

No. 4823

**INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT
and
BRAZIL**

**Guarantee Agreement—*Furnas Hydroelectric Project* (with
annexed Loan Regulations No. 4 and Loan Agreement
between the Bank and Central Elétrica de Furnas S.A.).
Signed at Washington, on 3 October 1958**

Official text: English.

*Registered by the International Bank for Reconstruction and Development on
13 July 1959.*

**BANQUE INTERNATIONALE POUR
LA RECONSTRUCTION ET LE DÉVELOPPEMENT
et
BRÉSIL**

**Contrat de garantie — *Projet hydro-électrique Furnas*
(avec, en annexe, le Règlement n° 4 sur les emprunts
et le Contrat d'emprunt entre la Banque et la Central
Elétrica de Furnas S.A.). Signé à Washington, le
3 octobre 1958**

Texte officiel anglais.

*Enregistré par la Banque internationale pour la reconstruction et le développement
le 13 juillet 1959.*

No. 4823. GUARANTEE AGREEMENT¹ (*FURNAS HYDRO-ELECTRIC PROJECT*) BETWEEN THE UNITED STATES OF BRAZIL AND THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT. SIGNED AT WASHINGTON, ON 3 OCTOBER 1958

AGREEMENT, dated October 3, 1958, between THE UNITED STATES OF BRAZIL (hereinafter called the Guarantor) and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (hereinafter called the Bank).

WHEREAS by an agreement of even date herewith between the Bank and Central Elétrica de Furnas S.A. (hereinafter called the Borrower), which agreement and the schedules therein referred to are hereinafter called the Loan Agreement,² the Bank has agreed to make to the Borrower a loan in various currencies equivalent to seventy-three million dollars (\$73,000,000), on the terms and conditions set forth in the Loan Agreement, but only on condition that the Guarantor agree to guarantee the obligations of the Borrower in respect of such loan as hereinafter provided ;

WHEREAS the Guarantor, in consideration of the Bank's entering into the Loan Agreement with the Borrower, has agreed so to guarantee such obligations of the Borrower ; and

WHEREAS the Guarantor represents and warrants that the giving of such guarantee is authorized by Law No. 1518 of December 24, 1951, and Articles 22 and 23 of Law No. 1628 of June 20, 1952, of the Guarantor ;

NOW THEREFORE the parties hereto hereby agree as follows :

Article I

Section 1.01. The parties to this Guarantee Agreement accept all the provisions of Loan Regulations No. 4 of the Bank dated June 15, 1956² (said Loan Regulations No. 4 being hereinafter called the Loan Regulations), with the same force and effect as if they were fully set forth herein.

¹ Came into force on 7 February 1959, upon notification by the Bank to the Government of Brazil.

² See p. 186 of this volume.

Article II

Section 2.01. Without limitation or restriction upon any of the other covenants on its part in this Agreement contained, the Guarantor hereby unconditionally guarantees, as primary obligor and not as surety merely, the due and punctual payment of the principal of, and the interest and other charges on, the Loan, the principal of and interest on the Bonds, the premium, if any, on the prepayment of the Loan or the redemption of the Bonds, and the punctual performance of all the covenants and agreements of the Borrower, all as set forth in the Loan Agreement and in the Bonds.

Article III

Section 3.01. It is the mutual intention of the Guarantor and the Bank that no other external debt shall enjoy any priority over the Loan in the allocation or realization of foreign exchange. To that end, the Guarantor undertakes that, except as the Bank shall otherwise agree, if any lien shall be created on any assets of the Guarantor as security for any external debt, such lien will *ipso facto* equally and ratably secure the payment of the principal of, and interest and other charges on, the Loan and the Bonds, and that in the creation of any such lien express provision will be made to that effect ; provided, however, that the foregoing provisions of this Section shall not apply to : (i) any lien created on property, at the time of purchase thereof, solely as security for the payment of the purchase price of such property ; (ii) any lien on commercial goods to secure a debt maturing not more than one year after the date on which it is originally incurred and to be paid out of the proceeds of sale of such commercial goods ; or (iii) any lien arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.

The term “assets of the Guarantor” as used in this Section includes assets of the Guarantor or of any of its political subdivisions or of any agency of the Guarantor or of any such political subdivision, including the Banco do Brasil S.A.

Section 3.02. (a) The Guarantor and the Bank shall cooperate fully to assure that the purposes of the Loan will be accomplished. To that end, each of them shall furnish to the other all such information as it shall reasonably request with regard to the general status of the Loan. On the part of the Guarantor, such information shall include information with respect to financial and economic conditions in the territories of the Guarantor and the international balance of payments position of the Guarantor. On the part of the Bank, such information shall include such information as shall be available to the Bank regarding the performance of the obligations of the Borrower under the Loan Agreement.

(b) The Guarantor and the Bank shall from time to time exchange views through their representatives with regard to matters relating to the purposes of the Loan

and the maintenance of the service thereof. The Guarantor shall promptly inform the Bank of any condition which interferes with, or threatens to interfere with, the accomplishment of the purposes of the Loan or the maintenance of the service thereof.

(c) The Guarantor shall afford all reasonable opportunity for accredited representatives of the Bank to visit any part of the territories of the Guarantor for purposes related to the Loan.

Section 3.03. The principal of, and interest and other charges on, the Loan and the Bonds shall be paid without deduction for, and free from any taxes or fees imposed under the laws of the Guarantor or laws in effect in its territories ; provided, however, that the provisions of this Section shall not apply to taxation of, or fees upon, payments under any Bond to a holder thereof other than the Bank when such Bond is beneficially owned by an individual or corporate resident of the Guarantor.

Section 3.04. This Agreement, the Loan Agreement and the Bonds shall be free from any taxes or fees that shall be imposed under the laws of the Guarantor or laws in effect in its territories on or in connection with the execution, issue, delivery or registration thereof.

Section 3.05. The principal of, and interest and other charges on, the Loan and the Bonds shall be paid free from all restrictions imposed under the laws of the Guarantor or laws in effect in its territories.

Article IV

Section 4.01. The Guarantor shall endorse, in accordance with the provisions of the Loan Regulations, its guarantee on the Bonds to be executed and delivered by the Borrower. The Minister of Finance of the Guarantor and such person or persons as he shall designate in writing are designated as the authorized representatives of the Guarantor for the purposes of Section 6.12 (b) of the Loan Regulations.

Article V

Section 5.01. The following addresses are specified for the purposes of Section 8.01 of the Loan Regulations :

For the Guarantor :

Ministério da Fazenda
Av. Presidente Antonio Carlos 375
Rio de Janeiro, D. F.
Brazil

Alternative address for cablegrams and radiograms :

Minifaz

Rio de Janeiro, D. F.

For the Bank :

International Bank for Reconstruction and Development

1818 H Street, N.W.

Washington 25, D. C.

United States of America

Alternative address for cablegrams and radiograms :

Intbafrad

Washington, D. C.

Section 5.02. The Minister of Finance of the Guarantor is designated for the purposes of Section 8.03 of the Loan Regulations.

IN WITNESS WHEREOF, the parties hereto, acting through their representatives thereunto duly authorized, have caused this Guarantee Agreement to be signed in their respective names and delivered in the District of Columbia, United States of America, as of the day and year first above written.

The United States of Brazil :

By Paulo MARINHO DE CARVALHO

Authorized Representative

International Bank for Reconstruction and Development

By Davidson SOMMERS

Vice President

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

LOAN REGULATIONS No. 4, DATED 15 JUNE 1956

REGULATIONS APPLICABLE TO LOANS MADE BY THE BANK TO BORROWERS OTHER THAN
MEMBER GOVERNMENTS

[Not published herein. See United Nations, Treaty Series, Vol. 260, p. 376.]

LOAN AGREEMENT

(FURNAS HYDROELECTRIC PROJECT)

AGREEMENT, dated October 3, 1958, between INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (hereinafter called the Bank) and CENTRAL ELÉTRICA DE FURNAS S.A. (hereinafter called the Borrower).

Article I

LOAN REGULATIONS

Section 1.01. The parties to this Loan Agreement accept all the provisions of Loan Regulations No. 4 of the Bank dated June 15, 1956¹ (said Loan Regulations No. 4 being hereinafter called the Loan Regulations), with the same force and effect as if they were fully set forth herein.

Article II

THE LOAN

Section 2.01. The Bank agrees to lend to the Borrower, on the terms and conditions in this Agreement set forth or referred to, an amount in various currencies equivalent to seventy-three million dollars (\$73,000,000).

Section 2.02. The Bank shall open a Loan Account on its books in the name of the Borrower and shall credit to such Account the amount of the Loan. The amount of the Loan may be withdrawn from the Loan Account as provided in, and subject to the rights of cancellation and suspension set forth in, the Loan Regulations.

Section 2.03. The Borrower shall pay to the Bank a commitment charge at the rate of three-fourths of one per cent ($\frac{3}{4}$ of 1 %) per annum on the principal amount of the Loan not so withdrawn from time to time. Notwithstanding the provisions of Section 2.02 of the Loan Regulations, such commitment charge shall accrue from a date sixty days after the date of this Agreement to the respective dates on which amounts shall be withdrawn by the Borrower from the Loan Account as provided in Article IV of the Loan Regulations or shall be cancelled pursuant to Article V of the Loan Regulations.

¹ See above.

Section 2.04. The Borrower shall pay interest at the rate of five and three-fourths per cent (5 $\frac{3}{4}$ %) per annum on the principal amount of the Loan so withdrawn and outstanding from time to time.

Section 2.05. Except as the Bank and the Borrower shall otherwise agree, the charge payable for special commitments entered into by the Bank at the request of the Borrower pursuant to Section 4.02 of the Loan Regulations shall be at the rate of one-half of one per cent ($\frac{1}{2}$ of 1 %) per annum on the principal amount of any such special commitments outstanding from time to time.

Section 2.06. Interest and other charges shall be payable semi-annually on April 1 and October 1 in each year.

Section 2.07. The Borrower shall repay the principal of the Loan in accordance with the amortization schedule set forth in Schedule 1¹ to this Agreement.

Article III

USE OF PROCEEDS OF THE LOAN

Section 3.01. The Borrower shall apply the proceeds of the Loan exclusively to financing the cost of goods required to carry out the Project described in Schedule 2² to this Agreement. The specific goods to be financed out of the proceeds of the Loan and the methods and procedures for procurement of such goods shall be determined by agreement between the Bank and the Borrower, subject to modification by further agreement between them.

Section 3.02. The Borrower shall cause all goods financed out of the proceeds of the Loan to be imported into the territories of the Guarantor and there to be used exclusively in the carrying out of the Project. Except as otherwise agreed between the Bank and the Borrower, the Borrower shall obtain title, free and clear of all encumbrances, to all goods purchased or paid for in whole or in part out of the proceeds of the Loan. Except as otherwise agreed between the Bank and the Borrower, the Borrower shall not sell, assign or transfer title to any such goods.

Article IV

BONDS

Section 4.01. The Borrower shall execute and deliver Bonds representing the principal amount of the Loan as provided in the Loan Regulations.

Section 4.02. The *Presidente* and one *Director* of the Borrower and such person or persons as they shall appoint in writing are designated as authorized representatives of the Borrower for the purposes of Section 6.12 (a) of the Loan Regulations.

¹ See p. 200 of this volume.

² See p. 202 of this volume.

Article V

PARTICULAR COVENANTS

Section 5.01. (a) The Borrower shall carry out the Project with due diligence and efficiency and in conformity with sound engineering and financial practices.

(b) The Borrower shall furnish to the Bank, promptly upon their preparation, the plans and specifications for the Project, including construction schedules, and any material modifications subsequently made therein, in such detail as the Bank shall from time to time request.

(c) The Borrower shall maintain records adequate to identify the goods financed out of the proceeds of the Loan, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect in accordance with consistently maintained sound accounting practices the operations and financial condition of the Borrower; shall enable the Bank's representatives to inspect the properties of the Borrower, the Project, the goods and any relevant records and documents; and shall furnish to the Bank all such information as the Bank shall reasonably request concerning the properties of the Borrower, the expenditure of the proceeds of the Loan, the Project, the goods, and the operations and financial condition of the Borrower.

Section 5.02. (a) The Bank and the Borrower shall cooperate fully to assure that the purposes of the Loan will be accomplished. To that end, each of them shall furnish to the other all such information as it shall reasonably request with regard to the general status of the Loan.

(b) The Bank and the Borrower shall from time to time exchange views through their representatives with regard to matters relating to the purposes of the Loan and the maintenance of the service thereof. The Borrower shall promptly inform the Bank of any condition which interferes with, or threatens to interfere with, the accomplishment of the purposes of the Loan or the maintenance of the service thereof.

Section 5.03. The Borrower undertakes that, except as the Bank shall otherwise agree, if any lien shall be created on any assets of the Borrower as security for any debt, such lien will *ipso facto* equally and ratably secure the payment of the principal of, and interest and other charges on, the Loan and the Bonds, and that in the creation of any such lien express provision will be made to that effect; provided, however, that the foregoing provisions of this Section shall not apply to: (i) any lien created on property, at the time of purchase thereof, solely as security for the payment of the purchase price of such property; or (ii) any lien in favor of the Guarantor, on terms and conditions satisfactory to the Bank, the Borrower and the Guarantor, and by its terms expressly subordinated to the claims of the Bank hereunder, which is created to secure obligations of the Borrower to the Guarantor arising out of the Guarantor's guarantee of the Loan; or (iii) any lien on commercial goods to secure a debt maturing not more than one year after the date on which it is originally incurred and to be paid out of the proceeds of sale

of such commercial goods; or (iv) any lien arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.

Section 5.04. The Borrower shall pay or cause to be paid all taxes or fees, if any, imposed under the laws of the Guarantor or laws in effect in the territories of the Guarantor on or in connection with the execution, issue, delivery or registration of this Agreement, the Guarantee Agreement¹ or the Bonds, or the payment of principal, interest or other charges thereunder; provided, however, that the provisions of this Section shall not apply to taxation of, or fees upon, payments under any Bond to a holder thereof other than the Bank when such Bond is beneficially owned by an individual or corporate resident of the Guarantor.

Section 5.05. The Borrower shall pay or cause to be paid all taxes and fees, if any, imposed under the laws of the country or countries in whose currency the Loan and the Bonds are payable or laws in effect in the territories of such country or countries on or in connection with the execution, issue, delivery or registration of this Agreement, the Guarantee Agreement or the Bonds.

Section 5.06. (a) Except as shall be otherwise agreed between the Bank and the Borrower, the Borrower shall insure or cause to be insured with responsible insurers all goods financed with the proceeds of the Loan. Such insurance shall cover such marine, transit and other hazards incident to purchase and importation of the goods into the territories of the Guarantor and to delivery thereof to the site of the Project, and shall be for such amounts as shall be consistent with sound commercial practice. Such insurance shall be payable in dollars or in the currency in which the cost of the goods insured thereunder shall be payable.

(b) In addition, the Borrower shall insure against such risks and in such amounts as shall be consistent with sound public utility and business practices.

Section 5.07. (a) The Borrower shall at all times maintain its existence and right to carry on operations and shall, except as the Bank shall otherwise agree, take all steps necessary to maintain and renew all rights, powers, privileges and franchises which are necessary or useful in the conduct of its business.

(b) The Borrower shall operate and maintain its plants, equipment and property, and from time to time make all necessary renewals and repairs thereof, all in accordance with sound engineering standards; and shall at all times operate its plants and equipment and maintain its financial position in accordance with sound business and public utility practices.

(c) The Borrower shall not, without the prior consent of the Bank, sell or otherwise dispose of its property and assets unless the Borrower shall first redeem and pay or make

¹ See p. 178 of this volume.

adequate provision satisfactory to the Bank for redemption and payment of all of the Loan which shall be outstanding and unpaid. The Borrower may, however, without reference to the foregoing, sell or otherwise dispose of any property which shall have become old, worn-out, obsolete or unnecessary for use in its operations.

(d) The Borrower shall 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 permissible revenues under the laws of the Guarantor and the expansion and continued operation of the Borrower's business in accordance with sound financial and public utility practices.

Section 5.08. The Borrower covenants that, except as the Bank shall otherwise agree, it will not undertake any works or incur any expenditures not directly related to the Project.

Section 5.09. The Borrower covenants that it will (i) take all steps necessary on its part to cause its capital stock to be increased ; (ii) make calls on account of the subscribed capital ; and (iii) enforce its rights under the undertakings referred to in Section 7.01 of this Agreement, all from time to time promptly as required for the expeditious and efficient construction and due completion of the Project.

Article VI

REMEDIES OF THE BANK

Section 6.01. (a) If any event specified in paragraph (a), paragraph (b), paragraph (e) or paragraph (f) or pursuant to paragraph (j) of Section 5.02 of the Loan Regulations shall occur and shall continue for a period of thirty days, or (b) if any event specified in paragraph (c) of Section 5.02 of the Loan Regulations shall occur and shall continue for a period of sixty days after notice thereof shall have been given by the Bank to the Borrower, then at any subsequent time during the continuance thereof, the Bank, at its option, may declare the principal of the Loan and of all the Bonds then outstanding to be due and payable immediately, and upon any such declaration such principal shall become due and payable immediately, anything in this Agreement or in the Bonds to the contrary notwithstanding.

Section 6.02. The following events are specified as additional events for the purposes of Section 5.02 (j) of the Loan Regulations :

- (a) demand shall have been made for repayment in advance of maturity of any of the moneys referred to in Section 7.01 (b) and (e) of this Agreement, by reason of any default as specified in the relative arrangements ;
- (b) Banco Nacional do Desenvolvimento Econômico shall have failed to perform any covenant or agreement on its part under the undertaking referred to in Section 7.01 (e) of this Agreement.

Article VII

EFFECTIVE DATE ; TERMINATION

Section 7.01. The following events are specified as additional conditions to the effectiveness of this Loan Agreement within the meaning of Section 9.01 (a) (ii) and Section 9.01 (b) (ii) of the Loan Regulations :

- (a) the Guarantee Agreement has been duly registered by the Tribunal de Contas of the Guarantor ;
- (b) a loan, in the currency of the Guarantor, has been made to the Borrower by Banco Nacional do Desenvolvimento Econômico, out of its own funds and on behalf of Fundo Federal de Eletrificação, in amounts and on terms and conditions satisfactory to the Bank ;
- (c) the Bank and the Borrower have received undertakings, satisfactory to the Bank, from the shareholders of the Borrower that they will cause the capital stock of the Borrower to be increased from time to time, and that they will subscribe to such increased capital stock and make payments on account of such subscriptions, all as required for the expeditious and efficient construction and due completion of the Project ;
- (d) the Bank and the Borrower have received an undertaking, satisfactory to the Bank, from Banco Nacional do Desenvolvimento Econômico that it will provide on an equity basis any funds not forthcoming from any of the other shareholders of the Borrower, so that the paid in capital stock of the Borrower will be not less than six billion Brazilian cruzeiros when necessary for the due and efficient completion of the Project ;
- (e) the Bank and the Borrower have received an undertaking, satisfactory to the Bank, from Banco Nacional do Desenvolvimento Econômico that in the event of the moneys referred to in paragraphs (b), (c) and (d) of this Section 7.01 being insufficient for the completion of the Project, then Banco Nacional do Desenvolvimento Econômico will increase the loan referred to in paragraph (b) of this Section 7.01, either out of its own resources or on behalf of Fundo Federal de Eletrificação, in such amounts as shall be required for the due and efficient completion of the Project.

Section 7.02. The following are specified as additional matters, within the meaning of Section 9.02 (e) of the Loan Regulations, to be included in the opinion or opinions to be furnished to the Bank :

- (a) that the loan referred to in Section 7.01 (b) of this Agreement and the security or lien, if any, to be given or created under its terms, are valid and binding obligations of the parties thereto in accordance with their terms ;
- (b) that the undertakings referred to in paragraphs (c), (d) and (e) of Section 7.01 of this Agreement are valid and binding obligations of the parties thereto in accordance with their terms.

Section 7.03. A date sixty days after the date of this Agreement is hereby specified for the purposes of Section 9.04 of the Loan Regulations.

Article VIII

MISCELLANEOUS

Section 8.01. The Closing Date shall be September 30, 1963.

Section 8.02. The following addresses are specified for the purposes of Section 8.01 of the Loan Regulations :

For the Borrower :

Central Elétrica de Furnas S.A.
Rua São José 90—3º andar
Rio de Janeiro, D. F.
Brazil

Alternative address for cablegrams and radiograms :

Riofurnas
Rio de Janeiro, D. F.

For the Bank :

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington 25, D. C.
United States of America

Alternative address for cablegrams and radiograms :

Intbafrad
Washington, D. C.

IN WITNESS WHEREOF, the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names and delivered in the District of Columbia, United States of America, as of the day and year first above written.

International Bank for Reconstruction and Development :

By Davidson SOMMERS
Vice President

Central Elétrica de Furnas S.A. :

By John R. COTRIM
Authorized Representative

By B. DUTRA
Authorized Representative

SCHEDULE I

AMORTIZATION SCHEDULE

<i>Date Payment Due</i>	<i>Payment of Principal (expressed in dollars) *</i>	<i>Date Payment Due</i>	<i>Payment of Principal (expressed in dollars) *</i>
April 1, 1964	\$996,000	April 1, 1974	\$1,756,000
October 1, 1964	1,025,000	October 1, 1974	1,806,000
April 1, 1965	1,054,000	April 1, 1975	1,858,000
October 1, 1965	1,084,000	October 1, 1975	1,911,000
April 1, 1966	1,115,000	April 1, 1976	1,966,000
October 1, 1966	1,148,000	October 1, 1976	2,023,000
April 1, 1967	1,181,000	April 1, 1977	2,081,000
October 1, 1967	1,214,000	October 1, 1977	2,141,000
April 1, 1968	1,249,000	April 1, 1978	2,202,000
October 1, 1968	1,285,000	October 1, 1978	2,266,000
April 1, 1969	1,322,000	April 1, 1979	2,331,000
October 1, 1969	1,360,000	October 1, 1979	2,398,000
April 1, 1970	1,399,000	April 1, 1980	2,467,000
October 1, 1970	1,440,000	October 1, 1980	2,538,000
April 1, 1971	1,481,000	April 1, 1981	2,611,000
October 1, 1971	1,524,000	October 1, 1981	2,686,000
April 1, 1972	1,567,000	April 1, 1982	2,763,000
October 1, 1972	1,612,000	October 1, 1982	2,842,000
April 1, 1973	1,659,000	April 1, 1983	2,924,000
October 1, 1973	1,707,000	October 1, 1983	3,008,000

* To the extent that any part of the Loan is repayable in a currency other than dollars (see Loan Regulations, Section 3.02), the figures in this column represent dollar equivalents determined as for purposes of withdrawal.

PREMIUMS ON PREPAYMENT AND REDEMPTION

The following percentages are specified as the premiums payable on repayment in advance of maturity of any part of the principal amount of the Loan pursuant to Section 2.05 (b) of the Loan Regulations or on the redemption of any Bond prior to its maturity pursuant to Section 6.16 of the Loan Regulations :

<i>Time of Prepayment or Redemption</i>	<i>Premium</i>
Not more than 3 years before maturity	1/2 of 1 %
More than 3 years but not more than 6 years before maturity	1 %
More than 6 years but not more than 11 years before maturity	1 3/4 %
More than 11 years but not more than 16 years before maturity	2 1/2 %
More than 16 years but not more than 21 years before maturity	3 1/2 %
More than 21 years but not more than 23 years before maturity	4 3/4 %
More than 23 years before maturity	5 3/4 %

SCHEDULE 2

DESCRIPTION OF PROJECT

The Project is the first stage of a hydroelectric power station to be constructed at Furnas Rapids, on the Rio Grande, in the State of Minas Gerais. The Project will include the following :

A. At the Furnas site :

- (i) A main dam of the earth and rock fill type, about 120 meters high and 500 meters long, providing a reservoir with a usable storage capacity of about 14 billion cubic meters with a drawdown of 16 meters.
- (ii) A concrete spillway equipped with control gates and capable of passing the seasonal flood waters.
- (iii) A concrete dam, about 42 meters high and 225 meters long, between the spillway and the main dam, embodying the intake works.
- (iv) A powerhouse of the open air type, in which will be installed vertical generating units with a total capacity of between 400 MW and 500 MW.
- (v) A high voltage transmission switching station.
- (vi) All necessary ancillary and control equipment.

B. An earth dam about 35 meters high to seal off the reservoir from the upper reaches of the Pium-i River.

C. High voltage transmission lines from Furnas to the cities of São Paulo and Belo Horizonte and to the Peixoto hydroelectric station with the associated equipment.

D. The purchase of all land in the reservoir basin up to elevation 769 meters and the construction of such roads, bridges and railroad diversions as may be necessary to clear the reservoir basin.

It is expected that the construction of the above project will be completed by June, 1963.