

No. 11094

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

Guarantee Agreement—Third Power Sector Program 1970-1971 (with annexed General Conditions Applicable to Loan and Guarantee Agreements and Loan Agreement between the Bank and the Comisión Federal de Electricidad and Nacional Financiera, S.A.). Signed at Washington on 27 February 1970

Authentic text: English.

Registered by the International Bank for Reconstruction and Development on 27 May 1971.

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

Contrat de garantie — Troisième programme 1970-1971 relatif au réseau d'énergie électrique (avec, en annexe, les Conditions générales applicables aux contrats d'emprunt et de garantie et le Contrat d'emprunt entre la Banque et la Comisión Federal de Electricidad et la Nacional Financiera, S.A.). Signé à Washington le 27 février 1970

Texte authentique : anglais.

Enregistré par la Banque internationale pour la reconstruction et le développement le 27 mai 1971.

GUARANTEE AGREEMENT¹

AGREEMENT, dated February 27, 1970, between UNITED MEXICAN STATES (hereinafter called the Guarantor) and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (hereinafter called the Bank).

WHEREAS by the Loan Agreement of even date herewith² between the Bank and Comisión Federal de Electricidad and Nacional Financiera, S.A. (hereinafter called the Borrowers), the Bank has agreed to make to the Borrowers a loan in various currencies equivalent to one hundred and twenty-five million dollars (\$125,000,000), 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 Borrowers 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 Borrowers, has agreed so to guarantee such obligations of the Borrowers;

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 the General Conditions Applicable to Loan and Guarantee Agreements of the Bank dated January 31, 1969,² with the same force and effect as if they were fully set forth herein, subject, however, to the modifications thereof set forth in Section 1.01 of the Loan Agreement (said General Conditions Applicable to Loan and Guarantee Agreements as so modified, being hereinafter called the General Conditions).

Section 1.02. Wherever used in this Guarantee Agreement, unless the context otherwise requires, the several terms defined in the General Conditions and in Section 1.02 of the Loan Agreement have the respective meanings therein set forth.

Article II

Section 2.01. Without limitation or restriction upon any of its obligations under this Guarantee Agreement, the Guarantor hereby uncondition-

¹ Came into force on 22 May 1970, upon notification by the Bank to the Government of Mexico.

² See p. 20 of this volume.

ally guarantees, as primary obligor and not as surety merely, the due and punctual payment of the principal of, and interest and other charges on, the Loan and the Bonds, the premium, if any, on the prepayment of the Loan or the redemption of the Bonds prior to their maturity and the punctual performance of all the obligations of the Borrowers, and each of them, 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 Guarantee Agreement, the Guarantor specifically undertakes, whenever there is reasonable cause to believe that the funds available to the Borrowers will be inadequate to meet the estimated expenditures required for the carrying out of the Project, to make arrangements, satisfactory to the Bank, promptly to provide the Borrowers or cause the Borrowers to be provided with such funds as are needed to meet such expenditures.

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 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 arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.

As used in this Section, (a) the term "assets of the Guarantor" includes assets of the Guarantor or of any of its political subdivisions or of any Agency, and (b) the term "Agency" means any agency or instrumentality of the Guarantor or of any political subdivision of the Guarantor and shall include any institution or organization which is owned or controlled directly or indirectly by the Guarantor or by any political subdivision of the Guarantor or the operations of which are conducted primarily in the interest of or for the account of the Guarantor or any political subdivision of the Guarantor.

Section 3.02. (a) The Guarantor and the Bank shall co-operate 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. 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, and free from all restrictions, imposed under the laws of the Guarantor, provided, however, that the provisions of this Section shall not apply to taxation of 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 Guarantee Agreement, the Loan Agreement and the Bonds shall be free from any taxes that shall be imposed under the laws of the Guarantor on or in connection with the execution, issue, delivery or registration thereof.

Section 3.05. The Guarantor shall not take or permit any of its political subdivisions or agencies to take any action which would prevent or interfere with the performance by the Borrowers of any of the obligations of the Borrowers or either of them in the Loan Agreement contained or of Centro under the Subsidiary Agreement and shall take or cause to be taken all reasonable governmental action (and all reasonable action by reason of its ownership or control of the Power Sector) which shall be necessary in order to enable the Borrowers and Centro to perform such obligations.

Section 3.06. (a) Except as the Guarantor and the Bank shall otherwise agree, the Guarantor covenants that it will prevent Mexlight from (i) issuing any bonds under the Indenture, or (ii) selling, pledging or otherwise negotiating or exchanging bonds of Mexlight amounting to about \$3,370,000 which are now held by Mexlight.

(b) Except as the Guarantor and the Bank shall otherwise agree, the Guarantor shall, by reason of its ownership or control of the Power Sector, prevent any of the entities of the Power Sector or any subsidiary of any such entity from disposing of the control of any of its subsidiaries or of the ownership or control of the property or assets of any such entity or subsidiary required for the efficient carrying on of its business and undertaking except to another entity of the Power Sector or to a subsidiary of any such entity, provided that any such subsidiary is also included in the Power Sector.

Section 3.07 (a) The Guarantor covenants that debt incurred by the Guarantor or by Comisión in respect of:

- (i) the purchase of assets of the electric power utilities listed in Schedule 1 hereto, and
- (ii) the purchase after the date of this Agreement of assets of any other entity included or to be included in the Power Sector

will not be met out of the revenues of the Power Sector (including the Power Consumption Tax) except to the extent that such funds constitute excess funds set aside in accordance with Section 3.08 (a) (B) of this Guarantee Agreement.

(b) The Guarantor shall take all necessary action on its part in order to enable the Power Sector to refinance, on more adequate terms and conditions, any debt of the Power Sector which, because of the amount or term originally contracted for or otherwise, interferes with the soundness of the Power Sector's financial situation and prospects.

(c) Without limiting the foregoing, the Guarantor shall, not later than September 30, 1970, make arrangements, satisfactory to the Bank, whereby the balance of the debt of Comisión and Centro repayable to Financiera during the years 1970 through 1974 and not affected by the arrangements referred to in Section 7.01 (b) of the Loan Agreement will be refinanced either by Financiera or other financial institutions on terms and conditions satisfactory to the Bank.

Section 3.08. Except as the Bank and the Guarantor shall otherwise agree:

(a) The Guarantor shall set and maintain or cause to be set and maintained rates for the sale of electricity (including the Power Consumption Tax) at such levels as shall be required to provide the Power Sector with revenues sufficient to: (i) cover all operating expenses of the Power Sector, including adequate maintenance and straight-line depreciation (calculated on the basis of the useful lives of major categories of assets) of its gross fixed plant in operation, and (ii) produce an annual rate of return of not

less than eight per cent on its total net fixed plant in operation, such eight per cent to be determined, on the basis of consolidated figures for the Power Sector, by dividing the estimated consolidated net income from operations of the Power Sector for the year in question arrived at after deducting from the estimated consolidated operating revenues of the Power Sector (including the Power Consumption Tax) the estimated operating expenses (including adequate maintenance and straight-line depreciation of the Power Sector's gross fixed plant in operation) by the value of the net fixed plant in operation at the beginning of the year in question increased by four per cent as an allowance for completion of plant during the year; provided, however, that: (A) if the eight per cent rate of return shall have not been achieved during any one year the deficit will be recovered in the next following year; and (B) if the rate of return shall be higher than eight per cent for any one year the Power Sector may, at its option, set aside any such excess funds to compensate in later years, insofar as possible, for any deficit then ensuing or to meet any debt in respect of the purchase of assets referred to in Section 3.07 (a) of the Guarantee Agreement, or both; and provided further that the level of rates for the sale of electricity by the Power Sector in effect on the date of this Agreement shall not be reduced during the years 1970 and 1971.

(b) The Guarantor shall cause the agency or agencies of the Guarantor responsible for the setting and adjustment of such rates to effect, when necessary, but in any case at least once not later than March in each year, a review of such rates in order to verify that such rates are adequate to provide the Power Sector with such revenues.

(c) For the purposes of this Section:

1. With respect to the assets of Comisión, straight-line depreciation shall be determined on the basis of the table of useful lives of major categories of assets contained in the CFE Fixed Assets Study prepared by Comisión in 1967, such table to be reviewed annually by Comisión in consultation with the Bank.
2. The term "net fixed plant in operation" shall mean the gross value of such assets, determined in accordance with methods of valuation or revaluation acceptable to the Bank, less accumulated depreciation.

Section 3.09. Except as the Guarantor and the Bank shall otherwise agree, the Guarantor shall cause the Power Sector to plan and coordinate the expansion of the Power Sector (including its budgeting), in addition to the requirements of Article 1 of the Decree of the Guarantor of January 11, 1949 establishing bases for the functioning of Comisión, in accordance

with sound engineering business, financial and public utility principles and practices.

Section 3.10. The Guarantor shall take all action which shall be necessary or advisable to cause such import permits as shall be needed for the importation of goods purchased outside of Mexico for the Project to be issued, as promptly as possible, in compliance with the legislation and administrative procedures of the Guarantor, and as required for carrying out the Project.

Section 3.11. The Guarantor acknowledges the importance of achieving as soon as practicable the frequency unification of the electric power systems of Mexico and recognizes the urgency of accelerating and expediting the action to be taken in respect thereof, and to this end, the Guarantor covenants that it shall take, or cause to be taken by the Power Sector, all action necessary to carry out the initial stages of such unification in such manner and at such times as are set forth in Schedule 2 to this Agreement.

Article IV

Section 4.01. The Guarantor shall endorse, in accordance with the provisions of the General Conditions, its guarantee on the Bonds to be executed and delivered by the Borrowers. Financiera and such person or persons as Financiera shall appoint in writing are designated as authorized representatives of the Guarantor for the purposes of Section 8.10 of the General Conditions.

Article V

Section 5.01. The following addresses are specified for the purposes of Section 10.01 of the General Conditions:

For the Guarantor:

United Mexican States
% Nacional Financiera, S.A.
Isabel la Católica 51
Mexico, D.F.
Mexico

Cable address:

Nafin
Mexico City

For the Bank:

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:

Intbafrad
Washington, D.C.

Section 5.02. Financiera is designated as representative of the Guarantor for the purposes of Section 10.03 of the General Conditions.

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 to be delivered in the District of Columbia, United States of America, as of the day and year first above written.

United Mexican States:
By Nacional Financiera, S.A.

By FRANCISCO RUIZ DE LA PEÑA
Authorized Representative

International Bank for Reconstruction and Development:

By SIMON ALDEWERELD
Vice President

SCHEDULE 1

LIST OF UTILITIES REFERRED TO IN SECTION 3.07 (a) (i)

Industrial Eléctrica Mexicana, S.A. de C.V.
Nueva Compañía Eléctrica de Chapala, S.A.
Compañía Eléctrica de Morelia, S.A.
Compañía Hidroeléctrica Occidental, S.A.
Compañía Eléctrica Manzanillo, S.A.
Mexican Light and Power Company Ltd.

SCHEDULE 2

PROGRAM FOR FIRST STAGE OF FREQUENCY UNIFICATION

1. *Construction of 60 Cycle Transmission Lines and Substations*

<i>Works</i>	<i>Completion Date</i>
Puebla-Temixco Transmission Line	October 1970
Temixco-Toluca Transmission Line	October 1970
Toluca-El Vidrio Transmission Line	December 1970
Substation Toluca	
100 MVA, 230/85 KV	October 1970
Substation Temixco	
100 MVA, 230/85 KV	October 1970
Substation El Vidrio	
100 MVA, 230/85 KV	December 1970
Three substations	
30 MVA, 85/23 KV	December 1970
Seven substations	
30 MVA, 85/23 KV	During 1971 and 1972

2. *Comisión and Centro Generating Facilities*

The first stage of conversion to 60 cycles covers only the modification of the runners at Infiernillo. Orders for new runners will be placed in February 1970.

3. *Consumers' Facilities*(a) *Preparation of Conversion*

Preparation of conversion of selected consumers' facilities, including: inventories of frequency sensitive equipment, design of modifications, acquisition of material and equipment, and scheduling of conversion.

All preparation works to be completed as follows:

<i>Total Cumulative Load Prepared for Conversion</i>	<i>Completion Date of Preparation</i>
50 MW	August 1970
100 MW	December 1970
180 MW	April 1971
260 MW	August 1971
300 MW	October 1971

(b) Conversion

Actual conversion of consumers' facilities to be carried out as follows:

<i>Total cumulative Load to be Converted</i>	<i>Completion Date of Conversion</i>
50 MW	August 1971
100 MW	December 1971
180 MW	April 1972
260 MW	June 1972
300 MW	September 1972

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

GENERAL CONDITIONS, DATED 31 JANUARY 1969

GENERAL CONDITIONS APPLICABLE TO LOAN AND GUARANTEE AGREEMENTS

[*Not published herein. See United Nations, Treaty Series, vol. 691, p. 300.*]

LOAN AGREEMENT

AGREEMENT, dated February 27, 1970 between INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT, party of the first part (hereinafter called the Bank), and COMISIÓN FEDERAL DE ELECTRICIDAD and NACIONAL FINANCIERA, S.A., parties of the second part (hereinafter called the Borrowers).

Article I

GENERAL CONDITIONS; SPECIAL DEFINITIONS

Section 1.01. The parties to this Agreement accept all the provisions of the General Conditions Applicable to Loan and Guarantee Agreements of the Bank, dated January 31, 1969,¹ with the same force and effect as if they were fully set forth herein, subject, however, to the following modifications thereof (said General Conditions Applicable to Loan and Guarantee Agreements of the Bank as so modified being hereinafter called the General Conditions):

(a) Paragraph 6 of Section 2.01 of the General Conditions is amended to read as follows:

“6. The term Borrower means the Borrowers, except that as used in paragraphs (a), (b), (c), (d), (f), (g) and (h) of Section 6.02, paragraphs (b),

¹ See above.

(d), (e) and (f) of Section 7.01 and Sections 9.01 and 9.02 such term means the Borrowers or either of them.”

(b) Paragraph 7 of Section 2.01 of the General Conditions is amended to read as follows:

“7. The term Guarantor means United Mexican States.”

(c) Paragraph 12 of Section 2.01 of the General Conditions is amended to read as follows:

“11. The term Project means the Expansion Program of the Power Sector or the projects included therein (or any of them, or such groupings of them as the context may require) for which the Loan is granted, as described in the Loan Agreement and as the description thereof shall be amended from time to time by agreement between the Bank and the Borrowers.”

Section 1.02. Wherever used in the Loan Agreement, unless the context otherwise requires, the several terms defined in the General Conditions have the respective meanings therein set forth and the following additional terms have the following meanings:

(a) The term “Comisión” means Comisión Federal de Electricidad, and includes Comisión’s subsidiaries and successors.

(b) The term “Financiera” means Nacional Financiera, S.A.

(c) The term “Mexlight” means the Mexican Light and Power Company, Limited, a subsidiary of Comisión, and includes Mexlight’s subsidiaries and successors.

(d) The term “Centro” means *Compañía de Luz y Fuerza del Centro, S.A.*, a subsidiary of Mexlight, and includes Centro’s subsidiaries and successors.

(e) The term “Power Sector” means Comisión, including its subsidiary Mexlight, and Centro, and any other entity which the Guarantor, the Bank and the Borrowers shall agree to include in the Power Sector.

(f) The term “Indenture” means the Indenture of Mortgage dated as of February 1, 1950, between National Trust Company, Limited, as Trustee, and Mexlight, and includes any indentures supplemental thereto.

(g) The term “Subsidiary Agreement” means the agreement of the Borrowers with Centro referred to in Section 5.02 of this Agreement.

(h) The term “Power Consumption Tax” means the tax established by law of December 31, 1938 of the Guarantor, as amended up to the date of this Agreement, payable by consumers of electricity on the amounts of their billings, and the proceeds of which are paid over to Comisión for the purposes of Article 5 thereof, and includes any other tax on the use of electricity the proceeds of which are made available to the Power Sector for the same purposes.

(i) The term "Joint Loan" means a loan obtained by the Borrowers from a financial institution outside of Mexico in a member country of the Bank or Switzerland, under the terms of which the financial institution agrees to share, with the Bank, in the financing of payments for certain goods and services eligible for financing under the Loan and acquired from a supplier within the country of such financial institution, substantially in accordance with the arrangements described in the Memorandum, "Joint Financing of Third Power Program of Mexico" (JF 70-4 of February 18, 1970), prepared by the Bank, copies of which have been furnished to the Borrowers.

(j) The terms "Prior Loan Agreements" and "Prior Guarantee Agreements" mean, respectively, all other loan agreements and guarantee agreements to which the Bank and the Borrowers, and the Guarantor and the Bank, are parties.

Article II

THE LOAN

Section 2.01. The Bank agrees to lend to the Borrowers, on the terms and conditions in the Loan Agreement set forth or referred to, an amount in various currencies equivalent to one hundred and twenty-five million dollars (\$125,000,000).

Section 2.02. (a) The Bank shall open a Loan Account on its books in the name of the Borrowers and shall credit to such Account the amount of the Loan.

(b) 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 Agreement and in accordance with the allocation of proceeds of the Loan set forth in Schedule 1 to this Agreement, as such allocation shall be modified from time to time pursuant to the provisions of such Schedule or by further agreement between the Bank and the Borrowers.

Section 2.03. The Borrowers shall be entitled to withdraw from the Loan Account in respect of the reasonable cost of goods or services required for the Project and to be financed under the Loan Agreement:

- (i) such amounts as shall have been paid (or, if the Bank shall so agree, as shall be required to meet payments to be made) for goods or services included in Categories 1 (a) and 3 of the allocation of proceeds of the Loan referred to in Section 2.02 of this Agreement;
- (ii) the equivalent of fifty per cent (50%) of such amounts as shall have been paid (or, if the Bank shall so agree, as shall be required to meet payments to be made) for goods or services included in Category 1 (b) of the allocation of proceeds of the Loan referred to in Section 2.02 of this Agreement; and

(iii) the equivalent of thirty-five per cent (35%) of such amounts as shall have been paid (or, if the Bank shall so agree, as shall be required to meet payments to be made) for goods or services included in Category 2 of the allocation of proceeds of the Loan referred to in Section 2.02 of this Agreement;

provided, however, that, in respect of goods and services which, in the opinion of the Bank, shall be eligible for financing under a Joint Loan, the Borrowers shall not be entitled to withdraw from the Loan Account an amount exceeding 50% of the foreign exchange cost of such goods.

Section 2.04. It is hereby agreed, pursuant to Section 5.01 of the General Conditions: (i) that withdrawals from the Loan Account under Categories 1 (b) and 2 of the allocation of proceeds of the Loan referred to in Section 2.02 of this Agreement may be made on account of payments in the currency of the Guarantor, or for goods produced in, or services supplied from, the territories of the Guarantor; and (ii) that withdrawals from the Loan Account not in excess of the equivalent of fifteen million dollars may be made on account of payments made prior to the date of this Agreement but after December 1, 1969.

Section 2.05. The Borrowers 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 withdrawn from time to time from the Loan Account.

Section 2.06. The Borrowers shall pay interest at the rate of seven per cent (7%) per annum on the principal amount of the Loan so withdrawn and outstanding from time to time.

Section 2.07. Interest and other charges shall be payable semi-annually on March 15 and September 15 in each year.

Section 2.08. The Borrowers shall repay the principal of the Loan in accordance with the amortization schedule set forth in Schedule 2 to this Agreement; provided, however, that to the extent that Joint Loans are obtained and the proceeds thereof utilized by the Borrowers prior to March 31, 1973, the Bank shall adjust instalments in the column headed "Payment of Principal" in the said Schedule 2 so that, insofar as practicable and without reducing any principal repayments to the Bank on any scheduled repayment date below one million dollars (\$1,000,000), during each six-monthly payment period payments of principal on the Loan (plus payments of principal on such Joint Loans) shall be equal to payments of principal on a principal amount equal to the sum of the principal amount of the Loan and of such Joint Loans, the amounts of such payments to be calculated on the same basis as that used to calculate the instalments in such column of Schedule 2; and provided, further, that in no event shall any such instalments be payable at a date later than March 15, 1990.

Section 2.09. All obligations of the Borrowers under the Loan Agreement and the Bonds, unless such obligations shall have been expressly undertaken by one of the Borrowers, shall be joint and several and the obligation of either of them to comply with any provision of the Loan Agreement is not subject

to any prior notice to, demand upon or action against the other. No extension of time or forbearance given to either of the Borrowers in respect of the performance of any of its obligations under the Loan Agreement or the Bonds, and no failure of the Bank or of any holder of the Bonds to give any notice or to make any demand or protest whatsoever to either of the Borrowers, or strictly to assert any right or pursue any remedy against either of them in respect of the Loan Agreement or the Bonds, and no failure by either of the Borrowers to comply with any requirement of any law, regulation or order, shall in any way affect or impair any obligation of the other Borrower under the Loan Agreement or the Bonds.

Article III

USE OF PROCEEDS OF THE LOAN

Section 3.01. The Borrowers shall apply the proceeds of the Loan in accordance with the provisions of the Loan Agreement to expenditures on the Project described in Schedule 3 to this Agreement.

Section 3.02. Except as the Bank shall otherwise agree, the goods and services to be financed out of the proceeds of the Loan shall be procured on the basis of international competitive bidding in accordance with the Guidelines for Procurement under World Bank Loans and IDA Credits, published by the Bank in August 1969, and in accordance with such other procedures supplementary thereto as are set forth in Schedule 4 to this Agreement or as shall be agreed between the Bank and the Borrowers.

Section 3.03. Except as the Bank and the Borrowers shall otherwise agree, Comisión shall cause all goods financed out of the proceeds of the Loan to be used exclusively in carrying out the Project.

Article IV

BONDS

Section 4.01. If and as the Bank shall from time to time request, the Borrowers shall execute and deliver Bonds representing the principal amount of the Loan as provided in Article VIII of the General Conditions. The forms of Bonds referred to in such Article VIII shall be appropriately modified so as to provide that the obligations on the part of the Borrowers under the Bonds shall be joint and several.

Section 4.02. (a) The Director General of Comisión and such other person or persons as he shall appoint in writing are designated as authorized representatives of Comisión for the purposes of Section 8.10 of the General Conditions.

(b) The Director General of Financiera and such other person or persons as he shall appoint in writing are designated as authorized representatives of Financiera for the purposes of Section 8.10 of the General Conditions.

Article V

PARTICULAR COVENANTS

Section 5.01. The Borrowers shall carry out or cause the Project to be carried out with due diligence and efficiency and in conformity with sound engineering, financial and public utility practices.

Section 5.02. (a) The Borrowers shall enter into the Subsidiary Agreement with Centro whereby provision, satisfactory to the Bank, will be made, among other things, for the carrying out of Part II of the Project by Centro, for the technical and financial coordination of Centro with Comisión, and for action required on the part of Centro for attainment of frequency unification as required by Section 3.11 of the Guarantee Agreement.¹

(b) The Borrowers shall not modify, terminate, or fail to enforce the Subsidiary Agreement or give any waiver of any material provision thereof without the prior consent of the Bank.

(c) The Borrowers shall promptly, effectively and in such manner as to protect the interests of the Bank and the Borrowers exercise every power, right and recourse available to them to cause Centro to perform all its obligations under the Subsidiary Agreement.

Section 5.03. Except as the Bank shall otherwise agree, the Borrowers shall, in the carrying out of such parts of the Project as the Bank and the Borrowers shall agree upon, employ or cause to be employed competent and experienced consultants acceptable to, and upon terms and conditions satisfactory to, the Bank.

Section 5.04. Upon request from time to time by the Bank, the Borrowers shall promptly furnish or cause to be furnished to the Bank the plans, specifications and work schedules for the Project and any material modifications subsequently made therein, in such detail as the Bank shall reasonably request.

Section 5.05. (a) The Borrowers shall at all times maintain their corporate existence and right to carry on their operations and Comisión shall, except as the Bank shall otherwise agree, take all steps necessary to acquire, maintain and renew all rights, powers, privileges, concessions and franchises which are necessary or useful in the conduct of its business.

¹ See p. 4 of this volume.

(b) Comisión 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 and public utility practices.

(c) Comisión shall at all times carry on its operations, manage its affairs and maintain its financial position in accordance with sound engineering, business, financial and public utility principles and practices, and under the supervision of experienced and competent management.

(d) Comisión shall at all times take all action required on its part for attainment of frequency unification as required by Section 3.11 of the Guarantee Agreement.

Section 5.06. Comisión shall have its financial statements (balance sheet and related statement of earnings and expenses) certified annually by an independent accountant or accounting firm acceptable to the Bank and shall promptly after their preparation and not later than five months after the close of Comisión's fiscal year transmit to the Bank certified copies of such statements and a signed copy of the accountant's or accounting firm's report.

Section 5.07. (a) The Bank and the Borrowers shall cooperate fully to assure that the purposes of the Loan will be accomplished. To that end, the Bank and the Borrowers shall from time to time, at the request of either the Bank or the Borrowers, exchange views through their representatives with regard to the performance by the Borrowers of their obligations under the Loan Agreement and other matters relating to the purposes of the Loan.

(b) The Borrowers 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 goods financed out of such proceeds, the Project, and the administration, operations and financial condition of Comisión and Centro and of Financiera with respect to the Loan.

(c) The Borrowers shall promptly inform the Bank of any condition which interferes with, or threatens to interfere with, the accomplishment of the purposes of the Loan, the maintenance of the service thereof or the performance by the Borrowers of their obligations under the Loan Agreement.

(d) The Borrowers shall: (i) maintain or cause to be maintained records adequate to identify the goods and services 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 Comisión and Centro and of Financiera with respect to the Loan; and (ii) enable the Bank's representatives to inspect the Project, the goods, all other plants, sites, works, properties and equipment of the Power Sector, and any relevant records and documents.

Section 5.08. Each of the Borrowers undertakes that, except as the Bank shall otherwise agree, if any lien shall be created on any of its assets as security, as to Financiera for any external debt and as to Comisión for any debt, such lien shall *ipso facto* equally and ratably secure the payment of the principal of, and interest and other charges on, the Loan and the Bonds, and in the creation of any such lien express provision shall 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 arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.

Section 5.09. The Borrowers shall pay or cause to be paid all taxes, 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 the Loan 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 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 5.10. The Borrowers shall pay or cause to be paid all taxes, 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 the Loan Agreement, the Guarantee Agreement or the Bonds.

Section 5.11. (a) Comisión shall insure or cause to be insured with good and reputable insurers all goods financed out of the proceeds of the Loan. Such insurance shall cover such marine, transit and other risks incident to purchase and importation of the goods into the territories of the Guarantor and delivery thereof to the sites of the Project, and shall be for such amounts, as shall be consistent with sound commercial practices. Except as the Bank shall otherwise agree, any indemnity under such insurance shall be payable in the currency in which the cost of the goods insured thereunder shall be payable or in a freely convertible currency.

(b) In addition, Comisión shall, except as the Bank shall otherwise agree, take out and maintain, with good and reputable insurers, insurance against such risks and in such amounts as shall be consistent with sound public utility and business practices.

Section 5.12. Except as the Bank shall otherwise agree:

- (a) Comisión shall obtain title to all goods financed out of the proceeds of the Loan free and clear of all encumbrances and the Borrowers shall transfer to Centro title to all goods required to carry out Part II of the Project and financed out of the proceeds of the Loan also free and clear of all encumbrances; and
- (b) Comisión shall not sell or otherwise dispose of any of its property or assets which shall be required for the efficient carrying on of its business and undertaking, including the Project, unless the Borrowers shall first pay or redeem, or make adequate provision satisfactory to the Bank for payment or redemption of, all of the Loan and the Bonds which shall then be outstanding and unpaid.

Section 5.13. Except as the Bank and Comisión shall otherwise agree, Comisión shall take all such action as shall be necessary or advisable to cause its rates for the sale of electricity (including the Power Consumption Tax) to be set and maintained at such levels as may be necessary to provide Comisión with revenues which, together with the revenues of Centro, would be sufficient to meet the requirements of Section 3.08 of the Guarantee Agreement.

Section 5.14. (a) Except as the Bank shall otherwise agree, Comisión shall not incur debt if: (i) net income before interest of the Power Sector, during the previous fiscal year or during any later consecutive twelve-month period preceding such incurrence, is less than one and six-tenths (1.6) times the estimated maximum interest and other charges for any succeeding fiscal year on the consolidated debt of the Power Sector (including the debt proposed to be incurred but excluding any debt to be repaid out of the proceeds thereof); or (ii) the sum of net fixed plant in operation and work in progress of the Power Sector, at the time of such incurrence is less than one and one-half times the consolidated debt of the Power Sector (including the debt proposed to be incurred but excluding any debt to be repaid out of the proceeds thereof); or (iii) the outstanding principal of consolidated debt of the Power Sector with an original term of five years or less (including the debt proposed to be incurred but excluding any debt to be repaid out of the proceeds thereof), is at the time of such incurrence more than one-tenth of the sum of net fixed plant in operation and work in progress of the Power Sector.

(b) The Borrowers shall make provision in the Subsidiary Agreement whereby the provisions of this Section shall be made applicable as required to Centro.

(c) Except as the Bank shall otherwise agree, Financiera shall not incur debt or permit any other entity to incur debt on Financiera's behalf, the purposes of which would be directly or indirectly to finance any power generating, transmission or distribution facilities of the Power Sector.

(d) For the purposes of this Section:

1. The term “consolidated debt” means all debt of the Power Sector, except:

- (i) debt incurred in the ordinary course of business and maturing by its terms less than one year after the original date of its incurrence,
- (ii) debt owed by any entity within the Power Sector to any other such entity,
- (iii) debt in respect of the purchase of assets referred to in Section 3.07 (a) of the Guarantee Agreement, and
- (iv) debt guaranteed by any entity within the Power Sector relating to the construction of housing for employees of such entity,

but includes all debt heretofore incurred by Financiera or by any other agency of the Guarantor for the purposes of financing directly or indirectly any power generating, transmission or distribution facilities of the Power Sector.

2. Debt shall be deemed to be incurred on the date of execution and delivery of the loan contract or agreement providing therefore or, in the case of guarantee of debt, on the date of execution and delivery of the contract providing for such guarantee.

3. The term “net income before interest” means the sum of all gross operating income of the Power Sector (including miscellaneous income and interest received and the proceeds of the Power Consumption Tax but excluding public appropriations, contributions, grants and proceeds of other taxes and levies) less the sum of all operating, administrative and overhead expenses and depreciation charges of the Power Sector (but without deduction of any amounts for payment of interest and other charges on debt), such net income to be adjusted to take account of any increases in the Power Sector’s rates for the sale of electricity or in the Power Consumption Tax in effect at the time of the incurrence of debt as if such increase had been in effect during the entire fiscal year or twelve-month period to which such income relates.

4. The term “net fixed plant in operation” means the gross value of the fixed assets of the Power Sector, determined in accordance with methods of valuation or revaluation acceptable to the Bank, less accumulated depreciation.

5. Whenever for the purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt.

Section 5.15. The Borrowers shall make their best efforts to obtain Joint Loans and to utilize the proceeds thereof for purposes of the Project, such Joint Loans to be for such amounts and on such terms and conditions as shall be satisfactory to the Guarantor, the Bank and the Borrowers.

Article VI

REMEDIES OF THE BANK; AMENDMENTS OF PRIOR LOAN AGREEMENTS

Section 6.01. If any event specified in Section 7.01 of the General Conditions or in Section 6.02 of this Agreement shall occur and shall continue for the period, if any, therein set forth, 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. For the purposes of Section 6.02 of the General Conditions, the following additional events are specified:

- (a) Demand shall have been made for repayment in advance of maturity of any of the Joint Loans by reason of any default on the part of the Borrowers as provided in the relative contractual instruments.
- (b) A default shall have occurred in the performance of any covenant or agreement on the part of the Borrowers or the Guarantor (other than a covenant or agreement to pay monies) under any of the Prior Loan Agreements, any of the Prior Guarantee Agreements, or the bonds provided for therein, and such default shall continue for a period of sixty days after notice thereof shall have been given by the Bank to the Borrowers and the Guarantor.

Section 6.03. For the purposes of the Prior Loan Agreements, paragraph (c) of Section 5.02 of Loan Regulations No. 4 of the Bank applicable thereto is hereby amended to read as follows:

- “(c) A default shall have occurred in the performance of any other covenant or agreement on the part of the Borrowers or the Guarantor under the Loan Agreement, the Guarantee Agreement, or the Bonds, or under the loan agreement dated February 27, 1970, between the Bank and the Borrowers, the guarantee agreement of even date therewith between the Guarantor and the Bank or the bonds therein provided for.”;

and the term “Loan Regulations” as used for the purposes of the Prior Loan Agreements shall mean the Loan Regulations No. 4 of the Bank applicable thereto, as modified in the Prior Loan Agreements and as further amended hereby.

Article VII

EFFECTIVE DATE; TERMINATION

Section 7.01. The following events are specified as additional conditions to the effectiveness of the Loan Agreement within the meaning of Section 11.01 (c) of the General Conditions:

- (a) The Subsidiary Agreement, in terms satisfactory to the Bank, has been entered into and has become effective; and

- (b) Contractual arrangements, satisfactory to the Bank, have been made whereby about 1.1 billion pesos of debt of Comisión and Centro repayable to Financiera and falling due in the years 1970 through 1974 has been made repayable over a period of not less than 10 years beginning after December 31, 1971.

Section 7.02. The following is specified as an additional matter, within the meaning of Section 11.02 (c) of the General Conditions, to be included in the opinion or opinions to be furnished to the Bank:

That the Subsidiary Agreement is valid and is binding on the Borrowers and Centro and has become effective.

Section 7.03. The date of June 1, 1970 is hereby specified for the purposes of Section 11.04 of the General Conditions.

Article VIII

MISCELLANEOUS

Section 8.01. The Closing Date shall be June 30, 1972 or such other date or dates as shall be agreed by the Bank and the Borrowers.

Section 8.02. The following addresses are specified for the purposes of Section 10.01 of the General Conditions:

For the Bank:

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:

Intbafrad
Washington, D.C.

For the Borrowers:

Comisión Federal de Electricidad
Dirección General
Calle de Ródano 14 (séptimo piso)
Mexico 5, D.F., Mexico

Cable address:

Cefelec
Mexico City

and

Nacional Financiera, S.A.
Isabel la Católica 51
Mexico, D.F., Mexico

Cable address:

Nafin
Mexico City

IN WITNESS WHEREOF, the parties hereto, acting through their representatives thereunto duly authorized, have caused this Agreement to be signed in their respective names and to be 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 SIMON ALDEWERELD
Vice President

Comisión Federal de Electricidad:

By FERNANDO HIRIART B.
Authorized Representative

Nacional Financiera, S.A.:

By FRANCISCO RUIZ DE LA PEÑA
Authorized Representative

SCHEDULE 1

ALLOCATION OF PROCEEDS OF THE LOAN

<i>Category</i>	<i>Amounts Expressed in Dollar Equivalent</i>
1.* (a) Equipment and materials produced outside Mexico	} 96,000,000
(b) Equipment and materials produced in Mexico	
2. Civil Works	27,000,000
3. Consulting Services and Training Program	2,000,000
	<u>Total: \$125,000,000</u>

* The division between the two sub-categories will depend upon the awards resulting from international competitive bidding procedures.

SCHEDULE 2

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>
March 15, 1974	2,070,000	September 15, 1982	3,720,000
September 15, 1974	2,145,000	March 15, 1983	3,850,000
March 15, 1975	2,220,000	September 15, 1983	3,985,000
September 15, 1975	2,295,000	March 15, 1984	4,120,000
March 15, 1976	2,375,000	September 15, 1984	4,265,000
September 15, 1976	2,460,000	March 15, 1985	4,415,000
March 15, 1977	2,545,000	September 15, 1985	4,570,000
September 15, 1977	2,635,000	March 15, 1986	4,730,000
March 15, 1978	2,730,000	September 15, 1986	4,895,000
September 15, 1978	2,825,000	March 15, 1987	5,065,000
March 15, 1979	2,920,000	September 15, 1987	5,245,000
September 15, 1979	3,025,000	March 15, 1988	5,430,000
March 15, 1980	3,130,000	September 15, 1988	5,620,000
September 15, 1980	3,240,000	March 15, 1989	5,815,000
March 15, 1981	3,355,000	September 15, 1989	6,020,000
September 15, 1981	3,470,000	March 15, 1990	6,225,000
March 15, 1982	3,590,000		

* To the extent that any portion of the Loan is repayable in a currency other than dollars (see General Conditions, Section 4.02), 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 3.05 (b) of the General Conditions or on the redemption of any Bond prior to its maturity pursuant to Section 8.15 of the General Conditions.

<i>Time of Prepayment or Redemption</i>	<i>Premium</i>
Not more than three years before maturity	1%
More than three years but not more than six years before maturity	2%
More than six years but not more than eleven years before maturity	3 1/4%
More than eleven years but not more than sixteen years before maturity	5%
More than sixteen years but not more than eighteen years before maturity	6%
More than eighteen years before maturity	7%

SCHEDULE 3

DESCRIPTION OF PROJECT

The Project is the continuing expansion program of the Power Sector, consisting of facilities under construction on January 1, 1970, or expected to be started

thereafter. Details of the facilities included in the Project, such as their type, location, capacity and scheduled completion dates, are set forth in the Exhibit to this Schedule and are subject to modification from time to time by agreement between the Guarantor, the Bank and the Borrowers. The portions of the program to be executed by Comisión and Centro, respectively, will consist of the following:

Part I

Comisión will install new generating, transmission and distribution facilities, and make capital improvements to existing facilities; acquire and utilize special equipment; install street lighting; carry out a rural electrification program; initiate the modification of all of its own 50-cycle-per-second Central System frequency-sensitive equipment in order to operate at 60 cycles in two stages in accordance with the program approved by the Guarantor; supervise the conversion or replacement of 50-cycle frequency-sensitive consumer equipment; conduct training programs for operating and conversion personnel; and construct miscellaneous buildings and improve existing ones.

Part II

Centro will carry out minor improvements to its generating plants and will initiate the modification of all of its own 50-cycle-per-second frequency-sensitive equipment in order to operate at 60 cycles in two stages in accordance with the program approved by the Guarantor; construct new transmission lines within its operating area; expand existing substations and build new substations; extend its distribution networks including the electrification of workers' housing projects; install street lighting; and construct miscellaneous buildings and improve existing ones.

SCHEDULE 4

SUPPLEMENTARY PROCEDURES FOR PROCUREMENT

1. With respect to equipment and materials to be financed out of the proceeds of the Loan, identical or similar items will be grouped together wherever practical for purposes of bidding and procurement, such groupings of items to be subject to agreement between the Bank and Comisión. Contracts for such goods will be for minimum amounts of \$5,000 equivalent.

2. With respect to equipment or materials produced in Mexico to be financed out of the proceeds of the Loan, Comisión may, in its discretion and taking into account besides price such factors as quality, delivery, performance

guarantees and service facilities, award the contract to the lowest qualified Mexican bidder, provided that his offer at site of project does not exceed the offer at site of project of the lowest qualified foreign bidder by 15% or such other lower percentage as Comisión may determine (without taking into account customs duties and other similar duties on imports).

3. With respect to all contracts for the purchase of equipment or materials involving expenditures expected to exceed the equivalent of \$100,000 and to be financed out of the proceeds of the Loan, the following procedures will be followed:

(a) Invitations to bid, specifications, proposed terms and conditions of contracts, and all other tender documents, together with a description of the advertising procedures to be followed or the list of firms to be invited to bid, will be sent to the Bank before the issuance of invitations to bid.

(b) After bids have been received and analyzed, the analyses of bids and recommendations thereon of Comisión and its consultants, if any, as well as Comisión's proposals for awards, will be furnished to the Bank for determination of their eligibility for financing under the Loan Agreement before making any award of contract or issuing any letter of intent.

(c) As soon as a letter of intent has been issued or a contract has been signed a copy thereof will be sent to the Bank.

4. With respect to all contracts for the purchase of equipment or materials involving expenditures expected to range between \$5,000 and \$100,000 equivalent and to be financed out of the proceeds of the Loan, Comisión will retain copies of the documents referred to in paragraph 3 (a) in its files. These documents will be made available, at the Bank's request, for review in Mexico. As soon as a contract has been signed a copy thereof will be sent to the Bank.

5. Civil works contracts for each individual project included in the Project will be awarded as single contracts, unless the Bank and Comisión agree that any such contract is not economically and technically satisfactory, and Comisión will arrange the scheduling of its own planning and engineering for each project and the corresponding schedule of construction sufficiently in advance of the proposed start so as to permit satisfactory bidding to be effected. Bidding on civil works contracts included in the Project with an estimated value of less than 20 million Mexican pesos may be restricted to Mexican contractors.

6. With respect to civil works contracts included in the Project with an estimated value of 20 million Mexican pesos or more, Comisión will follow the procedure outlined in paragraph 3 above.

EXHIBIT TO SCHEDULE 3

GENERATING PLANTS, SUBSTATIONS AND TRANSMISSION LINES

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
A. MAJOR SYSTEMS						
1. CENTRAL						
a) Generating Plants						
Valle de México 2nd and 3rd Units	Steam	2x150	1970	—	—	—
Valle de México 4th Unit	Steam	1x300	1972	—	—	—
Infiernillo 5th and 6th Units	Hydro	2x170	1972	—	—	—
Valle de México II 1st and 2nd Units	Steam	2x300	1974	—	—	—
b) Substations						
Pastejé	—	—	1970	115-85/13	10,000	—
Zitácuaro	—	—	1970	115-85/23	10,000	—
Cuautila	—	—	1970	115-85/13	25,000	—
Cuautila	—	—	1970	115-85/33	6,250	—
Temascaltepec	—	—	1971	115-85/13	10,000	—
Temixco	—	—	1971	220/115-85	133,000	—
Toluca	—	—	1971	220/115-85	133,000	—
Toluca	—	—	1971	115/85/23	25,000	—
Nopala	—	—	1971	400/230	378,000	—
Nopala (Comp. Serie)	—	—	1971	400	200 MVAR	—
Zumpango	—	—	1971	220/115-85	231,000	—
Zumpango Zone. Distribution Substation	—	—	1971	85/23	150,000	—
Zumpango Ext.	—	—	1972	220/115/85	100,000	—
Indianilla	—	—	1970	85/23	60,000	—
Taxco	—	—	1970	60/20	12,000	—
Pantitlán 2nd Ext.	—	—	1970	85/23	90,000	—
Patera	—	—	1970	85/23	60,000	—
K.O. (Nonoalco)	—	—	1970	85/23	90,000	—
San Angel	—	—	1970	85/23	60,000	—
Reforma	—	—	1970	85/23	60,000	—
Tacuba	—	—	1970	85/23	60,000	—

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Cuernavaca	—	—	1970	85/6	40,000	—
Verónica	—	—	1970	85/23	30,000	—
Verónica	—	—	1970	85/23	90,000	—
Toluca	—	—	1970	85/23	30,000	—
Cuautitlán	—	—	1970	85/23	40,000	—
Barrientos	—	—	1971	85/23	30,000	—
Pensador Mexicano	—	—	1971	220/23	120,000	—
Xalostoc	—	—	1971	220/23	120,000	—
Coapa	—	—	1971	220/23	120,000	—
Insurgentes Norte	—	—	1971	85/23	60,000	—
Moctezuma	—	—	1971	85/23	30,000	—
Cuernavaca Ext.	—	—	1971	85/23	40,000	—
Taxquena	—	—	1971	85/23	30,000	—
Aragón	—	—	1971	85/23	60,000	—
Careaga	—	—	1971	85/23	30,000	—
Guadalupe	—	—	1971	85/23	40,000	—
K.O. (Nonoalco) Ext.	—	—	1971	220/23	60,000	—
Ecatepec	—	—	1971	220/23	60,000	—
Lechería	—	—	1971	220/85	200,000	—
K.O. (Nonoalco) Ext.	—	—	1971	220/85	300,000	—
Zumpango	—	—	1971	85/23	40,000	—
Pachuca	—	—	1972	85/23	40,000	—
Vértiz	—	—	1972	85/23	90,000	—
Aurora	—	—	1972	220/85	200,000	—
San Lázaro	—	—	1972	220/23	120,000	—
Jamaica	—	—	1970	220/85	300,000	—
c) Transmission Lines						
Toluca-Pastejé	—	—	1970	115	—	45
Pastejé-Zitácuaro	—	—	1970	115	—	70
Toluca-Temascaltepec	—	—	1971	115	—	50
Puebla-Temixco	—	—	1971	220	—	120
Temixco-Entronque	—	—	1971	115	—	4
Temixco-Cuernavaca	—	—	1971	115	—	6
Temixco-Toluca	—	—	1971	220	—	95

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Toluca Zone. Subtransmission Lines	—	—	1971	85	—	12
Zumpango Zone. Subtransmission Lines	—	—	1971	85	—	75
Toluca-Remedios	—	—	1971	220	—	48
El Vidrio-Zumpango	—	—	1971	220	—	30
Ring, North and East Branches	—	—	1970	220	—	87
Nopala-Remedios	—	—	1970	220	—	3
Zictepec-Alameda	—	—	1971	85	—	25
Zictepec-Toluca 2nd Circuit	—	—	1971	85	—	31
Cerro Gordo-Nonoalco	—	—	1970	220	—	15
Valle de México-Cerro Gordo	—	—	1971	220	—	15
2. PUEBLA-VERACRUZ						
a) Generating Plants						
La Angostura	Hydro	3x156	1975	—	—	—
b) Substations						
Poza Rica	—	—	1970	230/115	133,000	—
Tampico	—	—	1970	230/115	133,000	—
Tampico	—	—	1970	115/33	20,000	—
Pánuco	—	—	1970	115/33	20,000	—
Ciudad Madero	—	—	1970	33/13	12,500	—
Rio Verde	—	—	1970	115/33	12,500	—
Rio Verde	—	—	1970	33/13	5,000	—
Tamaulipas	—	—	1970	33/13	12,500	—
Anáhuac	—	—	1970	115/33	20,000	—
Naranjos	—	—	1970	115/13	12,500	—
Altamira	—	—	1971	115/13	12,500	—
Tampico Ext.	—	—	1972	230/115	133,000	—
Puebla Oriente	—	—	1970	115/13	20,000	—
Puebla Norte	—	—	1970	115/33	25,000	—
Bugambillas-Puebla	—	—	1970	115/13	20,000	—
Puebla Norte Ext.	—	—	1971	115/13	20,000	—
Puebla II	—	—	1970	400/115	100,000	—
Puebla II	—	—	1970	400/230	100,000	—
Zocac	—	—	1970	230	switching	—

	Generating Plants			Substation and Transmission Line Voltages (kv)	Substations Capacity (kva)	Transmission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Zocac (Ext.)	—	—	1971	230	switching	—
Córdoba	—	—	1970	115/13	25,000	—
Orizaba	—	—	1970	115/13	25,000	—
Playa Norte	—	—	1970	115/13	25,000	—
Nogales	—	—	1970	115/13	12,500	—
Loma Bonita	—	—	1971	115/13	12,500	—
Veracruz II	—	—	1970	230/115	300,000	—
Veracruz II	—	—	1970	115/13	20,000	—
Pajaritos	—	—	1970	115/33	80,000	—
Cárdenas	—	—	1970	115/33	12,500	—
Villahermosa II	—	—	1970	115/33	25,000	—
Villahermosa II	—	—	1970	115/33	12,500	—
Macspana II	—	—	1970	115/33	12,500	—
Tuxtla Gutiérrez	—	—	1970	115/33	12,500	—
Tuxtla Gutiérrez	—	—	1970	115/13	26,700	—
Tuxtla Gutiérrez	—	—	1970	115/33	6,250	—
<i>c) Transmission Lines</i>						
Mazatepec-Poza Rica	—	—	1970	230	—	65
Poza Rica-Tampico	—	—	1970	230	—	220
Panuco-Entronque	—	—	1970	115	—	25
Ciudad Valles-Río Verde	—	—	1970	115	—	130
Poza Rica-Petroquímica	—	—	1970	115	—	5
Naranjos-Entronque	—	—	1970	115	—	8
Tampico-Altamira	—	—	1971	115	—	20
Ciudad Valles-Tamazunchale	—	—	1972	115	—	85
Orizaba-Córdoba	—	—	1970	115	—	20
Veracruz II-Aluminio	—	—	1970	115	—	6
Playa Norte-Entronque	—	—	1970	115	—	15
Nogales-Entronque	—	—	1970	115	—	2
Loma Bonita-Entronque	—	—	1971	115	—	5
Acayucan-Textistepec	—	—	1970	115	—	12
Minatitlán II-La Venta	—	—	1970	115	—	15
Refinería-Entronque	—	—	1970	115	—	20
Mezcalapa-Cárdenas	—	—	1970	115	—	40
Mezcalapa-Villahermosa	—	—	1970	115	—	80

	Generating Plants			Substation and Transmission Line Voltages (kv)	Substations Capacity (kva)	Transmission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Malpaso-Mezcalapa	—	—	1970	115	—	53
Malpaso-Tuxtla Gutiérrez	—	—	1970	115	—	72
Tuxtla Gutiérrez-Arriaga	—	—	1970	115	—	120
Tuxtla Gutiérrez-Las Rosas	—	—	1971	115	—	100
Malpaso-Minatitlán II 2nd c.	—	—	1970	400	—	145
3. MICHOACÁN-CHAPALA-GUANAJUATO						
a) Generating Plants						
Salamanca 1st and 2nd Units	Steam	2x150	1970	—	—	—
La Villita	Hydro	4x75	1971	—	—	—
Salamanca 3rd Unit	Steam	1x150	1973	—	—	—
b) Substations						
Ciudad Guzmán	—	—	1970	161/69	33,000	—
Ciudad Guzmán	—	—	1970	69/22	12,500	—
Norte, S.L.P.	—	—	1970	115/13	25,000	—
Oriente, S.L.P.	—	—	1970	115/13	25,000	—
León Oriente	—	—	1970	115/13	20,000	—
León Poniente	—	—	1970	115/13	20,000	—
Apatzingán	—	—	1970	161/69/13	33,000	—
Morelia	—	—	1970	115/13	25,000	—
Morelia	—	—	1970	115/69	12,500	—
Colima	—	—	1970	161/69	25,000	—
Zoquipan	—	—	1970	70/23	25,000	—
Móvil	—	—	1970	115/69/13	15,000	—
Matehuala	—	—	1970	115/13	12,500	—
Querétaro	—	—	1970	115/13	20,000	—
Moroleón	—	—	1970	115/13	12,500	—
Silao	—	—	1970	115/13	12,500	—
Tetlan	—	—	1971	70/23	20,000	—
Colima Ext.	—	—	1971	161/69	25,000	—
Morelia Ext.	—	—	1971	115/13	12,500	—
Norte S.L.P. Ext.	—	—	1972	115/13	12,500	—
Celaya	—	—	1972	115/13	25,000	—
Guadalajara I	—	—	1970	161/70	40,000	—

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Querétaro	—	—	1970	230/115	133,000	—
Aguascalientes	—	—	1970	230-161/69	100,000	—
San Luis Potosí I	—	—	1970	230/115	133,000	—
Guadalajara II	—	—	1970	230/70	133,000	—
Guadalajara II	—	—	1970	230/161	120,000	—
Calera	—	—	1970	161/69	33,000	—
Salamanca	—	—	1970	230/115	133,000	—
Salamanca	—	—	1970	115/13	26,000	—
León II	—	—	1970	230/115	133,000	—
León II	—	—	1970	115/13	20,000	—
Infiernillo	—	—	1971	230/400	420,000	—
Carapan	—	—	1971	400/230	400,000	—
Carapan	—	—	1971	230/115	80,000	—
Guadalajara III	—	—	1972	230/70	133,000	—
c) <i>Transmission Lines</i>						
Puerto Vallarta-El Rubí	—	—	1970	115	—	50
San Luis Potosí I-Norte S.L.P.	—	—	1970	115	—	20
San Luis Potosí I-Oriente S.L.P.	—	—	1970	115	—	7
León II-Oriente (León)	—	—	1970	115	—	17
León II-León Poniente	—	—	1970	115	—	17
León II-Cementos	—	—	1970	115	—	2
León II-San Fco. del Rincón	—	—	1970	115	—	25
San Ildefonso-San Juan del Rio	—	—	1970	115	—	30
Cóbano-Apatzingán	—	—	1970	161	—	60
Calera-Zacatecas	—	—	1970	69	—	30
Anillo-Guadalajara-Zoquipan	—	—	1970	70	—	10
Guadalajara II-Anillo 70 KV	—	—	1970	70	—	10
Guadalajara II-Anillo 70 KV	—	—	1970	70	—	10
San Luis Potosí-Moctezuma	—	—	1970	115	—	75
Moctezuma-Charcas	—	—	1970	115	—	40
Charcas-Matehuala	—	—	1970	115	—	70
Colima-Minatitlán	—	—	1971	69	—	45
Anillo Guadalajara-Tetlan	—	—	1971	70	—	10
Carapan-Morelia	—	—	1971	115	—	92

	Generating Plants			Substation and Transmission Line Voltages (kv)	Substations Capacity (kva)	Transmission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Carapan-Guadalajara II	—	—	1970	230	—	189
Guadalajara II-Guadalajara I	—	—	1970	161	—	20
Querétaro-San Luis Potosí I	—	—	1970	230	—	186
Agascalientes-Calera	—	—	1970	230	—	130
Carapan-Salamanca	—	—	1970	230	—	155
Salamanca-León II	—	—	1970	230	—	80
Texcoco-Querétaro	—	—	1970	230	—	220
La Villita-Infiernillo	—	—	1971	230	—	50
Infiernillo-Carapan	—	—	1971	400	—	180
Carapan-Guadalajara II	—	—	1972	400	—	190
Guadalajara II-Guadalajara III	—	—	1972	230	—	20
4. COLOTLIPA-ACAPULCO						
a) <i>Generating Plants</i>						
Acapulco 2nd U.	Gas	1x14	1970	—	—	—
b) <i>Substations</i>						
Ruiz Cortines	—	—	1971	69/13	25,000	—
Zihuatanejo	—	—	1972	115/13	12,500	—
El Quemado	—	—	1972	220/69	133,000	—
c) <i>Transmission Lines</i>						
Temixco-El Quemado	—	—	1972	230	—	300
El Quemado-Cruz Grande	—	—	1970	115	—	100
El Quemado-Las Cruces	—	—	1970	115	—	10
Las Cruces-Costa Azul	—	—	1970	115	—	5
Colotlipa-Chilapa	—	—	1971	115	—	22
Cruz Grande-Ometepec	—	—	1971	115	—	85
La Villita-Zihuatanejo	—	—	1972	115	—	80
5. TORREÓN-CHIHUAHUA						
a) <i>Generating Plants</i>						
La Laguna	Gas	2x14	1970	—	—	—
Durango	Gas	1x14	1970	—	—	—

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
b) Substations						
Chihuahua	—	—	1970	115/23	50,000	—
Robinson	—	—	1970	115/23	18,500	—
Poniente	—	—	1970	115/23	18,500	—
Nombre de Dios	—	—	1971	115/23	15,000	—
Camargo	—	—	1970	115/13	40,000	—
Móvil Torreón	—	—	1970	115/23	15,000	—
Ferroaleaciones	—	—	1970	115/13	15,000	—
California	—	—	1970	115/13	20,000	—
Paila	—	—	1970	115/33	12,500	—
Batopilas	—	—	1970	115/13	20,000	—
Camargo	—	—	1971	220/115	100,000	—
Francisco Villa	—	—	1971	220/115	100,000	—
Durango	—	—	1971	220/115	100,000	—
Durango	—	—	1971	115/13	20,000	—
Avalos	—	—	1971	220/115	100,000	—
c) Transmission Lines						
Chihuahua-El Sauz	—	—	1970	115	—	4
Chihuahua-Nombre de Dios	—	—	1971	115	—	5
Torreón-California	—	—	1970	115	—	12
Matamoros-Viesca	—	—	1970	115	—	55
Viesca-Paila	—	—	1970	115	—	70
Paila-Parras	—	—	1970	115	—	31
Chávez-Batopilas	—	—	1970	115	—	20
Bermejillo-Mapimí	—	—	1970	115	—	30
Francke-Las Tórtolas	—	—	1970	115	—	70
Gómez Palacio-Camargo	—	—	1971	220	—	296
Gómez Palacio-Durango	—	—	1971	220	—	240
Francisco Villa-Avalos	—	—	1970	220	—	72
Camargo-Francisco Villa	—	—	1970	220	—	65
6. FALCÓN-MONTERREY						
a) Generating Plants						
Monterrey 4th and 5th Units	Steam	2x84	1971	—	—	—
Monterrey 6th Un.	Steam	1x84	1972	—	—	—

	Generating Plants			Substation and Transmission Line Voltages (kv)	Substations Capacity (kva)	Transmission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
Monterrey II 1st and 2nd Units	Steam	2x154	1973	—	—	—
Bellavista (Monterrey)	Gas	2x14	1970	—	—	—
Monterrey	Gas	2x14	1970	—	—	—
Las Esperanzas	Gas	1x14	1970	—	—	—
b) <i>Substations</i>						
Hylsa	—	—	1970	115/13	134,400	—
Santo Domingo	—	—	1970	115/33	20,000	—
San Nicolás	—	—	1970	115/13	20,000	—
CYDSA	—	—	1970	115/13	20,000	—
CYDSA	—	—	1970	115/33	20,000	—
Bellavista	—	—	1970	33/13	20,000	—
Apodaca	—	—	1970	115/13	20,000	—
Leona	—	—	1971	115/13	20,000	—
Santa Catarina	—	—	1972	115/33	20,000	—
Tecnológico	—	—	1971	115/13	20,000	—
Río	—	—	1972	115/13	20,000	—
Félix U. Gómez	—	—	1972	115/13	20,000	—
Pemex (Monterrey)	—	—	1972	115/13	20,000	—
Saltillo	—	—	1972	115/13	12,500	—
Minas Fosforita	—	—	1972	115/33	12,500	—
Navidad	—	—	1970	115/33	12,500	—
Sabinas	—	—	1970	33/13	12,500	—
Ciudad Victoria	—	—	1970	115/13	12,500	—
Ciudad Victoria	—	—	1972	115/33	12,500	—
P.V. Monterrey	—	—	1970	138/115	46,600	—
San Nicolás	—	—	1970	220/115	133,000	—
Gómez Palacio	—	—	1970	220/115	62,500	—
Saltillo	—	—	1970	220/115	133,000	—
Saltillo	—	—	1970	115/13	12,500	—
Saltillo	—	—	1970	115/33	12,500	—
P.V. Monterrey	—	—	1972	220/115	133,000	—
Reynosa	—	—	1972	220/138	125,000	—
Reynosa	—	—	1970	138/13	20,000	—
Matamoros	—	—	1972	138/69	46,000	—

	Generating Plants		Date of Initial Operation	Substation and Transmission Line Voltages (kv)	Substations Capacity (kva)	Transmission Lines Length (km)
	Type	No. and Size of Units (Mw)				
Nuevo Laredo	—	—	1972	138/33	20,000	—
Sabinas Hidalgo	—	—	1971	115/33	12,500	—
Nueva Rosita	—	—	1970	220/33	125,000	—
Monclova	—	—	1970	220/33	125,000	—
Monclova	—	—	1970	220/33/13	25,000	—
Piedras Negras	—	—	1970	138/13	12,500	—
Piedras Negras	—	—	1970	138/13	20,000	—
Piedras Negras	—	—	1970	138/33	5,000	—
c) <i>Transmission Lines</i>						
Monterrey-Hylsa	—	—	1972	115	—	9
San Nicolás-CYDSA	—	—	1970	115	—	11
Monterrey-Apodaca	—	—	1970	115	—	10
Monterrey-Tecnológico 2nd Circuit	—	—	1970	115	—	18
Monterrey-San Nicolás 2nd Circuit	—	—	1970	115	—	10
San Nicolás-Leona	—	—	1971	115	—	6
Tecnológico-Río 2nd Circuit	—	—	1972	115	—	10
Tecnológico-Félix U. Gómez	—	—	—	—	—	—
Monterrey-Pemex	—	—	1972	115	—	5
Santiago-Linares	—	—	1971	115	—	105
San Nicolás-Salttillo	—	—	1970	220	—	80
Salttillo-Gómez Palacio	—	—	1970	220	—	285
Monterrey-Reynosa	—	—	1972	220	—	200
Río Bravo-Matamoros 2nd Circuit	—	—	1972	138	—	55
Piedras Negras-Eagle Pass	—	—	1970	138	—	5
San Nicolás-Sabinas Hidalgo	—	—	1971	115	—	105
7. CIUDAD JUÁREZ						
a) <i>Generating Plants</i>						
Ciudad Juárez (Chavena)	Gas	1x14	1970	—	—	—
b) <i>Substations</i>						
Industrial	—	—	1970	69/13	10,000	—
c) <i>Transmission Lines</i>						
Azcárate-Colegio-Industrial-Chavena	—	—	1970	69	—	30

	Generating Plants			Date of Initial Operation	Substation and Transmission Line Voltages (kv)	Substations Capacity (kva)	Transmission Lines Length (km)
	Type	No. and Size of Units (Mw)					
8. SONORA-SINALOA							
a) Generating Plants							
Guaymas I 4th Un.	Steam	1x41	1970	—	—	—	—
Plutarco Elías Calles 3rd Un.	Hydro	1x45	1972	—	—	—	—
Guaymas II 1st Unit	Steam	1x75	1973	—	—	—	—
Humaya	Hydro	2x45	1973	—	—	—	—
Guaymas II 2nd Unit	Steam	1x75	1974	—	—	—	—
b) Substations							
Caborca	—	—	1970	115/13	12,500	—	—
Llano Blanco	—	—	1970	115/13	12,500	—	—
Bizani	—	—	1972	115/13	12,500	—	—
Hermosillo 3	—	—	1971	115/13	30,000	—	—
Nacoazari	—	—	1972	115/33	20,000	—	—
Nacoazari	—	—	1972	115/13	10,000	—	—
Obregón 3	—	—	1972	115/13	30,000	—	—
Guaymas 1	—	—	1970	115/13	12,500	—	—
Mochis 3	—	—	1970	115/13	12,500	—	—
Navjoa	—	—	1970	115/13	12,500	—	—
P.H. 27 de Septiembre	—	—	1972	115/33	12,500	—	—
Mazatlán Norte	—	—	1971	115/13	12,500	—	—
Culiacán 2	—	—	1970	115/13	20,000	—	—
Culiacán 2	—	—	1971	220/115	133,000	—	—
Mazatlán	—	—	1971	220/115	80,000	—	—
Mazatlán	—	—	1971	115/13	25,000	—	—
Obregón 2	—	—	1973	220/115	133,000	—	—
Mochis 2	—	—	1971	220/115	133,000	—	—
Hermosillo 3	—	—	1973	220/115	133,000	—	—
c) Transmission Lines							
Guaymas II-Hermosillo 3	—	—	1973	220	—	140	—
B. Hill-Santa Ana	—	—	1970	115	—	40	—
Santa Ana-Caborca	—	—	1970	115	—	100	—
Caborca-Bizani	—	—	1972	115	—	23	—
Hermosillo 2-Hermosillo 3	—	—	1971	115	—	10	—

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
P.E. Calles-Nacozeni	—	—	1972	115	—	180
Mazatlán-Mármol	—	—	1972	115	—	36
Mazatlán-Mazatlán Norte	—	—	1971	115	—	10
Culiacán 2-Mazatlán	—	—	1971	220	—	220
Mochis 2-Culiacán 2	—	—	1971	220	—	204
Mochis 1-Mochis 2	—	—	1971	115	—	20
Obregón 2-Navojoa	—	—	1970	220	—	70
Guaymas II-Obregón 2	—	—	1973	220	—	126
Humaya-Culiacán 2	—	—	1973	220	—	40
9. TIJUANA						
a) <i>Generating Plants</i>						
Cerro Prieto	Geot.	2x37.5	1970	—	—	—
b) <i>Substations</i>						
Nacionalista	—	—	1970	69/13	12,500	—
Hipódromo	—	—	1970	69/13	12,500	—
Móvil Tijuana	—	—	1970	69/13	12,500	—
Guerrero	—	—	1971	69/13	25,000	—
El Gallo	—	—	1972	69/13	12,500	—
Ruiz Cortines	—	—	1970	161/33	100,000	—
Tijuana Power Plant	—	—	1971	230/13/69	50,000	—
Mexicali II	—	—	1971	230	Bus	—
Tijuana Power Plant (Ext.)	—	—	1972	230/13/69	50,000	—
c) <i>Transmission Lines</i>						
El Gallo-Nacionalista	—	—	1970	69	—	16
Ensenada-Ojos Negros	—	—	1970	69	—	35
Guerrero-Frontera	—	—	1971	69	—	5
Tijuana-El Gallo I	—	—	1972	69	—	90
Cerro Prieto-Mexicali II	—	—	1970	161	—	30
10. YUCATÁN						
a) <i>Generating Plants</i>						
Nachi Cocom II	Steam	2x24.5	1970	—	—	—
Campeche 1st and 2nd Units	Steam	2x37.5	1972	—	—	—

	Generating Plants			Substation and Trans- mission Line Voltages (kv)	Substations Capacity (kva)	Trans- mission Lines Length (km)
	Type	No. and Size of Units (Mw)	Date of Initial Operation			
b) Substations						
Campeche II	—	—	1970	115/33	25,000	—
Campeche II	—	—	1970	33/13	12,500	—
Tizimin	—	—	1970	115/33	6,250	—
Campeche II Ext.	—	—	1971	115/33	12,500	—
Maya I	—	—	1971	34/13	25,000	—
c) Transmission Lines						
Nachi Cocom-Campeche II	—	—	1970	115	—	175
Nachi Cocom-Tizimin	—	—	1970	115	—	175
B. MISCELLANEOUS SMALL SYSTEMS						
a) Generating Plants						
La Paz	Diesel	2x3.0	1970	—	—	—
Madera	Diesel	1x1.54	1970	—	—	—
Casas Grandes	Diesel	1x1.54	1970	—	—	—
La Paz	Diesel	1x3.0	1971	—	—	—
Ciudad del Carmen	Diesel	1x3.0	1970	—	—	—
Cozumel	Diesel	1x1.0	1970	—	—	—
Isla Mujeres	Diesel	2x0.3	1970	—	—	—
Chetumal	Diesel	1x3.0	1970	—	—	—
Ciudad del Carmen	Diesel	1x3.0	1972	—	—	—
b) Substations						
Punta Prieta	—	—	1970	13/115	10,000	—
c) Transmission Lines						
Punta Prieta-El Triunfo	—	—	1970	115	—	60
Vicente Guerrero-Sombrerete	—	—	1970	115	—	43
C. SMALL SUBSTATIONS AND TRANSMISSION LINES						
a) Substations less than 10 MVA Total 295 MVA						
b) Lines less than 69 KV Total Length 659 KM						
Total estimated expenditures for 1970 and 1971 \$9.5 million equivalent.						

D. SPECIAL EQUIPMENT AND BUILDINGS

Total estimated expenditures for 1970 and 1971 \$4.0 million equivalent.

E. EXPANSION OF DISTRIBUTION

Total estimated expenditures for 1970 and 1971 \$105.5 million equivalent.

F. RURAL ELECTRIFICATION

Total estimated expenditures for 1970 and 1971 \$43.4 million equivalent.

G. CHANGE OF FREQUENCY

Total estimated expenditures for 1970 and 1971 \$12.0 million equivalent.
