No. 3188

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT and LEBANON

Guarantee Agreement—Electric Power and Irrigation Projects (with related letter, annexed Loan Regulations No. 4 and Loan Agreement—Electric Power and Irrigation Projects—between the Bank and Litani River Authority). Signed at Washington, on 25 August 1955

Official text: English.

Registered by the International Bank for Reconstruction and Development on 21 March 1956.

BANQUE INTERNATIONALE POUR LA RECONSTRUCTION ET LE DÉVELOPPEMENT

et

LIBAN

Contrat de garantie — Projets relatifs à l'énergie électrique et à l'irrigation (avec, en annexe, une lettre y relative, le Règlement n° 4 sur les emprunts et le Contrat d'emprunt — Projets relatif à l'énergie électrique et à l'irrigation — entre la Banque et l'Office du Litani). Signé à Washington, le 25 août 1955

Texte officiel anglais.

Enregistré par la Banque internationale pour la reconstruction et le développement le 21 mars 1956. No. 3188. GUARANTEE AGREEMENT¹ (ELECTRIC POWER AND IRRIGATION PROJECTS) BETWEEN THE RE-PUBLIC OF LEBANON AND THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT. SIGNED AT WASHINGTON, ON 25 AUGUST 1955

AGREEMENT, dated August 25, 1955, between the REPUBLIC OF LEBANON (hereinafter called the Guarantor) and INTERNATIONAL BANK FOR RECONSTRUC-TION AND DEVELOPMENT (hereinafter called the Bank).

WHEREAS by an agreement of even date herewith between the Bank and Litani River Authority (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 in an aggregate principal amount equivalent to twenty seven million dollars (\$27,000,000), on the terms and conditions set forth in the Loan Agreement, but only on condition that the Guarantor agree to guarantee the payment of the principal, interest and other charges on such loan and the obligations of the Borrower in respect thereof; and

WHEREAS the Guarantor, in consideration of the Bank's entering into the Loan Agreement with the Borrower, has agreed to guarantee the payment of the principal, interest and other charges on such loan and the obligations of the Borrower in respect thereof;

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 February 15, 1955³ (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.

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¹ Came into force on 17 February 1956 upon notification by the Bank to the Government of the Republic of Lebanon.

^{*}See p. 244 of this volume.

^{*}See p. 244 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.

Section 2.02. (a) Without limitation or restriction upon the provisions of Section 2.01 of this Agreement, the Guarantor specifically undertakes, whenever there is reasonable cause to believe that the funds available to the Borrower will be inadequate to meet the estimated expenditures required for carrying out the Project, to make arrangements, satisfactory to the Bank, promptly to provide the Borrower or cause the Borrower to be provided with such funds as are needed to meet such expenditures.

(b) The Guarantor shall, if necessary, take appropriate action to make adequate credit available for farm development and working capital on reasonable terms to farmers within the area serviced by the irrigation facilities to be constructed under the Project.

Section 2.03. Any funds supplied to the Borrower by the Guarantor pursuant to Section 2.02 (a) or otherwise shall be provided under terms and conditions whereby, if repayment of the prescribed amount thereof is required by the Guarantor, such repayment shall be made in any fiscal year only out of the net income of the Borrower for such year, and only after payment of all other obligations due in that year has been made or provided for and only if the working capital of the Borrower shall not thereby be reduced below a reasonable level.

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 by way of a lien on governmental assets. 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

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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 central bank if hereafter created.

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.

(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. Except as the Bank, the Guarantor and the Borrower shall otherwise agree, the Guarantor shall cause the Borrower to sell all power produced by it, and shall cause the Office de l'Électricité et du Transport en Commun, its successors and assigns, and other distributors of power owned or controlled by the Guarantor to purchase all power offered to them for sale by the Borrower, at a rate or rates mutually satisfactory to the Borrower, the Guarantor and the Bank.

Section 3.04. The Guarantor shall cause the Office de l'Électricité et du Transport en Commun to have the two units of a total installed capacity of 30,000 kw of the Zouk Michael steam plant and adequate distributions facilities ready for operation before the Bisri power plant is ready to operate.

Section 3.05. Except as the Bank, the Guarantor and the Borrower shall otherwise agree, the Guarantor shall cause the Borrower to establish and maintain

rates charged for water uses at a level which, together with any betterment assessment received by the Borrower, shall be sufficient to meet all cost requirements of the irrigation system.

Section 3.06. The Guarantor covenants that it will not take or permit any of its political subdivisions or any of its agencies or any agency of any political subdivision to take any action which would prevent or interfere with the performance by the Borrower of any of the covenants, agreements and obligations of the Borrower in the Loan Agreement contained, and will take or cause to be taken all reasonable action which shall be necessary in order to enable the Borrower to perform such covenants, agreements and obligations.

Section 3.07. 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 3.08. 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 3.09. 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 :

Minister of Finance Beirut, Lebanon

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For the Bank :

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

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.

> Republic of Lebanon By Charles MALIK Authorized Representative

International Bank for Reconstruction and Development By Eugene R. BLACK President

LETTER DATED 25 AUGUST 1955 FROM THE REPUBLIC OF LEBANON TO THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT CONCERNING ORGANIZATIONAL STRUCTURE OF THE BORROWER

RÉPUBLIQUE LIBANAISE OFFICE NATIONAL DU LITANI CONSEIL D'ADMINISTRATION

25 August 1955

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

Gentlemen :

Reference is made to the Guarantee Agreement¹ of even date herewith between the Republic of Lebanon and the International Bank for Reconstruction and Development guaranteeing the loan from the Bank to the Litani River Authority.

¹See p. 234 of this volume. No. 3188

This is to confirm that no material change in the organizational structure of the Litani River Authority shall be made except after consultation with the International Bank for Reconstruction and Development.

Please confirm your agreement with the foregoing by signing and returning to us the enclosed copy of this letter.

Very truly yours,

!

Republic of Lebanon By (s) Charles MALIK Authorized Representative

Confirmed :

International Bank for Reconstruction and Development

By (s) Eugene R. BLACK President

Dated: 25 August 1955

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

LOAN REGULATIONS No. 4, DATED 15 FEBRUARY 1955

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

[Not published herein. See United Nations, Treaty Series, Vol. 221.]

LOAN AGREEMENT (ELECTRIC POWER AND IRRIGATION PROJECTS)

AGREEMENT, dated August 25, 1955, between INTERNATIONAL BANK FOR RE-CONSTRUCTION AND DEVELOPMENT (hereinafter called the Bank) and LITANI RIVER AUTHORITY (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 February 15, 1955¹ (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 twenty seven million dollars (\$27,000,000).

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 $(^{3}/_{4}$ of 1%) per annum on the principal amount of the Loan not so withdrawn from time to time.

Section 2.04. The Borrower shall pay interest at the rate of four and three-fourths per cent $(4 \frac{3}{4})_{0}$ 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 (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 February 1 and August 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 1^1 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 2^2 to this Agreement. The specific goods to be financed out of the proceeds of the Loan 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.

¹See p. 256 of this volume.

⁸See p. 256 of this volume.

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 Chairman of the Board of the Borrower and such person or persons as he shall appoint in writing are designated as authorized representatives of the Borrower for the purposes of Section 6.12 (a) of the Loan Regulations.

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, such plans and specifications for the Project and such material modifications subsequently made therein as the Bank shall request.

(c) The Borrower shall prepare, not later than July 1, 1957, plans mutually satisfactory to the Bank and the Borrower setting forth the manner in which the Borrower will manage and operate the power and irrigation facilities to be constructed under the Project. The Borrower shall not make any material change in such plans except after consultation with the Bank.

(d) 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 financial condition and operations of the Borrower; shall enable the Bank's representatives to inspect 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 expenditure of the proceeds of the Loan, the Project, the goods, and the financial condition and operations 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.

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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; (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.

Section 5.04. Except as the Bank and the Borrower shall otherwise agree, the Borrower shall not incur any indebtedness if thereby the proportion of indebtedness to capital account would exceed a ratio of 2 to 1.

For the purposes of this Section the following terms shall have the meanings hereinafter set forth :

(a) The term "indebtedness" shall mean debt maturing by its terms more than one year after the date on which it is originally incurred. Whenever for purposes of this Section it shall be necessary to value in Lebanese currency indebtedness payable in another currency, such valuation shall be made on the basis of the rate of exchange at which such other currency is, at the time such valuation is made, obtainable for the purpose of servicing such debt;

(b) The term "capital account" shall include capital, surplus and reserves determined in accordance with sound accounting practices. For this purpose, advances made by the Guarantor to the Borrower shall be regarded as capital and shall not be considered as debt of the Borrower.

Section 5.05. 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.

Section 5.06. (a) To assist it in the carrying out of the Project the Borrower shall employ competent and experienced engineering consultants and contractors mutually satisfactory to the Bank and the Borrower.

(b) The Borrower shall employ a sufficient number of competent and experienced irrigation and agricultural specialists to provide technical advice and assistance to farmers within the area serviced by the irrigation facilities to be constructed under the Project.

Section 5.07. Except as the Bank, the Guarantor and the Borrower shall otherwise agree :

(a) the Borrower shall not engage in retail distribution of electric power;

(b) the Borrower shall sell all electric power produced by it at a rate or rates mutually satisfactory to the Borrower, the Guarantor and the Bank;

(c) the Borrower shall establish and maintain rates charged for water uses at a level which, together with any betterment assessment received by the Borrower, shall be sufficient to meet at least operating and maintenance costs of the Saida-Beirut irrigation system of the Project and interest on and amortization of the cost of the said system.

Section 5.08. 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 Agreement 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 5.09. 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 5.10. Except as shall be otherwise agreed between the Bank and the Borrower, the Borrower shall insure or cause to be insured the goods financed with the proceeds of the Loan against risks incident to their purchase and importation into the territories of the Guarantor. Such insurance shall be consistent with sound commercial practice and shall be payable in dollars or in the currency in which the cost of the goods insured thereunder shall be payable.

Article VI

Remedies of the Bank

Section 6.01. (i) If any event specified in paragraph (a), paragraph (b), paragraph (e) or paragraph (f) of Section 5.02 of the Loan Regulations shall occur and shall continue for a period of thirty days, or (ii) 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.

Article VII

EFFECTIVE DATE; TERMINATION

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

(a) the Guarantor shall have taken the legislative and other action necessary to authorize the Borrower to operate the plants and irrigation facilities to be constructed under the Project;

(b) arrangements satisfactory to the Bank shall have been made by the Guarantor for provision to the Borrower of funds in Lebanese currency required to carry out the Project.

Section 7.02. The following is specified as an additional matter, 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 : that the Borrower has full power and authority to operate the plants and irrigation facilities to be constructed under the Project.

Section 7.03. A date 120 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 August 1, 1961.

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

For the Borrower:

Litani River Authority Avenue Béchara-El-Khoury Beirut, Lebanon

For the Bank :

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

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 Eugene R. BLACK President Litani River Authority By André TUENI Authorized Representative

SCHEDULE 1

Amortization Schedule

Date Payment Due	Payment of Principal (expressed in dollars)*	Principal Amount Outstanding After Each Payment (expressed in dollars)*	Date Payment Due	Payment of Principal (expressed in dollars) *	Principal Amount Outstanding After Each Payment (expressed in dollars)*
February 1, 1961	. —	\$27,000,000	February 1, 1971	\$669,000	\$16,202,000
August 1, 1961 .	. \$428,000	26,572,000	August 1, 1971	685,000	15,517,000
February 1, 1962 .	. 438,000	26,134,000	February 1, 1972	701,000	14,816,000
August 1, 1962 .	. 448,000	25,686,000	August 1, 1972	718,000	14,098,000
February 1, 1963 .	. 459,000	25,227,000	February 1, 1973	735,000	13,363,000
August 1, 1963 .	. 470,000	24,757,000	August 1, 1973	752,000	12,611,000
	. 481,000	24,276,000	February 1, 1974	770,000	11,841,000
August 1, 1964 .	. 492,000	23,784,000	August 1, 1974	788,000	11,053,000
February 1, 1965 .	. 505,000	23,279,000	February 1, 1975	807,000	10,246,000
August 1, 1965 .	. 517,000	22,762,000	August 1, 1975	826,000	9,420,000
February 1, 1966 .	. 529,000	22,233,000	February 1, 1976	845,000	8,575,000
August 1, 1966 .	. 541,000	21,692,000	August 1, 1976	866,000	7,709,000
February 1, 1967 .	. 555,000	21,137,000	February 1, 1977	886,000	6,823,000
August 1, 1967 .	. 568,000	20,569,000	August 1, 1977	907,000	5,916,000
February 1, 1968 .	. 581,000	19,988,000	February 1, 1978	929,000	4,987,000
August 1, 1968 .	. 594,000	19,394,000	August 1, 1978	951,000	4,036,000
February 1, 1969 .	. 609,000	18,785,000	February 1, 1979	974,000	3,062,000
August 1, 1969 .	. 623,000	18,162,000	August 1, 1979	997,000	2,065,000
February 1, 1970 .	. 638,000	17,524,000	February 1, 1980	1,020,000	1,045,000
August 1, 1970 .	. 653,000	16,871,000	August 1, 1980	1,045,000	

* 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 these columns 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 redemtion of any Bond prior to its maturity pursuant to Section 6.16 of the Loan Regulations :

Time of Prepayment or Redemption								Premium
Not more than 5 years before maturity								
More than 5 years but not more than 10 years before maturity						•		1%
More than 10 years but not more than 15 years before maturity					,			11/2%
More than 15 years but not more than 20 years before maturity								
More than 20 years before maturity	•	•		•	•	•	•	2½%

SCHEDULE 2

DESCRIPTION OF THE PROJECT

The Project consists of the construction of a dam, a reservoir, tunnels, syphons, irrigation works, two power stations, which will use the waters of the Litani and Bisri

Rivers to generate about 380 million kwh per year and to irrigate about 3,400 hectares in the Saida-Beirut area, and of transmission lines to supply electricity to Beirut and other areas.

The principal works to be constructed are :

A. Dam and Reservoir

The Borrower will construct a dam on the Litani River at the south end of the Bekaa Plain which will be about 47 meters high and 900 meters long and will create a reservoir having a useful capacity of about 60 million cubic meters. The dam will be designed so that its height may be increased by 16 meters at a later date.

B. Bisri Tunnel

A concrete lined pressure tunnel about 9 kilometers in length and about 3 meters in diameter will be constructed through the Lebanon Mountains to divert water from the reservoir to the Bisri River.

C. Bisri Power Plant

The Bisri Power Plant will be built on the Bisri River with an initial installed capacity of about 60,000 kw, with provisions for future expansion to about 75,000 kw. The plant will receive water from the Bisri tunnel through a suitable surge tank and penstock under a head of about 400 meters.

D. Joun Diversion Dam and Tunnel

A diversion dam, about 18 meters high and 90 meters long, will be constructed downstream from the Bisri tunnel and will divert water into a tunnel about 6.4 kilometers in length and about 2.8 meters in diameter which will terminate in a surge tank from which water will be taken for the Joun Power Plant and the Saida-Beirut irrigation system.

E. Joun Power Plant

This plant will be built on the Bisri River and will have an installed capacity of 24,000 kw operating under a head of 165 meters.

F. Transmission Lines and Receiving Stations

About 100 kilometers of 69 kv double circuit transmission lines on steel towers will be built from the Bisri and Joun Power Plants to connect into the Beirut distribution system through two receiving stations of a respective capacity of 63,000 and 25,000 kva and about 40 kilometers of 33 kv transmission lines on steel towers along the coast between Saida and Khalde.

G. Saida-Beirut Irrigation System

The main canal, about 55 kilometers long and containing about 21 major syphons, will be constructed from the surge tank of the Joun Power Plant into the suburbs of Beirut and will require about 9 bridges for main roads and about 50 minor structures.

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