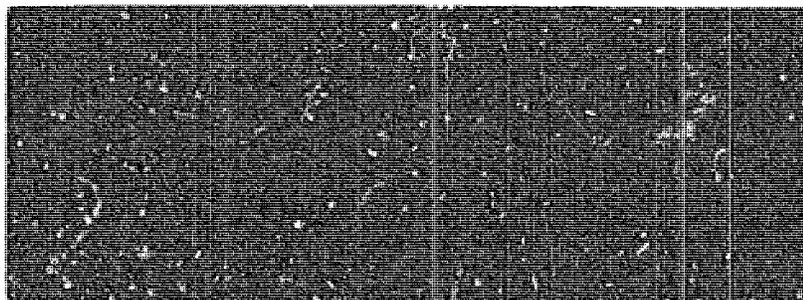


**PERUSAHAAN UMUM LISTRIK NEGARA
AGENCY OF MINISTRY OF MINES AND ENERGY
GOVERNMENT OF THE REPUBLIC OF INDONESIA**



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



BEST AVAILABLE

CHAS.T. MAIN INTERNATIONAL. INC

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

MONTHLY REPORT NO. 51
FOR
DECEMBER 1982 - JANUARY 1983

SUBMITTED BY
CHAS. T. MAIN INTERNATIONAL, INC.

RURAL ELECTRIFICATION PROJECT
MONTHLY REPORT
DECEMBER 1982-JANUARY 1983

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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 Number 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, with an estimated completion date of September 30, 1981.

This Contract was Amended on February 27, 1980 increasing Chas. T. Main's scope of services, adding additional personnel and increasing the Budget.

The Contract was again amended on November 8, 1982 to modify the scope of work, extend the period of performance until June 30, 1984, increase the person months of direct labor and increase the Budget.

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 was, in the original feasibility study, estimated to consist of approximately 2,500 kilometers of overhead primary and secondary distribution lines; and was planned to encompass 440 towns and villages. Actual line staking has totalled 3,318 kilometers of distribution lines which serve 486 villages.

The completed Project is intended to provide reliable, inexpensive electric service to an estimated 260,000 rural homes. It is projected that approximately 130,000 consumers will be connected during the first three years of operation, and the remainder connected during the following twelve years.

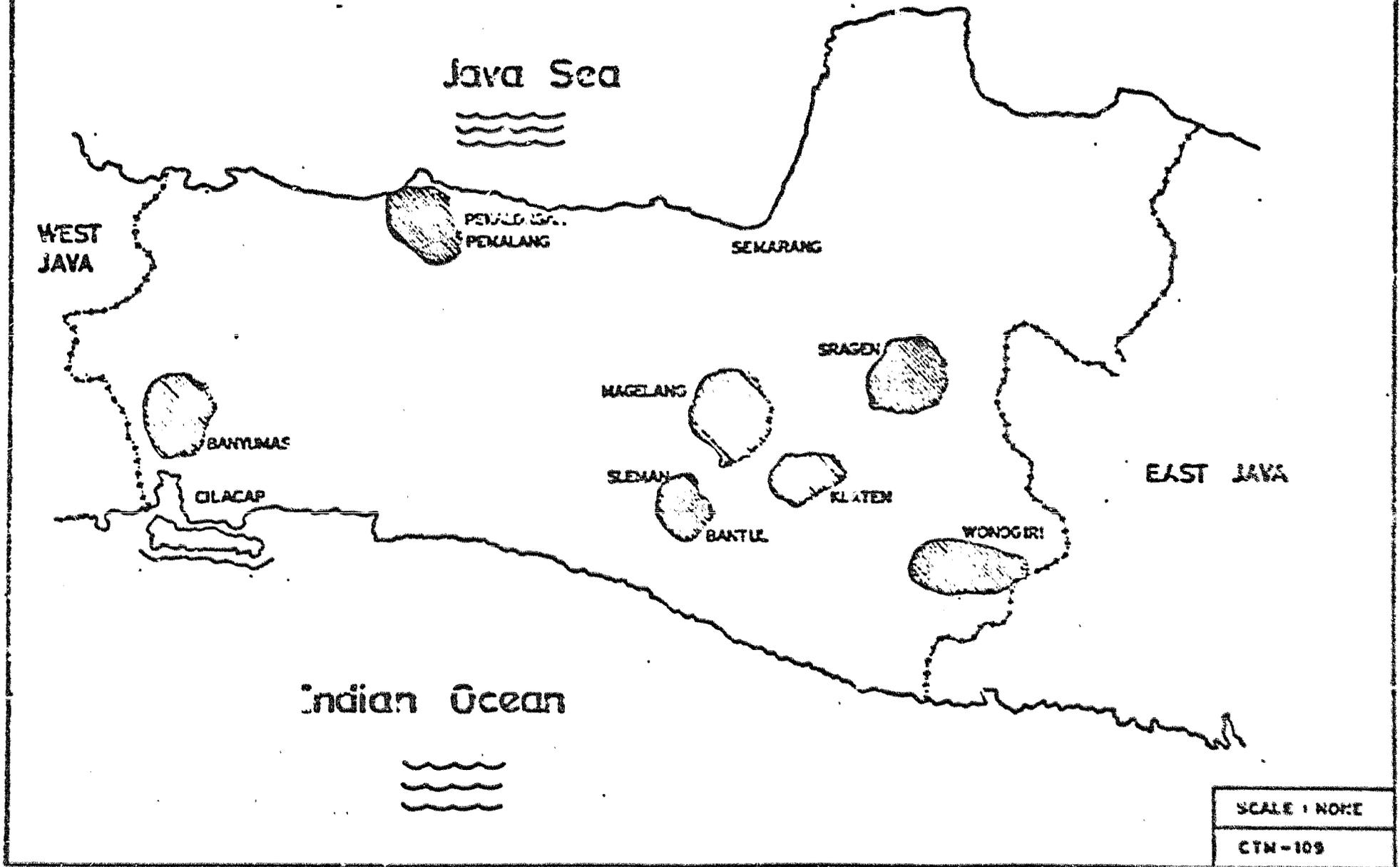
The seven Central Java Project Service Areas are shown on CIM Map No. 109, page 3 of this report. These seven areas will be connected to the existing PLN, Central Java grid for their power requirements. Project Service Areas, number of villages served, approximate number of consumer connections and the 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	102	25,000	225,000
Pem/Pek	136	20,000	180,000
Bantul	21	20,000	180,000
Wonogiri	54	15,000	135,000
Sragen	55	15,000	135,000
Magelang	83	20,000	180,000
Banyumas	35	15,000	135,000
TOTALS	486	130,000	1,170,000

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

CENTRAL JAVA

RURAL ELECTRIFICATION PROJECT SERVICE AREAS



II. SCOPE OF SERVICES

Under the original Contract the scope of MAIN's services is to assist and instruct 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.

The Contract Amendments enlarged the scope of MAIN's services to include assistance to PLN in the engineering, design and construction management of the seven Headquarters Complexes.

The Amendment of November 8, 1982, while increasing the total level of effort (person man months), reduced the level of effort for PLN by terminating all of the Field Staff and the Site Manager. The construction supervision was thereby reduced to periodic site inspections.

III. PROJECT ACTIVITIES & PROGRESS

A. ENGINEERING

1. DISTRIBUTION SYSTEMS

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 there was no activity in this area since all maps and structure data sheets were 100% complete previously.

2. HEADQUARTERS COMPLEXES

During the reporting period, activity was limited to correction of minor deficiencies at the Wagon site.

B. PROCUREMENT

1. TOOLS AND EQUIPMENT

All tools and equipment ordered under this contract series have been shipped and the majority of items have been received. Some shipments have incurred some losses and damage. Replacements of lost and damaged items are being effected through insurance coverage and most replacements have been received.

PLN has been advised that Cable Handling and Stringing Equipment, Inc., supplier of certain tools and equipment under contract No. Pj. 265/PST/80, has filed bankruptcy act. Cable Handling and Stringing Equipment, Inc. has not completed shipment of pulling line and stringing blocks. Nor had they furnished replacement parts for items lost on previous shipment of reel stands and reel carriers.

PLN has instructed their attorneys in the U.S. to investigate the matter and protect PLN's interests. The U.S. attorney is in contact with CIASE's successor and is negotiating an agreement for completion of the Contract. Pengo Industries, successor to CIASE, has agreed to complete the Contract. The Letter of Commitment and Letter of Credit is being amended to reflect the change in supplier.

TABLE NO. 1
STATUS OF MAP AND STRUCTURE DATA SHEETS

As of : January 31, 1983

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

A - ACTUAL

E - ESTIMATED

R - REVISED

(1) INCLUDES FIELD STAKING

2. MATERIALS AND EQUIPMENT - I

All material, except Tie Wire in the Amendment to Contract Pj. 156/PST/81, has been shipped.

All shipments have been received except :

Hot Line Clamps	- Contract Pj. 157/PST/81
Replacements for loss in 3rd shipment	- Contract Pj. 148/PST/81

3. HOUSEWIRING AND METERS

All material ordered under this Contract series has been shipped and received, except for Amendment 1 to Contract Pj. 006/PST/82. This shipment is awaiting amendment of the Letter of Commitment and Letter of Credit. Some damage claims have been made and are being processed.

4. CONDUCTORS

All conductor ordered on Contract No. Pj. 391/PST/81 from P.T. Kabelindo Murni has been delivered to the various sites. This contract was funded by a loan from the Netherlands. No decision has been reached on procurement of additional conductor requirements.

5. POLES

As of this reporting period, the PIN contractor supplying steel poles has delivered and set 20,083 steel RS poles. As of this reporting period, the PIN contractor supplying concrete poles has delivered and set 12,871 concrete poles. PIN has set a total of 8,739 wood poles as of the close of this reporting period.

6. DISTRIBUTION MATERIALS II

All material under this contract series has been shipped and received, except the additional pole bands on Amendment No. 1 to Contract 001/PST/82. This shipment is awaiting amendment of the Letter of Commitment and Letter of Credit.

7. HOUSEWIRING MATERIALS II

Partial shipments of material have been made under Contracts Pj. 266/PST/82 and Pj. 353/PST/82. The material received under Pj. 266/PST/82 has been rejected as not being in accordance with the specifications, and is in the process of being replaced. No shipments have been made under contract No. Pj. 354/PST/82. All payment documents, including Letters of Commitment, Letters of Credit and Direct Reimbursement Authorizations have been completed.

8. DISTRIBUTION MATERIALS III

All contracts for material under this series have been signed.

Letters of Commitment and Letters of Credit have been issued for ten (10) of the twelve (12) contracts in this series. These payment documents are currently being processed for the following Contracts :

Pj. 414/PST/82

Pj. 613/PST/82

Shipment has been made of the material on Contract Pj.290/PST/82, but has not yet arrived.

9. FUNDING

The present accumulated value of funds committed from the U.S. AID loan, through Letters-of-Commitment and Direct Reimbursement Authorization, are shown in Table 2 of this report. Additional details of contracts, Letters-of-Commitment, and Letters-of-Credit are shown in Table A-3.

C. CONSTRUCTION

1. DISTRIBUTION SYSTEMS

Due to lack of material, line construction during this period was limited to the setting of poles.

Data showing quantities of construction units installed are shown in Table 3.

2. HEADQUARTERS COMPLEXES

The status of construction of all sites is shown on Table 4. All seven sites have been accepted as complete, and final payment has been made on all except Wangon. The retainer is still withheld on Wangon pending completion of minor corrective work.

D. PROJECT PROGRESS

Project completion is estimated to be 44.92 percent as compared to scheduled completion of 38.56 percent.

TABLE NO. 2
COMMITTED FUNDS - AID LOAN

As of : January 31, 1985

<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. 196/PST/1980	Maison Int'l. Ltd.	\$ 322,267.55	497-T-05207	CitiBank NA	\$ 323,878.89
Pj. 197/PST/1980	New World Research Corp.	233,965.00	497-T-05208	CitiBank NA	838,023.20
Pj. 198/PST/1980	Hyundai Corp.	327,804.00	497-T-05209	CitiBank NA	329,443.02
Pj. 215/PST/1980	Chm International	192,511.17	497-T-05210	Well Fargo	1,476,484.10
Pj. 216/PST/1980	American Curti, Inc.	482,475.00			
Pj. 223/PST/1980	Chm International	79,495.65			
Pj. 205/PST/1980	Cable Handling & Lifting Equip. Inc.	577,747.75			
Pj. 217/PST/1980	HT Export Corp.	193,172.76			
Pj. 019/PST/1981	Irbj Const. Co.	471,233.70			
Pj. 030/PST/1981	Copperweld Industries	409,244.46	497-T-05214	CitiBank NA	978,530.55
Pj. 051/PST/1981	McCraw Electric Co.	25,612.20	497-T-05215	American Express	255,947.33
Pj. 052/PST/1981	Produt. Linhas Erc. Ltda.	167,054.75			
Pj. 296/PST/1981	P.T. M. G. dah	131,795.78	052-26	DRA	151,795.78
Pj. 297/PST/1981	P.T. Elprima Agung	478,371.08	052-27	DRA	478,345.08
Pj. 156/PST/1980	Walsin Lihwa	28,602.25	497-T-05229	Chase Manhattan	997,526.36
Pj. 170/PST/1980	Walsin Lihwa	82,724.00			

* Includes Bank Charges

<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. 148/PST/1981	Hyosung Corp.	\$ 1,950,594.00	497-T-05223	Chase Manhattan	\$ 1,660,346.97
Pj. 157/PST/1981	P.T. Putera Tolhas	30,929.92	052-30	DRA	30,929.92
Headquarter Complex Construction		1,738,000.00	052-25	DRA	1,738,000.00
Pj. 422/PST/1981	General Electric Co.	2,740,931.40	497-T-05235	Bank of America	2,755,731.56
Pj. 354/PST/1981	Hijason Industrial	490,389.15	497-T-05234	Citibank	492,841.10
Pj. 355/PST/1981	New World Research	338,936.00	497-T-05235	Chemical Bank	340,650.68
Pj. 001/PST/1982	Hijason Industrial	152,560.63	497-T-05242	Bank of America	153,350.44
Pj. 006/PST/1982	General Electric Co.	52,907.50)	497-T-05243	Bank of America	1,647,167.37
Pj. 409/PST/1981	New World Research	1,586,065.00)			
Pj. 035/PST/1982	Titan Engr. Corp.	33,983.44	497-T-05247	Citibank	34,153.36
NRECA Training Contract		80,090.00	052-01	DRA	80,090.00
Vehicle Purchase		112,507.00	052-02	DRA	112,507.00
Vehicle Purchase		126,509.00	052-03	DRA	126,509.00
NRECA Training Contract		81,150.00	052-03	DRA	81,150.00
Air Travel for Trainee		6,350.00	052-06	DRA	6,350.00
Pj. 278/PST/1982	Midland Metals	16,720.70)	497-T-05250	Citibank	38,423.31
Pj. 281/PST/1982	Atlantica Corp.	16,445.00)			
Pj. 290/PST/1982	McGraw-Edison Co.	5,066.45)			
Pj. 282/PST/1982	Daewoo Corp.	321,372.60	497-T-05251	Citibank	322,979.46
Pj. 266/PST/1982	P.T. Elprima Agung	141,418.92	027-Amend. 1	DRA	141,418.92
Pj. 357/PST/1982	P.T. Sidohita Co.	50,261.98	026-Amend. 1	DRA	50,261.98

<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. 354/PST/1982	Hijason Industrial	149,600.00)	497-T-05258	Citibank, NA	1,107,561.46
Pj. 352/PST/1982	Allis Electric Co.	236,577.50)			
Pj. 351/PST/1982	Berca Int'l Pte.Ltd.	715,873.70)			
Pj. 407/PST/1982	Asian Insulator Co.	111,079.80)	497-T-05259	Chase Manhattan	913,951.62
Pj. 433/PST/1982	Allis Electric Co.	798,304.90)			
Pj. 406/PST/1982	P.T. Sidohita Co. Ltd.	155,531.76	030-Amend. 1	DRA	155,531.76
Pj. 361/PST/1982	Leader Metal Ind.	45,065.00	497-T-05223 (Amend. 3)	Chase Manhattan	45,290.33
Pj. 414/PST/1982	Walsin Lihwa	424,675.50	497-1 (Amer.	Chase Manhattan	
Pj. 613/PST/1982	Dulmison (Thailand)	109,390.50			
Present Total		\$ 18,464,466.43 =====			\$ 17,999,938.95 =====

* Includes Bank Charges

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As of : 29 January 1983

LEGEND

- 1 - REPORTING PERIOD
 2 - TOTAL TO DATE
 3 - % COMPLETE

TABLE 3
SUMMARY OF CONSTRUCTION FACILITIES
DISTRIBUTION SYSTEMS

SITE (1)	POLE (2)	FRAMING (CKT KM)			CONDUCTORS (CKT KM)			TRANSFORMERS APPARATUS (9)
		3Ø (3)	1Ø (4)	SEC (5)	3Ø (6)	1Ø (7)	SEC (8)	
KLATEN	-1	555	-	-	-	-	-	-
	-2	7523	24.04	21.58	103.35	24.5	16.60	41.87
	-3	71.15	37.55	8.65	20.74	38.23	6.64	8.40
MAGELANG	-1	436	-	-	-	-	-	-
	-2	5644	8.3	27.01	79.02	14.7	28.59	36.04
	-3	81.62	15.84	9.50	32.41	28.05	10.05	14.78
PEMALANG	-1	26	-	-	-	-	-	-
	-2	5141	16.24	30.90	117.23	16.55	28.24	45.36
	-3	36.25	17.74	9.52	19.71	18.08	8.52	7.29
SLEMAN/ BANTUL	-1	211	-	-	3.50	-	-	-
	-2	6913	12.33	17.23	86.53	10.57	19.78	36.92
	-3	99.66	28.42	10.16	24.65	24.09	11.67	10.52
SRAGEN	-1	431	-	-	-	-	-	-
	-2	7080	1.22	22.07	39.95	1.22	13.20	10.12
	-3	89.54	3.3	9.84	9.57	3.3	5.89	2.42
WANGON	-1	112	-	-	-	-	-	-
	-2	4118	14.19	11.94	46.19	16.78	13.99	27.65
	-3	75.76	31.48	7.27	21.86	37.22	8.51	13.09
WONOGIRI	-1	82	-	-	-	-	-	-
	-2	5274	19.39	21.10	95.03	21.14	22.18	44.74
	-3	48.04	33.03	5.96	15.72	36.02	6.27	7.40

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T A B L E

SUMMARY OF CONSTR
HEADQUARTERS

ACTIVITY	KLATEN		MAGELANG		PEKALONGAN	
	OFFICE	WHSE	OFFICE	WHSE	OFFICE	WHSE
EXCAVATION, BACKFILL	100	100	100	100	100	100
CONCRETE						
BELOW GRADE	100	100	100	100	100	100
ABOVE GRADE	100	100	100	100	100	100
CARPENTRY	100	100	100	100	100	100
MASONRY	100	100	100	100	100	100
PLUMBING	100	100	100	100	100	100
ELECTRICAL	100	100	100	100	100	100
FINISHING						
TRIM	100	100	100	100	100	100
TILE	100	100	100	100	100	100
PAINT	100	100	100	100	100	100
CONTRACT AMOUNT - RUPIAH	152,544,000		157,355,000 *		176,136,000 *	
% COMPLETE - PERIOD						
% COMPLETE - TO DATE	100		100		100	

* Revised Contract Amount resulting from finalized const

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CONSTRUCTED FACILITIES
OFFICES COMPLEXES

SLEMAN BANTUL		SRAGEN		WANONG		WONOGIRI	
<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100
154,251,000 *		152,747,000 *		163,130,000		163,463,000 *	
100		100		100		100	

construction quantities.

IV. ADMINISTRATION

A. PERSONNEL

Table 5 lists the job classifications and associated manmonths allocated to MAIN. Also shown are the personnel assigned and manmonths consumed for each job classification. The associated manmonths and the percentages related thereto that are shown are as of December 31, 1982.

B. LOGISTICS

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

TABLE 5

THROUGH : 30 December 1982

JOB CLASSIFICATIONS & MANMONTH

JOB CLASSIFICATIONS	LOCATION	AGENCY		PERSONNEL ASSIGNED	MANMONTH		% CONS.	% REMAIN
		PLN	DGC		ALLOCATED(*)	CONSUMED		
Project Director	Jakarta	x	x	D.A. Dowling	64	48.1	75.2	24.6
Business Manager	Semarang	x	x	R.N. Key	63	46.4	73.7	26.3
Admin. Manager	Jakarta	x	x	C.J. Whitby	24	14.4	60.0	40.0
Administrative Ass't.	Jakarta	x	x		11	10.6	96.4	3.6
Area Manager	Semarang	x			21	20.5	97.6	2.4
Lead Elect. Engineer	"	x			28	27.7	98.9	1.1
Civil Engineer	"	x			31	30.7	99.0	1.0
Const. Manager	"	x			38	37.9	99.7	0.3
Field Supervisor	"	x			34	33.2	97.7	2.3
Field Supervisor	"	x			35	34.4	98.3	1.7
Lead Elect. Engineer	Jakarta		x	E. Leffler	66	46.6	70.6	29.4
Elect. Engineer	"		x		35	35.8	102.3	(2.3)
Elect. Engineer	"		x		25	25.4	101.6	(1.6)
Elect. Engineer	"		x		20	20.6	103.0	(3.0)
Elect. Engineer	"		x		15	15.5	103.3	(3.3)
Civil Engineer	"		x		20	20.4	102.0	(2.0)
Senior Draftsman	"		x		27	26.2	97.0	3.0
Field Supervisor	Lampung		x	F. P. Cachin	64	46.1	72.0	28.0
Field Supervisor	Lombok		x	C. R. Katindoy	57	38.4	67.4	32.6
Field Supervisor	Luwu		x	R. M. Garcia	64	46.8	73.1	26.9
Material Supervisor	Jakarta		x	P. V. Wilson	21	20.6	98.1	1.9
Boston Office				Various	82	75.2	91.7	8.3
					845	721.5	85.4	14.6
					=====	=====		

* As adjusted by Contract Amendments.

V. FINANCIAL

A. Following is a summary of costs invoiced to U.S. AID through December 30, 1982 and to PLN through January 25, 1983 :

	<u>Budget</u>	<u>Invoiced To Date</u>	<u>Paid To Date</u>
U.S. AID	\$ 5,706,714	\$ 4,871,312	
PLN		Rp. 97.682.802,-	Rp. 92.467.003,-

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>Cost To Date</u>		<u>TOTAL</u>
		<u>PLN</u>	<u>DGC</u>	
Salaries & Wages	\$ 1,829,038	679,494	832,021	1,511,515
Fringe Benefits	243,461	94,791	99,822	194,613
Allowances	433,099	152,063	215,829	367,892
Travel & Transportation	774,914	347,425	320,190	667,615
Other Direct Costs	288,312	48,570	221,335	269,905
Overhead	1,712,890	674,770	823,526	1,498,296
Fee	425,000	163,846	197,631	361,477
T O T A L	:\$ 5,706,714	2,160,959	2,710,354	4,871,313

VI. PROBLEM AREAS

1. The source and funding of the additional conductor requirements are still unresolved. Discussions have been held on this subject, however; with a view toward procurement of some part of these additional requirements from the U.S. AID Loan funds which, at this time, remain uncommitted. The possible utilization of these funds for additional material and equipment has also been discussed but no formal proposal has yet been made to AID.

VII. OFFICIAL MEETINGS AND TRIPS

December 15, 1982 : A Project Coordination meeting was held in Semarang to review and discuss Project matters. The meeting was attended by officials of PLN Pusat, P.I.RING, WILAYAH XIII, USAID, NRECA and CIM.

December 20 - 23, 1982 : Messrs. Soedjono and Mulyono Widodo, from P.I.RING, Semarang, and Mr. D.A. Dowling from Chas. T. Main, inspected the crossarms and crossarm braces at the factory of P.T. ElektriKa Timber Impregnation Co., Ltd. at Medan, Indonesia.

Two problems were discovered :

1. A minor change in drilling of crossarms will be made prior to shipment.
2. Steel stock used for some of the crossarm braces is under size. Samples of the braces will be shipped to Semarang for testing to verify acceptability.

January 10, 1983 : Officials of PLN Pusat, P.I.RING, and WILAYAH XIII attended the opening ceremony in Semarang of a two-week training course in Horsewiring and Distribution Construction.

January 12, 1983 : Mr. D.A. Dowling visited Semarang to meet with PLN and CIM staff regarding Project material and construction.

January 17 to 21, 1983 : Messrs. Mulyono Widodo and Basuki, from P.I.RING, - Semarang and Mr. D.A. Dowling of CIM, observed the tests of transformers at the facilities of L.M.K. in Jakarta. One transformer of each size used on the Rural Electrification Project was selected at random for tests to verify compliance with the test data provided by the transformer manufacturer.

A second trip to L.M.K. was made by the staff from P.I.RING.

January 24 to 26, 1983. Evaluation of these tests will be reported after all test results are available.

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>
USAID	S-8844	2-12-82	P.T. Sidohita Co. Ltd. Invoice Contract Pj. 353/PST/82
Ir. Doddy	S-8846	3-12-82	National Electrical Safety Code
Mr. Naryanto	S-8848	3-12-82	Construction of Headquarter's Complexes Installment # V, Wangon
Ohm Int'l.	S-8852	4-12-82	Damage & Lost Material Contract Pj. 215/PST/80
Telex - Ohm Int'l.	S-8854	6-12-82	Contract Pj. 223/PST/80.
PLN - Pusat	S-8856	6-12-82	Certificate of Performance Contract Pj. 006/PST/82
USAID	S-8858	8-12-82	Contract No. AID/ASIA-C-1357 Monthly Report - November 1982.
Ir. Doddy	S-8860	8-12-82	Material Procurement Contract. Rural Electrification Project
USAID	S-8866	9-12-82	Utility & Housing Expenses No. 25
P.I.Ring	S-8868	9-12-82	R.E. Invoice No. 55 Period Ending December 10, 1982
USAID	S-8870	10-12-82	P.T. Elprima Agung Invoice Contract Pj. 266/PST/82
USAID	S-8872	10-12-82	Invoice No. AID - 1.3
PLN, Pusat	S-8876	13-12-82	Certificate of Performance New World Research Corp. Contract Pj. 409/PST/81.
PLN, Pusat	S-8878	13-12-82	Certificate of Performance Contract Pj. 156/PST/81 Walsin Lihwa Electric Wire & Cable Corp.
Mr. Soedjono	S-8880	14-12-82	Notification of Material Shipments Rural Electrification Project.
Mr. Soedjono	S-8884	15-12-82	Contract Pj. 223/PST/80 Anixter - Ohm Int'l. Replacement Material
Mr. Soedjono	S-8886	16-12-82	Notification of Material Shipment Contract Pj. 035/PST/82 Westinghouse Electric Corp.
Ir. Doddy	S-8890	21-12-82	Material Handling Rural Electrification Project

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
New World Research	S-8892	22-12-82	Contract Pj. 195/PST/80 Loss of Material in Shipment
PLN, Pusat	S-8896	23-12-82	Certificate of Performance Contract Pj. 223/PST/80 Ohm Int'l. Inc.
Hyjason Industrial Taiwan	S-8898	24-12-82	Contract Pj. 354/PST/81 Damage in Shipment of Material Rural Electrification Project.
D.A. Dowling	S-8900	24-12-82	Extension of Letters of Credit Rural Electrification Project
P.I.Ring	S-8906	6-1-83	R.E. Invoice No. 56 Period Ending January 3, 1983
U.S.AID	S-8908	7-1-83	P.T. Sidohita Co. Ltd. Invoice Contract Pj. 353/PST/82
PLN, Pusat	S-8910	7-1-83	Certificate of Performance Contract Pj. 170/PST/81 Walsin Lihwa Electric Wire & Cable Corp.
PLN, Pusat	S-8912	8-1-83	Certificate of Performance Contract Pj. 223/PST/80 Ohm International, Inc. Rural Electrification Project
Telex New World Research Corp.	S-8914	8-1-83	Contract Pj. 335/PST/81 Invoice No. YTC-7015, July 23, 83..
P.I.Ring.	S-8916	8-1-83	Contract Pj. 335/PST/81 New World Research Corp.
Ohm Int'l.	S-8918	8-1-83	Damage & Lost Material Contract Pj. 215/PST/80
Telex - New World Research Corp.	S-8920	13-1-83	Contract Pj. 335/PST/81
U.S.AID	S-8922	13-1-83	Contract Pj. 157/PST/81 P.T. Putera Tolhas Rural Electrification Project
P.I.Ring	S-8924	13-1-83	Bill of Lading Contract Pj. 157/PST/81
Telex - Midland Metal, Singapore	S-8926	14-1-83	Contract Pj. 278/PST/82 Price Increase.
PLN, Pusat	S-8928	14-1-83	Certificate of Performance Contract Pj. 170/PST/81 Walsin Lihwa Electric Wire & Cable Corp.

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
PLN, Pusat	S-8930	14-1-83	Certificate of Performance Contract Pj. 030/PST/81 Copperweld Industries Int'l. Inc.
Telex - New World Researh Corp.	S-8932	15-1-83	Contract Pj. 335/PST/81 Sealing Compound.
Telex - New World Research Corp.	S-8936	18-1-83	Contract Pj. 409/PST/81 Invoice No. YTC-7034 dated August 17, 82.
PLN, Pusat	S-8938	19-1-83	Rural Electrification Project Central Java. Shipping Report.
Telex - Midland Metal Singapore	S-8944	20-1-83	Copper Scrap Loss
U.S.AID	S-8946	20-1-83	Invoice No. AID-126
U.S. AID	S-8948	22-1-83	Rural Electrification Project Utility & Housing Expenses No.26
Telex - Iljin Ind. Co. Seoul Korea.	S-8952	26-1-83	Contract Pj. 157/PST/81 Rural Electrification Project
P.I.Ring.	S-8956	27-1-83	Rural Electrification Invoice No. 57 for Period Ending January 25, 1983.
Telex - WESCO	S-8958	29-1-83	Contract Pj. 035/PST/82 Rural Electrification Project
PLN, Pusat	S-8960	31-1-83	Certificate of Performance Contract Pj. 032/PST/81 Produtos Para Linhas Preformados Ltda.

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>
J.D. Baird	J-5666	Rural Electrification Project Main Field Staff Man Hour Report.
Drs. Soeparno	J-5667	Rural Electrification Project Contract Pj. 422/PST/81 Receiving Report.

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
Intra Sapta/ Mr. Sugardá	J-5669	TELEX - Distribution Materials II Central Java
DAEWOO, Jakarta Mr. Koo	J-5671	TELEX - Section DI-1.
Ir. Doddy J. Widada	J-5672	Inspection of Insulators to be supplied by Daewoo.
Ir. Soedarso	J-5675	Rural Electrification Project Contract No. Pj. 613/PST/82 Dulmison (Thailand) Co., Ltd.
Diane Kennedy	J-5678	TELEX - Amendment No. 1, Contract 216/PST/80
W. Russell/G.E.	J-5684	TELEX - Name Plate Data on G.E. Damage Meters.
Ir. Soedarso	J-5686	Rural Electrification Project Contract Pj. 157/PST/81 Pro-forma Letter of Credit.
Patricia Cooney/ G.E.	J-5690	TELEX - Pj. 422/PST/81.
Ir. A. Andoyo	J-5694	Rural Electrification Project Contract Pj. 265/PST/80 Cable Handling & Stringing Equipment Co.
All PLN Personnel	J-5695	Invitations for the Coordination Meeting # 12 for the Central Java Rural Electrification Project on 15 December 1982.
J.D. Baird	J-5696	Rural Electrification Project Letter of Commitment 497-T-05210.
Ir. A. Andoyo	J-5701	Rural Electrification Project Contract Pj. 035/PST/82. Shipping Documents.
Ir. Moh. Basoeki	J-5704	Rural Electrification Project Supply of ACSR Conductor for the Central Java.
A.J. Curran/ G. Sen	J-5711	MEMO - Back up Information for Payment of Stamp Tax Contract Pj. 216/PST/80 Merican Curtis.
Ir. J. Rumondor	J-5713	Material for Construction of Central Java Rural Electrification Contract Pj. 361/PST/82.

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<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
Ir. Soedarso	J-5718	Extension of Letters of Credit.
J.D. Baird	J-5721	Rural Electrification Project Main Field Staff Man Hour Report.
U.S. AID	J-5722	Contract No. AID/ASIA-C-1357 R.E. Invoice No. AID-124.
All Concerned	J-5725	Minutes of Coordination Meeting No. 12 for the Central Java R.E. Project.
Jacques De Vries	J-5727	AID Loan No. 497-T-052 Contract No. Pj. 278/PST/82 Section CC Copper Conductor
Ir. A. Andoyo	J-5730	Rural Electrification Project Shipping Report.
Ir. A. Andoyo	J-5743	Proposed Agreement with Pengo Contract Pj. 265/PST/80.
Budiraja/Dulmison Thai.	J-5746	TELEX - Supply of Material Sec. CS-2 Central Java Rural Electrification PSB/DP/X/1333.
U.S. AID	J-5749	Contract No. AID/ASIA-C-1357 Rural Electrification Invoice No. AID-125.
Ismail/Wijaya Karya	J-5755	Contract No. Pj. 361/PST/82 (CS-1) Central Java Rural Electrification Project.
H.R. Ko/Daewoo Jakarta.	J-5756	TELEX - Contract No. Pj. 282/PST/82.
David Cox	J-5764	TELEX - Contract No. Pj. 265/PST/80.
R.I.K. Sinulingga	J-5767	TELEX - Contract No. Pj. 406/PST/82. Crossarm & Braces.
U.S. AID	J-5773	Contract No. AID/ASIA-C-1357 Rural Electrification Invoice No. AID-127.
R.I.K. Sinulingga	J-5779	TELEX - Clarification of Approval to ship material.
Santoso Basuki/ Berca Singapore	J-5781	TELEX - Contract 351 with PIN.
J.D. Baird	J-5783	Inspection of Central Java Rural Electrification Material at Taipei and Seoul.

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
David Cox	J-5785	Contract Pj. 265/PST/80 Addendum No. 1.
Mr. Koo/ Daewoo Korea	J-5789	TELEX - Contract No. Pj. 282/PST/82.
J.D. Baird	J-5792	Rural Electrification Project Main Field Staff Man Hour Report.
U.S. AID	J-5795	Rural Electrification Project Contract No. AID/ASIA-C-1357 MAIN Invoice No. 125 Supporting Data.
Diane Kennedy	J-5796	TELEX - Contract 216.
Ir. A. Andoyo	J-5799	Rural Electrification Project Increases in Letters of Credit.
Ir. A. Andoyo	J-5801	Rural Electrification Project Contract No. Pj. 278/PST/82. Amendment No. 1
Ir. Soedarso	J-5806	Rural Electrification Project Distribution Line Materials III Contract No. Pj. 613/PST/82.

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>LOCATION</u>	<u>HOUSING</u>	<u>BY</u>	<u>TRANSPORT</u>
D.A. Dowling & Family	Jakarta		AID	Vehicle by PLN operation by DGC
R.N. Key & Family	Semarang		PLN	PLN
C.J. Whitby & Family	Jakarta		AID	

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.

2 Charts on 1 Fiche

Summary of Contract Status

Sheet 1 of 3

Sheet 2 of 3

Fiche # 2

2 Charts on one Fiche

Summary of Contract Status
for Material + Equipment Sheet 3 of 3.
and

Summary of Shipping Material +
Equipment. Sheet 1 of 2

Fiche # 3

1 Chart

Summary of Shipping Material +
Equipment Sheet 2 of 2

Table A-4

Table # 4

TABLE A-5
PERCENT COMPLETION
ENGINEERING & CONSTRUCTION PROCESS

<u>PERIOD</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>	<u>PERIOD</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>
OCT. 78	-	.04	JAN. 82	26.42	25.17
NOV. 78	-	.07	FEB. 82	28.59	27.85
DEC. 78	-	.15	MAR. 82	30.87	30.90
JAN. 79	-	.29	APR. 82	32.6	31.6
FEB. 79	-	.43	MAY 82	33.87	34.0
MAR. 79	-	.60	JUN. 82	34.71	40.0
APR. 79	-	.77	JUL. 82	35.53	40.75
MAY 79	-	.95	AUG. 82	36.34	41.50
JUN. 79	-	1.18	SEPT. 82	37.16	42.57
JUL. 79	-	1.41	OCT. 82	37.86	43.28
AUG. 79	-	1.64	NOV. 82	38.41	44.18
SEPT. 79	-	1.86	DEC. 82	38.56	44.92
OCT. 79	-	2.07	JAN. 83	38.78	
NOV. 79	-	2.27	FEB. 83	42.18	
DEC. 79	-	2.42	MAR. 83	45.58	
JAN. 80	-	2.57	APR. 83	48.98	
FEB. 80	-	2.73	MAY 83	52.38	
MAR. 80	-	2.86	JUN. 83	55.78	
APR. 80	-	2.99	JUL. 83	59.18	
MAY 80	-	3.12	AUG. 83	62.58	
JUN. 80	-	3.25	SEPT. 83	65.98	
JUL. 80	-	3.32	OCT. 83	69.38	
AUG. 80	-	3.51	NOV. 83	72.78	
SEPT. 80	-	.64	DEC. 83	76.18	
OCT. 80	-	3.77	JAN. 84	79.58	
NOV. 80	-	4.52	FEB. 84	82.98	
DEC. 80	-	5.66	MAR. 84	86.38	
JAN. 81	-	7.31	APR. 84	89.78	
FEB. 81	-	9.11	MAY 84	93.18	
MAR. 81	-	10.95	JUN. 84	96.58	
APR. 81	-	12.86	JUL. 84	100	
MAY 81	-	14.68			
JUN. 81	-	16.24			
JUL. 81	-	17.24			
AUG. 81	-	17.92			
SEPT. 81	-	18.45			
OCT. 81	20.17	19.54			
NOV. 81	22.21	20.85			
DEC. 81	24.37	22.60			

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