

PERUSAHAAN UMUM LISTRIK NEGARA
AGENCY OF MINISTRY OF MINES AND ENERGY
GOVERNMENT OF THE REPUBLIC OF INDONESIA



RURAL ELECTRIFICATION PROJECT
CONTRACT AID/ASIA-C - 1357
AID LOAN NO. 497 - T - 052

CHAS.T. MAIN INTERNATIONAL. INC

RURAL ELECTRIFICATION PROJECT - INDONESIA
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
LOAN NO. 497-T-052

MONTHLY REPORT NO. 33
FOR
JUNE, 1981

SUBMITTED BY
CHAS. T. MAIN INTERNATIONAL, INC.

RURAL ELECTRIFICATION PROJECT
MONTHLY REPORT
JUNE 1981

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I. INTRODUCTION

A. THE CONTRACT

Contract AID/ASIA-C-1357 was executed on September 18, 1978 between the United States Agency for International Development and Chas. T. Main International, Inc. following the completion of a Loan Agreement, AID Loan November 497-T-052, dated May 6, 1978, and a Grant Agreement, dated March 30, 1978, between the Republic of Indonesia and The United States of America for the implementation of a Rural Electrification Project, AID Project Number 497-0267.

Funding for Contract AID/ASIA-C-1357 is contained in the Grant Agreement. No Letter-of-Credit is involved in this contract. The date of implementation of the contract was September 18, 1978.

B. DESCRIPTION OF PROJECT

The objective of this project is to assist the Government of Indonesia (GOI) in its plan to provide areawide electric power distribution facilities in ten specified areas.

Seven of the project areas are located in the Province of Central Java, and the distribution systems for these areas will be operated by Perusahaan Umum Listrik Negara (PLN). Information presented in this report applies to the Central Java Project Areas only.

The project will consist of approximately 2,500 kilometers of overhead primary and secondary distribution lines and is planned to encompass at least 440 towns and villages. The completed project will insure the availability of reliable, inexpensive electric service to an estimated 260,000 rural homes. Approximately 130,000 consumers will be connected during the first three years of operation, and the remainder connected during the following twelve years.

CENTRAL JAVA

RURAL ELECTRIFICATION PROJECT SERVICE AREAS

Java Sea



WEST
JAVA



PEKALONGAN
PEMALANG

SEKARANG



BANYUMAS



CILACAP



MAGELANG



SLEMAN



BANTUL



SRAGEN



KLATEN



WONOGIRI

EAST JAVA

Indian Ocean



SCALE : NONE

CTM-109

The seven Central Java Project Service Areas are shown on CTM Map No. 109, page 2 of this report. These seven areas will be connected to the existing PLN, Central Java grid for their power requirements. Project Service Areas, number of villages served, approximate number of consumer connections and the estimated total number of power recipients are as follows :

<u>SERVICE AREA</u>	<u>VILLAGES SERVED</u>	<u>APPROXIMATE NO. OF CONNECTIONS</u>	<u>ESTIMATED NO. OF RECIPIENTS</u>
Klaten	95	25,000	225,000
Pem/Pek	103	20,000	180,000
Bantul	21	20,000	180,000
Wonogiri	54	15,000	135,000
Sragen	49	15,000	135,000
Magelang	83	20,000	180,000
Banyumas	<u>35</u>	<u>15,000</u>	<u>135,000</u>
TOTALS	440	130,000	1,170,000

The above tabulations reflect project expectations after the first three years of commercial operation.

II. SCOPE OF SERVICES

The scope of MAIN's services is to assist the PLN staff located at Semarang and Central Java in all phases of the design and construction of seven rural electric distribution systems. The engineering assistance will consist of, among other things, circuit routing and phasing, structure selection, conductor selection, protection and sectionalizing, and estimating of material and equipment requirements. MAIN will prepare material and equipment bid documents and assist PLN in the evaluation of bids, the preparation and administration of material and equipment supply contracts and the receipt and distribution of materials and equipment. MAIN will also assist PLN during the construction phase of the project by inspecting construction for quality and quantities of work, maintenance of construction schedules and the inventory and documentation of completed construction.

III. PROJECT ACTIVITIES & PROGRESS

A. ENGINEERING

1. DISTRIBUTION SYSTEMS

The preparation of distribution system construction maps by PLN staff continued throughout the reporting period. The status of completion of the construction maps and structure data sheets for the various systems are shown in Table 1. During the reporting period, the quantity of completed maps for Sragen were increased.

During the reporting period, MAIN's staff continued the engineering review of the construction maps for Bantul, Klaten, Magelang, Wonogiri, and Sragen.

2. HEADQUARTERS COMPLEXES

A pre-bid conference for construction bidders was held by PLN at Semarang on June 15, 1981. Bid conditions were reviewed by PLN and questions of prospective bidders were answered. Construction plans and specifications were issued to fourteen (14) prospective bidders.

During the period June 16, 1981 through June 18, 1981, the prospective bidders inspected the sites.

The date of bid receipt and opening was established as July 6, 1981.

B. PROCUREMENT

1. TOOLS AND EQUIPMENT

A Letter-of-Credit (L/C) was issued to Merican-Curtis to cover the procurement under Contract No. Pj. 216/PST/80 during the reporting period. Thus, the sole remaining

TABLE NO. 1
STATUS OF MAP AND STRUCTURE DATA SHEETS
MONTH ENDING JUNE, 1981

Construction Beginning Sequence	PROJECT AREA	No. of Maps	P L N			Structure Data Sheets		M A I N Complete Field Checking & Revisions
			Construction Maps % (1) Complete	No. Complete	Date of Completion	% Complete	Date of Completion	
7	BANYUMAS/CILACAP	311	78.4	87	RE 12/31/81	100	9/30/80	RE 3/31/82
2	KLATEN	352	100	352	A 4/30/81	100	10/31/80	RE 8/15/81
1	MAGELANG	423	100	423	A 12/31/80	100	9/30/80	RE 9/30/81
R 6	PEKALONGAN/PEMALANG	560	77.5	112	RE 10/15/81	100	8/31/80	RE 3/31/82
3	SLEMAN/BANTUL	268	100	268	A 5/31/81	100	8/31/80	RE 8/31/81
R 5	SRAGEN	364	92.5	273	RE 8/31/81	100	9/30/80	RE 1/30/82
4	WONOGIRI	530	100	530	A 10/31/80	100	9/31/80	RE 12/15/81

A - ACTUAL

E - ESTIMATED

R - REVISED

(1) INCLUDES FIELD STAKING

L/C to be fully funded in this procurement group is that partial L/C previously issued to New World Research Corp. covering Contract No. Pj. 195/PST/80. The Ministry of Trades has not yet issued import permits for the vehicles contained in Section VE of that contract and the partial L/C issued for that contract did not cover Section VE equipment.

No import permit has yet been received by PLN for the communications equipment shipped by Maison International under Contract Pj. 196/PST/80 and presently held by Customs at Semarang.

On June 22, 1981, PLN received a claim for additional costs from New World Research Corp. for contract Pj. 195/PST/80. The basis of their claim is lack of L/C for the Section VE materials contained in their contract. This claim was received without sufficient documentary evidence of cost increases. The necessary documents necessary for the evaluation of this claim is being requested from New World Research Corp.

As reported in May, 1981 monthly report, a claim for increased costs was received from Ohm International, Inc. for Contracts Pj. 215/PST/80 and Pj. 223/PST/80. PLN had requested additional documentation substantiating their claim; however, Ohm has not yet responded to PLN's request.

The claim for additional costs that PLN had received from Cable Handling and Stringing Equipment, Inc. (Pj. 265/PST/80) was evaluated by MAIN during the reporting period. Several communications were required between Cable Handling and MAIN to clarify supporting data provided by Cable Handling. The evaluation is complete and is being prepared for submission to PLN.

There were no shipments of goods received during the reporting period. However, several shipments of goods from New World Research Corp. (Pj. 195/PST/80) are enroute to the Port of Semarang. Table A-3 contained in the Appendix shows some details of these shipments.

The shipment previously received at Semarang from Maison International (Pj. 196/PST/80) was found to contain shortages of communications and maintenance shop equipment and damaged maintenance shop equipment.

2. MATERIALS AND EQUIPMENT

The three (3) remaining contracts of this procurement group assigned to Ohm International, Inc. have not been signed. During the reporting period, PLN consulted with their legal counsel and are attempting, through counsel, to get Ohm to honor Ohm's bid commitments. As of the end of the reporting period, no information is available which would indicate any progress in this matter.

It is understood that Letters-of-Commitment were issued by AID during the reporting period to activate the provisional Letters-of-Credit issued by Bank Indonesia covering Contracts No. Pj. 029/PST/81, Pj. 030/PST/81, Pj. 031/PST/81, and Pj. 032/PST/81. However, no documentation has been received to verify the action nor to document the statistic.

Irby Construction Co. signed the amendment to Contract No. Pj. 029/PST/81 on June 29, 1981.

3. HOUSEWIRING MATERIALS AND METERS

During the reporting period, minor modifications to the text of the bid evaluation report were made. The evaluation of bids is in process at PLN.

4. CONDUCTORS

During the reporting period, the Netherlands Government notified PLN that they approved the negotiations with PT. Kabelindo Murni

in the amount of NFL 8,700,000. The Netherlands Government also approved the source of the materials.

5. POLES

During the reporting period, the wood pole supplier delivered 565 treated wood poles to the Project. A total of 2779 poles have been delivered.

As of this reporting period, the contractor supplying steel poles has delivered and set 5196 steel RS poles.

6. ADDITIONAL LINE HARDWARE

This IFB was advertised on June 10, 1981 and was issued on June 15, 1981, both in Indonesia and the U.S. Bid receipt and opening date is established as July 22, 1981. The question of length of period of bid validity was established as 120 days.

7. FUNDING

The present accumulated value of procurement contracts and funds committed by Letter of Commitment from the USAID loan are shown in Table 2.

A spread sheet showing additional details of contracts, Letters of Commitment and Letters of Credit is contained in the Appendix..

As previously stated, it is understood that four (4) Letters-of-Commitment have been issued covering certain line material contracts. However, the details of these L/Comms are not yet available, therefore Table 2 and Appendix spread sheets will be amended when details become available.

TABLE 2

COMMITTED FUNDS - AID LOAN

As of : June 30, 1981

<u>NO.</u>	<u>CONTRACT SUPPLIER</u>	<u>AMOUNT</u>	<u>NO.</u>	<u>LETTER OF COMMITMENT</u>				
				<u>BANK</u>	<u>AMOUNT *</u>			
Pj. 194/PST/1980	Maison Int'l. Ltd.	\$ 322,267.55	497-T-05207	CitiBank NA	\$ 323,878.89			
Pj. 195/PST/1980	New World Research Corp.	821,722.00	497-T-05208	CitiBank NA	825,722.00			
Pj. 198/PST/1980	Hyundai Corp.	327,804.00	497-T-05209	CitiBank NA	329,443.02			
Pj. 215/PST/1980	Ohm International	169,185.17)	497-T-05210	Wells Fargo	1,326,715.29			
Pj. 216/PST/1980	Merican Curtis, Inc.	569,473.00)						
Pj. 223/PST/1980	Ohm International	69,149.63)						
Pj. 265/PST/1980	Cable Handling & Stringing Equip. Inc.	314,714.96)						
Pj. 269/PST/1980	ITT Export Corp.	198,171.76)						
PRESENT TOTAL		: \$ 2,792,488.07				PRESENT TOTAL :		\$ 2,805,759.20

* Includes Bank Charges

C. CONSTRUCTION

1. DISTRIBUTION SYSTEMS

Line Construction continued at Sleman/Bantul, Klaten, and Magelang, and began at Pekalongan, Sragen, and Wonogiri, with the hauling and setting of steel RS and wood poles.

<u>SITE</u>	<u>STEEL RS</u>	<u>WOOD</u>
Sleman/Bantul	957	206
Klaten	2047	-
Magelang	139	759
Pekalongan	203	-
Sragen	1566	-
Wonogiri	284	7

2. HEADQUARTERS COMPLEXES

During the reporting period, site works construction proceeded at three (3) sites. The status of this construction activity is shown in Table 3.

D. PROJECT PROGRESS

The Project progress chart showing the scheduling and progress status of engineering and construction activities is contained herein. A tabulation of project percent completion is contained in the Appendix. As of this reporting period, percent completion is :

Scheduled : 13.59%

Actual : 13.40%

Scheduled progress has slipped by an accumulated total of 0.19% since March 31, 1981. Slippage during the previous two (2) reporting periods were greater than that shown above; however, some of the previous slippage was recouped during this reporting period due to an aggressive rate of setting of steel poles. This rate during the period exceeded the scheduled rate by a factor of four (4). Headquarters site construction work and wood pole setting continued at a rate less than scheduled.

As of : June 30, 1981.

TABLE 3
SITE DEVELOPMENT CONTRACTS
HEADQUARTERS COMPLEXES

SITE	BID REC'D	CONTRACT AWARD	CONSTRUCTION START	% COMP.	REVISED SCHEDULED CONSTRUCTION COMPLETE
BANYUMAS	OCT. 9, 1980	DEC. 15, 1980	JAN. 1, 1981	60	AUGUST 14, 1981
KLATEN	OCT. 9, 1980	NOV. 8, 1980	NOV. 10, 1980	100	MAY 12, 1981
MAGELANG	AUG. 25, 1980	SEPT.22, 1980	OCT. 10, 1980	100	APRIL 21, 1981
PEKALONGAN	AUG. 9, 1980	NOV. 10, 1980	NOV. 15, 1980	85	AUGUST 11, 1981
SLEMAN-BANTUL	AUG. 25, 1980	SEPT.15, 1980	SEPT.29, 1980	100	MAY 6, 1981
SRAGEN	OCT. 9, 1980	DEC. 1, 1980	DEC. 9, 1980	99	JULY 15, 1981
WONOGIRI	OCT. 9, 1980	NOV. 3, 1980	NOV. 15, 1980	100	MAY 12, 1981

IV. ADMINISTRATION

A. PERSONNEL

Table 4 lists the job classifications and associated manmonths allocated to MAIN. Also shown are the personnel assigned and manmonths consumed for each job classification.

Mr. F.W. Hill and family departed the Project and Indonesia on June 17, 1981.

The resume of Mr. H.E. Earl was submitted to PLN and AID for approval of future assignment as a Distribution Construction Supervisor to fill the vacancy in the Semarang staff created by the departure of Mr. J.W. Pitts. PLN and AID have approved Mr. Earl's assignment.

The resume of Mr. E.M. Downing was submitted to PLN and AID for approval of future assignment as Civil Engineer to fill the vacancy in the Semarang staff created by the departure of Mr. B.R. Morrow.

B. LOGISTICS

Table A-2, Appendix, lists the continuing logistic support furnished by PLN to MAIN.

TABLE 4

JOB CLASSIFICATIONS & MANMONTHS

THROUGH : MAY 21, 1981

JOB CLASSIFICATIONS	LOCATION	AGENCY		PERSONNEL ASSIGNED	MANMONTH		% CONS.	% REMAIN
		PLN	DGC		ALLOCATED	CONSUMED		
Project Director	Jakarta	x	x	D. A. Dowling	40	30.6	76.5	23.5
Business Manager	Semarang	x	x	R. N. Key	39	30.3	77.7	22.3
Administrative Ass't.	Jakarta	x	x	P. Korin	24	9.7	40.4	59.6
Area Manager	Semarang	x		H. E. Johnson	24	7.5	31.3	68.7
Lead Elect. Engineer	"	x		F. W. Hill	38	26.9	70.8	29.2
Civil Engineer	"	x		B. R. Morrow	24	18.9	78.8	21.2
Architect	-	x		-	3	-	-	-
Distrib. Const. Sup'r.	Semarang & Jakarta	x	x	J. W. Pitts	37	29.2	78.9	21.1
Field Supervisor	Semarang	x		J. J. Bennett	34	25	73.5	26.5
Field Supervisor	"	x		J. V. Hardman	35	25.8	73.7	26.3
Lead Elect. Engineer	Jakarta		x	G. Smith	39	27.4	70.3	29.7
Elect. Engineer	"		x		24	24.0	100.0	- 0 -
Electrical Engineer	"		x	E. Borja	24	9.3	38.8	61.2
Electrical Engineer	"		x	G. S. Sanial	24	11.1	46.3	53.7
Electrical Engineer	"		x	T. Resabal	24	5.8	24.2	75.8
Civil Engineer	"		x	V. H. Sydiongco	24	11.3	47.1	52.9
Senior Draftsman	"		x	D. K. Hoffer	24	15.0	62.5	37.5
Field Supervisor	Lampung		x	F. Cachin	35	28.5	81.4	18.6
Field Supervisor	Lombok		x	C. T. Nuez	35	23.2	66.3	33.7
Field Supervisor	Luwu		x	R. Garcia	35	28.8	82.3	17.7
Materials Supervisor	Jakarta		x	P. Wilson	12	2.7	22.5	77.5
* Admin. Manager Boston Office	Jakarta	x	x	J. Whitby	-	.8	-	-
					90	50.9	56.5	43.5
					688	442.7		

* Mr. Whitby has been approved by U.S. AID for work on this Project. Provision for this position will be included in a future contract amendment.

X. FINANCIAL

A. Following is a summary of costs invoiced through 21 May 1981

	<u>Budget</u>	<u>Invoiced To Date</u>	<u>Paid To Date</u>
U.S. AID	\$ 5,355,261	\$ 2,860,706	\$ 2,489,210
PLN		Rp. 60.526.105,-	Rp. 60.526.105,-

B. A detailed breakdown by Contract line item of MAIN's invoices to U.S. AID is as follows :

<u>Description</u>	<u>Budget</u>	<u>Costs To Date</u>		
		<u>PLN</u>	<u>DGC</u>	<u>TOTAL</u>
Salaries & Wages	\$ 1,484,257	439,503	444,876	884,379
Fringe Benefits	278,636	65,598	70,915	136,513
Allowances	382,355	99,768	109,554	209,322
Travel & Transportation	959,825	214,547	193,298	407,845
Other Direct Costs	450,037	40,079	163,426	203,505
Overhead	1,309,151	412,564	417,658	830,222
Fee	410,000	93,395	95,089	188,484
T O T A L	: \$ 5,355,261 =====	1,365,454 =====	1,494,816 =====	2,860,270 =====

VI. PROBLEM AREAS

The major problem of the Project, to which all others pale by comparison, is that of line material availability. As of the end of the reporting period, Ohm International, Inc. has shown no inclination to alter their previous position of refusing to sign the material contracts legally assigned to them by PLN.

Given this condition, PLN has only two courses of action open to them to make materials available to the construction forces: litigation, to force Ohm to sign the contracts, or to rebid the materials in question.

Legal attempts to force Ohm to perform may prove to be a lengthy process with no assurance, at the start of litigation, of when the problem would be resolved. Rebid action to obtain the needed materials, while lengthy, is at least predictable in time.

The Project construction schedule presently shows project completion during October, 1984. This date was based on line materials being available in the field beginning March, 1982, with enabling Letters-of-Credit in the hands of the suppliers on August 1, 1981.

Clearly, this condition will not be met for the basic construction materials contained in the disputed Ohm International, Inc. contracts. Thus, until a recuperative course of action is decided upon, a reasonable valid project completion date is obscure.

If litigation is chosen as the remedial course of action, project completion date, at this time, remains obscure. If re-bid action is chosen immediately, the previously mentioned completion date will be extended by approximately twelve (12) months.

VII. OFFICIAL VISITS AND TRIPS

A. OFFICIAL VISITS

Mr. Irwan, of AID's technical staff was in Semarang on June 18, 1981 to consult with PLN on Headquarters complex bidding procedures.

B. PROJECT TRIPS

During the period, MAIN field staff members made several lengthy trips to Magelang, Klaten and Sleman to assist PLN pole setting activities at Magelang and Klaten and to review construction drawings in the field. Several trips were made to Jakarta by MAIN staff members to coordinate project administrative, procurement and technical matters with PLN-PUSAT and AID.

C. PROJECT COORDINATION MEETING

A project coordination meeting was held at P I Ring, Semarang on June 8, 1981, attended by project officials of PLN and AID and supervisory members of NRECA and MAIN staffs. The status of various procurement actions were reviewed and ways and means of accelerating future procurement procedures were discussed.

Another project coordination meeting was held at PLN Pusat on June 29, 1981, attended by project officials of PLN and AID and supervisory members of NRECA and MAIN staffs. The status of various procurement actions and other problems were reviewed.

The next project coordination meeting is scheduled to be held August 10, 1981 at PLN Pusat.

VIII. PROJECT CORRESPONDENCE

A. The following communications were issued from MAIN's Semarang office during the reporting period :

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
P I Ring	S - 7400	June 1, 81	Minutes of Meeting on Material Handling
A J Curran	S - 7406	June 3, 81	Home Leave/Hardman
USAID	S - 7410	June 5, 81	Monthly Report - March 1981
MAIN Boston	S - 7412	June 6, 81	Insurance Coverage to PLN's Warehouse.
USAID	S - 7414	June 8, 81	Invoice No. AID-74R
USAID	S - 7418	June 8, 81	Utility and Housing Expenses No. 15
USAID	S - 7422	June 9, 81	Dollar Invoice No. 75R P/E April 23, 81
P I Ring	S - 7428	June 10, 81	R E Invoice No. 37 for P/E June 6, 81
Merican Curtis	S - 7430	June 11, 81	R.E.P. Central Java Indonesia. Supply of Maintenance Trucks.
P I Ring	S - 7432	June 11, 81	Headquarters Complex Construction Signs..
Mr. Soedjono	S - 7436	June 13, 81	R.E.P. Central Java
Mr. Doddy	S - 7438	June 13, 81	R.E.P. Central Java
A J Curran	S - 7442	June 15, 81	R.E.P. Central Java, Letters of Credit
USAID	S - 7444	June 15, 81	R.E.P. Monthly Report P/E April 81
Irby Jackson	S - 7450	June 16, 81	Signed contract Amendment for R.E.P.
Cable Handling & Stringing Equipment, Inc.	S - 7454	June 18, 81	R.E.P. Central Java, Indonesia Contract No. Pj.265/PST/80
Mr. Dowling	S - 7458	June 19, 81	Vacation/Home Leave of R. N. Key
Cable Handling & Stringing Equipment, Inc.	S - 7462	June 20, 81	Drawing No. 2000698 Contract Pj. 265/PST/80
Cable Handling & Stringing Equipment, Inc.	S - 7464	June 20, 81	Price Increases Letter of Credit

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
PLN Pusat	S - 7468	June 22, 81	Evaluation of Bids for Housewiring Materials and Meters.
PLN Pusat	S - 7478	June 24, 81	Headquarters Complex Construction Documents.
USAID	S - 7480	June 24, 81	Monthly Report - May 81
P I Ring	S - 7490	June 29, 81	Shipments of Material Pj. 195/PST/80.
USAID	S - 7492	June 29, 81	R.E. Invoice No. AID-76R
Merican Curtis	S - 7494	June 30, 81	Letter of Credit
Merican Curtis	S - 7496	June 30, 81	Shipment of Material

B. The following communications were issued from MAIN's Jakarta office during the reporting period :

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
A J Curran	J - 4073	Memo - Hardman Air Tickets.
Ir. Soedarso	J - 4075	R.E.P. Central Java
Ken Jordan/ CHASE	J - 4077	Telex - Courier Delivery
Ir. Basoeki	J - 4079	Mr. Harley Earl.
A J Curran	J - 4080	Telex - Additional Material IFB.
A J Curran	J - 4085	Memo - R.E.P. Central Java Housewiring Evaluation.
A J Curran	J - 4088	Telex - PLN Payments
J L Davis	J - 4089	Telex - Contract 029
W M Nutt	J - 4095	Telex - Amendment One / Contract 029
Ir. Basoeki	J - 4096	Civil Engineer for Central Java
R E Davis	J - 4097	Civil Engineer for Central Java
H E Johnson	J - 4098	Memo - Protective Recloser Location Central Java
A J Curran	J - 4102	Telex - Central Java Additional Material IFB.
Ir. Wiratmoko	J - 4107	R.E.P. Invitation for Bids for Additional Distribution Materials.
Ir. Soedarso	J - 4108	Merican Curtis - Contract No. Pj. 216/PST/80.

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
A J Curran	J - 4115	Telex - Central Java Additional Material IFB.
A J Curran	J - 4116	Telex - Addendum 1 - Add. Mat. IFB.
A J Curran	J - 4121	Telex - Merican Curtis
A J Curran/ Popov	J - 4124	Telex - Ohm.
R Key/Johnson	J - 4126	Telex - Following telex received from CHASE dated 18 June 81.
Ir. Wiratmoko	J - 4127	R.E.P. Invitation for Bids for Additional Distribution Materials.
A J Curran/ Popov	J - 4129	Telex - Ohm Telex.
All Concerned	J - 4130	Minutes of Coordination Meeting # 4.
A J Curran	J - 4136	Telex - Add. Material IFB.
Ir. Andoyo	J - 4139	Certificate of Performance Irby Construction Company.
A J Curran	J - 4145	Telex - I./Comms.
Ir. Soedjadi	J - 4155	Coordination Meeting # 5 on June 29, 1981.
R.C. Johnson	J - 4157	Central Java Headquarters Complexes
Merican Curtis	J - 4166	Telex - Contract Pj. 216/PST/80
Ir. Andoyo	J - 4169	R.E.P. Contract Pj. 029/PST/81 . Amendment No. 1
A J Curran	J - 4176	Telex - Central Java Housewiring IFB.

TABLE A - 1

PRE DESIGN LINE STAKING

<u>Service Area</u>	<u>No. Villages</u>	<u>Circuit Length - Total KM.</u>			<u>% of Feasibility Study Requirements</u>
		<u>Three Phase</u>	<u>Single Phase</u>	<u>Sec. Only</u>	
Sleman/Bantul	21	30	192.8	172.6	130
Banyumas	35	45.6	135.6	64.6	102
Klaten	102	64.5	246.8	303.8	112
Magelang	83	51.6	277.8	86.1	131
Pemalang/ Pekalongan	136	73.1	226.1	197.7	153
Sragen	55	35.1	217.3	236.4	149
Wonogiri	54	58.7	346.5	255.7	181

TABLE A-2
LOGISTICS SUPPORT

<u>PERSONNEL</u>	<u>HOUSING</u>		<u>TRANSPORT</u>
	<u>LOCATION</u>	<u>BY</u>	
J. J. Bennett & Family	Semarang	PLN	PLN
D. A. Dowling & Family	Jakarta	AID	Vehicle by PLN operation by DGC
J. V. Hardman & Family	Semarang	PLN	PLN
F. W. Hill & Family	Semarang	PLN	PLN
H. E. Johnson	Semarang	PLN	PLN
R. N. Key & Family	Semarang	PLN	PLN

PLN provides offices at Semarang for MAIN and full logistics support consisting of secretarial personnel, drivers and all operational necessiters.

PLN provides office facilities at Jakarta and partial operational support for that office.

TABLE A-3

AS OF : June 30, 1981.

SHEET 1 OF 2

AGENT DATE	EXPIRE. DATE	LETTER OF CREDIT			
		BANK INDONESIA No	DATE	CORRESPONDENT No	BANK DATE
2-1-81	1-11-82	0103/17157/PL	18-3-81		
25-11-80	1-11-82	0103/16410/PL	18-12-80		
21-1-81	1-11-82	0103/16903/PL	18-2-81		
		0103/16909/PL	29-4-81		
12-2-81	31-1-83				
		0103/17610/PL	29-4-81		
		0103/17611/PL	29-4-81		
		0103/17612/PL	29-4-81		

SUMMARY OF CONTRACT STATUS

CONTRACT FOR MATERIAL & EQUIPMENT

FOR SUPPLY OF	CORRESPONDENT BANK	LETTER OF COMMITMENT No
Lab. & Test Equipment \$ 197,822.00	CITI BANK N.A.	497-T-05208
Vehicular Equipment 113,900.00		
Ground Rods 510,000.00		
Communication Equipment 225,073.71	CITI BANK N.A.	497-T-05207
Maint. Shop Equipment 97,193.84		
Grounding Material 327,804.00	CITI BANK N.A.	497-T-05209
Distr. Hand Tools 169,185.17	WELLS FARGO BANK INTERNATIONAL	
Maintenance Trucks 569,473.00	WELLS FARGO BANK INTERNATIONAL	497-T-05210
Compression Tools 69,149.78	WELLS FARGO BANK INTERNATIONAL	
Stringing Equipment 314,714.96	WELLS FARGO BANK INTERNATIONAL	
Distr. Line Tools 198,171.76	WELLS FARGO BANK INTERNATIONAL	
Service Materials 268,107.50		
Protective devices 187,408.88		
Guy Strand 390,177.99		
Protective devices 87,619.20		
Conductor Specialties 144,831.00		
Copper Conductors 18,303.98		
Service Conductors 486,049.56		
Crossarms & Braces 125,597.10		
Insulators 221,803.50		
Insulators 85,471.75		
Distribution Transformers 1,640,840.00		
Tie Wire 24,261.50		

CONTRACT No	CONTRACTOR	DATE OF CONTRACT	EFFECTIVE DATE OF CONTRACT
Pj. 195/PST/80	New World Research Corp.	30-7-80	
Pj. 196/PST/80	Maison International Ltd.	18-8-80	
Pj. 198/PST/80	Hyundai Corp.	5-8-80	
Pj. 215/PST/80	Ohm International, Inc.	8-9-80	
Pj. 216/PST/80	Merican Curtis, Inc.	8-9-80	
Pj. 223/PST/80	Ohm International, Inc.	23-9-80	
Pj. 265/PST/80	Cable Handling & Stringing Equipment Inc.	27-10-80	
Pj. 269/PST/80	ITT Export Corp.	10-11-80	
Pj. 029/PST/81	Irby Construction Co.	20-2-81	
Pj. 030/PST/81	Copperweld Industries	23-2-81	
Pj. 031/PST/81	McGraw Edison Co.	23-2-81	
Pj. 032/PST/81	Produtos Para Linhas Preformadas LTDA	23-2-81	
Pj. 100/PST/81	Futura Trading, Inc.	27-4-81	
Pj. 101/PST/81	Futura Trading, Inc.	27-4-81	
Pj. 148/PST/81	Hyosung Corp.	4-5-81	
Pj. 156/PST/81	Walsin Lihwa Electric Wire & Cable Corp.	27-5-81	

TABLE A-4

AS OF: June 30, 1981.

SHEET 1 OF 1

REMARKS

Retained by customs due to lack of import permit.

SUMMARY OF SHIPPING MATERIALS & EQUIPMENT

	INVOICE TOTAL	BILL OF LADING No	DATE	DATE OF ARRIVAL PORT	WAREHOUSE
	\$ 224,857.57	007	Jan. 23, 1981	March 1981	
	97,195.84	007	Jan. 23, 1981	March 1981	May 1, 1981
	150,218.80	1	April 9, 1981		
	189,767.60	1	June 6, 1981		
	50,392.00	2	June 8, 1981		

CONTRACT No	CONTRACTOR	MATERIALS
Pj. 196/PST/80	Maison International	Communications Equipment Maint. Shop Equipment
Pj. 195/PST/80	New World Research Corp.	Grounding Mat'l - Partial
	" " " "	" " "
	" " " "	Headquarters Test Equip.

APPENDIX A
PERCENT COMPLETION
ENGINEERING & CONSTRUCTION PROGRESS

<u>PERIOD</u>	<u>SCHED.</u>	<u>ACT.</u>	<u>PERIOD</u>	<u>SCHED.</u>	<u>ACT.</u>
SEPT. 78	-	.01	NOV. 81	33.76	
OCT. 78	-	.04	DEC. 81	37.71	
NOV. 78	-	.06	JAN. 82	40.69	
DEC. 78	-	.13	FEB. 82	41.88	
JAN. 79	-	.24	MAR. 82	42.75	
FEB. 79	-	.36	APR. 82	43.63	
MAR. 79	-	.49	MAY 82	44.92	
APR. 79	-	.63	JUN. 82	46.21	
MAY 79	-	.78	JUL. 82	47.5	
JUN. 79	-	.97	AUG. 82	49.21	
JUL. 79	-	1.16	SEPT. 82	51.43	
AUG. 79	-	1.35	OCT. 82	53.9	
SEPT. 79	-	1.53	NOV. 82	56.17	
OCT. 79	-	1.70	DEC. 82	58.51	
NOV. 79	-	1.86	JAN. 83	60.85	
DEC. 79	-	1.99	FEB. 83	63.23	
JAN. 80	-	2.11	MAR. 83	65.63	
FEB. 80	-	2.24	APR. 83	68.04	
MAR. 80	-	2.35	MAY 83	70.46	
APR. 80	-	2.46	JUN. 83	72.89	
MAY 80	-	2.56	JUL. 83	75.32	
JUN. 80	-	2.67	AUG. 83	77.74	
JUL. 80	-	2.78	SEPT. 83	80.17	
AUG. 80	-	2.88	OCT. 83	82.58	
SEPT. 80	-	2.99	NOV. 83	85.0	
OCT. 80	-	3.1	DEC. 83	87.39	
NOV. 80	-	3.71	JAN. 84	89.77	
DEC. 80	-	4.65	FEB. 84	92.09	
JAN. 81	-	6.0	MAR. 84	93.83	
FEB. 81	-	7.48	APR. 84	95.31	
MAR. 81	-	9.06	MAY 84	96.75	
APR. 81	10.84	10.63	JUN. 84	97.7	
MAY 81	12.45	12.12	JUL. 84	98.6	
JUN. 81	13.59	13.40	AUG. 84	99.46	
JUL. 81	14.71	-	SEPT. 84	99.55	
AUG. 81	19.0	-	OCT. 84	100.0	
SEPT. 81	24.37	-			
OCT. 81	30.66	-			

APPENDIX
REFERENCE NOTES
ENGINEERING & CONSTRUCTION
PROGRESS CHART

1. - Assumed date of availability of line construction materials in the field is March 1, 1982.
2. - Assumed date of availability of transformers in the field is October 15, 1982.
3. - Assumed date of availability of housewiring materials in the field is September 1, 1982.
4. - Schedule of construction as prepared by Wilayah XIII/NRECA.
5. - Manmonths and construction period as prepared by PLN.
6. - Scheduled manmonths - 337
7. - Scheduled manmonths - 1836
8. - Scheduled manmonths - P.I.RING - 27,104
- Wilayah - 10,077
9. - Second portion of staking activity represents efforts to replace missing construction stakes and any revised staking required.
10. - Includes continuing engineering time for revisions and as-built drawings.
11. - Pole placement by Contractors
12. - Includes anchor installations by contracted labor

APPENDIX
ENGINEERING & CONSTRUCTION
PROGRESS CHART

PURPOSE

USAID has requested a monthly record and display of Project engineering and construction progress which documents the level of effort expended in these project activities to construct the project facilities. The goals are to determine actual progress as compared to scheduled progress and to more effectively identify discrete areas of activity which may become delayed. The ultimate purpose, of course, is the development of a management tool to assist in bringing the project to a successful completion in accordance with the project schedule.

The parameters used to develop the bars and the status curve are labor, in terms of manmonths, and time. Plotted completion will then correlate with visible construction, the stated USAID goal. The effect of funds expended for procurement of materials is not contained in the input data.

The plotted data is pragmatically based on existing project conditions as they exist now. No consideration is given to original project schedules or previous planning. The plot displays past progress to date as it occurred, in terms of manmonths, and the plotted future progress is based as realistically as possible on factual conditions and assumptions now considered valid.

METHODOLOGY

Manmonths are determined, generally, from construction units required times the predicted rates of construction unit completion. Time frames are established from the quantities of assigned manpower times the manmonths required, coordinated with the time of availability of materials.

Quantities of line construction units were tabulated from the distribution system construction documents (SDS sheets). PLN distribution construction unit work rates, developed from previous PLN construction activities, were then used to translate quantities of various construction units to total manmonths required to construct the various units.

The required manmonths were then allocated to assigned PLN crews and PLN-contracted labor forces to determine construction periods for various activities, these periods beginning with assumed dates of material availability and sequenced by required line construction activities.

The time periods of the various line construction activities are plotted as a bar chart. The quantity of manmonths, expended by periods and continuously summed, are plotted as a curve of percentage of overall project completion.

The construction schedule and percent of project completion curve shown are based on the following conditions for labor supply and the following assumptions for material availability :

LABOR

1. PLN-P I RING will assign construction crews as follows :
 - (a) 4 each 18-man crews to frame and conductor 3-phase lines at all sites.
 - (b) 3 each 6-man crews at each site to
 - (1) install all required guys
 - (2) frame and conductor all 1-phase, secondary, and underbuild secondary circuits
 - (3) Install all transformers and all apparatus on all circuits.
2. PLN-Wilayah XIII will assign forces to accomplish housewiring-service installations and to install meters.
3. PLN-P I RING will contract labor forces to set poles and install anchors.
4. PLN-P I RING will contract all labor to construct headquarters complex facilities.
5. Engineering manmonths by PLN and MAIN are based on the number of persons who participated in such activity and who are scheduled to participate in such activity.

MATERIAL AVAILABILITY

It is assumed that :

1. All contract suppliers of distribution materials and equipment will have their respective Letters-of-Credit not later than August 1, 1981.
2. All contract suppliers of housewiring materials and meters will have their respective Letters-of-Credit, or equivalent, not later than January 1, 1982.
3. Sufficient quantities of conductor will be available at the sites to begin and continue conductor stringing as shown.
4. All material suppliers will ship materials in accordance with the shipping schedules contained in their respective contracts.
5. Average period of four (4) months after shipping time allowed for shipping, Indonesian customs clearing, warehousing, and distribution of materials to various sites.

Monthly evaluation of actual construction progress, for comparison with monthly scheduled progress, will be accomplished by comparing the amount of installed construction units with quantities scheduled and reducing the results in terms of manmonths, the basic parameter of the progress chart.

If any conditions on which the schedule is based change to a degree which would affect the accuracy of the charting, the schedule will be revised to reflect the changed condition. If any of the assumptions made prove to be invalid, the schedule will be revised to reflect the changes necessary.

SUMMARY OF CONTRACT STATUS

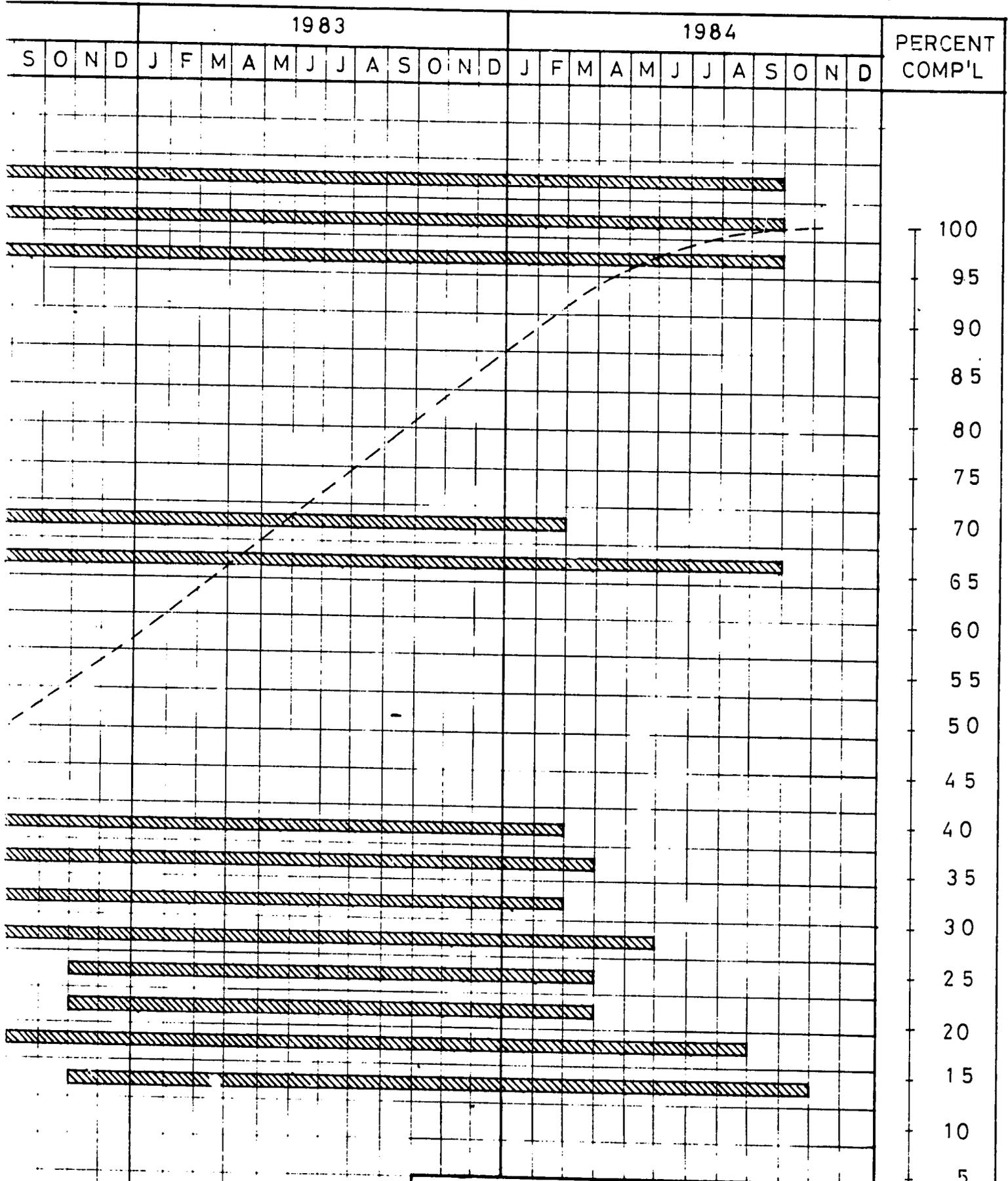
CONTRACT FOR MATERIAL & EQUIPMENT

FOR SUPPLY OF	CORRESPONDENT BANK	LETTER OF COMMITMENT No	DATE
Miscellaneous Materials - 1st 24,164.00			
Service Conductor-1 878,750.00			

CONTRACT No	CONTRACTOR	DATE OF CONTRACT	EFFECTIVE DATE OF CONTRACT
Pj. 157/PST/81	P.T. Putera Tolhas	9-5-81	
Pj. 170/PST/81	Walsin Lihwa Electric Wire & Cable Corp.	27-5-81	

 Scheduled - - - - Scheduled
 Actual - - - - Actual
 (5) See note 5 - APPENDIX

A C T I V I T Y	PERCENT OF PROJECT	REFERENCE NOTES	1978					
			S	O	N	D	J	F
ENGINEERING SERVICES - MAIN DISTRIBUTION SYSTEMS	0.86	(6)						
PROCUREMENT	0.18							
ENGINEERING ASSISTANCE	0.28							
CONSTRUCTION ASSISTANCE	0.32							
HEADQUARTERS COMPLEXES								
ENGINEERING SUPERVISION	0.05							
CONSTRUCTION SUPERVISION	0.03							
ENGINEERING - P L N DISTRIBUTION SYSTEMS	4.66	(7)						
FIELD STAKING	1.97	(9)						
CONSTRUCTION PLANS	2.27	(10)						
HEADQUARTERS COMPLEXES								
DESIGN	0.39							
CONSTRUCTION DOCUMENTS	0.03							
CONSTRUCTION	94.48							
DISTRIBUTION SYSTEMS	63.23							
POLES	11.73	(11)						
POLE FRAMING	4.71	(1) (12)						
R/W CLEARING	9.06							
CONDUCTORS	9.8							
TRANSFORMER & EQUIPMENT	0.11	(2)						
LINE TESTING	0.22							
HOUSE WIRING & SERVICES	24.03	(3) (4)						
METERS	1.57	(3) (4)						
HEADQUARTERS COMPLEXES	33.25							
SITE ACQUISITION, PREPARATION & CIVILWORK FACILITIES	9.4	(5)						
	23.85	(5)						



SCHEDULED % COMPLETE : 13.50
ACTUAL % COMPLETE : 13.40

