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PD-AAD-513-C1

AID 1025-1 (7-71) (FACE SHEET)
NONCAPITAL PROJECT PAPER (PROP)

Attachment A to H.O. 1025.10
(TL 0:172) PAGE 1 of 10 PAGES

I. PROJECT IDENTIFICATION

1. PROJECT TITLE: RURAL ELECTRIFICATION

2. RECIPIENT (specify):
 COUNTRY: Philippines
 REGIONAL: _____ INTERREGIONAL: _____

4. LIFE OF PROJECT
 BEGINS FY: _____ ENDS FY: _____

APPENDIX ATTACHED
 YES (A-B) NO

2. PROJECT NO. (MLDP 100.2)
492-11-220-248

3. SUBMISSION
 ORIGINAL: 10-4-71 DATE
 REV. NO.: _____ DATE
 CONTR. NO. AID-1504

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. PASA/CONTR.		H. LOCAL FREX. CURRENCY RATE \$ US 1.00 = ₱6.50		
		(I) \$	(II) MM	(I) \$	(II) M			(I) \$	(II) MM	(I) U.S. GRANT	(II) COOP COUNTRY LOAN	(III) BUDGET
1. FISCAL YEAR ACTUAL FY	-	-	-	-	-	-	-	-	-	-	-	2.1
2. OPEN FY 1972	390	340	80	50	-	-	340	30	1.0	-	-	4.48
3. BUDGET FY 1973	760	690	164	70	-	-	690	164	11.3	-	-	4.49
4. BUDGET FY 74	780	595	166	85	-	-	595	166	2.9	-	-	5.69
5. BUDGET FY 75	540	470	110	70	-	-	470	110	1.8	-	-	2.69
6. BUDGET FY 76	130	125	30	5	-	-	125	30	-	-	-	2.49
7. ALL SUBS. FY												
8. GRAND TOTAL	2600	2320	550	280	-	-	2320	550	20.0	-	-	20.05

9. OTHER GOVT. CONTRIBUTIONS

(I) NAME OF DONOR: <u>Japanese Reparations</u>	(II) KIND OF GOODS/SERVICES: <u>Commodities</u>	(III) AMOUNT: <u>30.00</u>
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III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER: <u>H. Baker</u> Project Manager	TITLE: <u>J. C. Guzman</u> - Program Officer
2. CHECKER: <u>M. L. Clark</u> - OID Manager	TITLE: <u>G. S. Robinson</u> - Controller
3. APPROVING OFFICER: <u>P. G. Dumoi</u> - Officer-in-Charge, Rural Electrification Adm.	TITLE: <u>T. C. Niblock</u> - Director, USAID/Phil

Date: _____ Date: _____

IV. PROJECT AUTHORIZATION

V. CONDITIONS OF APPROVAL

2. COMMENTS

DIR. OFF.	SIGNATURE	DATE	DIR. OFF.	SIGNATURE	DATE

3. APPROVAL AAS OR OFFICE DIRECTORS

SIGNATURE: _____	DATE: _____
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4. APPROVAL A AID (See A.I.D. 1025.1 V(C))

SIGNATURE: _____	DATE: _____
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TITLE: _____ ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT

*Supersedes TOAID A-344, dated June 17, 1970.

A. The Project Goal

1. Goal Statement

The goal of the project is to further the welfare of the people in the rural areas and to increase income and employment opportunities in the rural areas by making electric power available at reasonable rates for both household amenities and increased production. This goal is among the highest priorities of the Government of the Philippines and USAID/Manila.

2. Measurements of Goal Achievement

The purpose of the project as stated in Section B.1 and the conditions expected to exist at the end of the project as stated in B.2 will be a major consideration in achieving the project goal. Key indicators to measure progress in achieving this goal will be: a) the number of new industries and/or electrically related innovations in agriculture per year as compared to pre-project base year; b) the additional tax revenues generated from these activities acting as an indicator of progress which is project related; c) the increase in number of private households served with electricity; d) the increase in sale of electrical appliances, and e) the rate of increase in employment. A less tangible but very real measure of achievement will be the degree to which the cooperative approach succeeds in establishing viable well-managed electric utilities.

3. Assumptions of Goal Achievement

It is assumed that:

- a) making low-cost reliable electricity available will cause a growth in agricultural, commercial and industrial production and consequently job availability. Implicit is an assumed response by the possessors of capital entrepreneurial ability.
- b) the people want electricity and supplying of electricity at reasonable cost does improve the quality of life.

Verifiable indicators of Goal Achievement are shown as Source Nos. i, j and k of Section 1, Appendix B.

B. The Project Purpose

1. The purpose of the project is to assist the GOP in launching and completing within 5 years the initial phase of the program which has the ultimate goal of total electrification of the Philippines.

The key concepts of the purpose are: A. that the immediate concern of the project is the initial phase of a program for total electrification for the Philippines (initial phase is specifically defined in Section B.2 Conditions expected at the End of the Project) and; B. that there exists a national goal of total electrification.

2. Conditions expected at the end of the Project

There are two primary conditions which are expected at the end of this project. They are:

- a) that there will be 36 economically, administratively and technically viable rural electric cooperative systems geographically disbursed throughout the Philippines. These systems will provide reliable and economic service for domestic, agricultural, commercial and industrial uses in areas inhabited by about 5 million people at a total cost in the vicinity of ₱600,000,000. This will be accomplished by the end of FY 1976; and
- b) that there will be adequate administrative expertise and funding sources available in and to the NEA to support on-going program activity and to permit the NEA to contribute to continuing expansion toward total electrification of the country.

Verifiable indicators are shown in Appendix B as Sources (a) through (h) of Section 1 and Sources (a) through (i) of Section 2.

3. Basic Assumptions

It is assumed that:

- 1) There will be sufficient and timely GOP counterpart funds available.
- 2) The continuing development of the NEA organization is recognized by the GOP to be as important and essential to the overall National Electrification Program as the construction of the initial 36 cooperatives.
- 3) Competent, qualified personnel can be attracted to and retained within the NEA.
- 4) Cooperatives can function effectively in the rural areas of the Philippines.
- 5) Electric service utilization will be sufficient to insure individual Co-op viability.

C. Project Outputs

1. Project Outputs and Output indicators are shown below:

Outputs	Magnitude of Outputs	Target Completion Date
a) The construction and efficient operation of rural electric cooperatives.	i) 36 Cooperatives constructed. ii) Approximately 50 employees per cooperative trained in areas of management, accounting, operation & maintenance, power use, etc.	i) See Charts P-1, 2 and 3. ii) Employees will be on board and trained in accordance with schedules shown in Charts P-1 and P-2.
b) Organizational strengthening and expansion of the National Electrification Administration (NEA to effectively administer rural electrification on a self-sustaining basis, during and beyond this project.	i) Reorganization of NEA along functional lines similar to those indicated in Ilano (Laya) and/or McCurley studies. ii) Completion of training of 200 NEA staff personnel. iii) Enactment of amendatory legislation and GOP issuance of implementing orders to provide NEA all authorities and amenities to function effectively.	i) 6/30/73 ii) 6/30/75 iii) 6/30/73

2. Basic Assumptions

It is assumed that:

- 1) There will be an orderly, timely and coordinated availability and application of all inputs.
- 2) All cooperatives will be constructed and established in accordance with all criteria and standards required for

viability as set forth in individual feasibility studies (see Definition of Viable Rural Electric Cooperative, Appendix A).

- 3) There will be adequate and timely financing and construction of generation and transmission by the Asian Development Bank for the Mindanao Grid and by the IBRD (World Bank) for the Luzon Grid in order to provide a power source for the cooperatives in these areas for which a self-generation capability is not planned.
- 4) Local engineering firms, construction contractors, and commodity suppliers can meet program schedules.
- 5) If the construction of the 36 cooperatives proceeds according to program schedule the organizational strengthening of the NEA will logically progress concurrently.
- 6) New legislation will enable the NEA to become a full intermediate credit institution and remove it from the jurisdiction of the Wage and Position Classification Office (WAPCO) of the Budget Commission. (At the present time NEA disburses from a revolving fund only such funds made available to it from the GOP and other Government sources and from interest and principal payments on electrification loans. It does not have authority to borrow from outside sources).

D. Project Inputs

1. Inputs

a. Charged against Cooperative construction

<u>GOP</u>		<u>Millions</u>
A. Capital Appropriations	P 107.2	\$ 16.4
B. Japanese Reparations Commodities		30.0
C. PL 480 Local Currency	130.0	20.0
 <u>U.S.</u>		
D. U.S. Development Loan		18.8
E. Excess Property*		<u>2.4</u>
	Sub-total	\$ 87.6

b. Non-chargeable against Cooperative construction

GOP

F. NEA Operating Budget	₣ 23.6	\$ 3.65
G. Other Agencies	1.7	.26

U.S.

H. Engineering Services Loan		1.2
I. Technical Assistance Grants		<u>2.6</u>
	Sub-total	<u>7.71</u>
	Total	<u>\$95.31</u>

*Current efforts to identify sources and amounts indicate that inputs of excess property could exceed this amount.

2. Implementation Schedule

INPUT	SCHEDULE					TOTAL
	FY 72	FY 73	FY 74	FY 75	FY 76	
(\$ Millions)						
<u>Chargeable to Co-ops</u>						
A. Capital Appropriations	3.8	3.8	5.0	2.0	1.8	16.40
B. Japanese Reparations	5.5	14.5	6.9	2.3	.8	30.00
C. PL 480 Local Currency	4.0	11.3	2.9	1.8	-	20.00
D. US Development Loan	3.2	8.5	3.4	2.0	1.0	18.80
E. Excess Property	.5	.9	.8	.2	-	2.40
	17.0	39.0	19.0	9.0	3.6	87.60
Sub-total Coop Construction						<u>87.60</u>

The above schedule assumes a foreign exchange to peso ratio for Coop construction of about 60/40.

FY 71

Other Costs

F. NEA Operating Budget	.21	.68	.69	.69	.69	.69	3.65
G. Other GOP Agencies	.02	.06	.08	.05	.03	.02	.26
H. US Engrg Svcs Loan		.30	.30	.30	.30	-	1.20
I. US Tech Asst Grant ^{1/}		.39	.76	.78	.54	.73	2.60
	.23	1.43	1.83	1.82	1.56	.84	7.71
Sub-total							<u>7.71</u>
Total							<u>95.31</u>

^{1/} See Appendix D, Sheet 1 of 10

3. Basic assumption

It is assumed that all financial and commodity inputs will become available in the proper amounts, in the proper quality and as scheduled.

E. Rationale

In 1964 the USAID responded to a GOP request for assistance in the power development sector, which resulted in a nationwide survey and the publication of a two-volume report of the Electric Power Industry in the Philippines. Following the recommendations of this report a technical cooperation project was established. Two pilot projects, patterned after the U.S. rural electric cooperative experience, were initiated with the USAID providing needed Dollar loans and the GOP providing the loans for required Pesos. These two pilot cooperatives are in their early operational phases. The GOP has decided to mount a national rural electrification program patterned after these two model cooperatives.

Reliable, continuous electric power service is currently available only in the major urban areas of the Philippines. With the view that ultimately rural development depends on the availability of economical, reliable electric power, the Government of the Philippines has assigned a top priority to rural electrification. Republic Act 6038, enacted in July, 1969 mandates "..... Total electrification of the Philippines on an area coverage basis" At the Philippine Consultative Group meeting in Paris in April, 1971, this mandate was supported by commitments of multilateral assistance to the Philippine effort to electrify the country.

The Philippine electrification program, totaling over \$1 billion through the next five years, consists of three major sectors: power generation and transmission which will be assisted with foreign currency loans by the IBRD and the ADB, and power distribution, primarily through cooperatives, which will be supported by AID. The principle of power distribution through cooperative organizations is based on the encouraging experience of the two pilot electric cooperatives initiated under USAID/GOP program cited above. The project envisions the establishment over the next five years of some 36 functional rural electric distribution cooperatives, patterned after the pilot projects.

This PROP is written to provide the technical assistance required to successfully implement and support the \$100 million rural electrification component of the Philippine electrification program, including AID's commitments of a \$20 million development loan and inputs of U.S. Government excess property as expressed at the Consultative Group meeting.

Under this technical assistance project advisory support will be given to the National Electrification Administration (NEA) and to the rural cooperatives in their initial phases. The purpose of the project is to assist the NEA to achieve by 1976 its goal of becoming institutionally and operationally capable of accomplishing the complete, long-range,

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country-wide electrification policy set forth in the enabling legislation. It is believed the best way to achieve this organizational proficiency is by intensive training and assistance as the agency administers the presently projected 36-cooperative development program. The technical assistance will direct its efforts at all levels of NEA as the establishment of these operating electric cooperatives materializes. To properly accomplish the program, assistance will be needed to establish institutional capabilities in such diverse though related fields as cooperative organization, feasibility study preparation and review, loan preparation and negotiation, utility accounting standards, national legislation, power use, commodity procurement and public relations. Development and adoption of standard procedure manuals, job descriptions, staff functional statements and management techniques will be an integral part of such training. Additionally, participant training will be used to augment on-the-job training in most technical areas.

The technical assistance proposed is to be both grant and loan funded. Loan funding will cover the costs of a U.S. consulting engineering firm. This firm will advise and assist the NEA and through the NEA the rural electric cooperatives and their respective local engineering firms, in the construction of specific cooperatives and in the development of sound planning and engineering practices. Initially the loan will be for \$600,000 to cover an estimated two year period. Total estimated program for these services is \$1,200,000.

The technical expertise other than engineering is proposed for grant funding and will be provided under a contractual arrangement with the U.S. National Rural Electric Cooperative Association (NRECA). An NRECA team has been in country since 1967 and since 1969 has been working very effectively with the newly created National Electrification Administration in the initial phases of the Rural Electrification program. The functions of NRECA personnel will be assumed by the NEA staff as rapidly as NEA becomes fully institutionalized and its staff is effectively trained.

F. The Course of Action

1. Implementation Plan

The plan encompasses a series of actions necessary to construct 36 viable rural electric cooperatives within the time frame of the program. The most significant steps of the plan and the corresponding fund requirements are represented on the following charts, P-1, P-2 and P-3.

Chart P-1 shows the details of activity steps, fund expenditures, and number of consumers supplied as measures of progress.

Step 1 indicates scheduled completion of a series of feasibility studies that have been in preparation for almost a year. Steps 2

IMPLEMENTATION PLAN

Activity	FY 1972				FY 1973				FY 1974				FY 1975				FY 1976				LOAN FUNDS PER COOP	METERS CONNECTED
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Feas. Studies	14	20	26	32	36																	
No. of Cooperatives Organized	6	10	17	24	31	36																
No. of Loan Agreements Signed	3	9	15	21	27	33	36															
New Funds Required \$000's	30	60	80	60	60	60	30														\$ 10,000 Est	
No. of Co-op A & E Contracts Signed	3	7	12	18	24	30	36															
New Funds Required \$000's	120	160	200	240	240	240	240														\$ 40,000 Est	
Cooperatives Procuring Commodities	3	7	12	18	24	30	36															
New Funds Required \$000's	3774	5032	6290	7548	7548	7548	7548														\$1,258,000 Est	
Construction Contracts Awarded		3	7	12	18	24	30	36														
New Funds Required \$000's		300	400	500	600	600	600	600													\$ 100,000 Est	
Cooperatives Energization						3	7	12	18	24	30	36										
000's New Consumers						6	8	10	12	12	12	12										2000/Coop
Cooperatives Completing 1 year's Operations										3	7	12	18	24	30	36						
New Funds Required \$000's									2226	2968	3710	4452	4452	4452	4452						\$ 742,000 Est	
000's New Consumers										18	24	30	36	36	36	36						Add. 6000/Coop
Cooperatives Completing 2 year's Operations															3	7	12	18	24	30		
New Funds Required \$000's										450	600	750	900	900	900	900					\$ 150,000 Est	
000's New Consumers											3	4	5	6	6	6						Add. 1000/Coop
Cooperatives Completing 3 year's Operations																			3	7		
New Funds Required \$000's													450	600	750	900	900	900	900	900	\$ 150,000 Est	Add. 1000/Coop
000's New Consumers																			3	4		
New Funds Expended \$1,000	30	3954	5552	6950	8348	8448	10644	11356	14310	4452	4902	5052	5202	900	1350	1500	1650	900	900	900	300 to complete	
Total Funds Required \$ Millions	.03	4.0	9.5	16.5	24.8	33.3	43.9	55.3	59.6	64.0	68.9	74.0	79.2	80.1	81.5	83.0	84.6	85.5	86.4	87.3	87.6 Total	
New Consumers Added 1000's						6	8	10	12	30	36	42	36	39	40	41	6	9	10			
Total Consumers 1000's						6	14	24	36	66	102	144	180	219	259	300	306	315	325			

NOTE: Peso Rate at 6.50 = \$1.0

RURAL ELECTRIFICATION IMPLEMENTATION PLAN

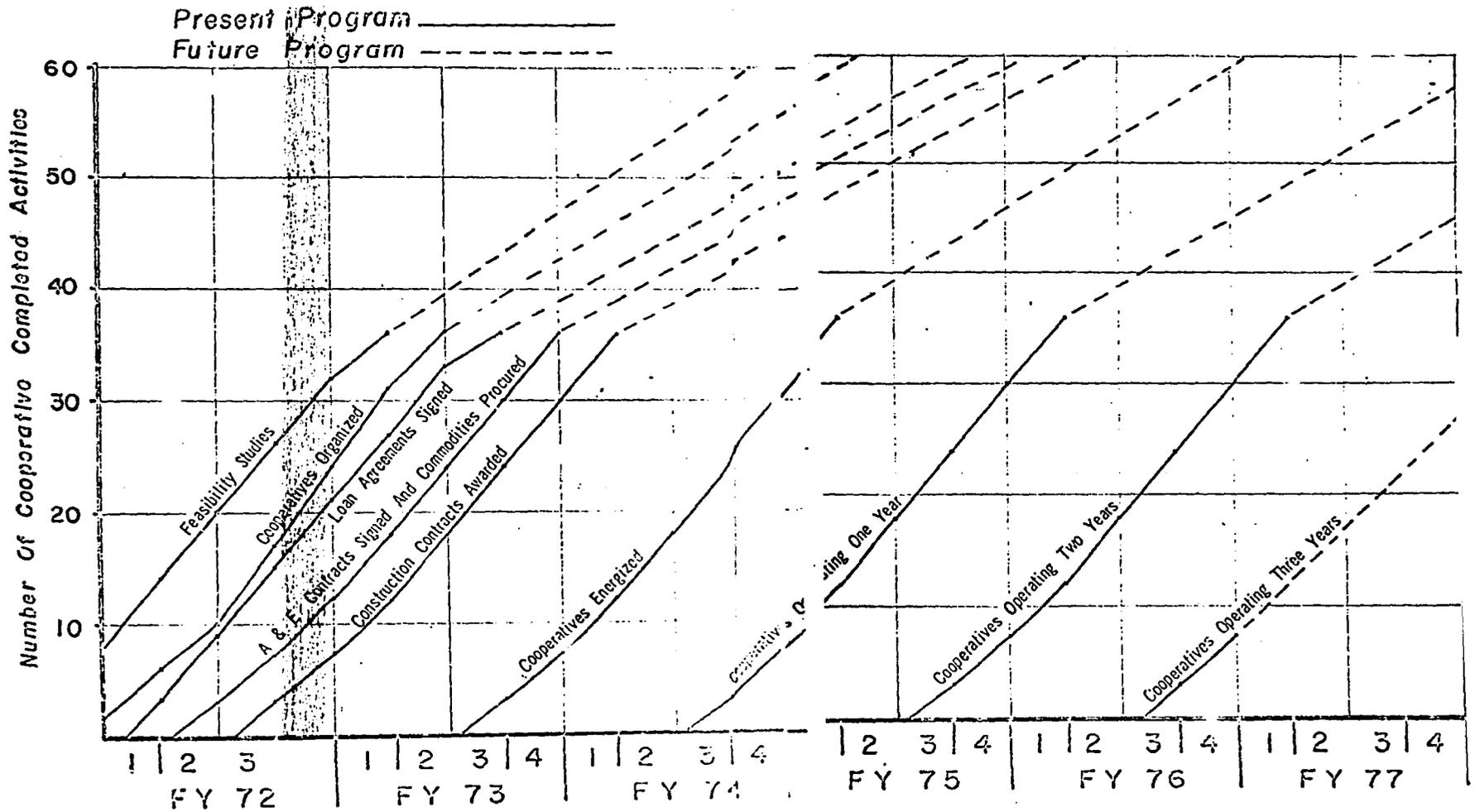
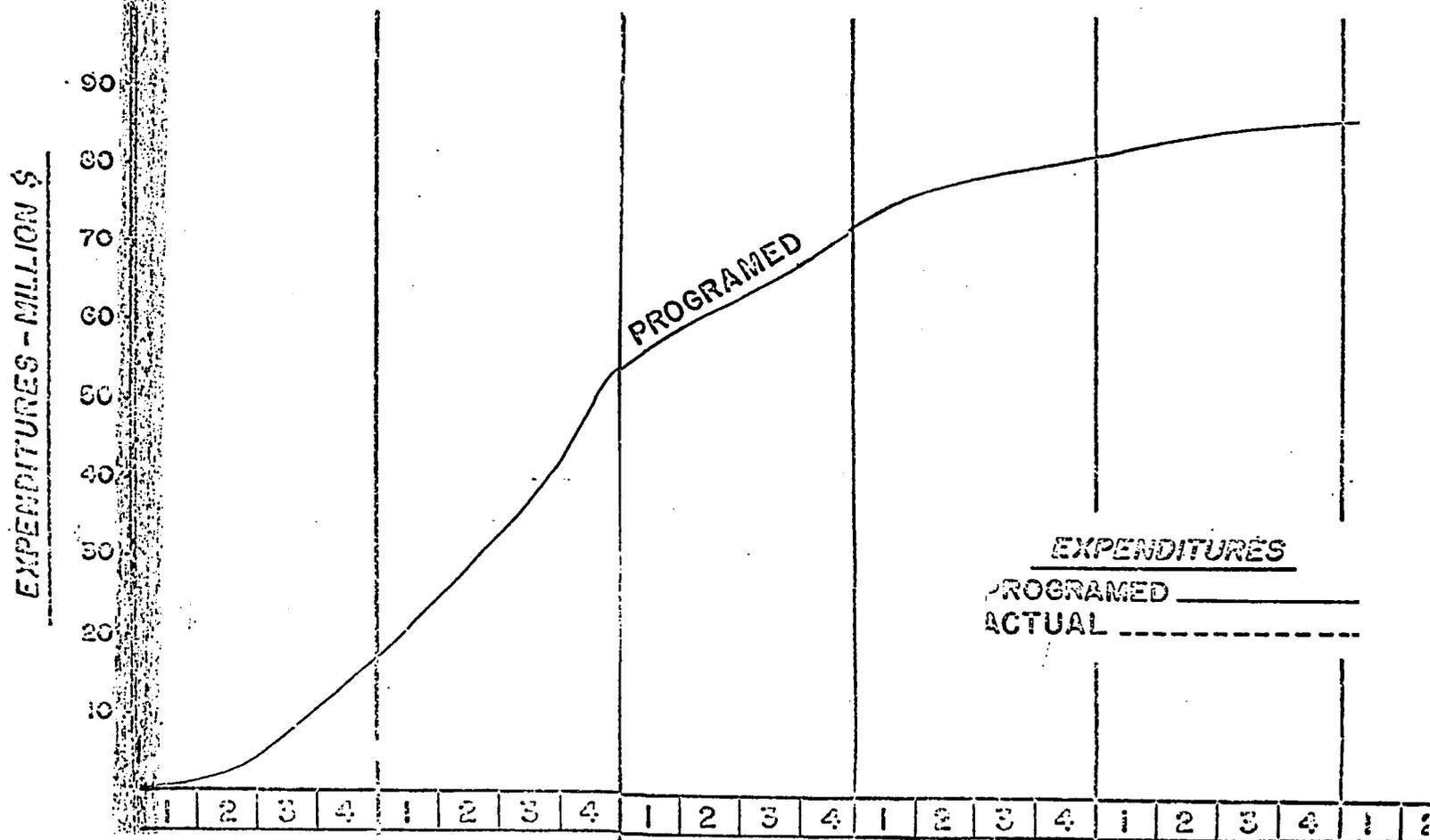


CHART OF PROGRESS



and 3, the organization of cooperatives as a legal entity and the negotiation of loan agreements, are underway. Negotiation of A & E contracts, with registered Philippine firms, Step 4, has begun. Commodity procurement in the form of excess property and Japanese reparations also is well underway. Additional commodity procurement contemplated under Step 5 will utilize both local funds and U.S. dollars. A schedule for award of construction contracts (Step 6) and energization of the initial system of each rural electric cooperative (Step 7) is indicated. Steps 8, 9, and 10 represent measures of annual progress following initial system energization.

The details shown on Chart P-1 are summarized in the time frame Chart P-2. Chart P-3 is a simple progress indicator exhibiting planned funds disbursement compared with actual expenditures.

Narrative Statement

The various inputs consisting of funds, commodities and technical assistance will be coordinated by the National Electrification Administration. Other agencies of the Philippine Government will be employed initially to act as borrowers of foreign exchange. The Development Bank of the Philippines (DBP) is presently contemplated as the disbursing and collecting agent for loans entered into between NEA and the cooperatives, while consideration has been given to having the National Economic Council (NEC) act as the borrower for the U.S. engineering services loan.

As the program proceeds, NEA must expand its staff in many ways, not only to handle the large volume of activity contemplated but to provide guidance, advice and monitoring of cooperative implementation to assure that its funds are properly converted to viable electric cooperative systems. Within a two year period the constraints which now somewhat inhibit NEA's ability to hire adequate qualified staff are to be removed through applicable legislative actions. NEA will perform in such fields as cooperative organization, engineering, auditing and accounting, power use, management training, safety, rate making, etc. to assist the cooperatives in the development of economically and technically successful electric cooperatives. It will be the object of the technical assistance program to assist the NEA and the cooperatives until NEA is adequately staffed to carry forward a successful program.

Appendix A contains the definition of a viable rural electric cooperative in terms of both the financial and technical substances that make up a successful undertaking of this kind. Appendix C shows the time frame and fund requirements for construction of a typical electric cooperative in the form of a step-by-step flow of happenings from cooperative inception through its third year

DEFINITION OF A VIABLE RURAL ELECTRIC COOPERATIVE
(Initial Definition used by NEA)

1. Financial

Under present NEA Feasibility Study analysis a project loan has been considered financially feasible when the projected operating revenues exceed projected operating expenses and expected debt service obligations, in sufficient amounts to maintain a minimum operating cash level approximating 2% of accumulated undepreciated plant investments, all under the following parameters:

- (1) Interest rate - 3% (2% for Coops with self-generation).
- (2) Maximum loan term - 35 years.
- (3) Maximum periods of interest and principal repayment deferral - 5 years.
- (4) Maximum average selling price of electricity during the planning period - 25 centavos/kwh sold.
- (5) Minimum consumer connection level during the planning period - 3,000
- (6) Average domestic consumption at the end of five years of operation - approximately 50 kwh/mo.

2. Technical

A rural electric cooperative is considered technically feasible if it fulfills the following requirements:

- (1) Standard voltages are employed for transmission and distribution systems to ensure economical and readily available sources of commodities both initially and in the future.
- (2) Power transformer installations and main transmission and distribution systems are designed with sufficient capacity to supply forecasted loads for not less than 10 years.
- (3) Distribution systems are designed for not more than 10% voltage drop or regulation not exceeding 8% for load levels to be expected during the first 10 years of operation.
- (4) Transmission and distribution systems will be designed to provide full area coverage.
- (5) Systems will be designed to provide 24-hour reliable service.

METHODS OF VERIFICATION1. Cooperatives

- a. Coop Specialist Monthly Report and Semi-annual Report
- b. Financial Forecast
- c. A & E Published Designs & Specifications
- d. Feasibility Study Progress Chart
- e. Articles of Incorporation and Bylaws
- f. Loan documents
- g. Construction Contract Award
- h. Monthly Operating Reports to NEA
- i. Cooperative Industry Survey and Forecast
- j. Employment
- k. Agricultural Production

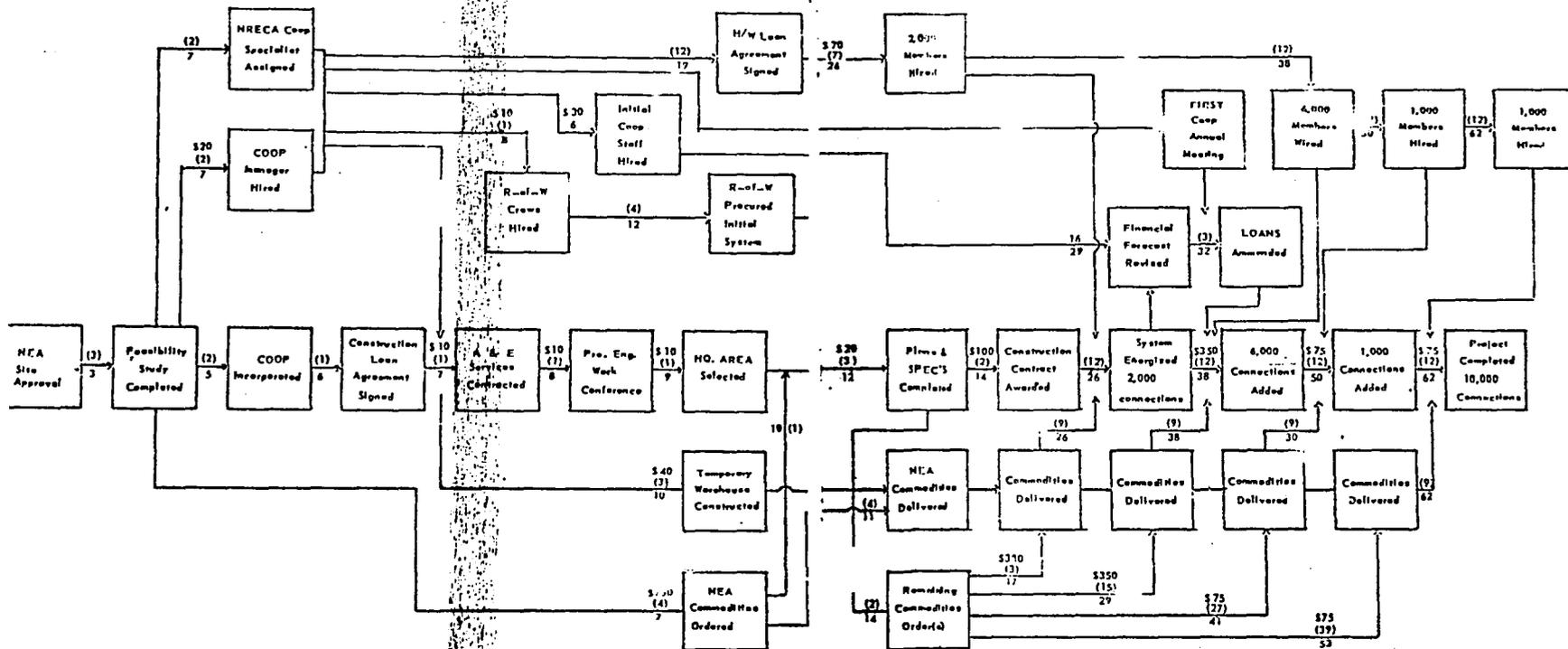
2. NEA

- a. NRECA Team Leader Monthly Report
- b. Loan Fund Auditing Annually
- c. Cooperative Load Growth Forecast
- d. Report of Cooperative Annual Inspection
- e. Modifying Legislation Introduced
- f. Legislation Passed
- g. Agency Account System Established
- h. Staffing Plan
- i. Key Staff Personnel Hired

FLOW CHART

Appendix - C

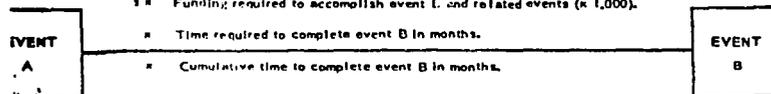
Hypothetical Electric Cooperative Project



ASSUMPTIONS:

- (1) Project loans (for construction and housewiring) = \$2,450,000 (in bulk \$ and ¢).
- (2) Project planning period = Three years of system operation.
- (3) System connections at end of project = 10,000.
- (4) Total time for project completion from time of site selection = 5 years and 2 months.

LEGEND:



TECHNICAL ASSISTANCE REQUIREMENTS

	<u>FY 72</u>	<u>73</u>	<u>74</u>	<u>75</u>	<u>76</u>
	<u>(\$ Thousands)</u>				
<u>NRECA TEAM</u>					
TEAM LEADER	40	50	50	50	25*
<u>NEA ADVISORS</u>					
Institutional Management Advisor	25	50	50	50	
Cooperative Organization Advisor	25	50	25	-	
Financial Advisor	25	50	50	25	
Policies & Organization Advisor	30	50	50	-	
Short Term	40	30	30	30	
					75*
<u>COOP TEAM</u>					
1. Coop Specialists	50	50	50	25	
2. " "	50	50	50	25	
3. " "	40	50	50	25	
4. " "	15	50	40	40	
5. " "	-	50	50	40	
6. " "	-	50	50	40	
7. " "	-	40	50	40	
8. " "	-	40	50	40	
9. " "	-	30	50	40	
					5*
<u>PARTICIPANT TRAINING</u>					
	50	70	85	70	
					5*
TOTAL	<u>390</u>	<u>760</u>	<u>780</u>	<u>540</u>	<u>130*</u>
PROJECT TOTAL	\$2.6 Million				

*Close-out costs (requiring approximately 2½ man years to be applied as required).

NOTE: Estimated cost of \$50,000 per man year used for planning purposes. Actual cost probably will be less.

NRECA TEAM LEADER

FY 1972				FY 1973				FY 1974				FY 1975				FY 1976			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

1. General Supervision NRECA Team
2. NEA Legislative changes
3. Monthly and 6-month Reports to GOP, USAID, NRECA
4. Recruit perm. & temp. NRECA staff
5. Work with Philippine Electric Cooperative Assn.
6. Part. in Establishment of new Coops.
7. Participant and in-country Training

1. Team Leader as responsible officer under AID-NRECA contract will supervise a team varying in strength from 5 to 15 rural electrification specialists for 5 years. The team works full time directly with cooperatives in the field and with NEA in its institutional development process. Assistance will also be provided other GOP power agencies.
2. Encourage NEA to request Legislative changes needed to free NEA from limits of the Wage and Position Classification Office and enable it to be an Intermediate Credit Institution and assist them in developing a useful system for this.
3. Fulfill contract report requirements.
4. Recommend changes in staff as program demands change. Up to 14 permanent and several short term advisors are contemplated.
5. Encourage new cooperative to join Philippine Electric Cooperative Association and assist to expand its interests and responsibilities.
6. Work with NEA as new co-ops are organized and loan agreements signed to assure well chosen boards of directors and manager selection.
7. Assist in arranging for annual training session in the U.S. for cooperative and NEA personnel. Establish training program at Mindanao University and elsewhere for cooperative type positions such as lineman, accountant, power use specialist, construction manager.

NEA ADVISORS

	FY 72	FY 73	FY 74	FY 75	FY 76
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
INSTITUTIONAL					
<u>Management Advisor</u>					
Co-op Organization	←-----→				
Loan Agreements	←-----→				
Feasibility Studies	←-----→				
Procurement Excess Property	←-----→				
Japanese Reparations	←-----→			-----→	
Coordinate Plans NEA-NPC	←-----→				

Typical Duties

1. Provide engineering advise for remaining twelve feasibility studies.
2. Accompany NEA personnel in organizational procedures for new cooperatives.
3. Assist NEA in negotiating cooperative loan agreements.
- 4 & 5. Assist NEA in decisions relative to integrating various sources of commodities and applying them to individual co-op systems. Coordinate U.S. Excess Property acquisition with USAID-LOGISTICS office.
6. Work closely with NEA planning staff in negotiations with National Power Corp. on new facilities needed to deliver power cooperatives.
7. Promote development of NEA organizational manuals and functional statements.

NEA Advisors (Continued)

	FY 72	FY 73	FY 74	FY 75	FY 76
	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
<u>Financial Advisor</u>					
Feasibility Studies	←→				
Loan Agreements	←→				
Economic Studies	←→	←→			
Planning	←→	←→	←→	←→	

Typical Duties

1. Advise NEA on economic sections of remaining twelve feasibility studies.
2. Assist NEA in drafting loan agreements to assure inclusion of all provisions relating to electric cooperative financial requirements.
3. Assist NEA in planning best alternatives for wholesale power supply for new cooperatives and assist in negotiations with NPC as appropriate.
4. Assist NEA in setting up audit procedures following those used by NEA in U.S.

NEA Advisors (Continued)

	FY 72	FY 73	FY 74	FY 75	FY 76
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Coop Organization Advisor	←-----→				
Organize Board	←-----→				
Public Meetings	←-----→				
Co-op Manager	←-----→				

Typical Duties

1. Assist NEA in instructing new Co-op Board on its duties and responsibilities.
2. Attend public meetings to explain philosophy, objectives and workings of an electric cooperative and the benefits to members of the cooperative.
3. Assist Board in setting standards for Manager of Co-op and in the selection.
4. Promote establishment of standards and guidelines for rural electric cooperative organization and implementation.

NEA Advisors (Continued)

	FY 72	FY 73	FY 74	FY 75	FY 76
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Policies and Organization					
1. NEA Staff					
2. Field Staff					
3. Assoc. DBP					

Typical Duties

1. Assists NEA in setting up Institutional Staff functions in fields of Engineering, Management, Finance and Administration, including establishment of policies and procedures.
2. Work with NEA field staff in its administration of Co-op loans.
3. Assist staff in its inter-relationship with DBP prior to NEA becoming I.C.I.

NEA Advisors (Continued)

	FY 72	FY 73	FY 74	FY 75	FY 76
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
<u>Short Term Advisors</u>					
1. Rate Analyst	x	x	x		
2. Safety Advisor	x	x	x		
3. Power Pole Technician	x				
4. Other		x	x		

Representative Duties

1. Rate analyst will review co-op investment, revenues, costs, and other factors and recommend proper rates and rate schedules to maintain financial viability.
2. Safety Advisor initially will establish procedures, standards and guidelines for safe practices for operation and maintenance of electric cooperatives. Subsequently will inspect going operations to determine adherence to safety standards.
3. Power pole technician will assist in promoting latest standards for procuring, curing and maintaining wood poles consistent with climatic conditions of area.
4. Other short term advisory assistance is expected to be required as experience is gained both at NEA and at the Co-op level.

WORK PLAN
COOPERATIVE SPECIALISTS

FY 72				FY 73				FY 74				FY 75				FY 76			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Coop No.

MORESCO

1. Ham	1	.....
	2	.....
	3	.....
			28

VRESCO

2. Shoff	4	.....
	5	.....
	6	.....
			29
3. Vacancy	7	.....
	8	.....
	9	.....
			30
4. Vacancy	10	.....
	11	.....
	12	.....
			31
5. Vacancy	13	.....
	14	.....
	15	.....
			32
6. Vacancy	16	.....
	17	.....
	18	.....
			33
7. Vacancy	19	.....
	20	.....
	21	.....
			34
8. Vacancy	22	.....
	23	.....
	24	.....
			35
9. Vacancy	25	.....
	26	.....
	27	.....
			36

Cooperative Specialists (Continued)NOTES:

- Working with NEA employees, each specialist will have responsibility for three cooperatives.
- Ham and Shoff will be working with MORESCO and VRESCO prior to above work assignments.
- Above work program assumes team members will assist each other as needed.
- Work assignments scheduled to begin with signing of A & E contract and will terminate 6 months following initial system energization, except for special problem assignment.

TYPICAL SPECIALISTS DUTIES AND TIME FRAME

1. Assist in preparation of functional statements for board members as initial assignment.
2. Attend Board meetings as advisor (not less than monthly) and assist in arranging annual membership meeting.
3. Assist in preparation of Job Qualifications for Staff within one month following start of construction.
4. Assist in preparation of accounting instruction manual six months after start of construction.
5. Assist in preparing Manual on Operation and Maintenance of system 9 months after start of construction.
6. Assist in preparing position description and assist in hiring Power Use Specialist three months prior to energization.
7. Assist in training staff for meter reading, billing and collecting prior to initial energization.
8. Prepare detailed financial analysis of system when construction begins and again at time assignment is concluded.
9. Prepare monthly and final report of activities.

PARTICIPANT TRAINING

	FY 72				FY 73				FY 74				FY 75				FY 76			
	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.
NEA Staff (Representatives)			(6)				(6)				(6)				(5)					
Elect. Co-ops (Representatives)			(3)				(5)				(7)				(6)					

NEA Staff personnel will participate in 12-14 week training arranged by NRECA/U.S. at both cooperative and R.E.A. level. Cooperative personnel training will also be arranged by NRECA/u.S. and will concentrate more at cooperative locations. Training at all levels will follow the same schedule and pursue the same objectives as previous program proven so successful for comparable rural electric cooperatives in the United States.

RURAL ELECTRIFICATION - IMPLEMENTATION PLAN

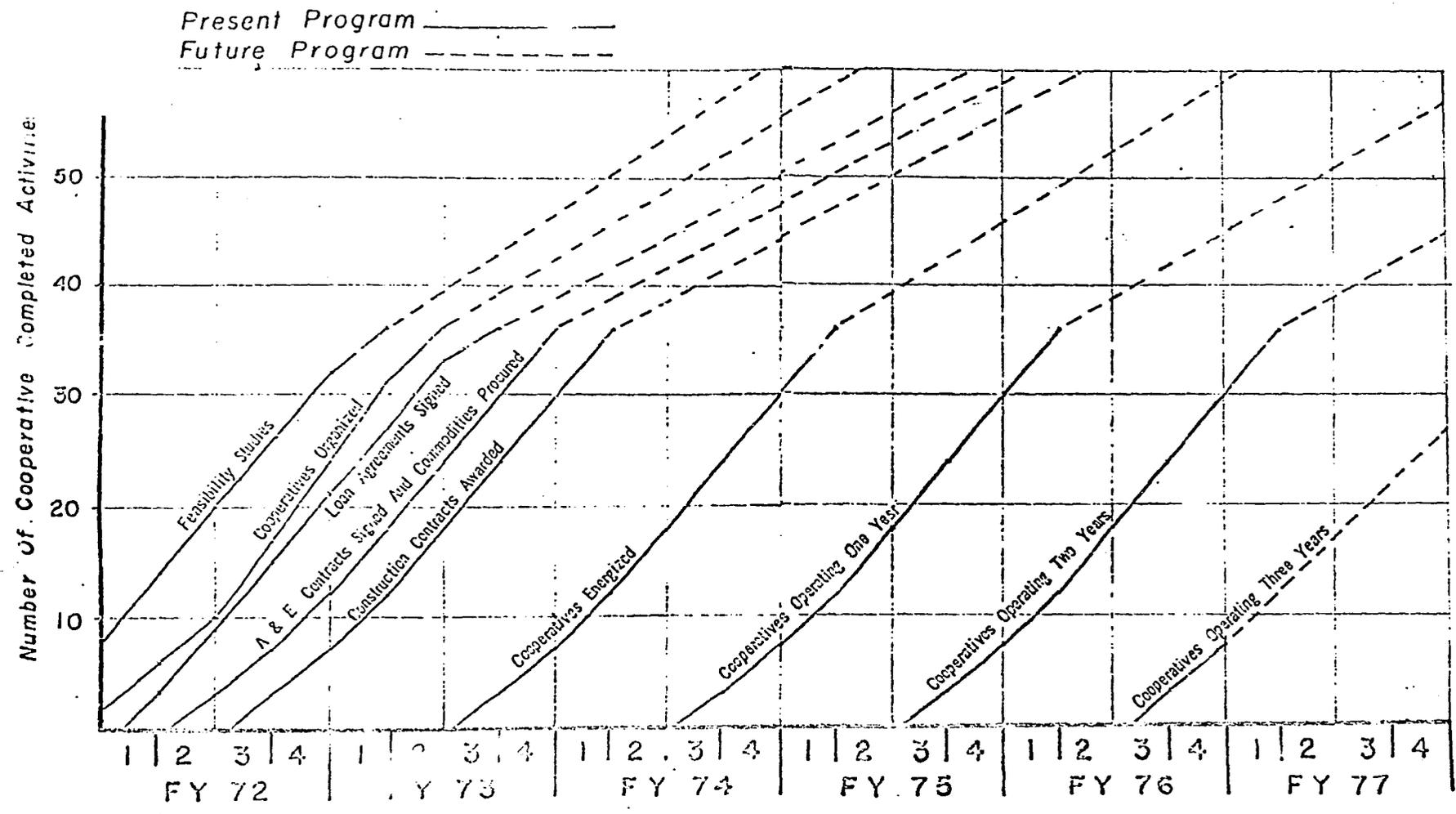
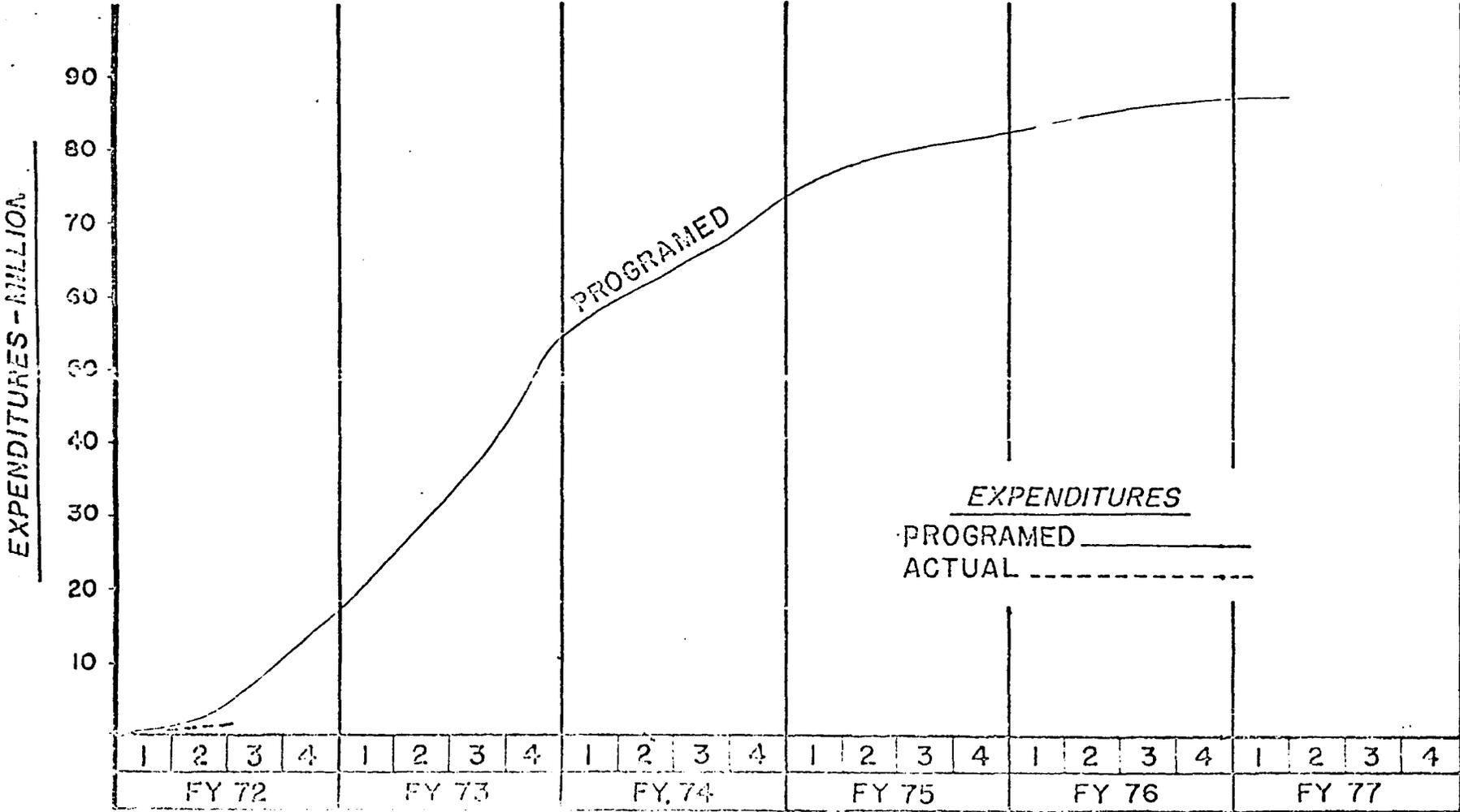


CHART OF PROGRESS

CHART P-3



PROPOSED REORGANIZATION OF NEA

