# No. 4324

# INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT and THAILAND

Guarantee Agreement—Yanbee Project (with annexed Loan Regulations No. 4 and Loan Agreement—Yanbee Project—between the Bank and the Yanhee Electricity Authority). Signed at Washington, on 12 September 1957

Official text: English.

Registered by the International Bank for Reconstruction and Development on 5 May 1958.

# BANQUE INTERNATIONALE POUR LA RECONSTRUCTION ET LE DÉVELOPPEMENT

et

# THAÏLANDE

Contrat de garantie — Projet de Yanbee (avec, en annexe, le Règlement n° 4 sur les emprunts et le Contrat d'emprunt — Projet de Yanbee — entre la Banque et la Yanhee Electricity Authority). Signé à Washington, le 12 septembre 1957

Texte officiel anglais.

Enregistré par la Banque internationale pour la reconstruction et le développement le 5 mai 1958.

No. 4324. GUARANTEE AGREEMENT<sup>1</sup> (*YANHEE PROJECT*) BETWEEN THE KINGDOM OF THAILAND AND THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT. SIGNED AT WASHINGTON, ON 12 SEPTEMBER 1957

AGREEMENT, dated September 12, 1957, between the KINGDOM OF THAILAND (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 the Yanhee Electricity Authority (hereinafter called the Borrower), which agreement and the schedules therein referred to are hereinafter called the Loan Agreement,<sup>2</sup> the Bank has agreed to make to the Borrower a loan in various currencies equivalent to sixty-six million dollars (\$66,000,000), 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; and

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;

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, 1956,<sup>2</sup> subject, however, to the modifications thereof set forth in Schedule 3<sup>3</sup> to the Loan Agreement (said Loan Regulations No. 4 as so modified being hereinafter called the Loan Regulations), with the same force and effect as if they were fully set forth herein.

Section 1.02. The terms defined in the Loan Agreement shall have the same meaning herein.

<sup>&</sup>lt;sup>1</sup> Came into force on 28 February 1958, upon notification by the Bank to the Government of Thailand.

<sup>&</sup>lt;sup>2</sup>See p. 358 of this volume.

<sup>\*</sup> See p. 374 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. 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 the carrying out of the Project or for the construction of the thermal generating facilities described in paragraph B of Schedule  $2^1$  to the Loan Agreement, 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.

## Article III

Section 3.01. (a) The Guarantor shall, not later than January 1, 1959 (or such other date as the Guarantor and the Bank may agree), establish a single agency to operate the distribution facilities in Bangkok referred to in paragraph C of Schedule 2 to the Loan Agreement.

(b) The Guarantor shall employ or cause to be employed engineering consultants, mutually satisfactory to the Guarantor and to the Bank, for the carrying out of the part of the Program described in paragraph C of Schedule 2 to the Loan Agreement and shall carry out or cause to be carried out such part of the Program in accordance with sound engineering and financial practices.

Section 3.02. The Guarantor shall transfer, or cause to be transferred, to the Borrower, not later than January 1, 1959 (or such other date as the Guarantor and the Bank may agree), all the plant and equipment necessary or useful for the generation of electricity in Bangkok now owned by the Guarantor, together with all rights, powers, privileges and franchises which are necessary or useful for the operation of such plant and equipment.

Section 3.03. Until the completion of the Subsequent Stages, the Guarantor shall permit the Borrower to retain any surplus arising out of the operations of the Borrower for the purpose of financing part of the cost of any development,

<sup>&</sup>lt;sup>1</sup> See p. 372 of this volume.

including the Subsequent Stages, that may be undertaken within the scope of the responsibilities of the Borrower to satisfy future power demand in the areas to be supplied by it.

## Article IV

Section 4.01. 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 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 Bank of Thailand.

Section 4.02. (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 Program and 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 positions 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 (including the carrying out of the Program and the financing thereof) and the maintenance of the service of the Loan. 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 enable the Bank's representatives to inspect all properties and operations included in the Program and shall afford such representatives all reasonable opportunity to visit any part of the territories of the Guarantor for purposes related to the Loan.

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Section 4.03. 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 4.04. 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 4.05. 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 V

Section 5.01. 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 VI

Section 6.01. The following addresses are specified for the purposes of Section 8.01 of the Loan Regulations :

For the Guarantor:

Ministry of Finance Bangkok, Thailand Alternative address for cablegrams and radiograms : Minance Bangkok, Thailand

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 6.02. 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.

> Kingdom of Thailand : By Sawet PIAMPHONGSANT Authorized Representative

International Bank for Reconstruction and Development: By Eugene R. BLACK 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 (YANHEE PROJECT)

AGREEMENT, dated September 12, 1957, between INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (hereinafter called the Bank) and the YANHEE ELECTRICITY AUTHORITY (hereinafter called the Borrower), an entity established under The Yanhee Electricity Authority Act B.E. 2500, of the Kingdom of Thailand.

WHEREAS (A) the Borrower was established with the functions and duties set forth in the said Act and by the provisions of the said Act is required to carry out the Project or cause the Project to be carried out; and

(B) the Bank has been requested to grant a loan to the Borrower for the purpose of financing part of the cost of the Project and the Bank has agreed to make a loan to the Borrower for this purpose;

Now Therefore it is hereby agreed as follows:

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#### Article I

#### LOAN REGULATIONS; SPECIAL DEFINITIONS

Section 1.01. The parties to this Loan Agreement accept all the provisions of Loan Regulations No. 4 of the Bank dated June 15, 1956,<sup>1</sup> subject, however, to the modifications thereof set forth in Schedule 3<sup>2</sup> to this Agreement (said Loan Regulations No. 4 as so modified being hereinafter called the Loan Regulations), with the same force and effect as if they were fully set forth herein.

Section 1.02. Except where the context otherwise requires, the following terms have the following meanings wherever used in this Agreement or any schedule thereto or in the Loan Regulations:

The term "the Program" means the program for the production, transmission and distribution of electric power and the control of water for purposes of irrigation and flood control described in Schedule 2<sup>3</sup> to this Agreement.

The term "the Project" means the first stage of the development of the Yanhee system described in paragraph A (1) of Schedule 2 to this Agreement and as the description thereof shall be amended from time to time by agreement between the Bank and the Borrower.

The term "Subsequent Stages" means the subsequent stages of the development of the Yanhee system as described in paragraph A (2) of Schedule 2 to this Agreement and as the description thereof shall be amended from time to time between the Bank and the Borrower.

The term "Royal Irrigation Department" means the Royal Irrigation Department of the Ministry of Agriculture of the Guarantor.

### 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 sixty-six million dollars (\$66,000,000).

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. 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.

<sup>&</sup>lt;sup>1</sup> See p. 358 of this volume. <sup>2</sup> See p. 374 of this volume. <sup>3</sup> See p. 372 of this volume.

Section 2.04. The Borrower shall pay interest at the rate of five and three-fourths per cent  $(5^{3}/_{4})$  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 (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 15 and October 15 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. 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.

### 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 General Manager 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 cause the Project to be carried out with due diligence and efficiency and in conformity with sound engineering and financial practices.

<sup>&</sup>lt;sup>1</sup> See p. 370 of this volume.

(b) Except as the Bank and the Borrower shall otherwise agree, the Borrower shall employ or cause to be employed suitably qualified and competent engineering consultants and contractors for the carrying out of the Project. The selection of the engineering consultants and the nature and scope of their responsibilities shall be the subject of agreement between the Bank and the Borrower.

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

(d) The Borrower (i) shall maintain or cause to be maintained 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, and the operations and receipts and expenditures of the Royal Irrigation Department in respect of the Project; (ii) shall enable the Bank's representatives to inspect the Project and all other properties and operations of the Borrower included in the Program, the goods and any relevant records and documents; and (iii) shall furnish or cause to be furnished to the Bank all such information as the Bank shall reasonably request concerning the expenditure of the proceeds of the Loan, the Project, the Subsequent Stages, the goods, and the operations and financial condition of the Borrower, and the operations and receipts and expenditures of the Borrower, and the operations and receipts of the Royal Irrigation Department in respect of the Project.

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; (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. 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

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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 5.05. 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. Except as shall be otherwise agreed between the Bank and the Borrower, the Borrower shall insure or cause to be insured the goods financed out of 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.

Section 5.07. The Borrower (i) 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; (ii) 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; (iii) shall at all times carry on its operations and maintain its financial position in accordance with sound business practices; and (iv) shall conduct its affairs in such manner as to achieve a sound and efficient relationship between the power, irrigation and flood control benefits to be derived from the Program.

Section 5.08. (a) The Borrower shall, as soon as practicable during the initial years of construction of the Project, construct and put into operation the thermal generating facilities described in paragraph B of Schedule 2 to this Agreement.

(b) The Borrower shall, progressively and consistently with its financial capabilities and resources, carry out the SubsequentStages in pace with the growth of power demand in the areas to be supplied. Before the completion of the SubsequentStages, the Borrower shall undertake any additional project, other than the thermal generating facilities referred to in paragraph (a) of this Section, or enter into any financial commitment in respect thereof, only with the prior agreement of the Bank.

Section 5.09. The Borrower shall, before selling any electricity, establish, and thereafter maintain, prices for the sale of electricity at such levels as will provide revenues sufficient: (a) to cover operating expenses, including proper provision for maintenance and depreciation and interest; (b) to meet repayment of indebtedness to the extent that such repayments exceed provision for depreciation, and to meet increases in the cost of replacement of assets; and (c) to produce such surplus as shall be reasonable and proper in a well-ordered and self-sustaining public utility enterprise, sufficient (inter alia) to

finance a substantial proportion of any development, including the Subsequent Stages, that may be undertaken within the scope of its responsibilities to satisfy future power demand in the areas to be supplied by it.

## 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 event is specified as an additional condition to the effectiveness of this Agreement within the meaning of Section 9.01 (a) (ii) of the Loan Regulations, namely that the Borrower shall have entered into arrangements, satisfactory to the Bank, with the Royal Irrigation Department whereby the Royal Irrigation Department will undertake to carry out the Project on behalf of the Borrower.

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, namely that the Borrower has full power and authority to construct or cause to be constructed and to operate the Project and the Subsequent Stages and has all necessary rights and powers in connection therewith.

Section 7.03. A date 60 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 June 30, 1963.

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

For the Borrower:

Yanhee Electricity Authority c/o Royal Irrigation Department Bangkok, Thailand

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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 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 Eugene R. BLACK President

> > Yanhee Electricity Authority: By M. L. X. KAMBHU Authorized Representative

#### SCHEDULE 1

#### AMORTIZATION SCHEDULE

Daie Payment Due								Payment of Principal (expressed in dollars)*	Payment of Principal Date (expressed Payment Due in dollars)*
October 15, 1963								\$ 939,000	October 15, 1973 \$1,656,000
April 15, 1964								966,000	April 15, 1974 1,703,000
October 15, 1964								994,000	October 15, 1974 1,752,000
April 15, 1965								1,023,000	April 15, 1975 1,802,000
October 15, 1965								1,052,000	October 15, 1975 1,854,000
April 15, 1966								1,082,000	April 15, 1976 1,907,000
October 15, 1966								1,113,000	October 15, 1976 1,962,000
April 15, 1967								1,145,000	April 15, 1977 2,019,000
October 15, 1967								1,178,000	October 15, 1977 2,077,000
April 15, 1968								1,212,000	April 15, 1978 2,136,000
October 15, 1968								1,247,000	October 15, 1978 2,198,000
April 15, 1969								1,283,000	April 15, 1979 2,261,000
October 15, 1969								1,320,000	October 15, 1979 2,326,000
April 15, 1970								1,358,000	April 15, 1980
October 15, 1970								1,397,000	October 15, 1980 2,462,000
April 15, 1971								1,437,000	April 15, 1981 2,533,000
October 15, 1971	•							1,478,000	October 15, 1981 2,605,000
April 15, 1972								1,520,000	April 15, 1982 2,680,000
October 15, 1972								1,564,000	October 15, 1982 2,757,000
April 15, 1973			Ż				÷	1,609,000	
	•	•	•	•	•	•	•	-,-,-,	T

<sup>\*</sup> 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 :

Time of Prepayment or Redemption								
Not more than 3 years before maturity								1/2 %
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 .								
More than 11 years but not more than 16 years before maturity								
More than 16 years but not more than 21 years before maturity								
More than 21 years but not more than 23 years before maturity								
More than 23 years before maturity	٠	•	•	٠	٠	٠	•	5³/4%

### SCHEDULE 2

#### DESCRIPTION OF PROGRAM

The Program is the program for the production, transmission and distribution of electric power, and the control of water for purposes of irrigation and flood control in the central part of Thailand. Such program comprises the construction of a dam across the Ping River, the installation of adjacent hydro-electric generating plant, the construction of related transmission facilities, the installation of interim thermal capacity in the Bangkok area, and the modernization and expansion of the distribution systems in the Bangkok area and in about thirty-five other provinces (*changwads*) to be served by the Yanhee system.

#### A. Development of the Yanhee System

The development of the Yanhee system will be undertaken in stages.

- (1) The first stage, which is the Project, consists of :
- (a) the construction across the Ping River near a location known as Yanhee of an archtype concrete dam with a height of about 124 meters above streambed. The reservoir created by the construction of the dam will be capable of storing about 12 billion cubic meters of water. Two tunnels in the right abutment of the dam will be used for spillway purposes. Other outlets will be used for the release of water for irrigation purposes;
- (b) a power plant located adjacent to the downstream toe of the dam. Initially, two generating units with a combined capacity of about 140,000 kw will be installed but provision will be made in the power plant for the subsequent installation of additional units having a combined capacity of about 420,000 kw. The units to be installed initially will be connected by individual penstocks to the reservoir. Penstock connections for the units to be installed subsequently will be imbedded in the

dam. The turbines for the initial generating units will be of the Francis type designed to operate at a maximum head of about 120 meters and a minimum head of about 73 meters. The generators will be of the vertical-shaft, synchronous type with a frequency of 50 cycles per second;

- (c) a switchyard located adjacent to the dam on the north bank of the river with step-up transformers, switchgear and other necessary equipment;
- (d) two single-circuit overhead transmission lines capable of transmitting at least the output of the two initial generating units and having a combined total length of about 1,000 km., to serve Bangkok and conveniently located provinces (changwads) en route; step-down substations in each such province (changwad), and substations and reactive power equipment in Bangkok.

(2) The subsequent stages of the development of the Yanhee system will consist of the progressive installation of additional generating units in the power plant, of necessary ancillary equipment, of two single-circuit overhead transmission lines to Bangkok capable of transmitting, together with the transmission lines referred to in paragraph 1 (d) above, the total output of the power plant, and such other transmission lines as are necessary to serve provinces (*changwads*) other than Bangkok.

## B. Thermal Generating Facilities

Thermal generating facilities with a capacity of not less than 30,000 kw and not more than 50,000 kw will be constructed in or near Bangkok.

## C. Modernization and Expansion of Distribution Systems

The six existing separate distribution systems in the Bangkok area will be interconnected so as to constitute a single distribution network.

The Bangkok distribution network and that of the distribution systems in each of the other provinces (*changwads*) to be connected to the Yanhee power plant will be modernized and expanded so as to be capable of handling the power demand in the Bangkok area and in each such province (*changwad*) at the time the Project is completed, with provision for sufficient capacity in the major components to handle the increase in demand expected to take place during the five years following the completion of the Project.

## SCHEDULE 3

## MODIFICATIONS OF LOAN REGULATIONS NO. 4

For the purposes of this Agreement the provisions of Loan Regulations No. 4 of the Bank, dated June 15, 1956, shall be deemed to be modified by the deletion of Section 2.02 and of paragraph 12 of Section 10.01.