DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

CAPITAL ASSISTANCE PAPER

118 p.

**Proposal and Recommendations
For the Review of the
Development Loan Committee**

INDONESIA

WEST JAVA TRANSMISSION AND DISTRIBUTION - PHASE II

AID/DLC/P-1078

UNCLASSIFIED

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

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AID-DLC/P-1078

February 16, 1973

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: INDONESIA: WEST JAVA TRANSMISSION AND DISTRIBUTION - PHASE II

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed $19,700,000 to the Government of Indonesia to finance the foreign exchange costs of imported equipment, engineering and construction services of a 150 KV double circuit transmission line linking Jakarta, Bogor and Bandung, a distance of approximately 180 km.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at a meeting on Wednesday, February 21, 1973.

Rachel R. Agee
Secretary
Development Loan Committee

Attachments:
Summary and Recommendations
Project Analysis
ANNEXES I-XXII

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TABLE OF CONTENTS

LIST OF ANNEXES

INDONESIA - WEST JAVA TRANSMISSION AND DISTRIBUTION - PHASE II

TABLE OF CONTENTS

LIST OF ANNEXES

Page

INDONESIA - WEST JAVA TRANSMISSION AND DISTRIBUTION - PHASE II

SUMMARY AND RECOMMENDATIONS

A. BORROWER:

1. Borrower is the Government of Indonesia (GOI).

2. Beneficiary is Perusahaan Umum Listrik Negara (PLN) a wholly owned Government enterprise, exclusively responsible for generation, transmission and distribution of electric power in Indonesia.

B. LOAN:

1. Amount: Not to exceed U.S. $19.7 million

2. Terms:

a. U.S. Government to GOI: A 40-year loan to the Government of Indonesia, 2 percent interest for the first 10 years without amortization payments: thereafter 3 percent interest for 30 years, during which the loan will be fully amortized in level semi-annual installments of principal and interest, payable in U.S. dollars.

b. GOI to PLN: AID approval will be required of the terms under which the GOI relends to PLN the proceeds of this loan. IDA-financed consultants have developed a financial plan and rate structure for PLN which when approved by IDA and the GOI will provide the basis for determining these terms. (See Section V.)

C. TOTAL COST OF THE PROJECT:

Total project cost is estimated at U.S. $23.6 million of which AID will finance foreign exchange costs of U.S. $19.7 million and local currency costs of U.S. $3.9 million equivalent will be provided from the GOI National Development Budget.

D. DESCRIPTION OF THE PROJECT:

The project provides for engineering, design and construction of a 150 KV double circuit transmission line linking Jakarta, Bogor and Bandung, a distance of approximately 180 km. Transmission

includes substation terminal facilities at Jakarta and Bandung and a 150/20 KV stepdown substation at Bogor. The line connects at Bandung with the terminal point substation for the 150 KV line from the Jatiluhur hydrogeneration station, and is then extended to connect that substation to the terminal point of the 150 KV line from Tegal to Bandung. The line will be the primary transmission link between Jakarta and Bandung, with the Jatiluhur line forming the loop, and completes a transmission grid from the Semarang Steam Station in Central Java to Jakarta. (The AID West Java T&D Phase I loan provides transmission from Tegal to Bandung. Both the connecting Ketenger system line and steam station are being constructed under AID loans.) The project includes distribution rehabilitation and expansion at Bogor, the principal city between Jakarta and Bandung.

E. PURPOSE OF LOAN:

To finance the foreign exchange costs of imported equipment, engineering and construction services for the project described in D. above.

F. BACKGROUND OF ACTIVITY:

This transmission is a priority project in the Chas. T. Main West Java supplemental Generation and Transmission Report 1973 - 1979 financed by the IBRD. The Bogor distribution is an essential requirement of the basic IBRD study of West Java Power done by Main. This project is in sequence and corollary to AID loan West Java Phase I which establishes a transmission link from Central Java to Bandung and finances distribution rehabilitation in Cirebon. This loan takes the transmission link to Jakarta and carries out distribution rehabilitation and expansion at Bogor, a major West Java load center close to Jakarta. The IBRD has already undertaken U.S. $15.0 million of distribution rehabilitation at Jakarta with a second phase U.S. $40 million loan already signed. This project is a principal component of a long range electric power program for Java and has been identified as a highest priority by the GOI.

G. ALTERNATE FINANCING:

This project is part of the U.S. commitment under the Inter-Government Group on Indonesia. Other donors working in the Indonesian power sector include IBRD (Jakarta); Federal Republic of Germany (Central Java); the Government of Japan (principally in East Java);

the ADB (Sumatra, Sulawesi and West Kalimantan); France, The Netherlands, the United Kingdom and Denmark (number of areas). ExIm Bank has expressed no interest in financing this project.

H. ISSUES: None.

I. STATUTORY CRITERIA:

This loan meets all statutory criteria. See Annexes XVIII and XXI.

J. MISSION AND EMBASSY VIEWS:

USAID and the Country Team recommend the loan be made. (See Annex XIX).

K. RECOMMENDATION:

Authorization of a loan to the Government of Indonesia in an amount not to exceed U.S. $19.7 million in accordance with the terms and conditions set forth in the proposed authorization shown in Annex XX. An outline of conditions precedent and covenants is set forth in Section IX.

USAID CAPITAL ASSISTANCE COMMITTEE MEMBERS:

Chairman	G. Reginald van Raalte
Loan Officer	Dennis J. Brennan
Engineer	John P. Glaws
Economist	James A. Norris
Controller	Richard L. Warin

AID/W CAPITAL ASSISTANCE COMMITTEE MEMBERS:

Chairman	Alexander R. Love
Loan Officer	Peter J. Bloom
Engineer	Earl F. Clark
Legal Advisor	Stephen W. Stein
Desk Officer	Louis C. Stamberg

I. PROJECT DEFINITION AND JUSTIFICATION

A. Purpose and Amount of Loan

This loan will finance the foreign exchange cost of imported equipment, materials, engineering, instruction and training services required to rehabilitate and expand transmission and distribution facilities in the West Java electric power system. The loan will finance US $19.7 million of an estimated total US $23.6 million for the project. Rupiah in the equivalent of US $3.9 million will be provided by the Government of Indonesia to meet local currency costs.

B. Project Justification

This is a priority project for the Government of Indonesia. It follows and is corollary to AID Loan 497-H-028 West Java Transmission and Distribution Phase I which establishes the basic transmission link from Central Java to Bandung and finances distribution rehabilitation at Cirebon. The loan will continue the transmission line to Jakarta and effectively complete a transmission grid connecting Jakarta through West Java to Semarang in Central Java. This will permit transfer to power from generating facilities in Central Java to Jakarta and Region XII during periods when power availability is low (e.g. during periods of reduced hydroelectric power output from Jatiluhur because of low water levels). It will also permit transfer to power from Region XII to the Central Java system once excess power becomes available in West Java. The foregoing capability is required to ensure the efficiency and value of generating facilities being constructed both in West and Central Java, including the 100 MW steam plant to be constructed in Semarang under Loan 497-H-024 and the prospective 200 MW IDA financed plant at Muara Karang in West Java. See Annex I.

An effective distribution system, especially in the urban centers, is a necessary adjunct to an improved transmission network. At present, the distribution facilities in Bogor and vicinity are antiquated and unreliable. Accordingly, the loan will provide funds for the complete rehabilitation of the distribution system in the City of Bogor and adjacent areas as well as its expansion to meet rapidly increasing power needs. Provision of adequate and reliable power in this major load center and completion of the link between West and Central Java are fundamental to long range growth of the electric power system.

Equally, provision of reliable electric power is essential to basic economic growth and the capacity to meet social need. Annual consumption of electricity in Indonesia is no more than 15 KWH per capita, among the lowest figure in the world. Electricity demand in Indonesia is depressed. This is directly a reflection on PLN inability (Perusahaan Umum Listrik Negara, the State Electricity Authority) to provide increased service, reliable or not, and equally reflects the application of prejudicial rates for industrial and commercial use and restrictions against industrial use during peak periods. These factors have had a discouraging effect on industries and resulted in many enterprises generating their own electricity.

Continuation of a failure to supply adequate electricity can only result in further retardation of economic progress. Development of an efficient electric power system is not a guarantee of the pace of economic development, but it is certainly an essential precondition. It is rudimentary to industrial and commercial growth, and critical to any resulting employment opportunity which in this country of chronic lack of jobs becomes an essential element in any effort at income distribution. This same adequate and reliable availability of electricity is equally important to any serious prospect of increased consumer use and social satisfaction.

II. PLACE OF PROJECT IN THE PROGRAM

The objectives of United States aid policy in Indonesia are to sustain the economic and political stability achieved in the post-Sukarno years and develop a sound infrastructure for economic growth and social development. The United States directs its aid and seeks to accomplish these objectives through the Inter-Government Group on Indonesia (IGGI). The IGGI is composed of Indonesia, thirteen other member countries, including the United States, the World Bank (IBRD), International Monetary Fund (IMF) and the Asian Development Bank (ADB). Assistance through this multilateral framework while permitting member countries to coordinate assistance leaves a high degree of initiative to the Indonesian Government in responding to the separate aid interests and capacities of the IGGI members. The IGGI framework also minimizes problems which could arise from a government unilaterally using its economic assistance as leverage to require Indonesia to take the difficult decisions necessary for development. The PLN rates question is a case in point, as discussed below.

This project is part of a concentrated effort on the part of a number of donors to rehabilitate and develop the Indonesian electric power system. IGGI donor financing to this sector, including executed loans and those under negotiation and in process, now totals US $304.6 million, of which the AID share is $99.7 million. See Annex II. With this loan for $19.7 million and the West Java Interim Generation loan currently being proposed for AID financing at $7.0 million, this AID figure will reach US $126.4 million.

This project is a major component in a long range electric power program for Indonesia. This loan and its predecessor (AID Loan 497-H-028 for $17.2 million, West Java Transmission and Distribution Phase I) and the currently proposed loan for West Java Interim Financing assign a principal role to AID in West Java power development. IDA with financing of US $55.3 million for Jakarta distribution and a prospective US $38.7 million loan for steam power generation at Muara Karang is the AID main partner in West Java. but the Japanese Government and the French are also active. See Annex II.

This loan is a priority recommendation of the Chas. T. Main West Java Power System Study financed by the IBRD. The total Main study recommends over the next five years an expansion of generation, transmission and distribution facilities for West Java at an estimated total cost of US $216 million of which two-thirds is foreign exchange. With this loan, AID will have undertaken US $43.9 million of this task.

In Central Java, AID is primary lender with loans providing for distribution rehabilitation and generation expansion in the Tuntang (eastern) region of the province (AID Loan 497-H-019 for U.S. $16.8 million); construction of a 100 MW steam power plant at Semarang, capital of the province (AID Loan 497-H-024 for US $19.7 million); and distribution rehabilitation with 150 KV transmission expansion in the Ketenger (western) half of Central Java (AID Loan 497-H-025 for $21.0 million).

AID is also taking part in power development in the outer islands. AID Loan 497-H-022 for US $13.8 million provides for generation expansion and distribution rehabilitation in Medan, North Sumatra. At the same time, AID has assisted in carrying out a power development study for East Kalimantan and will probably loan-finance a long range power study for the provinces of North Sumatra and Aceh. This loan and the existing AID loans are integral parts of the total IGGI program for the power sector. The reach of this program is indicated by the map at Annex III. PLN makes a substantial commitment of funds as partner in this program, and is also carrying out its own activities in rehabilitation and expansion of facilities. See Annex IV. The financial burden for PLN is imposing and indicative of the commitment made.

III. BORROWER AND BENEFICIARY

A. General

Borrower is the Government of Indonesia. Beneficiary is Perusahaan Umum Listrik Negara (PLN), a wholly owned Government enterprise.

PLN was organized in 1965 as the successor to three Dutch utility companies which had been nationalized between 1953 and 1957. The three companies were consolidated over the next few years and finally established as PLN (the National Electricity Company) in 1965. Operations from the outset were handicapped by difficult organizational and operating problems. Circumstances of the nationalization had been difficult and there had been neither transition nor carryover of expatriate personnel. Even more of a problem in the long run was the fact that acquisition of the three companies had been accompanied by a loss of records of all kinds - operational, technical and financial - the fundamentals for any system of management. PLN's difficulties in overcoming this initial set of unfavorable circumstances were compounded by the chaotic economic conditions during the mid-1960's combined with completely inadequate budgetary support even for routine administration and operating expenditures. In the face of these problems, it is to the credit of PLN that the organization was nevertheless able to provide a continuing and slowly expanding range of service during the years 1965-1970.

Until this past year, PLN was a direct Government agency under the Ministry of Public Works and Power. On June 3 1972, however, the President of Indonesia approved a Government Regulation[1/] establishing PLN as a "Perum," a form of State enterprise with capital owned by the Government. See Annex V for a summary of the charter and initial implementing regulation of the Minister of Public Works and Power. This step was taken as part of a program initiated by the IDA to establish PLN on a solid management and financial basis. Agreements between IDA and the GOI also obligated the GOI to pay Government arrears due PLN and ensure prompt payment of current charges. PLN in turn was obligated to revalue assets, establish a schedule of tariffs and reorganize the electric power administration on a businesslike and functional basis. Each of the AID power loans contains covenants by the GOI and PLN providing for compliance with the IDA agreements.

1/ Government of Indonesia Regulation No. 18/1972

B. PLN Organization and Management

The organization of PLN and its establishment as a separate State enterprise was one of the first principal steps taken under the IDA-supported program of reform. Under the new charter, PLN operations and basic management are under a Board of Directors appointed by the President of Indonesia. There are currently six directors, including the PLN President Director and heads of the five main departments: Research and Planning, Personnel and Organization, Operations and Logistics, Commerce and Finance, and Construction. The Board of Directors reports to the Minister of Public Works and Power who in turn has responsibility for general control and general policy of PLN. He is assisted by an Advisory Board including the Minister of Finance, Minister of Industry and Minister for National Development Planning (Chairman of Bappenas). See ANNEX VI. Recommendation of basic tariffs is the responsibility of the Board of Directors, to be decided by the Minister of Public Works and Power and subject to the approval of the President. PLN is directed from a Central headquarters in Jakarta through fifteen operating regions throughout the country. This project is located in Regions XI and XII.

C. Progress of PLN Reforms

In addition to overall institutional reorganization, the IDA agreements state specific GOI and PLN obligations with respect to financial and management capacity. Among these are the requirements that the GOI pay all Government agency arrears and ensure prompt payment of current charges. Rupiah 2.3 billion was paid by the GOI during fiscal year 1971-1972 ending March 31, 1972. PLN records showed Rupiah 3.5 billion as the remaining balance due and this was reported by the Minister of Finance to be paid through a supplement to the PLN 1971-1972 budget allocation. See ANNEXES VII and VIII.

With respect to payment of current billings, PLN discussions with the Ministry of Finance during the first months of 1972 regarding non-Armed Forces government entities resulted in an agreement which is just now being applied beginning in GOI FY 72/73. Under this agreement a procedure has been established where in the first week of each month the PLN Regions submit current electricity bills to the respective owing government offices for confirmation. By the fifteenth of the month a recapitulation sheet covering these bills should then have been submitted by PLN to the local office of the GOI Treasurer. After certification, the recapitulation for that Region for the month is then sent by the local PLN office to

PLN Central to be further confirmed with the Director General of the Budget and paid. Separate appropriations for electric power consumption are shown for each government entity and made available in monthly installments. PLN is authorized to cut off service to any agency that falls in arrears more than two months. If on March 31, 1973 there are billings outstanding to PLN, the GOI will make a supplemental appropriation to the owing department to be paid to PLN not later than September 30, 1973. See ANNEXES VII and VIII.

For the Armed Forces, PLN will submit a certified bill (cleared through the State Treasurer) to the Ministry of Defense and Security which will then pay. The payment provisions are reflected in the budget regulation in 1972/73 approved by the President of Indonesia. 2/

In the opinion of PLN these procedures for payment by both the Defense Department and the GOI civil departments should ensure expeditious payment. Both agreements were reached only within this current budget year, and therefore while PLN indicates the procedures should yield results, it is not possible definitely to say yet whether they will in fact result in the prompt payments hoped for. An improvement however is certainly indicated. AID is coordinating with IDA to keep currently advised. The question obviously remains critical to PLN financial capability.

Assets revaluation is an equally essential requirement to adequate PLN financial management. Under its IDA obligations, PLN was to have completed assets revaluation by February 1972. This was in fact done and approved in principle by the Minister of Finance in April 1972 and recorded in a letter to IDA noting Minister of Finance approval of the principles employed by PLN in revaluing its assets. 3/ The figures are reflected in the draft balance sheet for calendar year CY 1971 which appears at Annex XV and is discussed in Section V below. The final balance sheet for CY 1971 is currently being printed by PLN and will be provided to AID as soon as it is complete.

In accordance with the IDA agreements, PLN contracted with the French firm of SOFRELEC to provide management consulting services, specifically to develop operating standards and recommendations and to act as consultants with respect to PLN's institutional

2/ Presidential Decision No. 28/1972 Article 67. See ANNEX IX.

3/ Ministry of Finance letter No. B330/MK/IV/4/1972 of 13 April 1972. See ANNEX VIII.

reorganization. SOFRELEC in turn has subcontracted with the international accounting firm of Peat, Marwick and Mitchell to provide for the financial administration side of these services. The new charter and assets revaluation are initial main products of this IDA-financed program.

In addition, Peat, Marwick and Mitchell has completed a study of consumers administration directed to billing and collection procedures and mechanization of accounts. The recommendations of the study were approved by PLN last year and have been implemented on a pilot basis in two PLN branches, one in Region XI and the second in a suburb of Jakarta. The new consumers administration procedures are expected to be implemented in all PLN Regions by the end of 1974. A second part of the consultant's recommendations calls for phased mechanization of accounts. This is now planned initially for Jakarta, Bandung and Surabaya, three principal cities in Java, with the first IBM units for these cities expected to arrive for Jakarta by the end of 1973. As another first stage in this program, two sites are being selected for pilot use of IBM software. One of these is the city of Medan, North Sumatra, where AID is financing a loan for distribution rehabilitation and generation expansion (AID Loan 497-H-022). The second is Palembang, the main city of South Sumatra. The machine for Medan is already installed and is expected to be in commercial operation by March 1973. PLN has not advised a date yet for Palembang. An electronic data processing department has been established in Central PLN especially to manage this mechanization program. Finally, Peat, Marwick and Mitchell recommendations with respect to a code of accounts were accepted last year by PLN, have been translated into Indonesian, and are scheduled to be implemented by all PLN regions as of January 1, 1973.

The question of tariffs which is directly related to the prospects for PLN financial capacity has been extensively studied and discussed but not yet decided. The amount and interval for a rate increase is one issue but another is the question of deferring application of higher rates to subsidized residential consumers. On the latter question, the GOI may consider that the political and social considerations compel deferment for a period.

Article 17 of the new PLN charter states that basic rates shall be such as to provide sufficient revenues to PLN to cover all operating expenses, including maintenance and adequate depreciation, payment of interest, debt service in excess of depreciation, taxes,

and leave a surplus to contribute to financing of further expansion. The amount of this surplus is to be determined by the Minister of Public Works and Power, bearing in mind the desirability for PLN to provide from its own resources a reasonable portion of the cost of its expansion program. This statement of policy is consistent with the terms of reference set forth in the IDA agreements and should be the basis for the SOFRELEC recommendations to PLN. These recommendations have been submitted by PLN to the GOI and to IDA and are now under review by both. It is expected that GOI Cabinet consideration and recommendations on the basic rate, which must then be approved by the President, will follow once IDA has completed and acted on its review.

PLN regards the substance of the recommendations as confidential until the GOI has made its decisions. Indications are however that an average nationwide rate increase is proposed in stages probably commencing this year to be followed by further increases either annually or at predetermined intervals. For example, there would be increases in 1973 and 1975 of 25% each. These would be followed by a third increase in 1978 at a rate to be determined depending on PLN financial condition. A rate increase of such limited effect would be completely inadequate in terms of the criteria established not only in the IDA agreements but even in Article 17 of PLN's own charter. It would represent a compromise of need based on a prior assessment of political considerations which under test would very likely prove invalid. AID is raising this issue with the GOI, PLN and IDA in an effort to bring about a more realistic adjustment in the rates. The rate question is directly concerned in the whole issue of terms for GOI subloans to PLN under each of the AID loans. This is discussed in Section V below.

D. Personnel and Training

With the expansion both under way and expected in the electric power sector, PLN personnel capacity becomes a critical factor in the ability of the organization to meet its responsibilities. This is recognized by each of the lenders and the IDA consultants have specifically addressed this in their recommendations. The need is clearly recognized by PLN which has itself and in cooperation with the IDA consultants proposed or actually put under way the following training for PLN personnel in both technical and administrative fields.

- PLN undertook itself in basic technical and administrative fields to train instructors capable of carrying out additional training throughout all the PLN regions. In the period 1970-1971 this training included 97 diesel power plant foremen, 51 foremen for distribution work and 21 personnel in clerical administrative duties.

- At the end of 1971, with the assistance of SOFRELEC, PLN opened a training center in Jakarta in connection with rehabilitation of Jakarta distribution. Training covers erection of substations, laying of underground cables, erection of overhead lines, and voltage changeover. Up to the present, 208 PLN employees have been trained in distribution work under this program, and 150 additional specifically for voltage changeover. PLN has agreed with the consultants to establish this training center as a permanent "Distribution Training Center" with a program including: general operation and maintenance of networks, electro-mechanics for workshops and power stations, work organization for distribution activities, etc.

- In September 1973 with the assistance of the French Government, a center will be established in Bogor to train 312 employees each year in the fields of diesel generation and distribution work. Initially this center will be used primarily for the training of skilled workers and foremen. Eventually however PLN expects the center will be directed to training of instructors who will then carryout training in other centers to be established.

- An accounting center was opened in Jakarta in April 1972 and by January first of this year 100 PLN employees had completed training courses. The course curriculum was developed by Peat, Marwick and Mitchell and relates to all financial systems and procedures proposed by the consultants for PLN implementation.

- PLN held three higher management seminars of two weeks each in November and December 1972 and a total of 40 higher level PLN executives participated.

- Under its proposed new contract with PLN, SOFRELEC will undertake training of 300 employees (100 per year) in the fields of operation and maintenance of steam power and gas turbine generating plants. This program is expected to begin in March/April 1973 once it is approved. PLN has the program now under review and recognizes the "utmost importance" of this training.

- Finally, PLN has asked the IDA consultants to undertake a general training study, including a review of all now under way and a plan for the long range. For PLN, the purpose of this study is to improve "as quickly and as far as possible" the overall qualifications of PLN personnel. In accordance with this request, SOFRELEC has already submitted recommendations under which 7 or 8 training centers would be opened as soon as practicable. Further, to ensure appropriate priority be given to training problems, SOFRELEC has recommended that responsibility for training should rest with a special department to be set up in the PLN Central Directorate of Personnel.

PLN is establishing a solid record of progress in training and improvement of its staff. With the extensive power construction and rehabilitation program already under way and in prospect, the need however remains great. AID procedures ensure effective project implementation through use of qualified consultants and contractors, but at the same time each AID loan addresses the question of building up PLN personnel capability through provision of loan-financed training. This loan will provide for the same.

E. Coordination

In view of the size of the multidonor electric power sector program, which now stands at $304.6 million, the necessity for coordination among the donors and with PLN is clear. On an informal basis, this already exists and is implemented through discussions on a bilateral basis, with the IBRD taking an overall role in coordinating the whole sector. Both the IBRD and AID however have felt that a general power conference or a series of such conferences by PLN with all lenders has become a necessity. These could address not only donor coordination itself but also such issues as personnel capacity, training and general system standards. They could provide a working forum for PLN and lenders alike. PLN has now agreed to hold such a conference and has already set dates of 22 and 23 February 1973. The theme for this initial session will be an overall 'Review

of the Indonesian Power Sector'; the detailed agenda is under preparation. Participants will be interested IGGI members.

This is a significant step, for which AID has been a prime mover. It holds out improved prospects not only for the basic question of coordination, but more importantly in the long run perhaps, for enhanced recognition in Indonesia of the role of PLN. This is an essential precondition to translating the words of the new charter into the goal of PLN as the sole and effective national electricity authority.

IV. TECHNICAL ANALYSIS:

A. The Existing Electric Power System in West Java

1. General

The proposed project is located in PLN Regions XI and XII (see map, Annex X). Region XI covers the eastern two-thirds of West Java and includes a population of approximately 15 million people within its boundaries. Principal cities are Bandung (Region XI headquarters) and Cirebon. Rehabilitation of the Cirebon distribution system and the construction of a double-circuit 150 KV transmission line tie from Tegal in Central Java through Cirebon to Bandung have been funded under AID Loan 497-H-028. Region XII covers the western third of West Java. It includes the capital city of Jakarta, which has the largest population (approximately 4.8 million people) and the heaviest load concentration in Indonesia (114 MW peak). Rehabilitation of the Jakarta distribution system and the construction of a major (200 MW) new steam power plant in Jakarta are being financed by the World Bank. The second largest city in Region XII is Bogor, with a population of approximately 200,000 people. Rehabilitation of the Bogor distribution system and the construction of a double-circuit 150 KV transmission line from Jakarta through Bogor to Bandung are major elements of the project now proposed for AID loan financing, as described in IV-B below.

2. System Statistics and Performance

Total 1970 net production in Region XI was 363 million KWH, and 1970 sales totaled 267 million KWH. Unaccounted system losses exceeded 30 percent. Excluding Jakarta (which is considered a separate entity), 1970 net production in Region XII was 84 million KWH, and 1970 sales totaled some 65 million KWH. Unaccounted system losses exceeded 25 percent. System reliability is poor, both in Region XI and Region XII. Power outages are common and voltage drops far exceed normal tolerances. Due to a combination of factors including an unusually dry year, West Java suffered a severe and extensive power crisis in the late Summer and Fall of 1972. Particularly hard hit were the heavily concentrated load centers in the Jakarta-Bogor-Bandung "corridor". These circumstances have made system correction a matter of highest priority. To be effective, such correction must entail not only added generation but the concurrent improvement of transmission and distribution systems to curtail system losses and improve system reliability.

3. Existing Generating Capacity

Region XI is an operating entity but is not directly responsible for power generation planning within its area. Existing Region XI power generating capacity is predominantly hydroelectric, with seven hydroelectric plants having an installed (rated) capacity of about 58 MW. However, this capacity is severely restricted by low water during the annual "dry season". The Region XI system also includes diesel generating units having a combined installed (rated) capacity of about 2.5 MW. In addition to the foregoing, the largest single hydroelectric station in Indonesia (Jatiluhur) is located within the Region XI boundaries. Jatiluhur is not under the authority of PLN, however. It is operated and controlled by the Jatiluhur Power Authority, which sells power both to Region XI and Region XII. Jatiluhur has an installed (rated) capacity of 125 MW. Realization of this capacity has been limited by water availability to meet the (primary) needs of irrigation. Irrigation needs are expected to increase markedly in the future with consequent further decline in the availability of water for power generation. In 1970, Region XI produced 40 MW internally and purchased 22 MW from Jatiluhur. Generally, the hydroelectric generating facilities operated by Region XI are in reasonably good condition, although a majority of the units now in service date back to the 1920's and 1930's. The small amount of diesel generating capacity now in service is old and in relatively poor shape due to the cumulative effects of deferred maintenance.

Two hydroelectric stations having a combined installed capacity of 33 MW are located within Region XII. A thermal station located in the port area of Jakarta (Priok) has an installed capacity of 150 MW (2 x 25 and 2 x 50). There is about 20 MW of diesel generating capability in Jakarta which is used mainly for peak shaving or standby duty. To supplement Region XII requirements, PLN purchases power from the Jatiluhur Hydroelectric Plant described in the preceding paragraph. During the wet season, Jatiluhur has in the past been able to provide a maximum of 50 MW to Jakarta. During the 1972 dry season, this capability was reduced to below 15 MW. As a start toward providing the 200 MW of interim generation which will be required prior to the completion of a new Jakarta (Muara Karang) steam plant being undertaken with World Bank financing, the GOI has recently purchased one 19.8 MW gas turbine unit (John Brown, UK). AID is currently considering the financing of a further 40 MW increment of gas turbine generation (West Java Interim Generation). The hydroelectric facilities are in reasonably good condition, although old. The diesel generating units are generally past the age of dependability. The new steam generating increment (Japanese) at Priok (2 x 50) has been experiencing difficulties, but should improve in reliability over the next few months.

4. Existing Transmission System

The original transmission in Region XI was a 30 KV radial system from the first isolated hydroelectric plants to the nearest load centers. With the completion of the Cikalong hydro project in 1960, a 70 KV transmission line was built from Cikalong north to Bandung and was continued from Bandung via Purwakarta to Jakarta. This provided an interconnection between Regions XI and XII and permitted interchange of small amounts of power. With the completion of the Jatiluhur hydroelectric project in 1964 a double circuit 150 KV line was constructed from Jatiluhur to Jakarta and, in the opposite direction, from Jatiluhur to Bandung. This provided a second double circuit interconnection between the two regions, but the 70 KV system is not operated in parallel with the 150 KV system. The 70 KV system is now normally open between Purwakarta in Region XI and Jakarta in Region XII. Thus, although the town of Purwakarta is immediately adjacent to Jatiluhur, the power from Jatiluhur is transmitted south to Bandung, a distance of about 50 miles over 150 KV lines, and then returned to Purwakarta the same distance over 70 KV circuits from Bandung.

One 30 KV feeder extends from Bandung to Cirebon and another 30 KV feeder goes eastward from the hydroelectric project south of Bandung to Garut and Tasikmalaja. There is a connection between Tasikmalaja and Parakan midway between Bandung and Cirebon. However, as mentioned above the system is not operated in closed loops. Radial operation varies depending upon the availability of water in the various hydroelectric plants, in order to obtain the most favorable generation. Cirebon and Tasikmalaja are both approximately 80 miles from Bandung, and voltage regulation at these remote ends of the system is extremely poor. During peak load, severe loss of voltage on the secondary distribution is experienced. See Annex XI.

Generally, the transmission system is totally inadequate for further load growth in many areas of the system. The original 30 KV transmission system was designed with very small conductors and extremely long spans. In the mountainous areas of West Java, towers located on ridge lines span several thousand feet with no practical possibility of installing intermediate towers in the valleys between. Replacing the existing conductors with substantially larger conductors would generally not be feasible. Upgrading the 30 KV transmission to 70 KV would improve the voltage regulation in the system and might be adequate for the system load today. However, this would provide little of the new capacity required for future expansion.

5. Existing Distribution Systems

In Regions XI and XII as in other parts of Indonesia, electric power service is limited almost exclusively to the large cities and towns. The major portion of the population in general, and the rural population almost in its entirety, have no electric power service. Within the large cities and towns receiving electric power service, distribution systems are predominantly 6 KV underground installations. The greater part of the underground systems are old and susceptible to frequent failures causing long power outages. In addition, portions of many of the underground systems are (of necessity) located in or near rice fields which are flooded for much of the year. Since the thermal and operational limits of the underground cables are uncertain, the systems are rarely operated at voltages higher than 5.5 KV. Three-phase distribution transformers, each serving a large area, are used. Service lines extend for inordinate distances from transformers. Voltage regulation is very unsatisfactory and overall reliability is poor, causing many industrial users to install captive generation. Poor voltage regulation reflects the use of old and inadequate equipment and high losses in the secondary and primary feeders. In large part, losses are caused by unusually long runs of undersized conductors. There is no possibility of carrying additional load in any of the systems.

B. Scope of the Proposed Project

The scope of this proposed project reflects the considered findings and recommendations presented in a long-range planning study and accompanying feasibility grade analyses conducted by Charles T. Main International, Inc., under an IDA-funded contract with PLN in 1972. The study has properly considered and evaluated alternate approaches and has assessed relative priorities within the overall work found to be required. The scope of the project selected for this proposed funding increment is summarized as follows:

1. Engineering Design and Supervision

The project provides for the services of a qualified U.S. consulting firm for design, preparation of bidding documents, assistance to the PLN with respect to prequalification of construction firms, analysis of construction bids, and engineering supervision of construction (see Annex XIII).

2. Distribution System Rehabilitation

The project will provide for the rehabilitation and expansion of the distribution system in Bogor and adjacent areas as required to meet present needs and to permit normal growth at least through 1977. It is proposed to replace the existing (mainly underground) 6 KV system with a system consisting of 20 KV overhead primary lines and 220 volt secondary service. Secondaries will be shortened and a larger number of distribution transformers will be provided, most of which will be pole mounted. Service will be single-phase except when the type of load (e.g. industrial) requires three-phase service. Aluminum conductors will be used for the 20 KV overhead and for new secondaries. Existing copper secondary wiring will be reused to the fullest extent practicable. The proposed distribution system will be designed in accordance with U.S. standards and practices. An estimated construction schedule for this work is shown in ANNEX XII. Proposed method of implementation is described in ANNEX XIII.

3. Transmission System and Substations

The project will provide for the design and construction of approximately 180 km of 150 KV double circuit transmission line connecting the Cawang Substation at Jakarta with a new substation to

be constructed at Bogor and the Cigereleng substation at South Bandung. The Cigereleng substation is also the terminal point for the 150 KV line from the Jatiluhur Hydroelectric Station. The line to be constructed under this project will therefore complete a 150 KV loop for Jakarta-Bandung service and will serve as the primary transmission line for transfers of power.

Also under this project, the Cigereleng substation in South Bandung will be connected with the Dago substation in North Bandung via a double circuit 150 KV intra-city tie. The Dago substation is the terminal point for the transmission line being constructed under AID Loan 497-H-028. This connection will therefore complete the transmission line tie between Jakarta and Pekalongan in Central Java. A further tie between Pekalongan and Semarang, to be constructed with Federal Republic of Germany financing, will be the final link in a Jakarta-Semarang interconnection which will permit transfers of power between the West Java and Central Java systems.

Further, the project will provide for design and construction of a 150 KV substation at Bogor and 150 KV substation terminal facilities at Jakarta (Cawang substation) and at Bandung (Cigereleng and Dago substations).

An estimated construction schedule for the foregoing transmission lines and substations is shown in ANNEX XII. Proposed method of implementation is described in ANNEX XIII.

4. Communications System

The project will provide for a reliable communications network between Region XI in Bandung and Region XII in Jakarta. Facilities will include voice circuits for operational control and tone equipment for high speed relaying. A power line carrier system is envisaged. Communications systems inter-connection between Region XII and Region XI headquarters at Bandung will be provided through the Cigereleng and Dago substations.

5. Technical Assistance and Training

Technical assistance and training will be important aspects of the services to be provided by the engineering consultant under this project. On-the-job training will be conducted by persons having substantial experience in performing similar tasks for comparable U.S. utilities. Participant training in the United States

and/or third countries will emphasize practical rather than academic aspects. Major effort in training will be concentrated on operation and maintenance of distribution and transmission systems, accounting, warehousing and records. The engineering consultant will be charged with the responsibility for coordinating the training to be provided under this project with the training being provided under other AID-financed projects in West and Central Java, and with the management standards and procedures being developed under an on-going IDA-financed project in Jakarta.

6. Tools and Service Equipment

The project will make provision for acquisition and use of essential tools and service equipment as required for training and to assure capability for adequate operation and maintenance of the transmission and distribution systems to be constructed under this project.

C. Environmental Considerations

Implementation of this project will be carried out with full regard to environmental considerations. Values to be considered include visual aesthetics, multiple land use, drainage, protection of agricultural and grazing areas, protection of forests, safeguarding against fire and flooding, etc. Environmental protection will be addressed in each project phase, design and construction. The consultant in meeting his responsibilities under this heading will be governed among other applicable standards by the general guide "Environmental Criteria for Electric Transmission System," prepared by the US Department of Agriculture and Department of Interior and published by the US Government Printing Office, Washington, D.C.

D. Employment Generation and Labor Intensive Considerations

Improved electric power will encourage new commercial and industrial enterprise, with resulting increased employment opportunity. Local labor will be used on the project to the extent compatible with the technical nature of the work. See page 12, ANNEX XXI.

E. Finding of Technical Soundness

The project scope has been defined and a reasonable implementation plan has been developed as outlined above and as further detailed in ANNEXES X, XI, XII and XIII. Provision has been made for technical assistance, training, and basic tools and equipment as required to provide PLN a capability to operate and maintain the facilities to be constructed. The project and the estimated costs thereof reflect the findings of a well qualified U.S. consulting firm, as expressed in a 1972 study financed by the World Bank. The project is considered technically sound as presented.

V. FINANCIAL ANALYSIS

A. Alternative Sources of Financing

This project is part of the U.S. Government contribution to the IGGI non-food assistance for Indonesia through GOI FY 1973-74. The GOI has specifically requested our assistance for this project, and the IBRD Resident Mission concurs. The project,is part of a major effort by a number of donors to rehabilitate and develop the Indonesia power sector, with significant loan assistance being provided by the IBRD, Japan, the FRG and the ADB. See ANNEX II. Accordingly, within the overall IGGI levels established for assistance to Indonesia and the large total requirement remaining for assistance to electrical power, alternative financing from other donors is not now available. ExIm Bank has expressed no interest for financing this project.

B. Financial Requirement - Project Cost

Total project cost is established at $23.6 million, consisting of a U.S. dollar cost of $19.7 million and local currency costs of $3.9 million equivalent. A summary of project costs and schedule of annual disbursement follows:

SUMMARY OF PROJECT COSTS
($ 000)

Item	US$[1/]	Local Currency Equivalent[1/]	Total[1/]
1. Transmission			
A. Cawang-Bogor 22.5 m.	1,030	260	1,290
B. Bogor-Bandung (Tjigereleng) 81.8 mi.	3,744	943	4,687
C. Bandung (Tjigereleng-Dago) 7.6 mi.	348	88	436
Subtotal	5,122	1,291	6,413
2. Transmission Substations/Switching Stations			
A. Cawang Switching (2)	256	28	284
B. Tjigereleng Switching (4)	512	56	568
C. Dago Switching (2)	256	28	284
D. Bogor Transmission Substation & Switch Station 150/70 Kv., 2-40 mva Auto. Transf.	1,274	137	1,411
Subtotal	2,298	249	2,547
3. Distribution System			
A. Bogor Distribution/Rehab.	5,823	1,469	7,292
B. Bogor Dist. Substation 150/20 Kv., 3-20 mva.	1,187	5	1,192
Subtotal	7,010	1,474	8,484
Total, Items 1, 2, and 3	14,430	3,014	17,444
4. Engineering	1,730	360	2,090
5. Training/Library	140	20	160
6. Maintenance Equipment	700	0	700
7. Communications Equipment	110	0	110
Total (1 through 7)	17,110	3,394	20,504
8. Contingency @ 15%	2,590	506	3,096
TOTAL COSTS	19,700	3,900	23,600

1/ Costs have been escalated at 5% per annum through project completion.

SCHEDULE OF DISBURSEMENTS
($000)

Year	US$	Local Currency Equivalent	Total
1973	50	50	100
1974	400	50	450
1975	2,200	400	2,600
1976	7,800	1,400	9,200
1977	7,800	1,700	9,500
1978	1,450	300	1,750
Total	19,700	3,900	23,600

C. Financial Plan

1. Arrangement for Provision of Funds

This loan will meet the estimated foreign exchange costs of the project. The loan will be made to the Government of Indonesia, with 2% interest for the first 10 years without amortization payments; thereafter 3% interest will be charged for 30 years during which the loan will be fully amortized in level semiannual installments of principal and interest, payable in U.S. dollars. Local currency for the project will be provided through the GOI National Development Budget. PLN will provide necessary local currency financing for such project elements as site preparation, land clearance, etc. and will also provide sufficient rupiah to cover the local currency costs for both the consultant and the contractor.

As noted in Section IX, the loan agreement will contain conditions precedent and covenants to ensure sufficient and timely availability of local currency funds to PLN from the GOI, and in turn from PLN to meet project costs. The loan agreement will provide for assurance of the establishment of a budgetary allocation for the project local costs and for the availability of these funds under arrangements agreed to by AID.

2. Second Step Loan Terms

The proceeds of this loan will be provided by the GOI to PLN on terms agreed to and approved by AID. The GOI is currently considering the SOFRELEC and PLN recommendations regarding the proposed financial structure of PLN, particularly the proposed ratio between equity and loans. Present thinking of the Government is set forth in the letter of April 13, 1972 from the Minister of Finance to IDA (See ANNEX VIII). Except for payments due from GOI agencies to PLN for electricity services rendered, all GOI contributions made before June 3, 1972, the date on which the new PLN charter went into effect, would be considered equity. This would be the case whether they had been made to PLN directly in the form of GOI budget payments or as the proceeds of foreign loans. All or part of the proceeds of foreign credits after June 3, 1972 would be relent under second step subloans from the GOI to PLN. This whole matter is still under review and the GOI has still to indicate the precise criteria for the balance between equity and loans and for relending terms.

Establishment of PLN on a sound financial basis without Government subsidies will require that PLN revenues be sufficient to meet its obligations, including servicing of debts.

Accordingly, the division of existing and prospective foreign assistance to PLN between loan-financed capital and equity contribution is directly tied to the question of tariff revision. The need to revise the existing rate structure and the status of the pertinent recommendations are discussed in Section III.

Previous AID loans to the electric power sector (AID loans 497-H-019, 022, 024 and 025) each provide that the determination of appropriate second step loan terms to PLN will be deferred until reorganization of PLN is complete and the financial condition of the organization is clear. May 22, 1973 was selected as the date by which this was expected to be done. In current negotiations with the GOI for the signing of AID loan 497-H-028, West Java Transmission and Distribution Phase I, we have agreed that reference to the May 22, 1973 date should be deleted as unrealistic in present circumstances.

Final decisions with respect to PLN financial condition and its ability to service past and prospective debt will be taken in context of the review of IDA reforms described in Section III. As that discussion indicates, progress has been substantial with respect to determination of the basic financial capacity of PLN; however, a number of steps remain to be completed. Among others, financial statements based on the PLN evaluation of assets still remain to be issued and the critical question of a revised rate structure is not yet decided. These and other points are expected to require considerable review and negotiation during the next months. Without fixing a precise date at this point, the selection of May 22, 1974 as a new terminal date for setting the loan terms would appear to be reasonable. This revised date will be determined by agreement with the GOI and PLN during loan negotiations.

D. Financial Condition of PLN

As noted above and discussed in Section III, PLN is in process of a financial reorganization to put the enterprise a solid financial basis as an efficient operating utility. Carrying out these reforms is as essential to PLN performance as is technical improvement in providing electrical services.

As noted in ANNEX VIII, the Minister of Finance has approved the principals applied by PLN in revaluing its assets, i.e. current replacement costs less accumulated depreciation. At the time the Minister's letter was written to IDA in April 1972, the GOI expected to submit to IDA by October 1972 PLN's balance sheet as of December 31, 1971, which would reflect the revaluation. PLN has advised that this balance sheet is still in preparation.

The pro forma balance sheets and financial statements prepared last year by PLN with the assistance of the IDA consultants are included at ANNEX XV with the assumptions listed at ANNEX XIV. Current notes on the assumption are included in the same annex. The statements are regarded as indicative only in view of the wide range of assumption upon which they were based.

Implementation of improved management practices and revised uniform accounting policies and procedures will help in developing the financial data necessary to prepare financial statements accurately reflecting the financial structure and condition of PLN. Mechanization of phases of the accounting system, now currently in process, will also contribute to providing financial data on a more timely basis with a higher degree of accuracy. These are prospective improvements, however, and at the present time this kind of data is not available. The completion of the financial statements for the year ending December 31, 1971, which are to be based on the revalued assets, will establish the only firm and accurate base from which to evaluate PLN financial condition.

E. Impact on U.S. Balance of Payments

Goods and services financed by this loan will be obtained from AID Geographic Code 941 (Selected Free World) sources and it is expected the U.S. will provide a substantial amount of these, with corresponding follow-up orders of spare parts, equipment and material resulting in additional U.S. exports on a commercial basis.

VI. ECONOMIC EVALUATION

A. Forecast for Growth in Electric Power Demand in West Java

1. Projected Economic Growth in West Java

Although historical economic statistics in Indonesia are at best sketchy, available data indicates that West Java had a real economic annual growth rate of 6.3 percent during the period 1967 - 69. C.T. Main has made three projections of economic growth in West Java for the periods 1969-80 and 1980-90. These correspond to a high, a low, and a most probable, middle projection. These projections and the sectorial details for the middle estimate are shown below. We consider the most probable middle estimates to be reasonable and adequately supported and have used them in the subsequent analysis.

NET REGIONAL PRODUCT - WEST JAVA
(MILLION RP AT CONSTANT 1969 PRICES)

	1969	% Annual Increase	1980	% Annual Increase	1990
Agriculture	158.8	4.5	257.7	3.5	363.4
Industry	18.2	11.0	57.5	9.0	136.1
Wholesale & Retail Trade	31.8	9.0	82.2	9.0	194.7
Communications and Transportation	2.6	10.0	7.5	10.0	19.3
Building Construction	9.1	12.0	31.7	12.0	98.5
Housing	7.2	3.0	9.9	3.0	13.2
Services	29.2	5.0	49.9	7.0	98.1
Government	4.8	15.0	22.5	8.0	48.5
Public Utilities	1.7	14.0	7.4	11.0	20.9
Banking & Finance	.3	8.0	.8	14.0	3.0
Mining			9.6	5.0	15.7
Net Regional Product	263.9	6.7	536.6	6.5	1,011.6
High Estimate		8.6		9.3	
Low Estimate		3.7		3.8	

2. Projected Load Growth in West Java

In the period 1968-1970, the increase in total gross consumption for West Java was as follows:

	Millions KWH		
	Region XI	Region XII	Jakarta
1968	327.9	77.1	432.1
1970	364.3	84.0	550.9
Increase, % year	5.2%	4.4%	13.0%

Annual increases during the period since 1960 were erratic, reflecting curtailment due to poor hydro conditions in 1963 and lower economic activity due to political uncertainty in 1966 and 1967. However, the generally low rate of load growth was to a considerable extent due to PLN's inability to meet the demand of all classes of consumers for reliable power at reasonable rates. Distribution systems became overloaded, resulting in voltage problems, high losses, and frequent service interruptions. Load growths were severely restricted by high connection costs and capacity charges and for some users by high repressive rate structures. Industrial plants were required to reduce their load on PLN to zero between 6 P.M. and midnight, with severe rate penalties for those unable to do so. Many larger industrial plants chose to depend partially or entirely on self generation. The current amount of captive generation is estimated at 58 MW for region XI, 44 MW for region XII, and about 60 MW for Jakarta. Despite the poor quality and high cost of PLN service, the waiting

of its potential, the balance to be absorbed in later years. This abrupt load increase is the most realistic outlook, and it would be unwise to assume that PLN's load potential would be realized at a more moderate rate. A detailed presentation of the projected growth in power consumption in West Java is presented in Annex XVI.

B. Economic Analysis of Jakarta-Bogor-Bandung Transmission, Substations, and Distribution Investments at Bogor

1. Analysis of Alternative Investments

The Bogor and Bandung loads together amount to about 60 MW at present, are forecast to grow to over 200 MW by 1980, and then to continue growing at about 13 percent p.a. An economic analysis was made of the following alternative methods of supplying this increased power to the area.

Alternative 1. Install local generation to supplement present supply facilities.

Alternative 2. Construct a 150 KV transmission line from Jakarta through Bogor to Bandung and supply the area from central steam.

The results of this analysis show that the integrated development is less expensive than insular development for discount rates of up to about 30%.

2. Calculation of Internal Rate of Return

In addition to the above analysis of alternatives, an internal rate of return was calculated to determine the economic viability of the transmission extension to Bogor and Bandung. Benefits result from increased energy sales made possible by the project. This analysis is based on the projection that existing facilities will reach the limit of their capacity by 1977 and that revenues attributable to the 150 KV line extension and distribution investments correspond to the growth in total energy requirements in the area after 1977. These revenues essentially represent the benefits of the recommended investments. The incremental costs

involv[illegible] the cost of generating the incremental energy, the investment for transmission and substation capacity, the investments in distribution facilities, and related maintenance expenses. The cost of energy generation is based on the schedule of generation plants recommended by C.T. Main.

The benefits of the project are the economic value of the increased power use. The current electricity rates (average rate of Rp. 8/KWH or 1.9¢/KWH) are well below the real economic value of electricity in Indonesia. Indicative of this are the substantial waiting lists of customers of all categories desiring electricity and the large amount of high price captive generation in the area. Analysis undertaken to date indicates that the average charge per KWH should increase between 50% to 100% to reflect more accurately the real economic value of electricity. This would correspond to average rates of 2.9¢/KWH and 3.8¢/KWH. We have used a rate of 3.0¢/KWH in evaluating the economic viability of this project.

The results of the above calculations indicate that the project has an internal rate of return of 30% for sales at 3.0¢/KWH. This rate of return is in excess of the cost of capital in Indonesia and shows that the proposed project is fully justified economically.

VII. INDONESIA'S ECONOMIC PERFORMANCE AND DEBT SERVICE

A. General Economic Developments

During 1971, the economy grew at an estimated 6-7 percent. In 1972, although most sectors of the economy continued to expand, agricultural output is thought to have declined and overall growth in GDP will probably be somewhat less than in 1971. Production of rice which had increased substantially during the four preceeding years, fell appreciably during 1972. The cause of this fall is primarily due to a combination of inadequate price incentives to the farmers and a serious drought during a portion of the year. Although nothing can be done about the drought, the GOI has taken steps to encourage farmers to increase rice production in the future. These steps include increased price incentives for rice production and a liberalization of agricultural credit programs.

In the industrial sector, especially in textiles, there was substantial growth. With implementation of private foreign investment accelerating, and the rehabilitation and expansion of domestic enterprises being fostered under official programs, the near term prospects for industrial growth from the present small base are good.

Nevertheless, only the beginnings of progress in development have been made and the problems which remain to be tackled are enormous. Progress is being made in formulating concrete plans, programs and projects and in arranging and organizing for the execution of such plans. One of the serious constraints on domestic economic progress at this point continues to be the limited material and financial resources available. The pressure on these resources is evidenced by the continuing high rates of interest which prevail in the economy and by the necessity for a Rupiah devaluation in August 1971, and a further devaluation (pegged to dollar devaluation) in December 1971. In the current Indonesian fiscal year there has been a significant increment in both foreign exchange reserves ($339 million increase) and Government revenues (33% increase). A major cause of these increments has been a sharp increase in the volume and especially the value of oil exports. However, in the case of foreign exchange reserves, a large portion of the increase appears

to be due to conversion of sizeable foreign currency borrowings by Pertamina in the 1-5 year range. This element of the balance of payments could be quickly reversed over that period. Also, approximately $50 million of foreign exchange will unexpectedly have to be used for commercial rice imports to help rebuild stocks following the current shortfall in rice production.

The demand for physical resources remains great. Although the balance of payments is in much better condition than previous years, a high level of need continues to exist for additional resources to supplement the domestic resources available for private enterprise and Government investment and the improvement of essential Government services.

B. Price Policy

The objectives of the Government's stabilization program now appear to have been achieved. Although the official price index showing a rate of inflation of only 2 percent for the year ending September 1972 understates the rate of actual price increases, a more realistic estimate of about 10 percent still represents satisfactory performance. As a result of a shortfall in rice production this year, Indonesia has begun to experience a rather rapid increase in the price of rice. This increase, which amounted to about 80 percent between September and the end of December, was inevitable if the level of demand were to be brought down to available supplies. It is to the credit of the Indonesian Government that it has recognized that this increase was essential, since imports cannot completely fill the supply-demand gap, and has sought to use increased rice imports to control rather than eliminate the price inflation. Primarily as a result of the September-December rice price increase, for CY 1972 as a whole the rate of inflation was about 25%. We do not expect much reversal of the rice price increases before May, if then. Other prices have generally remained flat despite sharp rice price increases.

It should be emphasized that the desirable goal of price stabilization should not be perceived as being equivalent to price rigidity. In a developing economy in particular, it is essential that prices be allowed reasonable latitude for adjustment to economic changes, if serious distortions are to be avoided. The Government's recent decision to increase the floor support price for rice production is an example of such an adjustment.

C. Budgetary and Fiscal Policy

Government routine revenues continue their steady upward trend. Revenues increased 23 percent in GOI FY 1971/72; for FY 1972/73 the projected increase is 33 percent based in major part on an estimated 85 percent increase in oil revenues; for FY 1973/74 the tentatively estimated increase is 22 percent. The GOI's greater efforts to collect sales and corporate income taxes coupled with a slightly lower increase in routine expenditures should result in a 30 percent increase in the routine budget surplus for GOI FY 1973/74.

Investment levels in Indonesia are still comparatively low, 13-14 percent of GNP being the most recent estimate. Although private domestic investment, aided by the tax incentives provided under the Domestic Investment Law and by the medium-term credit program, has expanded rapidly, it is still a small part of total investment in the economy. Government investment, investment by Government-owned enterprises and private foreign investment in the aggregate are far larger. There is considerable evidence, however, that the principal constraints at this time are not the paucity or caution of domestic enterprise but the limitations on the financing resources available and procedural and bureaucratic obstacles. Retained earnings of enterprises are limited, private savings which can be mobilized through the banking system are growing but limited, and credit creation is of necessity restricted by consideration primarily of balance of payments effects. Although some Government savings derived from the excess of Government revenues over Government expenditures are being transferred through the banking system to meet the investment capital needs of a few Government enterprises, no other Government budget transfers either through the medium-term credit program or otherwise appear to have been made to the private sector in the current or previous two fiscal years. In the short run, and the longer run as well, such transfers need to be made and their amount augmented by foreign private investment and aid inflows if domestic enterprise is to grow at a significant rate. The reorganization and reactivation of Bapindo (The Indonesian Development Bank), the effort to create several other development finance institutions and the request for project aid for what are called "Development Loans through the Banking System" are responses to this need, along with efforts to devise additional mechanisms for the stimulation and mobilization of private domestic savings.

D. Balance of Payments [1/]

Annex XVII summarizes Indonesia's Balance of Payments for 1971/72, 1972/73 and the forecast for 1973/74.

During 1971/72, the goods and services account of the balance of payments showed a deficit of $462 million. This deficit was $112 million higher than that incurred in 1970/71; a reduced trade surplus accounted for $12 million of this increase, and a higher deficit on services accounted for $100 million. Miscellaneous capital receipts increased by 65 percent to $190 million as a result of a larger foreign direct investment inflow. Receipts from official transfers and capital increased by 13 percent to $417 million, and debt service payments were $107 million. Allowing for an allocation of SDR 27.5 million, equivalent to $30 million, and for unidentified capital and net errors and omissions of minus $43 million, the 1971/72 balance of payments recorded an overall surplus, as measured by monetary movements, of $25 million as compared with a surplus of $2 million in 1970/71.

Revised balance of payments estimates for 1972/73 indicate a deficit on goods and services of $624 million, an increase of $116 million over the original estimate; the principal changes were a downward revision of $46 million in net exchange receipts from the oil sector because of lower than expected crude oil production, and an upward revision of $94 million in rice imports. Debt service payments were revised upward by $9 million, but receipts from miscellaneous capital and from official transfers and capital were revised upward by a total of $53 million. Thus, excluding unidentified capital movements and net errors and omissions, the revised estimates show a surplus of $18 million compared with the original estimate of $90 million. Taking into account unidentified capital movements and net errors and omissions estimated at $321 million, an overall surplus of $339 million is expected in 1972/73.

The forecast for 1973/74 (Annex XVII) indicates an increase by $96 million to $720 million in the current account deficit, together with further substantial growth in inflows of project aid and direct investment which finance the bulk of this deficit. Program aid utilization is expected to increase only marginally from this year to the next, by under 5 percent, and known official debt service payments also show only a modest increase, from $107 million to $120 million.

1/ Based on IMF Report subtitled "Recent Economic Developments" November 29, 1972

The official forecast provides for an improvement in the basic balance of $50 million. On present estimates the net reserves available to the monetary authorities may amount to about $340 million at the end of the 1972/73 fiscal year, enough to finance approximately 2 1/2 months imports of goods and services.

E. Debt Service Capacity 1/

1. Foreign Indebtedness

Bilateral agreements for the rescheduling of the pre-July 1966 debts in accordance with the Paris Minute have been signed with all the participating countries. Agreements with nonparticipating creditor countries have been concluded with Bulgaria, Czechoslovakia, Eastern Germany, Poland, Rumania, and the U.S.S.R.

According to available data on Indonesia's pre-July 1966 guaranteed debts, evaluated at exchange rates in effect on December 31, 1971, the total principal together with rescheduled contractual interest and moratorium interest accrued prior to January 1, 1970, amounted to $1,988.6 million; of this total, $709.1 million was owed to the participating creditor countries, $1,261.1 million was owed to the CMEA countries, mainland China and Yugoslavia, and $18.4 million was owed to other creditor countries. Total interest payments, excluding those already rescheduled and moratorium interest accrued before January 1, 1970, amounted to $266.4 million. Owing to the realignment of currencies of December 1971, the dollar value of the principal, rescheduled interest and accrued moratorium interest due to the three groups of creditor countries increased by the following amounts: $49.7 million for participating countries; $98.5 million for the CMEA countries, Yugoslavia and mainland China; and $0.1 million for other creditors. The remaining interest increased by $7.0 million for participating countries; $1.9 million for CMEA countries, Yugoslavia and mainland China; and $0.1 million for other creditors. With the application of the Bisque clause, annual repay-

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1/ Based on IMF Report subtitled "Recent Economic Developments" dated November 29, 1972 (p. 50-54)

ments of principal on pre-July 1966 debts would amount to about $36.6 million during 1971-75, and increase to about $91.3 million during 1992-99. In addition to the annual interest payment of about $17.9 million during the years 1985-99, deferred interest will be paid, increasing from about $0.7 million in 1971 to about $13.6 million in 1993 and declining thereafter to about $10.3 million in 1999

Total government loans contracted from July 1, 1966 through December 31, 1971, amount, at the new exchange rates, to $2,276.6 million. Service payments on these loans are estimated at about $48.4 million in 1972 and are expected to increase to about $129.9 million in 1982. Available data on other foreign debts of the public sector (primarily foreign debts of Pertamina), indicate total liabilities exceeding $500 million, predominantly in the 3-5 year range. Means are being considered to pr vent these borrowings in the 1-15 year range from becoming excessive. Service payments due in 1972 were about $60.5 million; service payments on these debts are expected to increase to a minimum of $115 million in 1974, remain near that level in 1975, and decline thereafter.

2. Debt Service Requirements

As a result of the rescheduling of Indonesia's pre-1966 external debt, the ratio of debt service requirements to export earnings currently is low--about 12%. It will rise appreciably throughout the 1970's as grace periods expire on aid received after 1966 and as medium term obligations fall due but should remain manageable during the decade. Taking into account service payments on rescheduled loans, total service payments on public sector external debts amount to $147.0 million in 1972, $177.0 million in 1973 and reach $215.0 million by 1982.

Given Indonesia's debt service capacity, we feel that A.I.D.'s most concessional terms--40 years, including a 10-year grace period with 2 percent interest during the grace period and 3 percent thereafter continue to be appropriate for Indonesia. Aid from the IGGI donors has been given on concessional terms approximating the standards set by the DAC and other IGGI donors have gradually been softening the terms of their concessional aid.

With the soft terms of the loan proposed herein, particularly the 10-year grace period, the over-all rescheduling of old debts already agreed upon, and the potential for Indonesia's export expansion, the repayment prospects for the proposed loan appear reasonable. Our assessment of Indonesia's repayment prospects is shared by other IGGI donors who are making loans for similar project activities.

VIII. Loan Administration

A. Timetable for Implementation

A schematic construction table appears in Annex XII.

Loan Authorization	February 23, 1973
Loan Agreement Negotiated and Signed	May 1, 1973
Conditions Precedent to Opening Letters of Commitment Met	November 1, 1973
Project Engineer Selected and Contract Negotiated	November 1, 1973
Invitation for Bid for Construction Contract Approved	March 1, 1975
Conditions Precedent to Construction Met and Construction Contract Approved	September 1, 1975
Construction Work Completed	June 1, 1978
Engineering Supervisory Services Completed	August 1, 1978

B. Project Execution

1. Project Plan

The project includes: a) design; b) technical assistance and training; c) construction; and d) supervision.

The consultant will be responsible for final design of all systems, bills of materials, specifications for all equipment, and IFBs for procurement. He will define construction standards, material specifications and warranties. He will also prepare the construction IFB, evaluate bids, recommend the award for the construction contract, and supervise construction. Finally, he will be responsible for carrying out inspection and testing, and will recommend to PLN whether to accept the completed work. See Annex XIII.

The consultant will train PLN personnel assigned to the project and will plan and carry out participant training for selected personnel from the PLN counterpart team.

The construction contractor will carry out construction as scheduled by the consultant in accordance with standards established for the project and will train work crews and maintenance personnel during the course of the project.

2. Terminal Dates for Conditions Precedent, Disbursing Authorizations and Disbursements

a. Conditions precedent to opening letters of commitment (selection of consultant) will be met within six months of the loan agreement, and for construction within twenty-eight months.

b. Terminal date for requests for new disbursing authorizations will be forty months after the loan agreement. This permits one year for opening letters of commitment after all conditions precedent have been met.

c. Terminal date for disbursement will be eighty-one months after signing of the loan agreement. This provides twelve months for opening the letter of credit for construction, thirty-five months for construction and completion of engineering, and six months for final accounting and disbursement.

C. Use of U.S. Government Excess Property

U.S. Government Excess Property cannot be used for this project in view of the particular specifications required for project components. To the extent equipment other than that procured under this loan is required, the contractor will use his own.

IX. Conditions Precedent and Covenants

A. Conditions Precedent to Opening Letters of Commitment

1. Opinion of the Indonesian Minister of Justice, or other legal counsel satisfactory to AID, that the loan agreement has been duly authorized or ratified by, and executed on behalf of, the GOI and is a valid and legally binding obligation in accordance with its terms.

2. Opinion of the principal legal officer of PLN, or other legal counsel satisfactory to AID, that the loan agreement has been duly authorized or ratified by, and executed on behalf of, PLN and is a valid and legally binding obligation in accordance with its terms.

3. Names of the persons who will act as the representatives of the GOI and PLN, together with evidence of their authority and specimen signature of each.

4. A draft contract between PLN and a consultant. The selection of said consultant and terms of the contract shall be in accordance with AID Capital Projects Guidelines for engineering services.

B. Conditions Precedent to Opening Letters of Commitment for Construction Financing

1. Plan for project implementation, including the transmission system and designation of basic system standards for the Bogor distribution system. The latter shall include standards for service wiring and voltage level of primary and secondary lines.

2. Assurance that rights of way or entry, real property leases or acquisitions necessary for project implementation and system operation have been obtained or plans made and financing provided therefor.

3. Assurance of the establishment of (1) a budgetary allocation for the project for the first fiscal year in which funds will be required, in an amount based on the estimate of the consultant as approved by PLN and (2) an approved payment authorization of Indonesian currency in the amount required for the first three months of project operations, based on the estimate of the consultant as approved by PLN.

4. Contract or contracts for construction. Selection of the firms and the terms of the contracts shall be in accordance with AID Capital Projects Guidelines for construction services.

C. GOI Covenants

1. Perform its obligations concerning PLN organization, authority, structure, and operations as set forth in AID and IDA agreements.

2. Make available to PLN foreign exchange over and above the proceeds of this loan if necessary to purchase third country spare and replacement parts for maintenance, repair and operation of existing facilities until the project is completed.

3. Make available to PLN on a timely basis any Indonesian currency necessary for implementation and completion of the project, and any foreign exchange necessary to complete the project if the loan proceeds are not sufficient.

4. From completion of the project until such time as PLN may become an autonomous, non budget-supported entity. ensure that PLN has funds sufficient to meet the operating and maintenance expenses necessary for effective utilization of the project.

5. Assist PLN to carry out the project, or cause the project to be carried out, with due diligence and efficiency, and in conformity with sound engineering, construction, financial, administrative, and management practices, and any plans, specifications, contracts, schedules and other arrangements, together with all modifications therein, approved by AID.

D. PLN Covenants

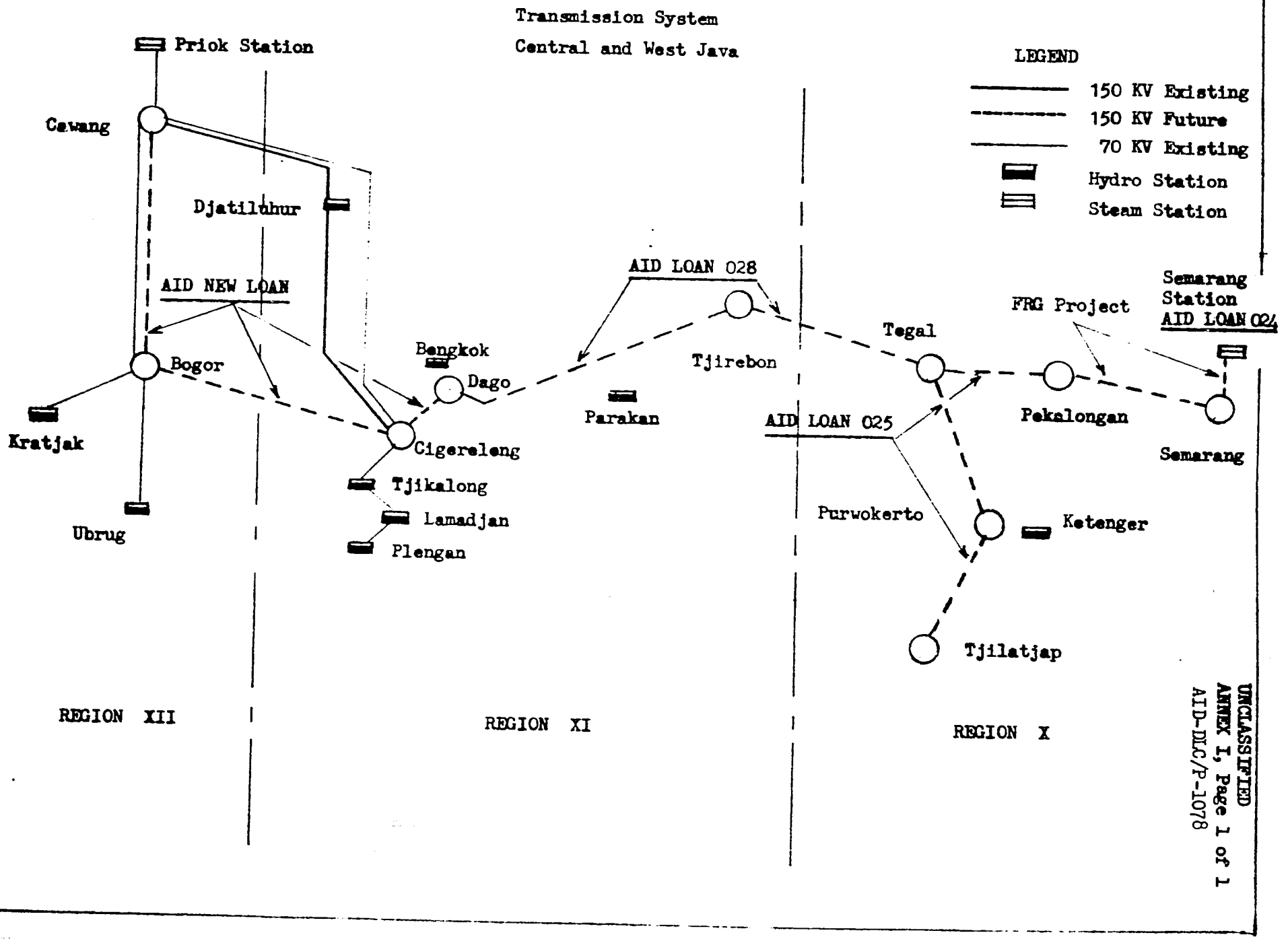
1. Perform its obligations concerning its organization, authority, structure and operations as set forth in AID and IDA agreements.

2. Make available any Indonesian currency necessary for timely implementation and completion of the project to include quarterly apportionment of funds as determined from the consultant's estimate of Indonesian currency requirements.

3. Submit for AID approval prior to implementation, issuance or execution all plans, specifications, construction schedules, bid documents, documents concerning solicitation of proposals relating to Eligible Items, all contracts, and all modifications of any of these documents.

4. Carry out the project, or cause the project to be carried out, with due diligence and efficiency, and in conformity with sound engineering, construction, financial, administrative and management practices, and any plans, specifications, contracts, schedules and other arrangements, and with all modifications therein, approved by AID.

5. Adequately maintain, repair and operate, in accordance with sound public utility practices, all Eligible Items and any facilities constructed by PLN in connection with their use.



I N D O N E S I A

I.G.G.I. DONOR LOANS TO ELECTRIC POWER SECTOR

AS OF DECEMBER 31, 1972

NO	COUNTRY	AMOUNT	PROJECT	LOCATION
A.	USA / AID	(US $ 000)		
1	- USA / AID	16,800	Central Java Electrification Project	Central Java
2	- USA / AID	13,800	Medan Electric Power Rehabilitation Project	North Sumatra
3	- USA / AID	19,700	Semarang Steam Power Plant Project	Central Java
4	- USA / AID	21,000	Ketenger Transmission and Distribution Rehabilitation Project	Central Java
5	- USA / AID	302.3	Central Java (Dieng Plateau) Geothermal Development Project.	Central Java
	USA / AID TOTAL	71,602.3 1/		
B.	OTHER DONORS			
1	UNITED KINGDOM	8,858.1	Bali Electrification Project	Bali
	UNITED KINGDOM	1,172.3	Mycro Hydro Power Plant Project	Misc.
	UNITED KINGDOM TOTAL	10,030.4		
2	F R A N C E	136.7	Mycro Hydro Power Plant Project	Misc.
	F R A N C E	12,805.2	West Java Transmission Projec	West Java
	F R A N C E TOTAL	12,941.9		

SOURCE: PLN Central
January 26, 1973

1/ See also 'Loans in Process' on page 4 this Annex for West Java T&D Phase I and Central Java Loan Amendment for total US AID Loans $99.7 million.

B

UNCLASSIFIED
ANNEX II, Page 1 of 4

NO	COUNTRY	AMOUNT	PROJECT	LOCATION
3	GERMANY - FRG	3,225.6	Central Java Electrification Project (Phase I & II)	Central Java
	GERMANY - FGR	3,101.6	- " -	- " -
	FGR TOTAL	6,327.2		
4	NETHERLANDS	2,035.4	Isolated Diesel & Distribution Network Project	Misc.
	NETHERLANDS	3,481,2	- " -	- " -
	NETHERLANDS	2,044.2	- " -	- " -
	NETHERLANDS	2,337.4	- " -	- " -
	NETHERLANDS TOTAL	9,858.2		
5	DENMARK	945.7	Isolated Diesel & Distribution Network Project	Misc.
	DENMARK	2,149.2	- " -	
		3,094.9		
6	J A P A N	14,721.7	Tanjung Priok Steam Power Plant	Jakarta
	J A P A N	934.7	Asahan Hydro Power Plant	North Sumatra
	J A P A N	9.451.7	East Java Transmission Project	East Java
	J A P A N	1,647.3	Kali Konto Hydro Power Plant	East Java
	J A P A N	12,921.9	Karang Kates Hydro Power Plant (I & II)	East Java
	J A P A N	12,386.7	Riam Kanan Hydro Power Plant	South Kalimantan

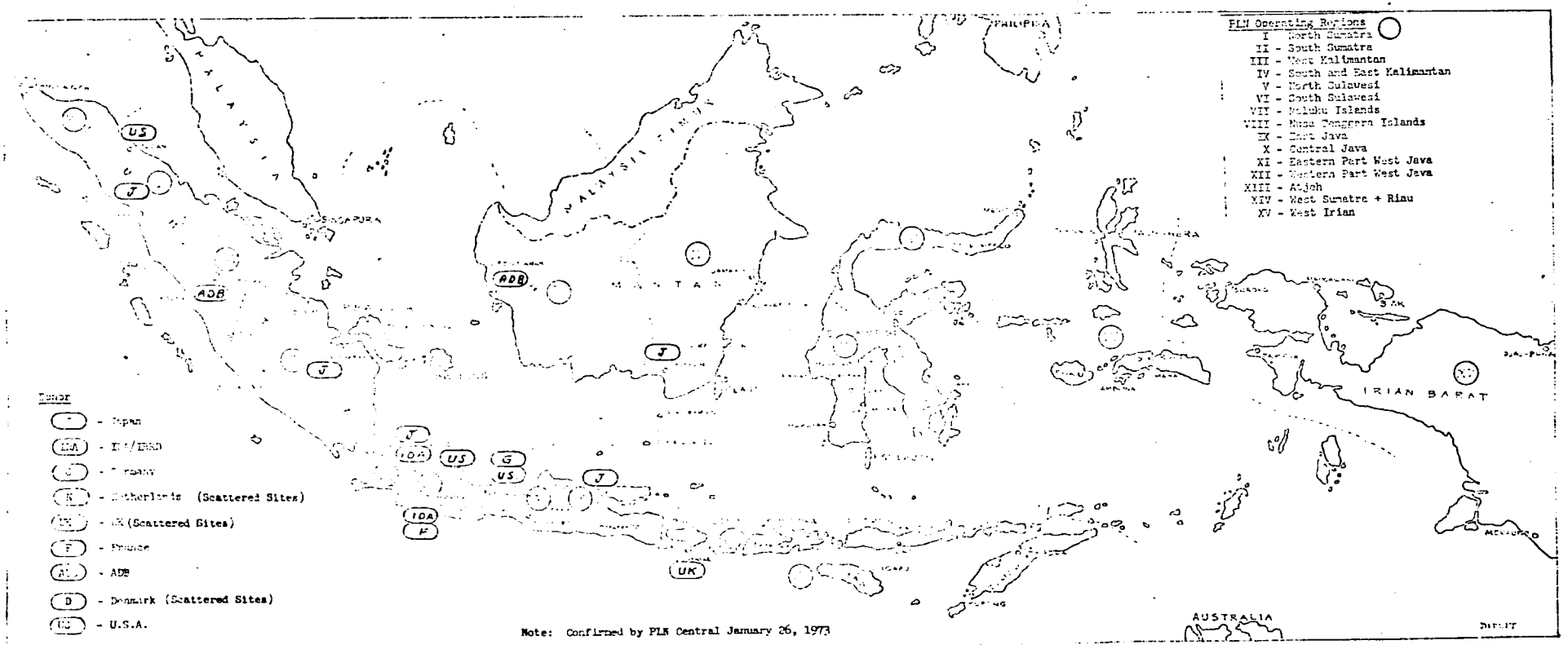
NO	COUNTRY	AMOUNT	PROJECT	LOCATION
	JAPAN	1,377.4	Banjarmasin Distribution Network Project	South Kalimantan
	JAPAN	292.1	Palembang Electric Power System Project	South Kalimantan
	JAPAN TOTAL	52,893.5		
7	A.D.B.	4,600	Pontianak Power Project	West Kalimantan
	A.D.B.	7,100	West Sumatra Power Project	West Sumatra
	A.D.B.	2,600	Pekanbaru Power Project	Riau Province
	A.D.B. TOTAL	14,300		
8	I.D.A.	350	West Java Long Range Planning Study	West Java
	I.D.A.	15,000	Jakarta Electricity Distribution Project (Phase I)	Jakarta
	I.D.A.	40.000	Jakarta Electricity Distribution Project (Phase II)	Jakarta
	I.D.A. TOTAL	55,350		
	U.S.A.	71,602.3		
	OTHER DONORS	164,796.1		
	TOTAL IGGI DONOR LOANS	US $ 236,398.4 2/		

Convertion Rate used :

FF	1 =	US $	0,1953125
Dcr	1 =	"	0,1432815
DM	1 =	"	0,3101565
ƒ	1 =	"	0,003245315
NFS	1 =	"	0,37969
£	1 =	"	2,605313
NTS	1 =	"	0,025

2/ See also 'Loans in Process' on page 4 of this Annex for total IGGI commitments of $304.6.

NO.	Name of Project	Proposed Donor	Proposed Loan
A.	Loan in Process		(US $. 1000)
1.	West Java Transmission and Distribution (Phase I)	A I D	17,200
2.	Amendment No.4 to Loan Agreement No.497-4-019 (An additional loan for Central Java Electrification Project)	A I D	10,900
3.	Central Java Elecrification Project III & IV	K F N	11,191
4.	Ujung Pandang Power Project	A B D	5,300
	Loan Under Process - Total		44,591
B	Loan Commited		
1.	East Java Transmission & Distribution System Project	Japan	11,870
2.	Isolated Diesel and Distribution Power Project (for Sumatra & East Java)	Japan	2,300
3.	East Java Power Plant	Japan	9,410
	Loan Commitment - Total		23,580



Note: Confirmed by PLN Central January 26, 1973

1973/74. INDONESIA ELECTRIC POWER PROJECTS
PLANNED BUDGET CEILING SUPPORT
(Still to be approved by Min. of Finance & Bappenas).

A. DONOR ASSISTANCE RELATED PROJECTS

No.	PROJECT	Rupiah Budget x Rp.1.000,-	US $ Eq. x US $ 1000	DONOR COUNTRY	NOTES
1.	Central Java Distribution	967,000	2,330.120	Denmark US AID	*
2.	East Java Distribution	400,000	963.855	Denmark Japan (Yugoslavia)	*
3.	Banda Aceh Distribution	60,000	144.578	Denmark Netherland Japan	* *
4.	North Sumatra Distribution	400,000	963.855	Denmark Netherland US AID Japan	* *
5.	West Sumatra Distribution	140,000	337.349	Denmark Netherland ADB	
6.	Jambi Distribution	15,000	36.144	Denmark Netherland	*
7.	South Sumatra Distribution	140,000	337.349	Denmark Netherland Japan	
8.	Lampung Distribution	35,000	84.337	Denmark Japan	* *
9.	Bengkulu Distribution	40,000	96.385	Denmark France	* *
10.	West Kalimantan Distribution	126,000	303,614	Denmark Netherland ADB Japan	* *
11.	Central Kalimantan Distribution	10,000	24.096	Denmark Netherland	
12.	South Kalimantan Distribution	130,000	313.251	Denmark Netherland Japan	
13.	East Kalimantan Distribution	54,000	130.120	Denmark Netherland US AID	*

SOURCE: PLN Central
January 26, 1973

No.	PROJECT	Rupiah Budget x Rp.1.000,-	US $ Eq. x US $ 1000	* DONOR COUNTRY	NOTES
14.	North Sulawesi Distribution	100,000	240.963	Denmark Netherland A D B J a p a n	 * *
15.	Central Sulawesi Distribution	15,000	36.144	Denmark Netherland J a p a n	* *
16.	South Sulawesi Distribution	115,000	277.108	Denmark Netherland J a p a n	 *
17.	South East Sulawesi Distribution	20,000	48.192	Denmark Netherland	*
18.	M a l u k u Distribution	50,000	120.481	Denmark Netherland J a p a n	 *
19.	B a l i Distribution	175,000	421.686	Denmark Netherland U. Kingdom	
20.	West Nusa Tenggara Distribution	15,000	36.144	Denmark Netherland U. Kingdom	 *
21.	East Nusa Tenggara Distribution	20,000	48.192	Denmark Netherland U. Kingdom	 *
22.	Tonsea Lama Hydro Power	106,000	255.421	Denmark Netherland A D B	 *
23.	Microhydro Power	194,000	467.469	F r a n c e U. Kingdom (Canada)	* * *
24.	West Java Transmission	865,000	2,084.337	F r a n c e US AID	 *
25.	West Java Distribution	400,000	963.855	F r a n c e US AID	 *
26.	Garung Hydro Power	175,000	421.686	West Germany	*
27.	Central Java Diesel Power (KFW)	28,000	67.469	West Germany (KFW)	
28.	Central Java Transmission	900,000	2,168.674	West Germany	
29.	Asahan Hydro Power	170,000	409.638	J a p a n	*
30.	Riam Kanan Hydro Power	540,000	1,301.204	J a p a n	

No.	PROJECT	Rupiah Budget x Rp.1.000,-	US $ Eq. x US $ 1000	DONOR COUNTRY	NOTES
31.	Karang Kates / Selorejo Hydro Power	352,000	848.192	Japan	
32.	Banda Aceh Diesel Power	25,000	60.240	Japan Netherland	*
33.	Karang Kates III Hydro Power	948,000	2,284.337	Japan	*
34.	North Sumatra Diesel Power	300,000	722.891	Japan Netherland US AID	*
35.	West Sumatra Diesel Power	80,000	192.771	Japan Netherland A.D.B.	*
36.	Riau Diesel Power	45,000	108.433	Japan Netherland A.D.B.	* *
37.	West Kalimantan Diesel Power	115,000	277.108	Japan Netherland A.D.B.	*
38.	South Sulawesi Diesel Power	19,000	45.783	Japan Netherland	*
39.	Maluku Diesel Power	30,000	72.289	Japan Netherland	*
40.	Surabaya Steam Power	64,000	154.216	Japan	*
41.	East Java Transmission	900,000	2,168.674	Japan (Yugoslavia)	
42.	Riau Distribution	60,000	144.578	Japan Netherland A.D.B.	* *
43.	Priok III & IV Steam Power	230,000	554.216	Japan	
44.	East Java Diesel Power	25,000	60.240	Netherland	
45.	Jambi Diesel Power	5,000	12.048	Netherland	
46.	East Kalimantan Diesel Power	50,000	120.481	Netherland US AID —/	*
47.	Central Kalimantan Diesel Power	5,000	12.048	Netherland	
48.	North Sulawesi Diesel Power	25,000	60.240	Netherland A.D.B.	*
49.	Bali Diesel Power	724,000	1,744.578	Netherland U. Kingdom	
50.	East Nusa Tenggara Diesel Power	10,000	24.096	Netherland U. Kingdom	*

No.	PROJECT	Rupiah Budget x Rp.1.000,-	US $ Eq. x US $ 1000	DONOR COUNTRY	NOTES
51.	West Nusatenggara Diesel Power	7,500	18.072	Netherland U. Kingdom	 *
52.	South Sumatra Diesel Power	5,000	12.048	Netherland	
53.	Central Sulawesi Diesel Power	5,000	12.048	Netherland	
54.	Central Java Diesel Power (USAID)	60,000	144.578	Netherland US AID	
55.	Lampung Diesel Power	5,000	12.048	Netherland	
56.	Survey & General Planning	135,000	1,686.746	Netherland (U N D P) I.D.A.	* * *
57.	Yogjakarta Diesel Power	153,000	368.674	US AID	
58.	Semarang Steam Power	450,000	1,084.327	US AID	
59.	Ketenger System	650,000	1,566.265	US AID	
60.	Jakarta Gas Turbine	250,000	602.409	US AID	*
61.	Power Reseach Institute	130,000	313.253	US AID 1/ (UNIDO/Sweden) (Colombo Plan) J a p a n (New Zealand)	* * * * *
62.	Electric Power Survey	150,000	361.445	US AID 2/ J a p a n I.D.A. A.D.B./(Canada)	* * * *
63.	Batang Agam Hydro Power	600,000	1,445.783	A.D.B.	
64.	Jakarta Raya Distribution	1.800,000	4,337,783	I.D.A.	
65.	Muara Karang Steam Power	700,000	1,686.746	I.D.A.	*
66.	Management & Engineering Service	95,000	228.915	I.D.A.	
	TOTAL DONOR ASSISTANCE RELATED PROJECTS	15,612,500	37,620.438	(A)	

1/ Dieng Geothermal Exploratory Drilling

2/ Study for North Sumatra Long Range Plan

B. P.L.N. SEPARATE PROJECTS

No.	P R O J E C T	Rupiah Budget x Rp.1.000,-	US $ Eq. x US $ 1000	D O N O R COUNTRY	N O T E S
1.	South Sulawesi Diesel Power	4,000	9.638	-	
2.	Palembang Steam Power	341,000	821.688	(Yugoslavia)	-
3.	North Sumatra Transmission	1,000	2,409	-	
4.	Bengkulu Diesel Power	8,000	19.277	-	
5.	Surabaya Gas Turbine Power	1,250,000	3,012.048	-	
6.	Power Equipment	429,000	1,033.734	-	
7.	Training and Upgrading	75,000	180.722	-	
	TOTAL P.L.N. SEPARATE PROJECTS =	2,108,000	5,079.516	(B)	
	GRAND TOTAL (A) + (B) =	17,720,500	42,699.954		

* PROPOSED 1973 / 1974

(.....) NON - IGGI DONOR COUNTRY

SUMMARY OF PLN CHARTER

1. The Charter is in the form of Government Regulation No. 18/1972 decreed by the President of the Republic on June 3, 1972 and promulgated in the State Gazette on the same date.

2. The object of PLN is "to participate in the development of the economy and the national resilience pursuant to the policy of the Government and to carry out activities in the whole field of electric power to improve the Indonesian standard of living."

3. It is to carry out activities in the fields of:

"a. generation, transmission and distribution of power;

b. planning and construction of power facilities;

c. operation and development of power facilities;

d. provision of services in the field of power."

4. PLN is granted the exclusive right and responsibility for generating, transmitting and distributing electric power in Indonesia. It is expected to follow sound commercial and industrial practices in carrying out these responsibilities. It is also responsible for construction of new generating plants and power networks including procurement according to sound commercial and industrial practice.

5. Private generation plants are permitted to the extent necessary to satisfy the owner's requirements. They are, however, required to register with PLN and conform with any imposed conditions of operation. Plants and systems existing at the time the regulation was enacted are exempt from registration. Generation in excess of an owner's needs may be authorized and PLN may in such cases permit or impose obligations to distribute power to prospective consumers in the surrounding areas.

6. The powers of PLN enable it to:

"a. acquire and own land;

b. have access to thoroughfares not for public use;

c. enter public or private property and/or occupy it temporarily;

d. install lines above or under public or private properties;

e. open trenches in both public and private roads."

PLN has land rights in accordance with the provisions of the Agrarian Law.

7. The capital of PLN are assets of the State and are initially equal to the net value of assets owned by PLN at the time of establishment as a State enterprise. This value has been determined by the Minister of Finance. Revaluation of assets will be permitted from time to time.

8. PLN may acquire funds by the issue of bonds or debentures.

9. Basic tariff rates are to be proposed by the Board of Directors to the Minister who will obtain the approval of the President. The basic rates will be sufficient to cover operating expenditures, depreciation, debt service, taxes, and leave a surplus to meet a reasonable portion of the cost of its expansion program. The Minister of Public Works and Power determines the amount of surplus.

10. The Minister of Public Works and Power also decides general policy and exercises general control over the activities of PLN. He is advised by an Advisory Board comprising:

Minister of Finance
Ministry of Industry
Minister of National Development Planning (Chairman of Bappenas)

on all major policy, including annual and long-range development and investment programs, revision of rates, and annual audits.

11. Management of PLN is assigned to a Board of Directors consisting of a President Director responsible to the Minister, and at least two other Directors. The Board under the general authority, policy and control guidance of the Minister performs all basic management functions. Members of the Board are appointed by the President of Indonesia on the Minister's recommendations for a maximum term of 5 years -- they may be reappointed.

12. The Directorate General of State Finance Control audits the annual accounts. All personnel responsible for money for PLN-owned financial securities and for materials are accountable to the State Financial Control Board.

13. The balance of net profit remaining after meeting corporation taxes and less provision for reserves, may be distributed:

55% to the overall capital investment fund

20% to general reserve, but not to exceed a total of twice the capital of PLN

25% to various employee benefits in amounts determined by the Minister.

SUMMARY

Implementing Regulation of the Minister of Public Works & Power

Reference: Presidential Decision No. 18/1972

Establishment of PLN as a "Perum"

1. Objectives: Promote the welfare of the Indonesian people by supplying electricity and exploiting natural resources for development of electrical energy. In accomplishing this, PLN must be attentive not only to industrial requirements but also to promoting energy which can be distributed to the people.

2. Implementation: In addition to taking into consideration industrial and business principles, PLN must also pay attention to the principles of sociology, ecology, technology and general safety in carrying out its tasks.

3. Supply of Equipment: PLN has the authority to supply and arrange for the equipment it needs whether financed by PLN budget or by GOI expenditure, and whether supplied domestically or from abroad but in accordance with appropriate GOI regulations.

4. Permits for Generators: Installation of generators with capacity exceeding 25 KVA must have a prior permit from PLN. Generators of capacity exceeding 2 KVA must be registered, and those under 2 KVA are free from any obligation either to register or obtain a permit.

5. Sale of Electricity: Anyone intending to sell electricity to the public must first apply for a permit from PLN.

6. Registration: Power plants and networks established as of the time the basic charter became effective (June 3, 1972) are not required to apply for a permit, but must register with PLN within three years.

7. Regulation and Intervention: PLN is to stipulate rules and requirements for connection, installation and standardization of electrical equipment, and services and rules regarding safety requirements for high tension wires. To carry out technical guidance and supervision of electrical power activities not

sponsored by PLN, the enterprise may intervene to conduct preventive control, control of maintenance, etc. and to acquire any pertinent information with respect to costs of the elctricity.

8. Land Rights: PLN has the authority to use public or private roads and the right to land use in accordance with the law.

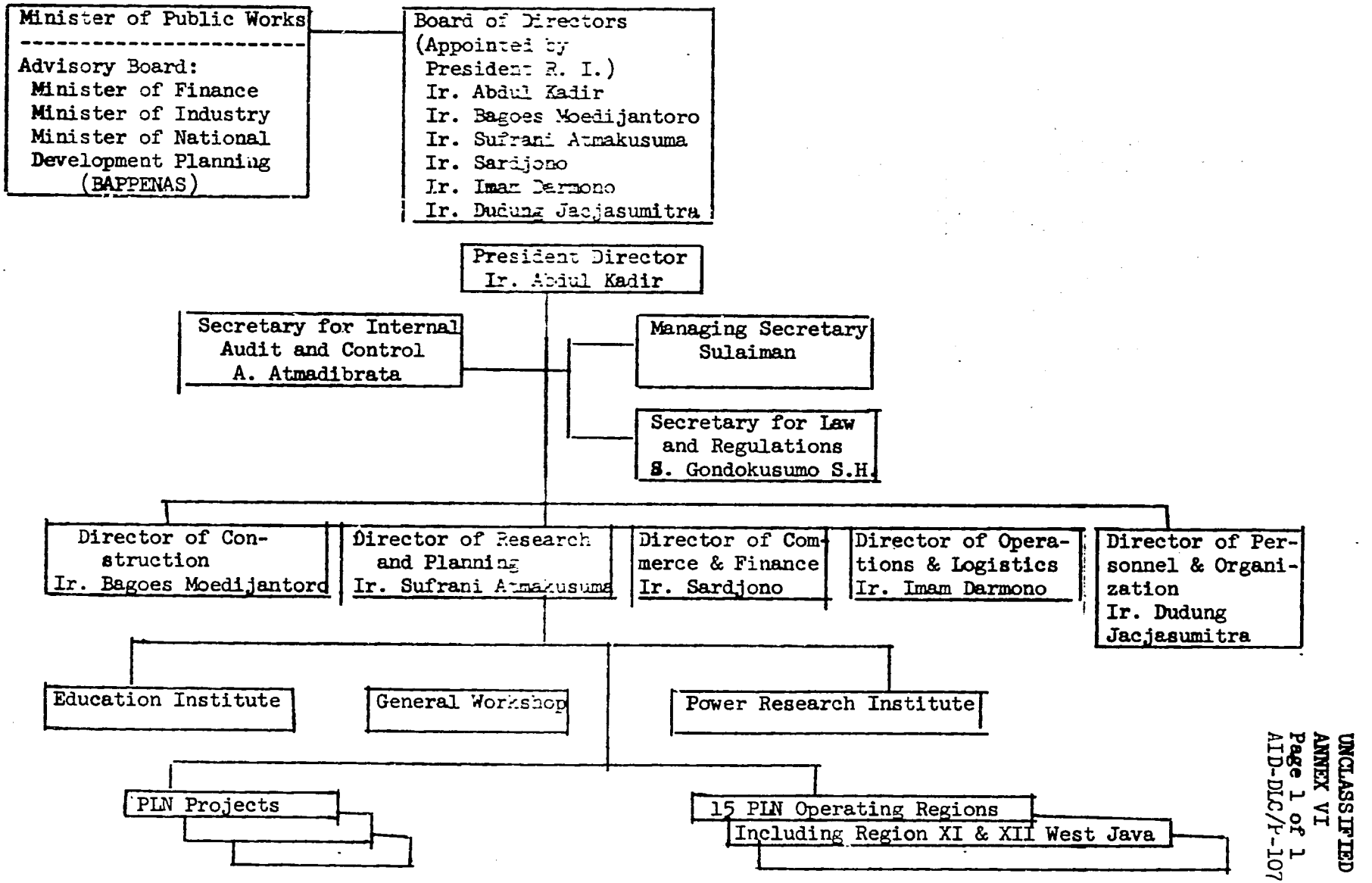
9. Budgets: The PLN routine budget will be submitted to the Minister, at the latest three months before the commencement of the fiscal year. Consideration by the Minister may be postponed a total of three months in the fiscal year. Disapproval of the budget by the Minister means the preceding year's budget remains in effect. Procedure for submission of the investment budget is similar to the routine budget but can be done at any time of the year.

10. Reports: Quarterly reports from the Board of Directors concerning the activities of PLN are required to be submitted to the Minister and Advisory Board for each quarter. Annual income reports are also required to be submitted including balance sheets and profit and loss statements.

11. Reserves: Use of reserves will be carried out in accordance with Article 31, Paragraph 2 of Presidential Decision No. 18/1972 (see Point 13 of Summary of PLN Charter, this ANNEX).

12. Rates: To reach its target for internal financial expansion, PLN must suggest a "basic rate" and a "structure of rate" based on the considerations set forth in Article 17 of Presidential Decision No. 18, 1972 (see Section III.C,basic text this CAP).

PERUSAHAAN UMUM LISTRIK NEGARA (PLN) ORGANIZATION



UNCLASSIFIED
ANNEX VI
Page 1 of 1
AID-DLC/P-1078

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MINISTER OF FINANCE
OF THE REPUBLIC OF INDONESIA

No. B-426/MK/IV/5/1972

Djakarta, May 31, 1972

International Development Association
1818 H Street, N. W.,
Washington, D. C.
U.S.A. 20433

Gentlemen:

Referring to the provisions of section 4.05 of Development Credit Agreement IDA 165-IND and section 3.02 of Development Credit Agreement of Second Electricity Distribution Project, regarding payments of current billings for services provided by P.L.N. to government departments and agencies, the Government herewith ensures that action shall be taken to effect prompt payments of amounts due to P.L.N. for such services.

For that purpose, action shall be taken as follows:

1. P.L.N. will submit bills currently to consuming departments within the first week of each month;

2. Departments concerned will pay the bills at the latest on the 15th of the current months.

In the event that the amount of payments due exceeds the allocated budget available to the department, the department concerned will inform the Ministry of Finance. The Ministry of Finance will settle the payments due within the current fiscal year after consultation of debt certification with the departments concerned.

The balance of estimated arrears owed by government agencies up to March 31, 1972 is settled in the manner that the arrears amounting to Rp. 3.4 billion incurred in fiscal year 1970/71 is consolidated with the Government contribution paid to P.L.N. for 1971/72; and the arrears of the presently estimated amount of Rp. 2.1 billion incurred in 1971/72 will be paid by the Government to P.L.N. in cash in fiscal year 1972/73. The payment will be made on the actual amount as certified by independent auditors.

Very truly yours,

(signed) Ali Wardhana
ALI WARDHANA
Minister of Finance

SOURCE:
Provided to USAID/Indonesia
by PLN Central
January 29, 1973

MINISTER OF FINANCE
OF THE REPUBLIC OF INDONESIA

No.: B-330/MK/IV/4/1972

Djakarta, April 13, 1972

International Development Association
1818 H Street N.W.
Washington D. C. 20433
U.S.A.

Att.: Mr. Raymond J. Goodman,
Director East Asia and Pasific Department

Gentlemen:

Referring to the several provisions of Credit 165 IND concerning the finance and tariffs of PLN, and to preliminary discussions regarding related provisions of a possible second IDA Credit to PLN, I wish to inform you as follows:

1. Transfer of Assets and Approval of Balance Sheets

The Ministry of Finance approved in principle the balance sheets of PLN as of December 31, 1967, 1968, 1969 and 1970 as submitted by PLN. Related documents will be provided to the association shortly.

The Ministry of Finance has approved the transfer to PLN of all the assets listed in the balance sheet as of December 31, 1970, and shall arrange for the transfer of the new assets being added through its investment program until the date the proposed new charter of PLN shall come into effect. After that date PLN as a Perum shall own all the facilities it shall build.

The Ministry of Finance has also approved the principles according to which PLN is presently re-valuing its assets (current replacement costs less accumulated depreciation) and we expect to submit to the Association by about October of this year PLN's balance sheet as of December 31, 1971 which shall for the first time reflect the revaluation.

2. Taxes Payable due to Revaluation of Assets

The Ministry of Finance approves that PLN is exempted from paying the taxes due to the revaluation of its assets mentioned under 1) above, or, if PLN required to pay them, PLN shall not be required to pay them in cash but allowed to re-invest them in the future expansion of its facilities.

3. Arrears .....

SOURCE:
Provided to USAID/Indonesia
by PLN Central
January 29, 1973

3. Arrears of Payments from Government Agencies to PLN

In partial settlement of the payments due from Government agencies to PLN up to March 31, 1972, the Ministry of Finance has made up to March 31, 1972 the following payments to PLN:

	Date of Letter of Authorization			Amount in Rupiahs
1.	June	8,	1971	575.000.000
2.	July	15,	1971	575.000.000
3.	October	14,	1971	575.000.000
4.	January	29,	1972	591.979.277,49
5.	-		1971	1.825.714,44 x)
			Total	2.318.804.992,95

x). Paid by the Government agencies concerned.

In addition, the Bureau of the Budget and PLN have agreed to the amount estimated at Rupiahs 3.500.000.000 as representing the balance of the arrears owed by Government agencies up to March 31, 1971. This balance is paid to PLN as part of the budget allocation to PLN for the fiscal year 1971/72.

4. PLN Cash Flow Forecast for 1972

PLN's revised cash flow forecast for 1972, supported by PLN's detailed forecast of construction expenditures for 1972 which consolidates the expenditures for the Pelita and non-Pelita projects will be submitted to the Association as soon as possible.

5. Payments by Government Agencies during the Current Fiscal Year (1972/73)

The budgets of the Government agencies for the current fiscal year show separate appropriations for electric power consumption considered as being reasonable estimates of the expected billings to these agencies during the fiscal year 1972/73.

The Bureau of the Budget shall make funds available to the Government agencies in accordance with these appropriations in monthly installlents, the first installment to be transferred to the Government agencies on May 1, 1972. PLN shall bill the agencies monthly and is authorized by existing regulations to cut off service to any agency that falls into arrear with its payments by more than two months.

If on .....

If on March 31, 1973 there should be any payments outstanding to PLN because of the budget allocations mentioned above not having been adequate, the agencies concerned shall be given a supplemental appropriation for the fiscal year 1973/74 to meet that outstanding amount, and the corresponding payment shall be made to PLN not later than September 30, 1973.

6. Payments by Government Agencies in Subsequent Fiscal Years

Payments by Government agencies in subsequent fiscal years shall be based on adequate budget allocations and prompt billing and collection in the same manner as outlined under 5) above.

7. Adjustment of PLN's Tariffs on January 1, 1973

The Government is reviewing PLN's request for a restructuring and an increase in the general level of its tariffs by January 1, 1973 that would result in an increase of its sales revenues by about 25%. We shall shortly inform the Association of our views regarding the proposed specific increases and their timing.

8. Future Financial Structure of PLN

The Government is presently reviewing PLN's recommendations regarding the future financial structure of PLN, especially regarding the ratio between equity and loans. Except for payments for services rendered to Government agencies, all Government contributions to PLN until the date the proposed new charter for PLN will come into effect, may be considered as equity, whether they were made in the form of budget contributions or proceeds of foreign credits.

The present thinking of the Government is that all or part of the proceeds of foreign credits after that date should be relent by the Government to PLN. We shall inform the Association shortly in more detail about our intentions regarding the precise criteria of this future balance between equity and loans, and regarding the terms of the re-lending.

At the same time we shall furnish the Association with forecasts of the income and expenditures and forecasts of the balance sheets of PLN based on these concepts and terms.

9. All related documents concerning the above mentioned matters will be furnished to the Association as soon as possible.

Sincerely yours,
(signed) Ali Wardhana
ALI WARDHANA
Minister of Finance

PRESIDENT
REPUBLIC OF INDONESIA

DECREE OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA

NO. 28 YEAR 1972

ON

1972/1973 STATE REVENUE AND EXPENDITURE BUDGET EXECUTIVE DIRECTIVES.

. . . . . .

CHAPTER V.

STATE REVENUE AND EXPENDITURE BUDGET EXECUTIVE DIRECTIVES WITHIN HANKAM 1/ SPHERE

. . . . . .

Article 67.

Electric/telephone/gas subscription payment shall be discharged by the Department of Finance based on SKO 2/ of HANKAM Department.

a. HANKAM Department and PLN insofar as it concerns electric subscription,

. . . . . .

within the budget limit available for it by way of transfer of account imposed to BUN (State Treasurer General) account for the benefit of :

a. PLN account at bank designated by P.L.N.,

1/ HANKAM - Indonesian Department of Defense and Security

2/ SKO - Budgetary payment authorization

SOURCE: Provided to USAID/Indonesia
by PLN Central
January 29, 1973

. . . . . .

Article 69

HANKAM Department shall convey a monthly report to the Minister of Finance and Audit Board on budget receipt and expenditure consummated.

. . . . . .

Article 73

This Decree shall be effective as of April 1, 1972.

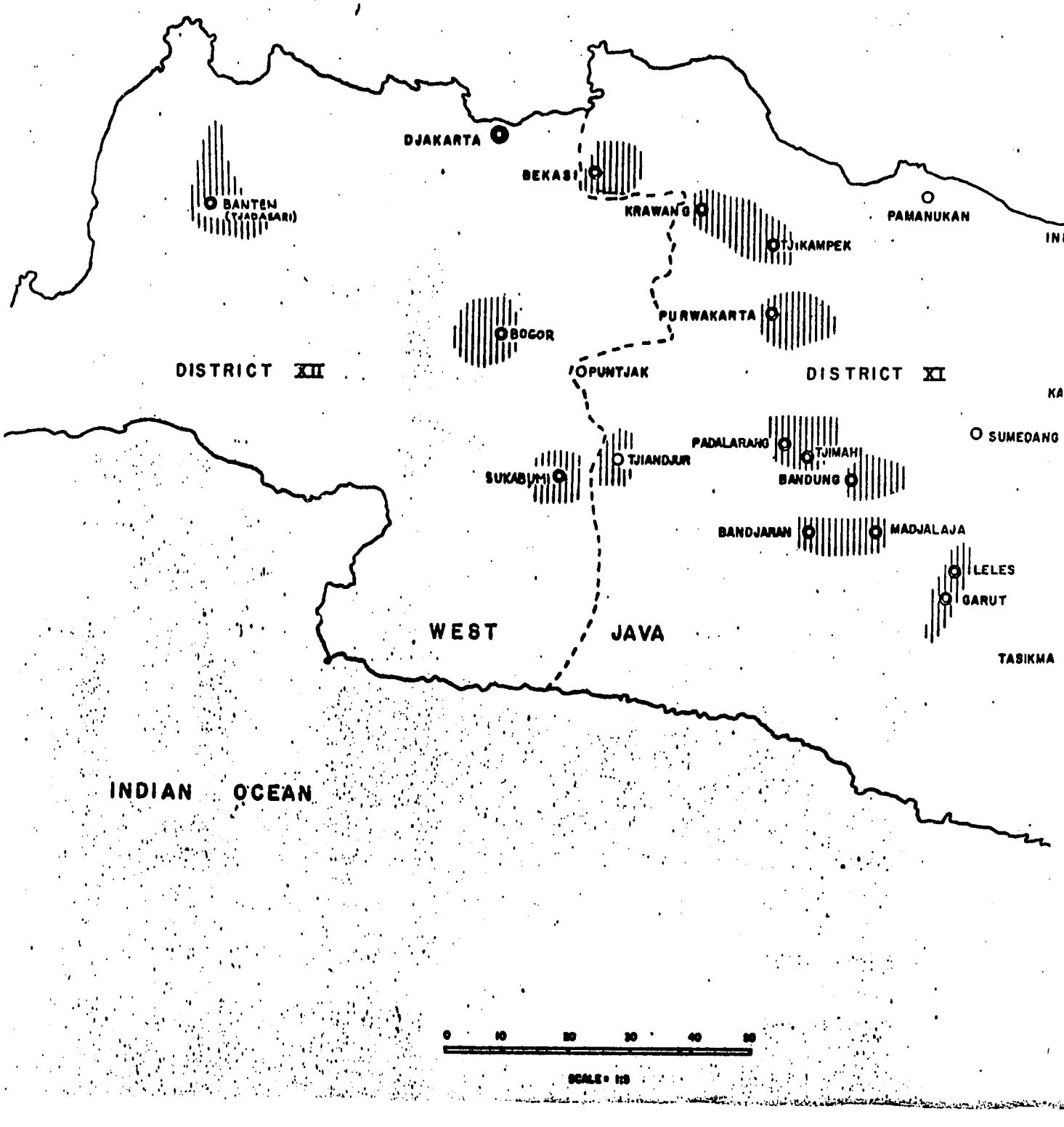
Stipulated in Djakarta
on March 30, 1972

PRESIDENT OF THE REPUBLIC OF
INDONESIA

Signed,

S O E H A R T O
T.N.I. General

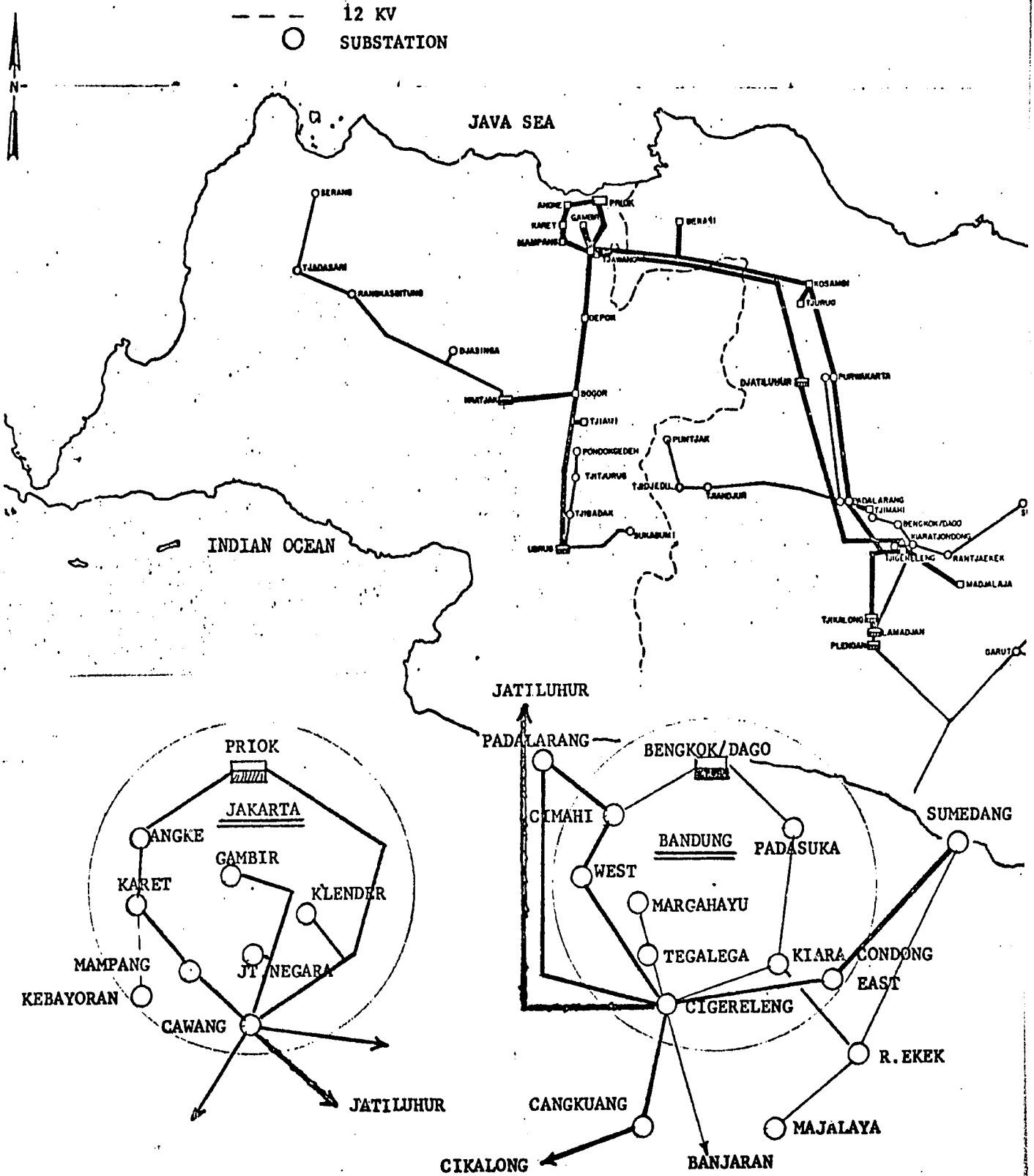
MAJOR LOAD CENTERS
WEST JAVA



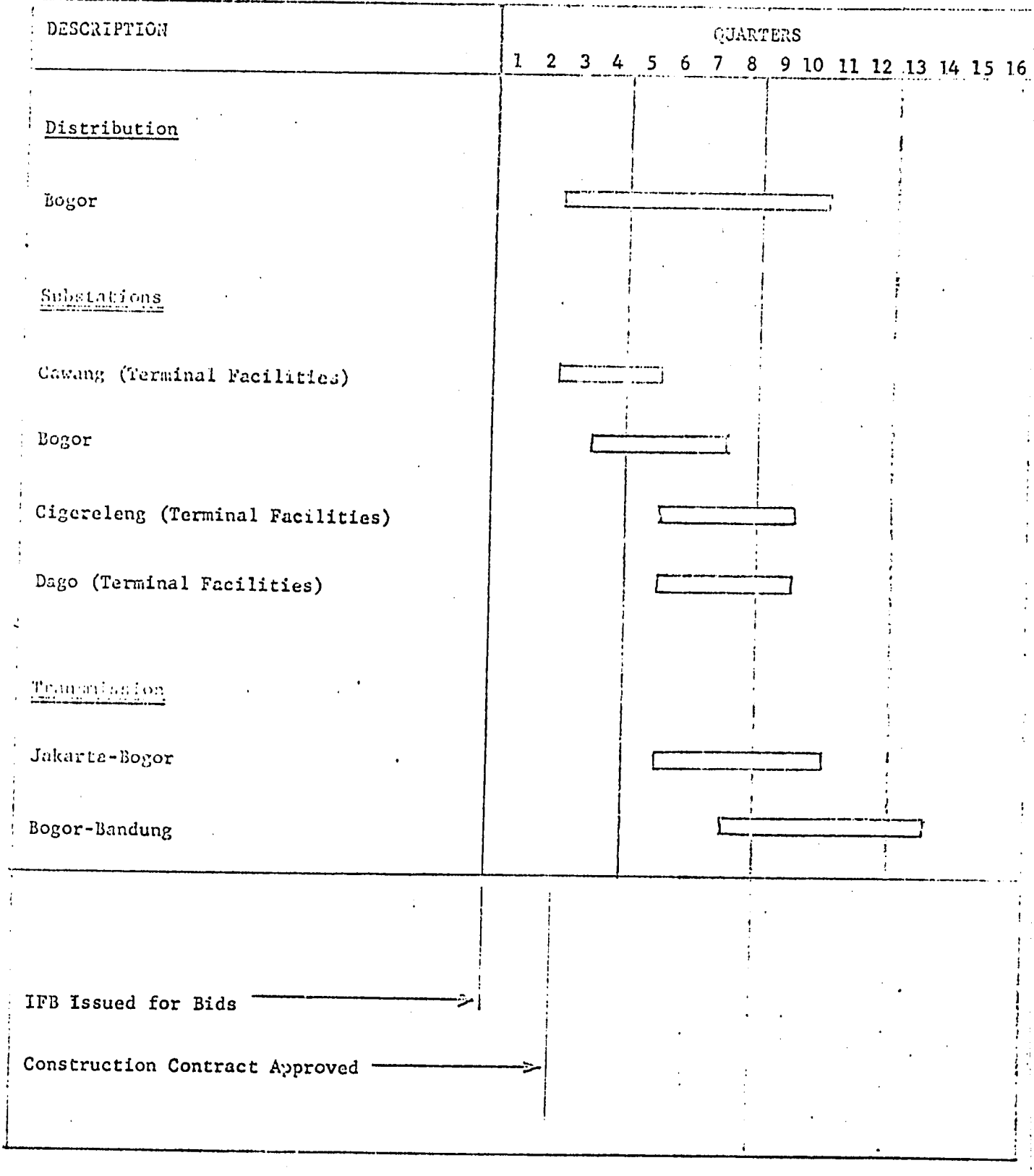
TRANSMISSION SYSTEM WEST JAVA (EXISTING)

LEGEND

- HYDRO POWER PLANT
- STEAM POWER PLANT
- 150 KV TRANSMISSION
- 70 KV TRANSMISSION
- 30 KV TRANSMISSION
- 12 KV
- SUBSTATION



WEST JAVA TRANSMISSION AND DISTRIBUTION
PHASE II
CONSTRUCTION SCHEDULE



WEST JAVA TRANSMISSION AND DISTRIBUTION
PROJECT NO. 2

PROJECT IMPLEMENTATION PLAN
AND
DESCRIPTION OF SERVICES

A. SYNOPSIS

It is planned that the project will be implemented under separate contracts let for engineering, for construction of the Bogor Distribution System, for construction of the Jakarta-Bogor-Bandung transmission line, and for construction of substations and substation terminal facilities. Substations and terminal facilities may, however, be incorporated into the transmission line contract (or the Bogor distribution contract) if such course ultimately proves to be advantageous in terms of cost and time.

Training and technical assistance will be provided under the engineering contract in accordance with a detailed training plan to be developed by the Engineer subject to PLN and USAID approval. Tools and service equipment will be provided to further assure PLN capability for adequate operation and maintenance of the facilities to be constructed under this project. Such tools and equipment will be specified by the Engineer subject to PLN and USAID approval, and will be incorporated into the construction IFB's for procurement by the construction contractors. Coordination will be effected under the engineering contract as required to assure compatibility with other related on-going projects in the electric power field and to assure conformity with management standards and procedures being developed for PLN under an on-going IDA-financed technical assistance project in Jakarta.

B. CONTRACT FOR ENGINEERING SERVICES

1. Selection and Contracting Procedures

The Engineer will be selected by PLN under the procedures outlined in the AID "Capital Projects Guidelines" for "Borrower Procurement of Engineering and Other Professional Services", M.O. 1442.1. The contract will contain the provisions mandatory for AID-financed projects. AID approval authority will be exercised as provided in M.O. 1442.1.

2. Contract Type

The Engineering contract will be a cost plus fixed fee type with a maximum limitation on U.S. Dollar and local currency costs. The contract will be between PLN and the Engineer. It will make provision, however, for AID reviews and approvals as required by M.O. 1442.2 with respect to the IFB, etc.

3. Contract Scope of Services

It is planned that the engineering contract will provide for complete services of design, preparation of construction bidding documents, pre-construction-contracting services to PLN, engineering supervision of construction as the "owner's representative", technical assistance and training. Major elements in the engineering scope of work are contemplated as follows:

a. Preparation of a Project Design Report which will incorporate design criteria, applicable design standards, and a comprehensive plan and schedule for accomplishment of the work, accompanied and supported by a preliminary CPM analysis.

b. Engineering surveys, investigations, and analyses as required for the preparation (and support) of detailed design and specifications.

c. Complete design and specifications for each element of required construction, accompanied by a detailed estimate of construction costs and overall costs.

d. Preparation of complete construction bidding documents.

e. Assistance to PLN in the receipt, tabulation and analysis of construction bids and in all procedural steps culminating in the execution of approved construction contracts.

f. Supervision and inspection of construction work in progress; assistance to PLN with respect to determination or confirmation of unit price quantities for partial and final payment purposes.

g. Assistance to PLN in final inspection, testing and acceptance procedures pertinant to completed work.

h. Preparation and/or consolidation of as-built drawings, equipment data, test reports, technical O&M manuals, etc., as required to leave PLN with a complete job record and O&M guidance.

i. Preparation of reports (progress, training and final).

C. CONTRACTS FOR CONSTRUCTION

As noted in the Synopsis given under "A" above, at least two (and possibly three) construction contracts will be let to accomplish the full construction scope of the project described in Section IV-B of the CAP. As planning and procedural steps are essentially the same for each of the contracts, no differentiation has been attempted in the outline which follows:

1. Prequalification Procedure

PLN, with the assistance and advice of the Engineer, will establish a list of prequalified bidders in accordance with the procedures outlined in the AID "Capital Projects Guidelines" for "Borrower Procurement of Construction Services", M.O. 1442.2. AID review and approval authority will be exercised as provided in the M.O.

2. The Construction IFB and Contract

a. Unit price contracting is contemplated, and bidding will be on the basis of the bidder's quotation of unit prices against quantities estimated for each unit by the Engineer and shown in the IFB. Unit prices and extensions will show separate U.S. Dollar and local currency components, together with a total expressed in terms of U.S. Dollar equivalent. The bid will contain a total (estimated) price in terms of U.S. Dollar equivalent, which will be the sum of all unit price extensions using the estimated quantities provided by the Engineer.

b. No maximum or minimum ratios of U.S. Dollars to local currency will be established in the IFB, but the IFB will provide that the bidder be prepared to support his Dollar/Rupiah breakout. Any major unsupportable imbalance will be considered cause for declaring a bid unresponsive if such imbalance is not corrected.

c. Award will be made on the basis of the lowest total price (in terms of U.S. Dollar equivalent), subject to the condition cited in the foregoing paragraph "b" and subject, further, to AID review and approval.

d. The construction contract will be between PLN and the successful bidder. It will, however, reflect the requirements of M.O. 1442.2; contain the provisions mandatory for AID-financed contracts; and be subject to AID review and approval.

e. Essentially, each construction contract will require the construction contractor to provide all personnel, equipment and materials necessary to construct the facility in strict accordance with the plans and specifications which form a part of the construction contract.

f. It is not contemplated that the construction contractor will be furnished materials and/or equipment procured for PLN's account prior to construction contracting; procurement of all new materials and equipment required for completion of the work will be effected by the construction contractor. Provision will be made, however, for the contractor's salvage and re-use of existing materials and equipment to the maximum practicable extent as determined by the Engineer.

INDONESIA

PERUSAHAAN LISTRIK NEGARA (PLN)

Assumptions for Financial Forecasts

The following assumptions were made for the financial forecasts 1972-1980:

(i) electricity sales would increase at the rate of 10% per annum up to 1975 and beyond 1975 by 14%;

(ii) tariffs would be adjusted to increase revenues by 25% in 1973 and 1975 and a further 15% in 1978;

(iii) labor costs would double in 1972 as a result of adjustments of PLN's salary scales in line with other Government salaries;

(iv) material costs (for maintenance) would increase at a rate corresponding to the estimated increase in electricity sales i.e. 10% per annum up to 1975 and beyond 1975 by 14%;

(v) provision for bad debts would increase by 3% per annum from 1971-1974, then by 1% in the following 2 years. From 1977 on no provision has been made;

(vi) depreciation has been calculated on all new assets based on an estimated life of 30 years in the absence of any detailed information on assets. Assets in service prior to 1972 have been depreciated at the rate of 10% per annum;

(vii) an interest rate of 7% per annum has been applied to all borrowings, and debt service has been calculated on the basis of annuities over a period of 25 years including 5 year grace. 1972 borrowings have been treated as Government equity since it is not expected that the transfer of assets will be completed much before the end of 1972;

(viii) the Government would offset PLN's tax liabilities of approximately Rps9 billion (US$21 million) against its unpaid electricity bills amounting to Rps7 billion (US$16.7 million);

(ix) the existing and the proposed credit from the Association would be transferred to PLN by the Government as equity; and

(x) all existing assets as of December 31, 1972 would be represented by Government equity in PLN. No provision has been made for any dividends to be fixed or declared on the equity up to 1980.

Notes to Assumptions for Financial Forecasts

No attempt is made here to analize the validity of the Assumptions for Financial Forecasts (page 1 of this Annex). However, assuming their validity, the Assumptions should be modified as stated below due to subsequent developments.

(i) Electricity sales are projected to increase at an average annual rate of 18% during the period 1970-1980. See Section VI this CAP.

(ii) As discussed elsewhere in this CAP (see Sections III and VI), tariff increases at levels higher than those stated on page 1 of 1 will probably be required.

(iii) No change.

(iv) Material costs would increase at a rate corresponding to (i) above.

(v) No change.

(vi) With revaluation of all assets on a replacement cost basis the depreciation expense would be substantially more than projected in the proforma statements.

(vii) If the GOI considers as equity all Government contributions to PLN as of June 3, 1972, except payments for services rendered to government agencies, then debt service and interest costs would be substantially less.

(viii) The Government has made provisions for payment of all PLN receivables from other Government agencies as of March 31, 1972. Actual payment must still be confirmed however, PLN tax liabilities have not been resolved. A decision favorable to PLN would reduce PLN liabilities.

(ix) No change.

(x) This assumption must be modified to reflect the comment in (vii) above.

INDONESIA

PERUSAHAAN LISTRIK NEGARA (PLN)

PROFORMA BALANCE SHEETS AS OF DECEMBER 31, 1971 THROUGH 1980 (In Billion Rupiahs)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
ASSETS											
Fixed Assets											
Fixed Assets in operation	58	92	117	159	198	275	356	495	533	675	883
Depreciation	(7)	(9)	(19)	(30)	(43)	(56)	(70)	(86)	(103)	(121)	(141)
Net fixed assets in operation	51	84	98	129	155	219	286	409	430	554	742
Work in progress	1	33	39	15	18	26	28	89	30	24	39
TOTAL FIXED ASSETS	52	117	137	144	173	245	314	497	460	578	781
Current Assets											
Bank	3	5	-	6	6	11	10	10	15	18	21
Accounts Receivable (Net)	-	1	5	6	7	7	8	9	9	15	21
Materials & fuel	3	6	6	6	6	7	7	8	9	15	21
Other	1	2	-	-	-	-	-	-	-	-	-
TOTAL	9	14	13	15	19	25	25	27	33	48	63
TOTAL ASSETS	61	131	150	160	192	270	339	524	493	626	844
LIABILITIES											
Capital & Reserves											
Capital	-	41	33	33	33	33	33	33	33	33	33
Government Advances - IBA Credits	-	-	3	11	17	22	33	33	33	33	33
- Other	50	50	87	87	87	87	87	87	87	87	87
General Reserve	10	10	10	10	10	10	10	10	10	10	10
Asset Revaluation Reserve	-	-	-	-	-	-	-	-	-	-	-
Accumulated Loss	(1)	(9)	(10)	(36)	(36)	(35)	(37)	(38)	(51)	(21)	(7)
TOTAL	59	118	147	147	145	151	150	169	156	166	156
Long-term Debt											
Foreign Exchange	-	-	-	12	44	65	85	111	132	155	179
Local Component	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	12	44	65	85	111	132	155	179
Current Liabilities											
Accounts Payable (including accruals)	2	3	3	1	3	4	4	4	5	5	5
TOTAL	2	3	3	1	3	4	4	4	5	5	5
TOTAL LIABILITIES	61	131	150	160	192	220	239	284	293	326	364
Debt/Equity Ratio	0:100	0:100	0:100	7:93	23:75	30:70	37:63	42:58	45:55	48:52	49:51

April 1972

INDONESIA

PERUSAHAAN LISTRIK NEGARA (PLN)

PROFORMA STATEMENTS OF SOURCES AND APPLICATIONS OF FUNDS 1972-1980 (in billion Rupiahs)

Years Ending December 31	1972	1973	1974	1975	1976	1977	1978	1979	1980
SOURCES OF FUNDS									
Internal Cash Generation									
Operating Income	-	-	-	1	3	4	13	16	20
Depreciation	10	11	13	13	14	16	17	18	20
	10	11	13	14	17	20	30	34	40
Borrowing									
Loans from Government	27	12	33	22	22	28	24	26	28
Govt. Equity(including IDA Credits)	3	8	6	5	1	-	-	-	-
Revaluation of Assets	-	-	-	-	-	-	-	-	-
TOTAL SOURCES	40	31	52	41	40	48	54	60	68
APPLICATIONS OF FUNDS									
Construction Program									
Foreign Exchange	23	13	31	22	23	25	24	29	33
Local Currency	7	4	8	9	9	11	13	12	13
	30	17	39	31	32	36	37	41	46
Debt Service									
Amortization	-	-	1	1	2	2	2	3	4
Interest	-	1	3	4	6	8	10	11	13
	-	1	4	5	8	10	12	14	17
Net Variation in Working Capital	(1)	5	1	5	-	2	5	5	5
Operating Loss	11	8	8	-	-	-	-	-	-
TOTAL APPLICATIONS	40	31	52	41	40	48	54	60	63

April 1972

INDONESIA

PERUSAHAAN LISTRIK NEGARA (PLN)

PROFORMA INCOME STATEMENTS 1971-1980 (In Million Rupiahs)

Years Ending December 31	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Sales of Energy (GWh)	1,548	1,765	1,900	2,090	2,300	2,530	2,880	3,280	3,740	4,260	4,860
Average Revenue per kWh (Rp)	8.8	8.1	8.0	10.0	10.0	12.5	12.5	12.9	14.4	14.4	14.4
Operating Revenue											
Sales of Electricity	13.6	14.3	15.2	20.9	23.0	31.7	36.0	41.0	53.8	61.3	69.9
Other	3.8	3.0	3.2	3.3	3.4	3.6	3.8	4.1	4.4	4.7	5.0
Total operating revenue	17.4	17.3	18.4	24.2	26.4	35.3	39.8	45.1	58.2	66.0	74.9
Operating Expenses											
Salaries and Wages		3.9	4.9	6.8	6.8	6.8	7.2	7.6	8.1	8.6	9.1
Fuel		3.8	4.4	4.7	5.0	5.0	5.3	6.2	7.3	8.2	9.2
Bulk Purchase of Electricity	10.6	.7	.7	.8	.8	.8	.8	.8	.8	.8	.8
Maintenance Materials		4.0	4.2	4.6	5.0	5.4	6.1	7.0	8.0	9.1	10.4
Administration Expenses		1.9	2.1	2.3	2.5	2.7	3.1	3.5	4.0	4.5	5.1
Provision for Bad Debts		4.0	1.5	1.6	1.1	.7	.4	-	-	-	-
Depreciation			10.0	11.0	13.0	13.0	14.0	16.0	17.0	18.0	20.0
Total operating expenses	15.0	20.5	29.7	31.8	34.2	35.4	36.9	41.1	45.2	49.5	54.4
Operating Income	2.4	(3.2)	(11.3)	(7.6)	(7.8)	.9	(1.7)	4.0	13.0	16.5	19.6
Other Charges											
Prior Year Adjustments	(0.1)	1.4	-	-	-	-	-	-	-	-	-
Provision for Tax on Revaluation of Assets	-	3.3	-	-	-	-	-	-	-	-	-
Total other charges	(0.1)	4.9	-	-	-	-	-	-	-	-	-
Interest Charges											
Interest on Loans	-	-	-	.8	3.0	4.6	6.1	7.9	9.4	11.0	12.8
Interest Charged to Construction	-	-	-	(.8)	(3.0)	(4.6)	(1.2)	(3.3)	(3.3)	(4.9)	(6.7)
Total net interest	-	-	-	-	-	-	4.9	4.6	6.1	6.1	6.1
NET INCOME	2.5	(8.1)	(11.3)	(7.6)	(7.8)	.9	(1.7)	(.6)	6.9	10.4	13.5
Rate of Return on Net Fixed Assets in Operation	4.7%	-	-	-	-	.9%	1.6%	1.9%	5.0%	6.9%	7.0%

April 1971

PROJECTED ELECTRIC POWER LOAD IN WEST JAVA

A. Introduction

Politically, the western third of the island of Java consists of the D.K.I. (special capital territory) of Jakarta Raya, and the Province of West Java. This area is served by two Regions (Exploitasi) of PLN: Region XII which includes Jakarta, Bogor, Sukabumi and all areas west of those cities, and District XI which includes Bandung, Tjirebon and all remaining area eastward to the border of central Java. Each Region is divided into management areas called Branches.

Projection of the demand for electric power in West Java are based on the reports prepared by Charles T. Main Company (See in particular the C.T. Main report, Electric Power and Economic Development Forecasts for West Java, dated November, 1972.) In this projection two independent techniques were used. The first approach discussed below is based upon a 46 country model for correlating economic growth with electric growth. The second approach is based on a micro analysis of past trends and future expectations of the PLN systems in West Java. This latter analysis is described in Annex XI to the loan paper prepared for AID loan H-028 (West Java Power Phase I). The micro projections use data collected in August 1971. The correlation analysis, on the other hand, involves a model which utilizes data received in October 1972. Consequently, the projections obtained from the correlation analysis are the ones which indicate the most probable levels of future load requirements. The micro approach indicates a minimum and provides a thorough evaluation of historical trends in West Java electrical usage.

B. Correlation Analysis

The correlation model is based on the concept of interdependency between economic and electric growth. The premise is that in

developing countries the demand for electricity is dependent upon the magnitude of economic development and that failure to supply adequate amounts of electricity will result in a retardation of economic progress.

Forty six countries were included in the analysis. All of these had a per capita income of less than $(U.S.) 1,700 and available figures detailing their national incomes and production of electricity for the period starting in January 1962 and ending in December 1969. A statistical analysis of these countries showed a strong correlation between the rate of economic increase (in constant prices) and the rate of increase in the use of electricity. Whether studied as a single group of 46 countries or broken down into smaller units catagorized by similarity in per capita income there was always a correlation coefficient of at least .83 when economic and electric growth were compared.

Two sets of curves were plotted on a graph where economic and electric growth rates comprised the two axis. These curves showed the least squares best fit and the 95% confidence limit (i.e. 95% of all countries lie between the upper and lower limit bands) for the points. A study of the recent histories of these countries led to three important observations: 1) a majority of the nations which were plotted along or near to the best fit line had enjoyed stable and relatively steady increases in their economies; 2) countries which were below the best fit line and close to the lower band of the 95% confidence limit were experiencing economic difficulties and instability; and 3) most of the countries near the upper 95% confidence limit band were undergoing expansionary phases and investing relatively large sums of money into development projects in a conscious effort to stimulate economic progress. It is not unreasonable to assume that in countries with an adequate supply of electricity the future rates of economic and electric growth should be consistent with those points near the least squares best fit line, while in countries where the existing electric system is less than adequate, future rates should be similar to those suggested by the upper 95% confidence limit. If a point falls close to the lower confidence limit it is likely that the slow rate of electric growth will be a retarding factor and that in the long-run it will deter the country from realizing its full economic potential.

C. West Java

PLN District XI and District XII have experienced difficulties throughout the past decade. The historical data and analysis, included in the micro load forecast, demonstrate that demand has been considerably suppressed. This has been a discouraging influence on industries and has resulted in a situation where many enterprises generate their own electricity rather than buying from PLN.

The C.T. Main load forecast which is used here is based on the premise that the period before 1980 will be one of expansion for PLN in West Java and that by 1980 there will be no suppression of load due to an inadequate system. This is consistent with Indonesian government plans, PLN's plans, and financing schedules. The load forecast is based on the projection that the rate of economic growth during the 1970-1980 period will average almost 7% per annum and that it will decrease slightly to 6.5% during the 1980-1990 decade. Based on these premises:

West Java PLN Load Forecast

	1970-1980 Average Annual Rate of Load Increase	1980 Megawatt Requirements	1980-1990 Average Annual Rate of Load Increase	1990 Megawatt Requirements
District XI	18%	316	13%	1075
District XII	18%	138	13%	470

It cannot be expected that during the 1970-1980 period the load will increase at equal annual increments since the present generating, transmission, and distribution systems are not capable of handling such increases. The planned improvements in these systems should mean that the load will have to grow more slowly at first. By 1975 the system should be capable of meeting rapidly expanding requirements. The prime period of expansion then, given the capabilities of the system and future plans, should occur between 1975 and 1980.

The details of the probable load forecast takes into account planned improvements in the PLN system and is based on 1972 load estimates which resulted from actual production figures as of October 1972 and on PLN's revised Jakarta forecast:

Detailed Load Forecast
West Java System - December of each Year (Megawatts)

	Jakarta	Region XI	Region XII	West Java Total
1972	128	74	33	235
1973	149	83	37	269
1974	174	95	42	311
1975	204	112	49	365
1976	237	137	60	434
1977	265	169	74	508
1978	297	208	91	596
1979	333	256	112	701
1980	373	316	138	827
1985	657	582	254	1493
1990	1158	1075	470	2703
1995	2040	1980	865	4885

Table 1. Indonesia: Balance of Payments 1970/71-1972/73 and 1973/74 Projections

(In millions of U.S. dollars)

	1970/71 Actual	1971/72 Actual	1972/73 Estimates	1973/74 Projections
A. Goods and services	-350	-462	-624	-720
Oil (net)	152	204	349	460
Non-oil	-502	-666	-973	-1,180
Exports	(761)	(784)	(885)	(1,015)
Imports	(-1,008)	(-1,152)	(-1,468)	(-1,706)
Services	(-255)	(-298)	(-390)	(-489)
B. Miscellaneous capital	115	190	246	320
Direct investment	88	173	232	315
Other	27	17	14	5
C. Debt service payments	-85	-107	-109	-120
Pre-July 1966 debts	-56	-70	-62	-70
Post-July 1966 debts	-29	-37	-47	-50
D. Unidentified capital movements and net errors and omissions	-75	-43	321	--
E. Official transfers and capital	369	417	505	570
Program loans & grants	283	306	355	370
Nonfood	(161)	(202)	(228)	(210)
Food	(122)	(104)	(127)	(160)
Project loans & grants	86	111	150	200
F. Total A through E	-26	-5	339	50
G. Allocation of SDRs	28	30	...	...
H. Monetary movements (increase in assets -)	-2	-25	-339	-50

Source: IMF Report, November 29, 1972

WEST JAVA TRANSMISSION AND DISTRIBUTION - PHASE II

CERTIFICATION PURSUANT TO SECTION 611 (e) OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, Richard M. Cashin, the principal officer of the Agency for International Development in Indonesia, having taken into account among other things:

A. existence of IDA projects encompassing management assistance to the Central PLN organization and a program of reform of PLN management, operations, rate structure, etc.;

B. inclusion in existing AID capital assistance projects of technical assistance to PLN plus covenants to implement reforms derived from those carried out by Central PLN pursuant to the IDA projects;

C. enactment by the Government of Indonesia of the charter establishing PLN as a State enterprise with exclusive responsibility for generation, transmission and distribution of electric power in Indonesia as recommended under the IDA reform program;

D. acceptance in principle by the Government of Indonesia of further recommendations under the IDA reform program and the steps necessary to implement them with a view to increasing PLN financial independence from budget support,

do hereby certify that in my judgment both PLN and the Government of Indonesia have the financial capability and the human resources capability to implement, maintain and utilize effectively subject capital assistance project.

This judgment is based on the facts that:

1. The Government of Indonesia and PLN are taking reform measures in accordance with their obligations under the Government of Indonesia and PLN agreements with IDA.

2. The Government of Indonesia and PLN will agree to the obligations to be included in the authorization for subject capital assistance project.

3. Adequate planning for project implementation and sufficient financial support for timely project execution will be provided if the Government of Indonesia and PLN comply with the program set forth in the Capital Assistance Paper.

4. Implementation of this project will be based upon AID approval of engineering and construction services, including design, preparation of IFBs, bid awards, and contracting for services and procurement.

Richard M. Cashin

Richard M. Cashin
Director, USAID Indonesia

WEST JAVA TRANSMISSION AND DISTRIBUTION - PHASE II

COUNTRY TEAM RECOMMENDATION

Subject loan will be of substantial economic and social benefit to Indonesia, is consonant with overall United States objectives in Indonesia and constitutes an important element in the United States assistance program for this country. The Country Team accordingly recommends approval.

Richard M. Cashin

Richard M. Cashin
Director, USAID Indonesia

Erland H. Heginbotham

Erland H. Heginbotham
Counselor for Economic Affairs

LOAN AUTHORIZATION

AID Loan

Project No.

CAPITAL ASSISTANCE LOAN AUTHORIZATION

Provided from: Development Loan Funds
(Indonesia: Perusahaan Umum Listrik Negara;
West Java Transmission and Distribution - Phase II

Pursuant to the authority vested in the Administrator of the Agency for International Development (hereinafter called "AID") by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I, Chapter 2 Title I, the Development Loan Fund, to the Government of the Republic of Indonesia (hereinafter called "GOI") of not to exceed Nineteen Million Seven Hundred Thousand Dollars ($19,700,000) to assist Perusahaan Umum Listrik Negara (hereinafter called "Beneficiary") in financing the foreign exchange costs of equipment, materials and services necessary for the construction of transmission facilities between the cities of Jakarta, Bogor and Bandung in West Java, and rehabilitation and expansion of distribution facilities in both urban and adjacent areas of Bogor, this loan to be subject to the following terms and conditions:

1. Interest Rate and Terms of Repayment

The interest on this loan shall be two percent (2%) per annum on the disbursed balance of the loan during the first ten (10) years of the loan and three percent (3%) per annum for the remaining thirty (30) years of the loan. The principal of the loan shall be repaid in full within forty (40) years from the date of the first disbursement under the loan, and such repayment shall include a grace period of not to exceed ten (10) years from the date of first disbursement.

2. Currency of Repayment

Provision shall be made for repayment of the loan and payment of the interest in United States dollars.

3. Other Terms and Conditions

a. Unless AID should otherwise agree in writing, equipment, materials, and services financed under this loan shall have their source and origin in countries under AID Geographic Code 941 (Selected Free World).

b. The GOI shall relend the proceeds of this loan to the Beneficiary for the purposes herein provided in terms and conditions satisfactory to AID.

c. Unless AID agrees otherwise in writing, the GOI and the Beneficiary shall agree, either in the form of appropriate conditions precedent or covenants, or both, that:

(1) GOI and Beneficiary shall ensure timely availability of Indonesian currency for the project under such arrangements as AID may agree.

(2) GOI and Beneficiary shall perform or continue to perform their various obligations with respect to improvement in Beneficiary's organization, authority, structure and operations presently established in AID and International Development Association agreements with Borrower and Beneficiary.

d. This loan shall be subject to such other terms and conditions as AID may deem advisable.

_____
John A. Hannah

_____
Date

STATUTORY CHECKLIST

I. COUNTRY PERFORMANCE

A. Progress Towards Country Goals

1. FAA §§ 201(b)(5), 201(b)(7), 201(b)(8), 208. Discuss the extent to which the country is:

(a) Making appropriate efforts to increase food production and improve means for food storage and distribution.	(a) Indonesia is giving priority attention to projects which aim at increasing food production, particularly the production of rice. There are currently 100-110 donor supported technical and capital assistance projects in support of food production. The majority of the above projects are directly concerned with increasing food production, and improved food storage, distribution and marketing.
(b) Creating favorable climate for foreign and domestic private enterprise and investment.	(b) The GOI enacted a comprehensive law with built-in incentives for encouraging foreign capital investment and concluded an investment Guaranty Agreement with the US. Credits are extended at favorable terms to importers of capital goods and subject to negotiation up to five-year tax credits may be obtained for new investment in plant and facilities.
(c) Increasing the people's role in the development process.	(c) Although the Government owns the majority of the large enterprises the Government is encouraging private domestic investment. Officials of State Enterprises are receiving more freedom in management and some State Enterprises are being

	converted to semi-private corporations. Political parties have been active, press has had considerable freedom and national elections were carried out in July 1971. The Parliament is playing a role in the budgetary process inasmuch as the annual budget must be authorized by Parliament and expenditures reported in "Annual Report of Budgetary Accounts."
(d) Allocating expenditures to development rather than to unnecessary military purposes or intervention in other free countries' affairs.	(d) With the ending of confrontation with Malaysia in 1966 the Suharto Administration reversed the foreign intervention policy of the Sukarno regime. Military expenditures have been sharply reduced as the Government has concentrated the nation's domestic resources - and foreign aid receipts-on achieving economic stability and starting an ambitious development program.
(e) Willing to contribute funds to the project or program.	(e) The recipient Government will contribute local currency from the development budget to meet the local currency expenditure requirement of the project.
(f) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangement; and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom initiative, and private enterprises.	(f) and (g) Indonesia has made significant gains in freedom of speech and of the press under the Suharto Government. Major economic reforms have been instituted with IMF/IBRD assistance including incentives to growth of individual initiative and private enterprise. Inflation has been curbed and the country has stabilized prices and exchange rates. Effective December 9, 1970 the GOI esta-

(g) Responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

blished one uniform exchange rate for all types of foreign exchange. On August 9, 1971, to reduce the trade gap, the Rupiah was devalued by about 10% to Rp.415/US $1. A further devaluation in December 1971 was pegged to devaluation of the dollar; the Rupiah has remained stable since then. The rate of inflation has been reduced from 636.8 percent per annum in CY 1966 to about 25% in CY 1972. This increase over the CY 1971 figure of 10% was due to an abnormal shortage of rice. Tax revenue in real terms has increased each year at the rate of 10 to 40 percent since 1967 and is projected at the rate of 22 percent for FY 73/74. Approximately 12 percent of the development budget is devoted to the social field which includes education, health, family planning, housing, manpower, social welfare, drinking water supply, culture and religion. The cooperating Government has encouraged self-help projects such as Food for Work and other irrigation and road building projects carried out through its Department of Manpower.

B. Relations with the United States

1. FAA §620(c). Is the Government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies, including arbitration, or (b) the debt is not denied or contested by the Government, or (c) the indebtedness arises under such Government's, or a predecessor's unconditional guarantee?

620(c) We are not aware of any cases that make Indonesia ineligible under this section.

2. FAA §620(d). If the loan is intended for construction or operation of any productive enterprise that will compete with U.S. enterprise, has the country agreed that it will establish appropriate procedures to prevent export to the U.S. of more than 20% of its enterprise's annual production during the life of the loan?	620(d) The entity to be assisted by this loan will not compete with U.S. enterprise.
3. FAA §620(e)(1). Has the country's government, or any agency or subdivision thereof, (a) nationalized or expropriated property owned by U.S. citizens or by any business entity not less than 50% beneficially owned by U.S. citizens, (b) taken steps to repudiate or nullify existing contracts or agreements with such citizens or entity, or (c) imposed or enforced discriminatory taxes or other exactions, or restrictive maintenance or operation conditions? If so, and more than six months has elapsed since such occurence, identify the document indicating that the Government, or appropriate agency or subdivision thereof, has taken appropriate steps to discharge its obligations under international law toward such citizen or entity. If less than six months has elapsed, what steps if any has it taken to discharge its obligations?	620(e)(1). The majority of businesses and property owned by U.S. citizens which was nationalized during the Sukarno regime (principally in 1964 and early 1965) has been returned to U.S. owners or mutually acceptable settlement negotiated. The Government of Indonesia in a Presidential Decree dated December 14, 1966 indicated its willingness to return the remaining nationalized assets.

4. FAA §620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction by mob action of U.S. property, and failed to take appropriate measures to prevent a recurrence and to provide adequate compensation for such damage or destruction?	620(j). The country has not so permitted nor has it failed to take adequate measures.
5. FAA §620(l). Has the Government instituted an investment guaranty program under FAA §221(b)(l) for the specific risks of inconvertibility and expropriation or confiscation?	620(l). Yes.
6. FAA §620(o). Fisherman's Protective Act of 1954, as amended, Section 5. Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters? If, as a result of a seizure, the U.S.G has made reimbursement under the provisions of the Fisherman's Protective Act and such amount has not been paid in full by the seizing country, identify the documentation which describes how the withholding of assistance under the FAA has been or will be accomplished.	620(o). No. The remainder of the question is therefore inapplicable.
7. FAA §620(q). Has the country been in default, during a period in excess of six months, in payment to the U.S. on any FAA loan?	620(q). No; however, repayment of one FAA loan has been rescheduled by bilateral agreement dated 3/16/71 in accordance with terms of the Paris Agreed Minutes of April 24, 1970.

8. FAA §620(t). Have diplomatic relations between the country and the U.S. been severed? If so, have they been renewed?	620(t). No. They have not been severed.
C. Relations with Other Nations and the U.N.	
1. FAA §620(i). Has the country been officially represented at any international conference when that representation included planning activities involving insurrection, or subversion directed against the U.S. or countries receiving U.S. assistance?	620(i). We have no information as to any such representational activity.
2. FAA §620(a), 620(n). Has the country sold, furnished or permitted ships or aircraft under its registry to carry to Cuba or North Viet-Nam items of economic, military, or other assistance?	620(a), 620(n). We have no information of any such action by Indonesia.
3. FAA §620(u); App. §108. What is the status of the country's U.N. dues, assessments, or other obligations? Does the loan agreement bar any use of funds to pay U.N. assessments, dues, or arrearages?	620(u); App. §108. Indonesia is not delinquent with respect to U.N. obligations. The loan agreement limits the use of loan proceeds to importation of goods and services from AID Geographic Code 941 (Selected Free World) sources.
D. Military Situation	
1. FAA §620(i). Has the country engaged in or prepared for aggressive military efforts directed against the U.S. or countries receiving U.S. assistance?	620(i). No.

2. FAA §620(s). What is (a) the percentage of the country's budget devoted to military purposes, and (b) the amount of the country's foreign exchange resources used to acquire military equipment, and (c) has the country spent money for sophisticated weapons systems purchased since the statutory limitations became effective? Is the country diverting U.S. development assistance or PL-480 sales to military expenditures? Is the country diverting its own resources to unnecessary military expenditures? (Findings on these questions are to be made for/ each fiscal year and, in addition, as often as may be required by a material change in relevant circumstances.)	620(s). (a) The Department of Defense portion of the State Budget (which includes foreign assistance) has ranged from a high of 33% in CY 1967 to 22% in the FY 1973/74 budget, and as a percent of domestic revenues Defense expenditures for FY 73/74 are 28%. (b) We have no knowledge of any significant expenditures of foreign exchange for the military. Less than 10% of the military portion Budget is allocated for foreign exchange of the state purchases. Moreover, the Department of Defense budget includes substantial amounts for construction of roads, bridges and other civil work projects. (c) The Government is placing primary emphasis on economic development and not diverting its own resources for unnecessary military expenditures.

/ each country at least once

II. CONDITION OF THE LOAN

A. General Soundness

Interest and Repayment

1. FAA §§201(d), 201(b)(2). Is the rate of interest excessive or unreasonable for the borrower? Are there reasonable prospects for repayment? What is the grace period interest rate; the following period interest rate? Is the rate of interest higher than the country's applicable legal rate of interest?	201(d), 201(b)(2). Although Indonesia's debt burden is heavy, there has been very rapid growth in real Government revenues and favorable economic performance. With the high current level of foreign assistance, it is recognized that future debt burden will be heavy, but a comprehensive agreement providing for the

consolidation and rescheduling of Indonesia's pre 1966 debts has been made between Indonesia and its Free World creditors, including the U.S. The various donors agree this gives Indonesia a debt burden for which the prospects of repayment would appear reasonable. Country terms of a 40-year loan, 10-year grace period, 3% thereafter, pertain. The rate of interest is not higher than the country's applicable legal rate of interest.

Financing

1. FAA §201(b)(1). To what extent can financing on reasonable terms be obtained from other free-world sources, including private sources within the U.S.

201(b)(1). Loan assistance to Indonesia is provided within the frame-work of the Inter-Government Group on Indonesia (IGGI), advised by the IBRD and the IMF. This project has been selected by AID as part of the U.S. Government contribution to the IGGI consortium and as such has been supported by the IBRD resident mission. Other donors are also participating in loan assistance to the power sector (e.g. IBRD, FRG, Japan and ADB). The Exim Bank does not currently make loans of this type to Indonesia and has expressed no interest in financing this project.

Economic and Technical Soundness

1. FAA §§201(b)(2), 201(e). The activity's economic and technical soundness to undertake loan; does this application, together with information and assurances, indicate that funds will be used in an economically and technically sound manner.	201(b)(2), 201(e). This loan will finance goods and services for improved facilities for electric power service. Facilities are expected to be effectively utilized and it is expected that the system will be operated in a sound manner. The Government has entered into an agreement with a management consultant to make recommendations regarding governing laws, asset revaluation, traffic schedule, employement practices and operating procedures. This loan agreement provides for training and technical assistance in coordination with these reforms.
2. FAA §611(a)(1). Have engineering, financial, and other plans necessary to carry out assistance, and a reasonably firm estimate of the cost of assistance to the U.S., been completed.	611(a)(1). Financial and other plans necessary for the effective utilization of this loan and a reasonably firm estimate of the cost of assistance to the U.S. have been completed.
3. FAA §611(b); App. §101. If the loan or grant is for a water or related land-resources construction project or program, do plans include a cost-benefit computation? Does the project or program meet the relevant U.S. construction standards and criteria used in determining feasibility?	611(b); App. §101. Not applicable. This is not a water or related land-resources construction project or program.

4. FAA §611(e). If this is a Capital Assistance Project with U.S. financing in excess of $1 million, has the principal AID officer in the country certified as to the country's capability effectively to maintain and utilize the project?	611(e). The certification of the USAID Director is at Annex
B. Relation to Achievement of Country and Regional Goals	
Country Goals	
1. FAA §§207, 281(a). this loan's relation to:	207, 281(a).
(a) Institutions needed for a democratic society and to assure maximum participation on the part of the people in the task of economic development.	(a) A key element of this loan is technical assistance to PLN Regions XI and XII. Additional assistance is being provided to the PLN central organization under IDA loans. Development of PLN personnel capability is a key requirement in assisting economic development through the provision of electric power. Moreover, adequate electricity itself will provide a means for participation by the people in the task of economic development by facilitating development of new enterprises and increasing employment opportunities.
(b) Enabling the country to meet its food needs, both from its own resources and through development, with U.S. help, of infrastructure to support increased agricultural productivity.	(b) Increased and reliable electric service capacity will assist expansion of those food processing and distribution facilities dependent upon electricity for their operation.
(c) Meeting increasing need for trained manpower.	(c) Technical assistance and training for PLN Region XI and XII will be carried out as part of this project.

(d) Developing programs to meet public health needs.	(d) No direct relation. Indirect benefits to public health will be obtained by improving public access to such things as refrigeration, hot water, etc.
(e) Assisting other important economic, political, and social development activities, including industrial development; growth of free labor unions; cooperatives and voluntary agencies; improvement of transporation and communication systems; capabilities for planning and public administration; urban development; and modernization of existing laws.	(e) The project will substantially improve the basic infrastructure of West Java, will facilitate new commercial and industrial enterprises with resulting encouragement of new employment opportunities, including scope for labor unions and cooperatives and opportunity for voluntary agency activity. Electric power is a corollary factor to improvement of transportation and communications systems in the context of economic development. Planning and public administration are elements of project implementation. Where necessary laws will take cognizance of project requirements, and urban development is directly dependent upon increased and reliable electric power both for basic economic development and social satisfaction.
2. FAA §201(b)(4). Describe the activity's consistency with and relationship to other development activities, and its contribution to realizable long-range objectives.	201(b)(4). This loan is given in a multilateral context and furthers Indonesia's ability to achieve longer-range development objectives through providing reliable and increased electrical power.
3. FAA §201(b)(9). How will the activity to be financed contribute to the achievement of self-sustaining growth?	201(b)(9). Electric power capacity is a basic input in the infrastructure and productive facilities necessary for self-sustaining growth.

/ resource	4. FAA §201(f). If this is a project loan, describe how such project will promote the country's economic development, taking into account the country's human and material/requirements and the relationship between ultimate objectives of the project and overall economic development.	201(f). In part the activity will utilize local material and human resources in a manner contributing to economic development productivity. Provision of adequate electric power will promote economic development by encouraging new commercial and industrial enterprises, with the resulting opportunity for increased employment opportunity and income distribution.
	5. FAA §201(b)(3). In what ways does the activity give reasonable promise of contributing to development of economic resources, or to increase of productive capacities?	201(b)(3). Increased and reliable electrical power capacity will provide a necessary basis for economic development.
	6. FAA §281(b). How does the program under which assistance is provided recognize the particular needs, desires, and capacities of the country's people; utilize the country's intellectual resources to encourage institutional development; and support civic education and training in skills required for effective participation in political processes?	281(b). This project will enhance the expansion of industry and improvement of agriculture and make possible creation of more jobs and assist the goal of income distribution. It will also increase the availability of electricity for private consumption with increased social satisfaction. The project will make possible training in basic technical skills for additional personnel -- the improvement of skills and increased self-reliance are relevant factors in the context of effective participation in the political process.

7. FAA §601(a). How will this loan encourage the country's efforts to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions?	601(a). The project will stimulate industrial and commercial activities, increase the probable quantity and value of commodities available for export, and assist Indonesia in developing more sophisticated products which may be competitive in international trade. (b) through improved opportunities for new commercial and industrial enterprises; (c) no direct effect although new employment opportunities may encourage such development in the long term. (d) no direct effect; (e) through availability of improved quality electric power service together with a program to increase electric power sonsumption; (f) no direct effect although new employment opportunities may encourage greater labor-management activity with possibility for growth of free labor unions.
8. FAA §202(a). Indicate the amount of money under the loan which is: going directly to private enterprise; going to intermediate credit institutions or other borrowers for use by private enterprise; being used to finance imports from private sources; or otherwise being used to finance procurements from private sources.	202(a). The total amount of the loan will be used to finance procurement from private sources.
9. FAA §611(a)(2). What legislative action is required within the recipient country? What is the basis for a reasonable anticipation that such action will be completed in time to permit orderly accomplishment of purposes of loan?	611(a)(2). No legislative action will be required as a condition precedent to this loan.

Regional Goals

1. FAA §619. If this loan is assisting a newly independent country, to what extent do the circumstances permit such assistance to be furnished through multilateral organizations or plans?	619. Not applicable. Indonesia is not a newly independent country.
2. FAA §209. If this loan is directed at a problem or an opportunity that is regional in nature, how does assistance under this loan encourage a regional development program? What multilateral assistance is presently being furnished to the country?	209. The loan is not directed at a regional problem. However, it is being furnished in the context of multilateral aid to Indonesia by a number of donor countries (the IGGI). The assistance is being coordinated with the advice of the IBRD.

C. Relation to U.S. Economy

Employment, Balance of Payments, Private Enterprise.

1. FAA §§201(b)(6); 102, Fifth. What are the possible effects of this loan on U.S. economy, with special reference to areas of substantial labor surplus? Describe the extent to which assistance is constituted of U.S. commodities and services, furnished in a manner consistent with improving the U.S. balance of payments position.	201(b)(6); 102, Fifth. The goods and services financed by this loan will be obtained from AID Geographic Code 941 (Selected Free World) sources. It is anticipated the U.S. will supply a substantial amount of these goods and services. In addition, increased electrical power availability will create demand for industrial and consumer goods which may be imported from the U.S.

2. FAA §§612(b); 636(h). What steps have been taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. and local currencies contributed by the country are utilized to meet the cost of contractual and other services, and that U.S. foreign owned currencies are utilized in lieu of dollars?	612(b), 636(h). Local currency provided by the recipient Government will be used to meet local currency needs of the project.
3. FAA §601(d); App. §109. If this loan is for a capital project, to what extent has the Agency encouraged utilization of engineering and professional services of U.S. firms and their affiliates? If the loan is to be used to finance direct costs for construction, will any of the contractors be persons other than qualified nationals of the country or qualified citizens of the U.S.? If so, has the required waiver been obtained?	601(d); App. §109. All services financed under the loan will be from AID Geographic Code 941 sources.
4. FAA §608(a). Provide information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.	608(a). U.S. Government excess property will not be used for this project. Construction services will be provided by the contractor using his own equipment, and the project components must conform to particular specifications.
5. FAA §602. What efforts have been made to assist U.S. small business to participate equitably in the furnishing of commodities and services financed by this loan?	602. The loan agreement will contain a provision that American small business will have an opportunity to participate in furnishing eligible items.

6. FAA §621. If the loan provides technical assistance, how is private enterprise on a contract basis utilized? If the facilities of other Federal agencies will be utilized, in what ways are they particularly suitable; are they competitive with private enterprise (if so, explain); and how can they be made available without undue interference with domestic programs?	621. The entire project implementation will be carried out by private enterprise under loan financed contracts on the basis of applicable AID regulations.
7. FAA §611(c). If this loan involves a contract for construction that obligates in excess of $100,000, will it be on a competitive basis? If not, are there factors which make it impracticable?	611(c). Yes, construction and commodity procurement will be awarded on a competitive basis.
8. FAA §601(b). Totality of effort by the President in host country to encourage and facilitate participation of private enterprise in achieving purposes of the Act.	601(b). Private enterprise will be utilized to maximum extent practicable on this project.
Procurement	
1. FAA §604(a). Will commodity procurement be restricted to U.S. except as otherwise determined by the President?	604(a). Yes, procurement is limited to AID Geographical Code 941 sources.
2. FAA §604(b). Will any part of this loan be used for bulk commodity procurement at adjusted prices higher than the market price prevailing in the U.S. at time of purchase?	604(b). No.

3. FAA §604(e). Will any part of this loan be used for procurement of any agricultural commodity or product thereof outside the U.S. when the domestic price of such commodity is less than parity?	604(e). No.
4. FAA §604(f). Has the agency received the necessary pre-payment certification from suppliers under a commodity import program agreement as to description and condition of commodities, and on the basis of such determined eligibility and suitability for financing?	604(f). Unnecessary here since this is a project loan and not a commodity import program assistance loan.
D. Other Requirements	
1. FAA §201(b). Is the country among those in which development loan funds may be used to make loans in this fiscal year?	201(b). Yes.
2. App. §106. Does the loan agreement provide, with respect to capital projects, for U.S. approval of contract terms and firms?	106. The loan agreement will cover this requirement.
3. FAA §620 (k). If the loan is for construction of a production enterprise, with respect to which the aggregate value of assistance to be furnished will exceed $100 million, what preparation has been made to obtain the express approval of the Congress?	620(k). Not applicable.

4. FAA §620(b), 620(f). Has the President determined that the country is not dominated or controlled by the international Communist movement? If the country is a Communist country (including, but not limited to, the countries listed in FAA §620(f) and the loan is intended for economic assistance, have the findings required by FAA §620 (f) been made and reported to the Congress?	620(b), 620(f); Yes, the required determination has been made. Remainder of the question is therefore not applicable.
5. FAA §620(h). What steps have been taken to insure that the loan will not be used in a manner which, contrary to the best interest of the United States, promotes or assists the foreign aid projects of the Communist-bloc countries?	620(h). The loan agreement will contain a provision covering this requirement.
6. App. §118. Will any funds be used to finance procurement of iron and steel products for use in Viet-Nam other than as contemplated by §118?	118. No.
7. FAA §636(i). Will any part of this loan be used in financing non-U.S.-manufactured automobiles? If so, has the required waiver been obtained?	636(i). The loan will not be so used and therefore the second part of the question is not applicable.
8. FAA §§620(a)(1) and (2), 620(p). Will any assistance be furnished or funds made available to the Government of Cuba or the United Arab Republic?	620(a)(1) and (2), 620(p). No.

9. FAA §620(g). Will any part of this loan be used to compensate owners for expropriated or nationalized property? If any assistance has been used for such purpose in the past, has appropriate reimbursement been made to the U.S. for sums diverted?	620(g). No. No assistance has been used for such purposes in the past.
10. FAA §201(f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise?	201(f). It is expected that a portion of the work will be done through direct hire of personnel and subcontract with private firms in the recipient country.
11. App. §104. Does the loan agreement bar any use of funds to pay pensions, etc., for persons persons who are serving or who have served in the recipient country's armed forces?	104. The loan agreement will cover this requirement.
12. MMA §901.b. Does the loan agreement provide for compliance with U.S. shipping requirements, that at least 50% of the gross tonnage of all commodities financed with funds made available under this loan (computed separately by geographic area for dry bulk carriers, dry cargo liners, and tankers) be transported on privately owned U.S.-flag commercial vessels to the extent such vessels are available at fair and reasonable rates for U.S.-flag vessels?	MMA §§901.b. The loan agreement will cover this requirement.
13. App. §102. Have obligations for engineering and architectural fees and services over $25,000 on any one project been reported to Congress biannually?	102. Any such fees here will be reported to Congress in the manner required by the law.

14. FAA §481. Has the President determined that the recipient country has failed to take adequate steps to prevent narcotic drugs produced or procured in, or transported through, such country from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents or from entering the United States unlawfully?	481. No.
15. App. §111. Is the loan being used to transfer funds to world lending institutions under 209(d) and 251(h) of the FAA?	111. No.
16. App. §501. Are any of these funds being used for publicity or propaganda within the United States?	501. No.
17. FAA §612(d). Does the United States own excess foreign currency, and if no, what arrangements have been made for its release?	612(d). Indonesia is not an excess currency country.
18. FAA §604(d). Will provision be made for placing marine insurance in the U.S. if the recipient country discriminates against any marine insurance company authorized to do business in the U.S.?	604(d). Yes. An appropriate provision will be included in the loan agreement.

REPUBLIC OF INDONESIA
NATIONAL DEVELOPMENT PLANNING AGENCY
DJAKARTA, INDONESIA

No. 396 /Waket/II/73.

Jakarta, February 2, 1973

Mr. Richard M. Cashin,
Director, Agency for International
Development Mission to Indonesia,
American Embassy,
Jakarta, Indonesia.

Dear Mr. Cashin,

The Government of Indonesia requests from the Government of the United States of America a loan of up to twenty-three million United States dollars (US$23 million) for the following purpose and subject to the provisions hereinafter stated:

1. To finance the foreign exchange cost of imported equipment, materials, engineering, construction and training services required to rehabilitate and expand transmission and distribution facilities in the West Java electric power system. The project will be implemented by the State Electricity Enterprise (PLN), and provides for engineering design and construction of a 150 KV double circuit transmission line linking the cities of Jakarta, Bogor and Bandung, a distance of approximately 180 kilometers. Transmission will include substation terminal facilities at Jakarta and Bandung and a 150/20 KV stepdown substation at Bogor. The project will also carry out distribution rehabilitation and expansion of facilities at Bogor. The transmission line connects two Bandung substations, one being the termination point of this proposed 150 KV line from Bogor as well as of a 150 KV line from the Jatiluhur hydrogeneration station, and the other being the termination point for a double circuit 150 KV line from Tegal to Bandung which is to be constructed and financed under another AID loan.

2. This is a priority project for the Government of Indonesia. It follows and is corollary to AID Loan 497-H-028, West Java Transmission and Distribution Phase I, which establishes the basic transmission link from Central Java to Bandung and finances distribution rehabilitation at Cirebon. This loan continues the transmission line to Jakarta and completes a transmission grid connecting Jakarta through West Java to Semarang in Central Java. The new transmission grid will permit transfer of power from generating facilities in Central Java to Jakarta and Region XII during periods when power availability is low (e.g. during periods of reduced hydroelectric power output from Jatiluhur because of low water levels). It will also permit

REPUBLIC OF INDONESIA
NATIONAL DEVELOPMENT PALNNING AGENCY
DJAKARTA, INDONESIA

transfer of power from Region XII to the Central Java system once excess power becomes available in West Java. The foregoing transfer capability will increase the efficiency and value of generating facilities being constructed both in West and Central Java (including the 100 MW steam plant to be constructed in Semarang under AID Loan 497-H-024. To use effectively the increased reliability of power to be achieved by the transmission line, it is necessary that the present antiquated and limited distribution facilities of Bogor be rehabilitated and expanded. Provision of adequate and reliable electric power in this important city and completion of the link between West and Central Java are fundamental to long range effective growth of the electric power system.

3. It is estimated that a total of US$27.2 million will be expended on the proposed project. This cost is broken down as f follows: $23 million from the loan proceeds to cover the cost of imported capital equipment, materials, and related engineering, construction and training services. Rupiah in the estimated equivalent of US$ 4.2 million will be provided by the Government of Indonesia to meet local currency expenditures in connection with the project. Detailed cost estimates of the proposed project have been provided by the Chas T. Main engineering firm, consultants to PLN. These have been reviewed and concurred in by the Government of Indonesia.

4. Other sources of finance for this project are not available to the Government of Indonesia at present nor anticipated in the near future. Funds available from other donor countries have been allocated or are planned to be allocated to other priority projects within the Indonesian Government Five-Year Plan.

5. As PLN is an entity of the Government of Indonesia, its financial statements have been audited by the State Auditor's Office whose audits reflect the financial condition and operating results of PLN under current PLN accounting practices. Furthermore, all relevant accounts and records are available for examination and review by representatives of the U.S. Agency for International Development.

We hope that this information will be useful and sufficient for you to proceed with the consideration of this loan application as soon as feasible.

Sincerely yours,

Emil Salim