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RURAL ELECTRIFICATION PROJECTS

INDONESIA

NRECA TEAM REPORT

PDO

INDONESIA

(SEPTEMBER 1981)



NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

JAKARTA, INDONESIA

MONTHLY REPORT

NRECA INDONESIAN TEAM REPORT

UNITED STATES AGENCY FOR
INTERNATIONAL DEVELOPMENT

Contract No. AID/ASIA CI347
Loan No. 497-T-052

IMPLEMENTING AGENCIES:

DIREKTORAT JENDERAL KOPERASI
Directorate General of Cooperatives

PERUSAHAAN UMUM LISTRIK NEGARA:
National Electric Power Agency

CONSULTANTS:

National Rural Electric Cooperative Association
Management, Organization and Training

C.T. Main International, Inc.
Architect and Engineering

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DESCRIPTION AND OBJECTIVES OF PROJECT (DGC)

The Government of Indonesia (GOI) has initiated a demonstration rural electrification program which is planned to provide areawide electric power distribution in ten specified areas within the next four or five years. The objective of this program is to demonstrate conclusively that reliable electric service and the social and economic benefits that accrue therefrom can be made available to the very poor people at a price they are able to pay.

Three of the electrical distribution systems will be located on separate islands outside of Java and will be implemented through rural electric cooperatives organized by the Directorate General of Cooperatives (DGC). The National Electric Power Agency (PLN) operates an extensive electric system in Central Java, and is responsible for constructing, operating and maintaining the seven systems located on that island.

The U.S. Agency for International Development (USAID) is assisting the GOI in this demonstration by making available AID grant funds to provide organizational, management and technical advisory services. The National Rural Electric Cooperative Association (NRECA), through its International Programs Division, was contracted by AID to provide these services because of its demonstrated capability and experience in assisting rural electric cooperatives in developing nations throughout the world.

NRECA is working with the two separate agencies charged with implementing the project. Because of the different organization, management, training and experience of these two agencies, the services provided by NRECA differ in scope and location. The services for DGC include complete assistance in the organization of the individual cooperatives; including staffing patterns, job descriptions, cost accounting, O&M methods, training, planning, policies and procedures, housewiring and etc. The NRECA services and progress to date for the seven systems in Central Java are the subject of a separate report.

The three outer island projects are located on Central Lampung (South Sumatra), East Lombok, and Luwu (South Sulawesi) and are to be constructed and developed

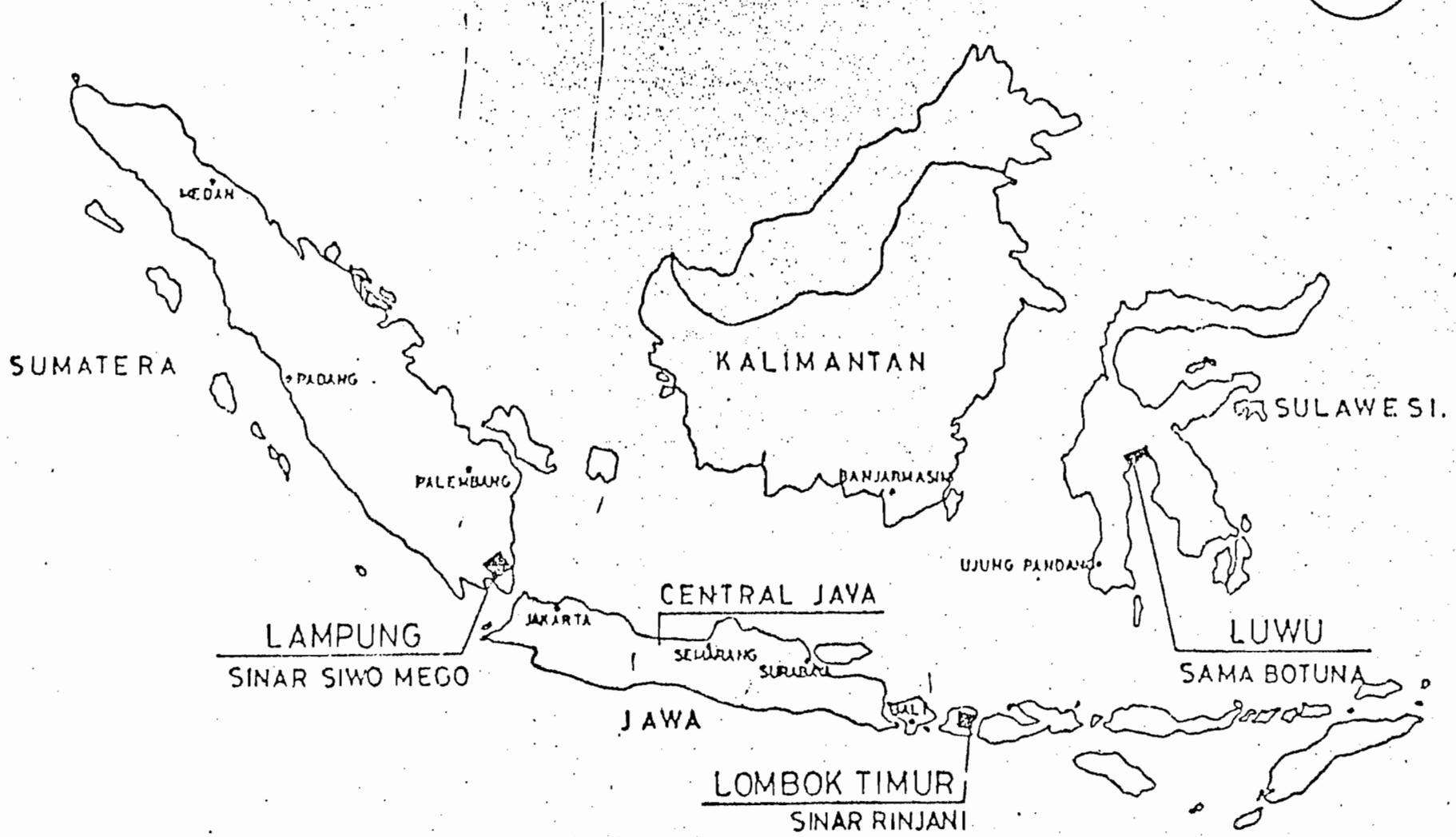
by the member-consumers themselves through the organization of rural electric cooperatives. Each cooperative will construct, own and operate a diesel generating plant to provide power for the distribution system. (The Canadian Government is assisting with the generating project.) A special agency known as the Project Development Office (PDO) under the Directorate General for Cooperatives (DGC) is the GOI implementing agency for the Cooperatives.

The key personnel which NRECA has agreed to furnish for the performance of this contract are as follows:

<u>NAME</u>	<u>TITLE</u>	<u>ADDRESS</u>
Peter McNeill	Team Leader	Pondok Indah Bukit Hijau VIII/31 PH: 761132
Louie Sansing	Sr. RE Specialist	Ratu Plaza Apartment #1103 Jl. Jenderal Sudirman PH: 713850
*Sam Adkins	Sr. RE Specialist	c/o C.T. Main Inc. Box 26 Semarang PH: 024-311832
Paul Swanson	Sr. RE Specialist	Kotak Pos 43 Ampenan, Lombok PH: 0364-23517
John DeFoor	RE Specialist	c/o Bina Marga Office Jl. Imam Bonjol 8 Palopo. S. Sulawesi
Ray Shoff	Administrative/Finance Officer	Ratu Plaza Apartment #1002 Jl. Jenderal Sudirman PH: 712034
Claude Franke	RE Specialist	P.O. Box 88 Tanjungkarang Lampung PH: 0721-52058

* PLN Advisor

RURAL ELECTRIFICATION COOPERATIVE PROJECT SITES



NRECA Jakarta Team Activities

I. General

--- The NRECA team leader and the NRECA administrative/finance officer were in-country throughout this reporting period. The NRECA training officer remained at his assignment the first three weeks of this month and was on R&R thereafter. Three trips were made by team members to the R.E. projects, one trip to each cooperative.

--- Several meetings were held this month between NRECA staff members and USAID officials relative to amending the AID/NRECA contract to increase person-months and to extend the contract completion date. On September 11, an amendment was signed which increased the person-month level by 30 to a total of 354 person-months. Contract completion date is now listed as March 30th, 1983.

II. PDO-RE Activities

--- Three meetings were held with staff members of C.T. Main to review the changes proposed in Distribution System Construction Standards and staking sheets. Proposed changes were discussed and related to NRECA's responsibility for service drop and meter entrance construction standards and associated staking sheets. NRECA comments were documented and distributed to C.T. Main and PDO-RE supervisory staff. At a follow-up meeting of PDO-RE, C.T. Main and NRECA, agreement was reached and PDO-RE approval received for all proposed revisions.

--- A meeting was held this month between AID-PTE, PDO-RE, C.T. Main and NRECA representatives in an effort to resolve pole procurement problems. PDO-RE staff members were assigned the task of preparing a cost-study of treated versus untreated poles for use at the Luwu project. NRECA staff members were requested to assist in the financial aspects of long-range projections. This study was in-progress at months end.

--- NRECA staff members assisted PDO-RE on preparations for a documentary film of the Lombok Cooperative operations. An outline was prepared for film contents and recommendations made for duration and sequence of filming. It is planned that one and one-half hours of filming will be performed, from which a final product, one-half hours in duration, will be selected.

--- The NRECA staff held three meetings with PDO-RE staff members to outline the steps necessary to close-out construction of the demonstration electrification projects (project REIL's) at the three R.E. cooperatives. It was agreed that the close-out target date would be 1981 year-ending. PDO-RE and NRECA staff members will coordinate to assist the accounting staff members at each R.E. to complete the task and determine construction costs per construction-assembly-unit.

--- In-house workshops were conducted for PDO-RE staff members during this month. Thirty hours of workshop presentations were made by NRECA staff members to familiarize eight PDO-RE staff members on the following functions of the R.E. cooperatives.

- Membership application and right-of-way solicitation.
- Housewiring: estimating, installation, inspection, loan-contracts and accounting procedures.
- Consumer account numbers: determination, assignment and use
- Consumers accounts: scheduling, meter routes, meter reading, billing and collection.
- Reports: financial and statistical report format, report preparation, distribution and analysis.

Forty (40) hours of additional workshops are scheduled for these participants which will be followed by specialized training on an individual department basis. Thereafter, participants will be assigned for field visitations to monitor the activities of the cooperative and assist in upgrading personnel and improving procedures.

--- Other Jakarta-based NRECA team member activities included: assistance to the NRECA Luwu advisor on the preparation of an organizational chart for that cooperative; designing a new form to be used by the cooperatives in the tabulation of housewiring job orders; and continuation of updating training manuals.

III. Problem Areas

- "A" - Some progress was made during this month on the selection of permanent managers for the three R.E. cooperatives (listed as a problem area in previous NRECA reports). The acting manager at one cooperative has indicated a willingness to accept a permanent appointment and this is under study at PDO. Potential candidates for manager at another cooperative are being screened. At the end of this reporting period however, absence of permanent managers still remains a problem area.
- "B" - Positive steps were taken to assign PDO-RE personnel to positions within respective departments in preparation for workshops to be conducted by NRECA. It is evident however that some substitutions were made because key employees are on field assignments. Achievement of the ultimate goal of having qualified, trained personnel in each employment position will be delayed.

OUTER ISLAND PROJECTS

LUWU - Samabotuna Rural Electric Cooperative

I. General

--- Following the energization of the demonstration project (which occurred last reporting period) most activities centered around operations of energized electrical facilities. Construction activities were limited to service line extensions and two hundred eighty (280) members were receiving electric service at the end of September. A total of four hundred (400) houses have been wired and all will be connected when additional kWh meters and service line materials are received.

II. Organization/Management

--- The board of directors, project manager, project coordinator and the NRECA advisor studied various retail electric rate proposals this period. The retail rate chosen for initial use is equivalent to PLN's R2 rate:

Monthly minimum, Rp 1,600

plus, energy charge of Rp 33.5 per kWh.

A rate for street lighting was also discussed. NRECA proposed a monthly rate of fifteen hundred rupiah (Rp 1,500) for each of the fluorescent street lighting fixtures and the billing to be made through the camats office in Bone Bone. This rate and billing procedures was approved by the board of directors and concurrence received by the camat.

--- Operating policies were approved by the board of directors, including policies for collection of energy billing and disconnect-reconnect fees. All members in the demonstration project area, an area which surrounds the cooperative's temporary office, will be required to pay their monthly energy billing at the office. If field-collection is required, an extra charge of five hundred rupiah (Rp 500) will apply. Consumers who are disconnected for

non-payment of energy billing must pay a reconnection fee of one thousand rupiah (Rp 1,000).

--- NRECA assisted warehouse personnel in the preparation and processing of kWh meter history cards. Included on these permanent records is procurement information, supplier, cost, in-service location, and test data.

--- A supply of consumer-connect forms was received from PDO-RE this month. Assistance was given in transferring information from temporary forms for existing connections and for procedures to fully utilize these permanent forms hereafter.

--- The NRECA advisor and NRECA administrative-finance officer evaluated the housewiring program, applications, loan agreements, housewiring job orders and processing thereof. Recommendations were made for providing more detailed information on the various forms and general improvements in the processing procedure.

III. Training

--- A workshop was held for management personnel and officers of the board of directors on the subject of "financial and statistical report analysis". NRECA handouts included copies of reports from other electric cooperatives in which line-item totals were explained and comparisons made of the various reports.

--- Power-plant operators attended a workshop on log-sheet preparation and power-plant statistical report preparation and processing. The use of power plant kWh meters to determine peak kw load was explained and demonstrated. (The power plant electrical apparatus does not include a kw output meter.)

IV. Operations

--- September was the month when kWh meters at the consumer locations were read for the first time. Bill-preparation and collection was in process at months end and financial and statistical information can be included in future NRECA monthly reports.

--- The usual complaints of "fast" kWh meters are already being received at the cooperative's office. As a result, the NRECA advisor had two kWh meters tested at PLN's Ujungpandang meter-shop which will be used as standards for meter testing. A procedure for meter testing and handling of consumer complaints was formulated.

V. Problem Areas

"A" - As referred to in the PDO-RE section of this report, absence of a permanent manager with full managerial responsibilities and authority remains the major problem.

"B" - When the first bills were submitted to member-consumers for electric energy consumption, it became evident that information-drives conducted in past months had not been completely effective. A few members still believed that electric bills would be paid by a unit of Government.

Improvements are being made in cooperative-to-consumer communication through the use of printed materials to supplement word of mouth.

LAMPUNG - Sinar Siwomego Electric Cooperative

I. General

--- The NRECA project advisor and his wife were in Jakarta one week of this reporting period to attend a USAID-sponsored Indonesian Language class. The balance of the month, the advisor was in Lampung traveling to the cooperative's office in Metro from his Tanjungkarang residence.

At the cooperative, construction activity in September was minimal, relating mostly to clean-up work on the recently completed electrical distribution system. At month's end, preparations began to move all construction materials and equipment to the cooperative's present office facilities on the outskirts of Metro.

--- As a note of interest, a favorable side effect of rural electrification is already noted in the Lampung demonstration project area. Twenty-five new homes are presently in various stages of construction at locations adjacent to newly-installed electrical distribution lines. The quality of these homes is well above average for rural areas.

II. Organization/Management

--- NRECA staff members gave special attention to power-plant operations and kWh-output registration this month. Genset running-hours and fuel consumption was analyzed. kWh and kw metering equipment installations were inspected and assistance given to power-plant personnel in the revision of various connections in the metering circuits. Additions were made to existing metering instrumentation in an effort to accurately determine kw loading and kWh generation.

--- Assistance was given to warehouse personnel in the preparations for transferring inventory items and a physical inventory to be conducted there-with. Warehouse bin-card descriptions were compared with actual material-item identification and necessary adjustments made.

--- The NRECA project advisor assisted the cooperative's Member Service Department employees in contacts with potential large-power consumers. An ice-plant and a rice-mill are located adjacent to existing distribution lines and studies are underway to determine the advisability and economics of serving this type electric motor-load from the cooperative's temporary generating facilities.

--- Discussions were held between the acting manager of the cooperative and NRECA on the possibility, and the benefits, of providing twenty-four electric service (in lieu of the twelve hour service that the cooperative now provides). It was agreed that timing for this action would relate to the addition of daytime loads, such as those referred to in the paragraph above. Included in the discussions was the possibility of electric power interchange with PLN by interconnection with their Metro electrical distribution system.

III. Operations

--- By the end of September, the cooperative had installed one thousand four hundred and forty-seven (1,447) kWh meter entrances. Of this number, all but twenty-seven (27) were energized. Consumer-connections had been intentionally delayed until actual power-plant loading was known and load balancing completed. It is believed that the original goal of two-thousand consumer-connections is obtainable.

--- After the first kWh meter readings and billing was completed, consumers began changing their 100 watt light bulbs for bulbs of smaller wattage. First indications of kw demand per consumer, from corrected power-plant metering, reveal that the average is approximately 100 watts per consumer over peak load.

--- Collection of a Rp 3,200 consumer deposit from all consumers continued. At months end, approximately two-thirds of all connected-consumers had paid

this amount as a deposit. Monthly energy billing is being collected over and above the deposit.

--- Financial reporting is improving as NRECA staff continues to assist in this activity. Complete financial and statistical reports will be included in future NRECA monthly reports.

IV. Problem Areas

"A" - Status of the board of directors and functions of individual board members remains the number one problem at this cooperative. Although DGC-PDO-RE officials have given this problem priority attention, at months-end, a solution has not been found.

The acting manager performed his duties admirably and laid-off thirty-eight (38) temporary employees who had worked for the cooperative during construction of the demonstration project. It was known by all parties concerned that this group of employees would be terminated when their services were no longer required. Still, certain members of the board of directors joined these employees in protesting the layoff. Board-manager relations are now at an all-time low.

This is a delicate matter for PDO-RE to solve. Fortunately, the cooperative is well established with a solid membership base, qualified management, excellent DGC coordination, dedicated and qualified permanent employees.

LOMBOK - Sinar Rinjani Electric Cooperative

I. General

--- September passed without much change in distribution system facilities. The cooperative's warehouse was closed to material withdrawal for several days while a physical inventory of all materials and equipment was performed. The acting manager of the cooperative was in Jakarta on business, followed by vacation, and therefore was absent from the project most of this reporting period. As a result, few service applications were processed.

--- Meter reading and billing of the members in the newly connected village of Kalijaga began this period. This was routine since Kalijaga was the fourth desa to be served and standard billing procedures are followed throughout the service area.

--- The cooperatives request to expand their distribution system to serve the desa of Suralaga is still being considered by PDO-RE. Two constraints includes the absence of sufficient construction materials and an abundant supply of generation. However, it is generally agreed that the addition of about three hundred (300) consumers with only three additional kilometers of primary line would be desirable. Operating expenses could be spread over a larger consumer-base, power plant operating efficiency would be improved, and a greater number of potential consumers could receive the benefits of electric service at an earlier date. For these reasons, the management of the cooperative is actively soliciting the PDO-RE approval.

II. Organization/Management

--- The NRECA project advisor assisted warehouse personnel in physical inventory activities and preparation of pre-printed inventory forms. Adjustments were made in bin-card balances and general material-control procedures improved. Pricing of inventory was in process at months end.

--- Member-service Department employees prepared maps of meter-routes in each desa and attached the maps in meter-books. As the service area expands and the RMSS and/or linemen meter-readers begin new meter routes, the mapping system will expedite completion of this monthly task.

--- The NRECA advisor continued to assist the cooperative staff in daily work routines. Some employment positions such as stock record clerk and payroll clerk have been filled on a temporary basis with employees working in dual capacity. As work loads change, temporary assignments are shifted to other employees. As a result, repetitive training is necessary for the same position of employment.

--- The NRECA administrative officer and the project advisor conducted workshops on financial reporting for the manager and chief accountant of the cooperative. Assistance was given in the preparation of financial reports which are required by agencies of the GOI plus reports which are required by PDO-RE.

III. Operations

--- Power-plant loading was critical during this period because of the addition of electric load in Kalijaga. The peak kw demand, at rated generator voltage of 220/380 volts, exceeded two hundred and fifty (250) kilowatts. This peak is slightly above the capabilities of three excess-property generators, with a nameplate capacity of 100 kw each, but not sufficient to justify the operation of a fourth generator over peak load (power plant installed capacity is five 100 kw gensets). As a result, power-plant operators choose to lower the generating voltage, thereby lowering peak demand.

NRECA staff members assisted the manager and staff members in evaluating alternatives. Studies were made of the effects of lowered generation voltage and it was determined that voltage dropped to 175 volts at some locations along the distribution lines when generating voltage was lowered.

A temporary solution was found when genset loading was varied. Two gensets, which have the highest generating capabilities, were loaded to nearly 90 kws and a third genset to 80 kws over peak load period. Generating voltage was maintained near the 220 volt level and the peak load approached 250 kws. It is evident however that four gensets will soon be required at peak load period.

--- Information on potential consumers, applications for service, housewiring and completed installations in the four desa area now being served is listed as follows:

TOTALS (September 30, 1981)

1. Potential consumers	11,669
2. Applications for service accepted	2,240
3. Completed housewiring installations	1,973
4. Energized or ready for energization	1,933

BY DESA

	<u>Applications</u>	<u>Completed Installations</u>
Aikmel	879	845
Lennek	578	493
Anjani	459	311
Kalijaga	324	284
	<hr/>	<hr/>
	2240	1933

--- Financial reports may be found on pages 17 and 18 of this report. On the assets and liabilities report, it may be noted that a sizable balance remains in "construction work in-progress" when in reality, this construction is completed. NRECA and PDO-RE staff are assisting the cooperative in the assignment of construction costs to the proper electric plant accounts.

On the operating report, "Administrative and General Expenses" reflect as an extremely high percentage of total revenue. The expenses included in this category are relatively "fixed" expenses relating to the overall functions of the cooperative, that is, operating a small demonstration electrification project and building an organization capable of expanding the consumer-base and physical facilities to serve more than ten times the present consumer-connections. NRECA staff members are presently analyzing this accounting and reporting problem and will recommend an equitable percentage of administrative and general expenses to be deferred (chargable against revenues in future years).

OPERATING REPORT

Lombok Cooperative

OPERATIONS

	<u>August 1981</u>	<u>8-month total to 8-31-81</u>
<u>Revenue</u>		
Electric Energy Billing	Rp 2,780,865	Rp 18,763,085
Penalties and Reconnect Fees	14,100	114,650
Total Revenue	<u>2,794,965</u>	<u>18,877,735</u>
<u>Expense</u>		
Power Plant Fuel Cost	Rp 1,195,383	Rp 6,673,834
Power Plant Operations	346,100	2,471,600
Power Plant Maintenance	131,600	1,515,055
Distribution Operations	237,585	1,669,949
Distribution Maintenance	11,658	292,397
Consumers Accounts	217,553	1,800,519
General and Administrative	1,265,378	10,898,084
Total (cash) Expenses	3,405,257	25,321,438
*) Net (cash) Loss	(610,292)	(6,443,703)
(Interest on the BRI loan and depreciation not included above)		

NON-OPERATIONS

Housewiring Income	Rp 174,369	Rp 5,113,959
Appliance Store	-	94,514
Total Income	<u>174,369</u>	<u>5,208,473</u>
Housewiring Expense; Material	310,012	4,057,088
Housewiring Expense, Labor and Other	80,320	1,743,090
Total Expense	<u>390,332</u>	<u>5,800,178</u>
***) Net Book Loss	(215,963)	(591,705)

*) GOI-DGC DIP funds are used to pay most of the operating expenses which results in an actual cash-gain for the cooperative from OPERATIONS.

***) Housewiring materials were purchased with BRI loan funds which results in a cash-gain on a monthly basis.

FINANCIAL STATEMENT

"Sinar Rinjani" (Lombok) Electric Cooperative
August 31st, 1981

ASSETS

<u>I. Utility Plant Investment</u>			
Organization	Rp	14,497,777	
Power Plant		68,052,260	
Distribution System		91,556,505	
General Plant		29,872,050	
Construction work in progress		268,791,886	
Less: Depreciation		(4,388,853)	
Net Utility Plant	Rp		468,381,625
<u>II. Cash</u>			
Membership Fees	Rp	1,735,038	
General Funds		20,638,919	
Loan Funds		2,028,826	
Housewiring Funds		8,543,703	
Petty Cash Fund		250,000	
Total	Rp		33,196,486
<u>III. Receivables</u>			
Electric Energy Billing	Rp	4,547,230	
Housewiring Loans		11,354,770	
Directors and Employees		1,210,950	
Cooperative-owned appliance store		5,125,825	
Total	Rp		22,238,775
<u>IV. Inventory</u>			
Fuel	Rp	583,247	
Distribution System Materials		39,342,658	
Housewiring Materials		4,646,133	
Office Supplies		5,606,458	
Power Plant and Other		5,857,180	
Stores Expense		1,340,024	
Total	Rp		57,375,700
<u>V. Prepayments</u>			
	Rp		3,117,415
<u>VI. Loan Funds Available</u>			
BRI Rupiah Loan	Rp	1,295,630,100	
US\$ (Rupiah equivalent)		2,125,000,000	
Canadian \$ (Rupiah equivalent)		4,468,750,000	
Total	Rp		7,889,380,100
<u>VII. Deferred Debits</u>			
			2,924,648
Grand Total Assets	Rp		<u>8,476,614,749</u>

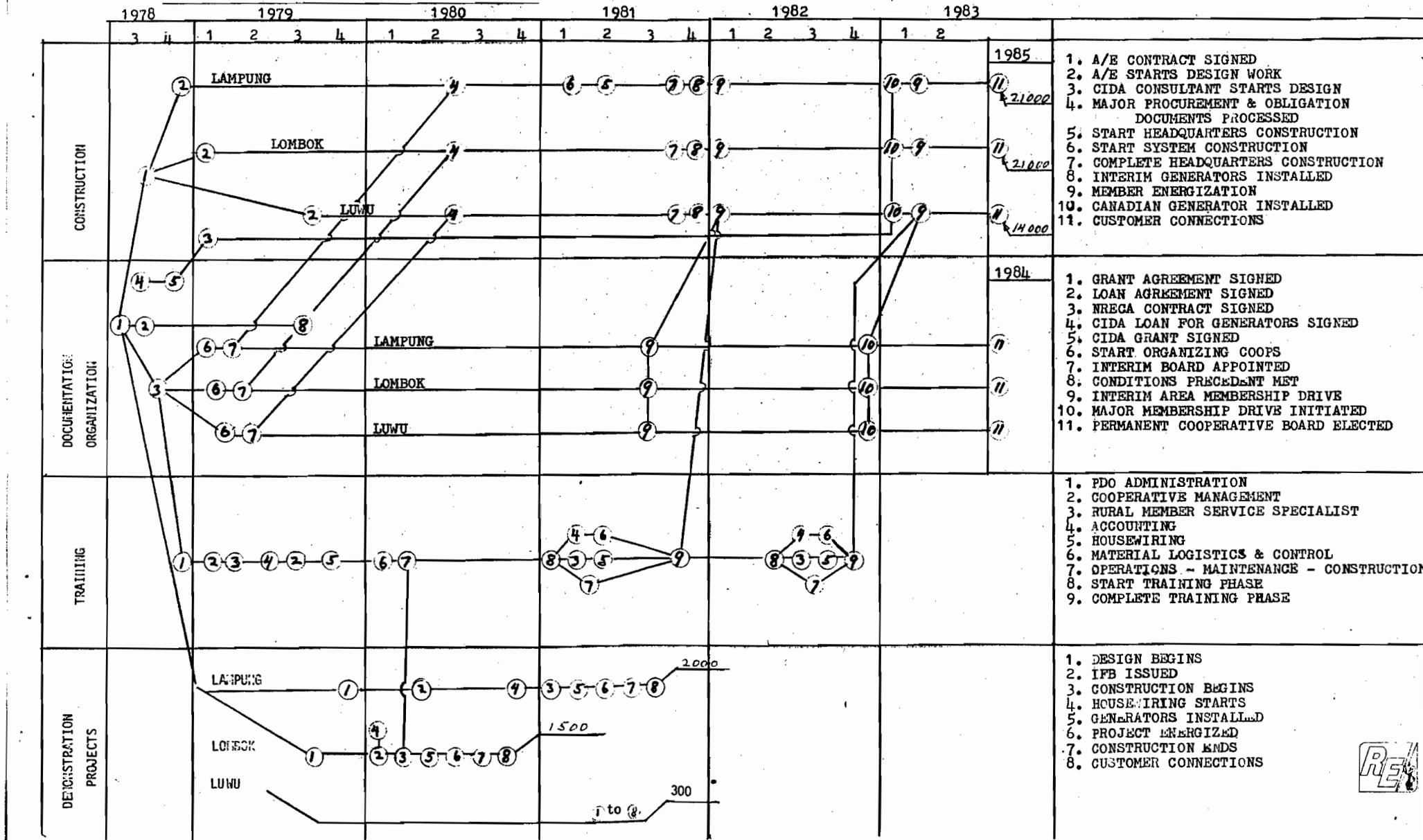
LIABILITIES

<u>VIII. Members Equity and Margins</u>			
Membership Fees	Rp	1,735,038	
Operating Margins		(35,463,388)	
Total	Rp		(33,728,350)
<u>IX. Long-term Debt</u>			
BRI Rupiah Loan	Rp	1,737,162,500	
US\$ Loan		2,125,000,000	
Canadian \$ Loan		4,468,750,000	
Total	Rp		8,330,912,500
<u>X. Accounts Payable</u>			
	Rp		28,543,625
<u>XI. Accrued Interest</u>			
BRI Loan	Rp		53,378,738
<u>XII. Contributions</u>			
GOI/DGC for construction	Rp	32,597,367	
GOI/DGC for operations		64,910,870	
Total	Rp		97,508,237
Grand Total Liabilities	Rp		<u>8,476,614,749</u>

LOMBOK ELECTRIC COOPERATIVE
OPERATING STATISTICS
May - September 1981

	MAY	JUN	JUL	AUG	SEP
Number consumers billed	1459	1485	1489	1786	1783
Total revenue	Rp 2,339,065	Rp 2,435,925	Rp 2,440,000	Rp 2,780,865	Rp 2,946,535
Total kWh billed	32,349	34,596	34,743	*34,725	*41,414
Average revenue per consumer	Rp 1,603	Rp 1,640	Rp 1,638	*Rp 1,661	Rp 1,653
Average number kWh per consumer	22.2	23.3	23.3	19.3	23.2
kWh generated	41,849	44,849	54,050	52,966	52,611
Liters diesel fuel consumed	16,970	14,985	18,735	20,390	20,094
kWh's generated per liter	2.5	2.9	2.8	2.6	2.6
Fuel and lube oil cost	Rp 898,000	Rp 830,702	Rp 998,303	Rp 1,195,383	Rp
Fuel cost per kWh generated	Rp 21	Rp 19	Rp 18.5	Rp 22.5	Rp
% system losses	23%	22%	35%	34%	21%
Peak kw demand	181	183	248	253	244

* Numerous consumer-connections were made in the Desa of Kalijaga in July and August but were not billed until September.



LUWU

02

"Practice climbing" by young men from the Bone Bone area who desire to join the ranks of apprentice linemen for the cooperative.



Linemen-participants in a training-course held at the cooperative's temporary office in Bone Bone on the subject of "Distribution Line Operation and Maintenance", conducted by PDO-RE and NRECA staff.

LOMBOK



Acting Manager, Mr. Ridwan, and NRECA staff members Paul Swanson and Ray Shoff monitor the electrical output of the cooperative's generating plant located in Aikmel, Lombok September 30th, 1981; over peak-load period. (One of two duty-operators in the background.)

"Electric service is here to stay"... at least this is the belief of one member of the Lampung Electric Cooperative who has "framed" the newly installed cooperative-owned kWh meter in a protective box. The implication seems to be ... "read your meter ... bill me, I'll pay ... but you can't take your meter away".



Summary of Expenditures

National Rural Electrification Cooperative Association
1800 Massachusetts Ave., N.W.
Washington, D.C. 20036

AID/ASIA - C 1347
Date: August 1981
Period of contract: 8/25/78 - 8/25/82

	Budget	Total Expense To Date	Prior Billings	Current Billings
Salaries - Field	\$ 874,520	\$ 695,732.16	\$ 668,637.52	\$ 27,094.64
Salaries - Home	140,050	113,618.37	110,836.53	2,781.84
Fringe Benefits	256,664	256,439.76	247,768.74	8,671.02
Consultant Fees	95,800	33,906.25	33,906.25	-
Allowances	366,145	258,497.44	249,891.49	8,605.95
Travel and Transportation	310,000	231,662.54	223,983.26	7,679.28
Other Direct Costs	125,900	77,183.93	75,342.65	1,341.28
Overhead	225,960	185,339.70	178,468.10	6,871.60
Equipment and Materials	15,000	18,292.46	18,292.46	-
TOTAL	\$ 2,410,000	\$ 1,870,672.61	\$ 1,807,627.00	\$ 63,045.61

PERSON-MONTHS BY POSITION, NRECA CONSULTANT TEAM
(Contract as amended September 11, 1981)

POSITION	PRESENTLY FILLED BY	CONTRACT PERSON-MONTHS	EXPENDED THIS PERIOD	EXPENDED THROUGH SEPTEMBER	PERCENT OF CONTRACT
Team Leader	Peter McNeill	54	1	36	67
Training Officer	Louie Sansing	45	1	32	71
Administrative Officer	Ray Shoff	33	1	23	70
PLN Advisor	Sam Adkins	42	1	31	74
Lampung Advisor	Claude Franke	54	1	36	67
Lombok Advisor	Paul Swanson	50	1	32	64
Luwu Advisor	John DeFoor	49	1	31	63
Short-term Advisors		19	0	17	89
Consultants		8	0	8	100
		354	7	246	69