 Mw will have been put in operation in the area by that time.

17. A technically and economically sound program for power development in the area can be achieved only if all the utilities serving the region, both public and private, cooperate in planning the generation and transmission facilities which are required. The Brazilian authorities are well aware of this necessity and the Bank plans to discuss this matter in more detail with them before the negotiations are concluded.

Financial Position of the Borrower

18. The Regulations presently governing power rates in Brazil allow a 10% return on the historical investment and provide for increases in revenues to cover increases in operating costs. Debt service on foreign loans has to be purchased at the current special rate of exchange, but any excess cost of debt service at this rate of exchange compared with the cost of debt service at the special rate prevailing at the time of the registration of the foreign loans is recoverable from consumers.

19. With these safeguards, Furnas is expected to be in a sound financial position throughout the period of the proposed loan. After the first year of operation the Company should be able to pay, out of earnings from the first stage of the project, dividends of 10% on the preferred shares and 12% on the common shares after satisfying its obligations. In addition, the revenues from this stage should provide about half the total cruzeiro requirements for the second stage, estimated on a conservative basis with a substantial allowance for inflation.

20. Unlike long established utilities such as the Brazilian Traction Light and Power Company, the Furnas rate base will be founded on present day costs and the company will not have the problem of financing a continuous expansion program. It will be appreciated, however, that while the return of 10% on the original investment is assured, the true value of the return will dwindle rapidly if the cruzeiro continues to depreciate as it has done for many years. This is very much more serious in the case of utilities whose equity requires dividend payments in foreign currency (which have to be purchased at the free market rate). The Bank has received an assurance from the Government that it will press for the early enactment of legislation, now before the congress, which would permit power utilities to revalue their assets to allow for variations in the purchasing power of the cruzeiro.

Methods of Procurement

21. The Borrower agrees to procure supplies and equipment and to let major contracts on the basis of international bidding.

Economic Situation

22. A report on "Recent Financial Developments in Brazil" (R 58-93) was circulated to the Board on September 3rd. It states that the growth in the gross national product of Brazil for 1957 amounted to about 5-1/2% which may be regarded as satisfactory. Although plagued by inflation and balance of payments difficulties, there is reason for believing that economic growth is continuing.

23. Because of the persistent domestic inflation generated by fiscal deficits and an excessive expansion of credit to the private sector, Brazil has experienced severe and continuing balance of payments difficulties. The severity of these difficulties has recently been intensified by declining coffee prices in world markets.

24. In July of this year, the Brazilian authorities committed themselves to the International Monetary Fund to carry out a series of fiscal and monetary measures and targets (including the financing of coffee stocks from non-inflationary sources) which taken together constitute a stabilization program. They have also adopted a new coffee marketing policy which, while based upon the withholding of a large part of this year's record crop, nonetheless puts an end to the unrealistic coffee export pricing policies which have been followed in recent years.

25. Although Brazil is experiencing difficulties in implementing the stabilization program, the Brazilian administration appears determined to carry it out. I have taken occasion to inform the Brazilian Government that the management of the Bank endorses and accepts the objectives of the domestic monetary and fiscal policies which have been agreed upon with the IMF.

26. Since the economic report was written, the new balance of payments borrowing therein described (page 3) has been finalized. Even with this borrowing, however, there would have remained, on mid-year estimates, a balance of payments gap of around \$100 million. With a view to reducing this gap, the Brazilian authorities have just announced another reduction of 20% in foreign exchange sales for private imports. It is understood that the authorities are ready to take further action if necessary.

27. Brazil's external debt is very burdensome, largely because of heavy payments due on balance of payments loans and medium-term (largely suppliers') credits. Debt service is estimated to take over 15% of foreign exchange earnings in 1958. The Brazilian Minister of Finance has been informed that we desire satisfactory representations regarding the management of Brazilian external finances, including assurances of great restraint in undertaking further external debt, particularly of a short to medium-term character. If, for example, the Brazilian authorities were to reduce medium-term debt to a level requiring service payments of \$40 million annually from 1961 onwards, and if new commitments on long-term debt after the Furnas loan were held to modest levels, the total debt service burden would decline to around 10% of expected foreign exchange earnings by 1964. Although still high, this level of debt service need not be unmanageable.

28. The undertakings to the IMF looking in the direction of more realistic financial policies open up expectations of greater progress in the direction of internal financial stability, and eventually of greater external balance, than have been in prospect in Brazil for many years. Taken in conjunction with the undertakings sought by the Bank, they would give grounds for increased confidence in Brazil's ability to manage her external obligations, including those to be undertaken in the present loan.

Prospect of Fulfillment of Obligations

29. Furnas management is competent and is composed of people who have had a long and successful experience in the power field in Brazil and abroad. One of the shareholders, Brazilian Traction, has made available to Furnas on a contract basis, the services of its management organization, COBAST, which is supervising the construction work. An engineering firm of high reputation is in charge of the engineering. Additional specialized consultants are being called in on special problems.

30. Present estimates show that cash receipts from the operation of the first stage would cover debt service between 1.6 and 1.9 times up to 1972. When the second stage is completed the coverage would increase up to about 2.5 times.

31. The Borrower should in addition to satisfying its other obligations be able to provide the local currency needed to purchase the foreign exchange required to service the proposed loan. It should be within Brazil's ability to provide the foreign exchange needed for this purpose.

PART VI - CONCLUSIONS AND RECOMMENDATIONS

32. I am satisfied that a loan on the bases described herein would comply with the requirements of the Articles of Agreement and I recommend that the Executive Directors at this time give their approval in principle for a loan on the Furnas Project along the lines set forth above. Discussions with the Brazilian authorities would be pursued with a view to reaching final agreement on points still unresolved. When the necessary loan documents are completed, they will be submitted to the Executive Directors or their Alternates then present in Washington for final action.

Eugene R. Black
President

Washington, D.C.
September 12, 1958