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DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
APO San Francisco 96528

PROJECT PAPER

Proposal and Recommendations  
For the Review of the  
Project Review Committee

498-0260

PHILIPPINES - RURAL ELECTRIFICATION TRAINING CENTERS

UNCLASSIFIED

# RURAL ELECTRIFICATION TRAINING CENTERS

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3. COUNTRY/ENTITY <b>Philippines</b>	4. DOCUMENT REVISION NUMBER <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
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8. ESTIMATED FY OF PROJECT COMPLETION FY <div style="border: 1px solid black; display: inline-block; padding: 2px;">8</div> <div style="border: 1px solid black; display: inline-block; padding: 2px;">0</div>	9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY <div style="border: 1px solid black; display: inline-block; padding: 2px;">7</div> <div style="border: 1px solid black; display: inline-block; padding: 2px;">8</div> B. QUARTER <div style="border: 1px solid black; display: inline-block; padding: 2px;">3</div> C. FINAL FY <div style="border: 1px solid black; display: inline-block; padding: 2px;">7</div> <div style="border: 1px solid black; display: inline-block; padding: 2px;">8</div> (Enter 1, 2, 3, or 4)
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10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) <b>17.3</b>						
A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L. C.	D. TOTAL	E. FX	F. L. C.	G. TOTAL
AID APPROPRIATED TOTAL						
(GRANT)		250	250		250	250
(LOAN)						
OTHER U.S. 1.						
2.						
HOST COUNTRY		150	150		315	315
OTHER DONOR(S)						
TOTALS		400	400		565	565

11. PROPOSED BUDGET APPROPRIATED FUNDS \$000.									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY		H. 2ND FY		K. 3RD FY	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	201S	062		250					
(2)									
(3)									
(4)									
TOTALS				250					

A. APPROPRIATION	N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		12. IN DEPTH EVALUATION SCHEDULED  MM YY <div style="border: 1px solid black; display: inline-block; padding: 2px;">12 7 19</div>
	P. GRANT	Q. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1)					250		
(2)							
(3)							
(4)							
TOTALS					250		

13. DATA CHANGE INDICATOR: WERE CHANGES MADE IN THE PID FACESHEET DATA BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

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 1 - NO  
 2 - YES

14. ORIGINATING OFFICE CLEARANCE SIGNATURE <i>William F. McDonald</i> <b>William F. McDonald</b> TITLE <b>Chief, Office of Capital Development</b>	15. DATE DOCUMENT RECEIVED IN AID/W OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION DATE SIGNED <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">MM</div> <div style="border: 1px solid black; padding: 2px;">DD</div> <div style="border: 1px solid black; padding: 2px;">YY</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">0</div> <div style="border: 1px solid black; padding: 2px;">8</div> <div style="border: 1px solid black; padding: 2px;">0</div> <div style="border: 1px solid black; padding: 2px;">8</div> <div style="border: 1px solid black; padding: 2px;">7</div> <div style="border: 1px solid black; padding: 2px;">8</div> </div>
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## I. Detailed Description of the Project

### A. Background

The modern rural electrification movement in the Philippines began in 1969 and became operative in 1972 with two functioning electrical cooperatives. As of June 1978 there are 106 registered cooperatives scattered throughout the rural Philippines, 84 of which are energized, delivering electrical power to over 4.5 million rural residents; thus, the Philippines has the most successful rural electrical cooperative program in the developing nations of the Asian world. The Rural Electrification Training Center Program aims to make the experiences gained during the past nine years available to both Philippine nationals interested in electrification as well as international trainees from other Asian nations interested in extending rural electrical service.

One of the most significant aspects of the Philippine program is that the program is set up under a cooperative format. The Philippine government, national, provincial and local has had a long history of cooperative organization and the bulk of such efforts have been failures prior to the introduction of the rural electrical cooperative systems. The member owned and operated NEA cooperatives now working in the rural areas of the country take full responsibility for all phases of the operations in their areas, and working under the guidance of the National Electrification Administration the effort is self-sufficient and enjoys a wide base of community support.

At the present time, the National Electrification Administration trains about 500 Filipinos per month in various skills necessary for the satisfactory operation of a rural electric cooperative. Since the effort has been organized, approximately 33,000 persons have been trained or re-trained in technical and administrative skill areas.

The proposed training centers to be used for national and international training would be located outside the Manila area so as to take advantage of the milieu of an actual operating cooperative. Since the working rural electric cooperatives are not in the cosmopolitan areas, there are not adequate teaching and living facilities presently available on site; therefore, this project will help to

subsidize the construction and outfitting of two rural training centers for rural electrification that will keep the training in an appropriate environment. The National Electrification Administration presently has a complete training staff which has been conducting the educational activities of the NEA for the past nine years. Up until now, much of the training has been short term, or individual live-in training at the various cooperatives located throughout the country; however, facilities to adequately house and indoctrinate large groups of participants (10 - 24) are presently unavailable in the rural areas. Private estates, if available, would be too expensive and located at inappropriate areas. A major advantage of the training centers will be the ability to tailor living and learning experiences for a specific target group. If international participants come from a specific country, learning materials can be translated to the appropriate language and appropriate foods and living conditions can be simulated in the Philippines in order to make the housekeeping aspects of the stay more conducive to learning. As NEA has already conducted training sessions for other Asian nations interested in rural electrification, they have a sound background in program design and logistical support for international participants, and hence they will be able to maximize the utilization of the proposed training facilities.

#### B. Detailed Description

The goal of the Philippine rural electrification training center project is to expand rural electric programs operating in the developing countries of Asia. In recent years, rural electrification has been singled out as the major developmental activity in many AID recipient nations, and the Philippines has sponsored the most successful rural electrification program under cooperative management in the developing world of Asia. As a result of its success in the field, the Philippine government is proposing to build and support two training centers where the following three subject areas could be taught:

1. The Philosophy of Electrification - a detailed explanation and economic justification for rural electrification appropriate for top-level national development planners.

2. Management and Administration of Electrical Cooperatives - a detailed explanation of the kinds of administrative and management techniques necessary to successfully run a rural electrical cooperative.

3. **Technical Training for Rural Electrification Program Operation** - complete coursework based on the actual operation of a cooperative emphasizing physical construction and maintenance of a facility's distribution system.

Although electrification is presently available in rural areas in some parts of the Asian world, the service is often available to only the middle and upper classes and as a rule it is not continuous service. The Philippine system has made electrical power available on a full time basis, at reasonable and affordable rates, to people of all income levels.

The specific purpose of this project is to provide trained manpower to work in the conceptualization, administration and technical implementation of rural electrification projects in the developing nations of Asia in order to improve rural electric service. Countries that have committed themselves to the training being offered by the Philippines include: Indonesia, Bangladesh and Pakistan. In the past few years, the Philippines has trained selected personnel from all of the above countries, and now that the electrification program in these countries are expanding they will be needing more trained personnel. At the present time none of the above countries have the electrification expertise to do the training being developed by the National Electrification Administration of the Philippines hence the location of the project. A major component of the project will be in the training of trainers for participating nations so that graduates can return to their countries and disseminate the knowledge that they have learned.

In order to reach the goal and purpose stated above, the following outputs will be required:

1. Two rural electrification training centers - Two centers will be constructed (one in Misamis Oriental and one in La Union) on the land of an existing electrical cooperative in order to bring the training as close as possible to the actual work experience.

2. Educational hardware - Both of the training facilities will have audio visual facilities that will enable instructors to take advantage of the most appropriate teaching innovations available. Although the primary emphasis will be on the field work experiences to be gained at the cooperative site, audio visual back-up facilities will augment the teaching materials available to instructors.

3. Educational software - Both of the two centers will put an emphasis on the transfer of teaching skills, demonstration, as well as audio visual aides and effective verbal communication in the presentation of new ideas and relevant course material. Lesson planning and the presentation of materials will be emphasized along with the actual course subject matter so that participants learned not only the facts of rural electrification but also the methods by which they can teach material once they return to their respective countries. The training centers will have projection equipment for slides and movies and, if needed, specifically tailored software can be produced by the National Media Production Center in Manila. Video tape recorders may also be used. The major emphasis at the training centers will be on learning by doing and live demonstration, hence the location of the two facilities within the confines of a working cooperative.

4. Training center facilities - Both facilities will be designed to house 24 live-in students with room, board and learning facilities. There will be libraries and study rooms available in addition to the audio visual/lecture presentation rooms. Menus and language to the extent possible will be tailored to meet the needs of each group attending the institution.

In order to achieve the desired outputs as specified in the log frame and in the above narrative, NEA is planning to augment the USAID contribution of \$250,000 with \$315,000 in peso funds. The U. S. contribution will be used for up to 75% of construction costs for the project or 75% of the purchase costs of equipment needed during the initial years of the institution or a combination of the two. The Philippine contribution will be used for the balance of the construction and equipment costs. Operation costs for the centers will be funded from NEA's operating budget or from fees charged to persons trained at the centers.

All of the training carried out in the program will be charged at an actual cost price, and no attempt will be made to profit from the training of participants from other countries just as there is no profit in the training of Philippine nationals working in the electrical cooperative system.

## II. Project Analysis

### A. Social Analysis

#### 1. Sociocultural Feasibility

Since the rural electrification training center project does not specifically support the poor majority in a direct manner, much of the discussion of the sociocultural feasibility of the project is not applicable. Electrification has proven to be a service that is in high demand by rural residents in the Philippines, and to the extent that the training center enables more people to enjoy the franchise of electrification it will benefit the rural poor. Electrical power supplied from cooperative organizations is not only cheaper than that supplied from alternative energy sources, but it also allows for the growth of related industrial expansion thus enhancing the job market in the rural areas.

#### 2. Spread Effects: The Diffusion of Innovation

This project, by definition, is heavily involved in the diffusion of innovation. The purpose of the project is to see that persons interested in extending rural electrification receive the kind of training that will enable them to carry out their task. During the past six years, NEA has sponsored training projects in electrification, and as a result of their efforts the Philippines has dynamic rural electrification service delivery system serving 4.5 million rural residents and based on cooperative ownership and locally elected administrators. This is precisely the system that the program proposes to replicate elsewhere through the training offered at the two centers.

#### 3. Social Consequences and Benefit Incidence

The task of USAID as outlined in the Congressional Mandate is to support developmental programs that impact directly on the rural poor. Although the immediate benefit of rural electrification training may not impact directly on the rural poor, there is little doubt that the introduction of electrical energy sources in rural areas is one of the most dramatic advances conducive to an improvement in the quality of life for low income rural residents. Through electrification, the work day is extended into the evening thus allowing for additional income to be made, cheap efficient power sources are made available for industry and farming improvements, electricity

is available for small appliances which improve the quality of life and lastly the introduction of electrical power changes a community in an almost inexplicable manner which moves it forward in the developmental process.

#### 4. Role of Women

Women are participating actively in all phases of the electrification effort in the Philippines including the technical areas. The training center will not only welcome female participants but will encourage their active participation to the extent possible. As the international participants will be chosen by their respective countries NEA has no control over who is chosen; however, since USAID missions are located in nearly all of the potential participating countries there is little doubt that the respective missions will encourage full representation in the training program.

#### B. Environmental Assessment

Inasmuch as all project funds are budgeted for construction and stocking of a training facility, the USAID/Manila mission has determined that the proposed project is not a major action which can reasonable be expected to have a significant effect on the human environment and is, therefore, an activity for which an Environmental Impact Statement or an Environmental Assessment will not be required. It is recommended that a Negative Determination be executed by AID/Manila.

### III. Economic, Technical and Administrative Feasibility

#### A. Economic Analysis

Project outputs under the Rural Electrification Training Center Project cannot be assigned realistic monetary values, ruling out determination of economic feasibility on the basis of cost-benefit analysis. Cost effectiveness analysis is more useful in determining alternative projects and alternative project designs.

The principal alternative means of achieving the same output levels would be to privately contract the services included in the proposed program. In other words, teaching facilities would be sought or the NEA classroom facilities presently available would be

used, Special constraints limit expansion of training at the NEA central office; and, there are not adequate physical facilities at any of the operating field coop installations. In addition, the participants, whether from the Philippines or from other countries would have to be boarded out in the community. In Manila this would be relatively easy as there are many facilities but it would be expensive. In the field this would be cheaper; however, there are not adequate facilities available for large training groups, and the program would lose the close personnel contact between participants and their instructors thus limiting the learning process to classroom hours and field trip exercises. As a major expense in this training program is transportation/housekeeping support, it would be unwise not to fully exploit the potential possibilities once the group was assembled.

In addition to the reduced cost of housing participants together, and the obvious benefit that is gained by keeping the group together during the entire training period, an additional benefit is derived from the ambience that will be generated among the training group once they are kept together for a period of time. Participants coming from another country will adapt to a different culture, and building on the strength of common friendships, they will be able to concentrate on the subject matter offered in the course while living with their fellow countrymen, eating food that is familiar to them, and employing teaching materials and exchanging information in a language that is understood by them. Also the fact that participants will be kept together for the entire training period will make classroom participation the only alternative viable once at the training center. In past training program often times late evening activities and alternative daytime activities offered in Manila and other metropolitan areas precluded full attendance and concentration on classroom and field oriented study.

#### B. Technical Feasibility

The components of the project are as follows:

##### 1. Selection:

Selection into the program will be the responsibility of NEA for Philippine candidates and the responsibility of the parallel electrification organization in other Asian nations. The courses offered at the training center (See Annex A) will be announced to interested electrification agencies and selection will be made and

acceptance for training announced. In most of the neighboring Asian countries that would participate in the program there is also a USAID office which is partially supporting the electrification effort so that information about the training program could be fed to the host government as well as the USAID mission personnel. Recruitment from the neighboring Asian countries will not be difficult as NEA is already conducting training for Bangladesh, Pakistan and Indonesia. Travel and the appropriate fees will be paid by the host organization sponsoring the trainee.

## 2. Orientation:

Orientation will be the responsibility of the NEA training center working in conjunction with the organization sponsoring the participant. If language capability is a problem the NEA center will have information ahead of time allowing it to make a decision as to whether or not it has the capabilities to train such an individual. In addition, the training center will make the food offered at the live-in facility palatable for residents of a foreign country, and will also attempt to tailor the instructional materials as necessary for international participants. Since much of the instruction will be in demonstration format, language barriers should be held to a minimum as trainees will be able to see what is actually happening rather than having to rely solely on a classroom format of instruction.

## 3. Course Material:

(a) Print -- The printed course material will attempt to explain subject matter in easily understandable English; but, if it is necessary the appropriate dialect will be used for explanation. As many of the technical words and phrases used in electrical work have an English base in all Asian languages the technical explanations should not be as difficult as the everyday social intercourse. In addition, the courses for planners and administrators will most probably be filled with persons very familiar with English, and when the technical and day-to-day operations courses are taught the emphasis will be more on demonstration rather than a lecture format so that verbal communication becomes less of a problem.

(b) Audio/Visual Materials -- The audio visual materials used in the training will be simple and direct. The emphasis will be on the material to be taught rather than the manner in which it is taught. Complicated multi-screen presentations and sophisticated movie renderings will not be employed in the course unless brought in from outside sources. The project

has the option to generate needed audio visual materials with the help of the National Media Production Center's ample pool of trained manpower available to assist training program personnel. Since the course will emphasize the transfer of technology, the primary responsibility of trainers is to use methods that can be picked up by course participants and then employed in their own respective countries.

(c) Teacher Training -- One of the unique features of the training centers is that much of the work done at the facilities will be used as teaching material once participants return to their own home organizations. Not only will materials be kept simple, clear and easy to understand, but participants will be encouraged to fill instructor's roles whenever possible in order to give them some teaching experience.

#### 4. Alternatives:

Because of the technical nature of some of the courses being taught, and the need for first hand observation and on-the-job participation, it would be extremely difficult if not impossible to hold this training at any place other than coop sites. Many of the problems facing a rural electrification program can be talked about in a classroom, but often the problems are difficult to visualize or conceptualize and the solutions seem simpler than they really are. Poor line staking, poor safety practices, and poor collection procedures are seemingly relatively easy to address until one is actually in the field observing the physical and geographical constraints. Often a blackboard can be used to describe solutions, but students often find such "solutions" impossible to implement. From a technical standpoint, then, it seems absolutely necessary that the courses be taught on site in the cooperative areas where the students have immediate access to cooperative facilities.

#### C. Administrative Feasibility

The grantee of the proposed USAID funding will be the National Electrification Administration. In order to complete the grant transaction, NEA agrees to:

1. provide local currency and other resources as may be required to enable the organization to implement the program on a timely basis;

2. absorb any cost over-runs associated with the project that were not anticipated in the financial section of this paper or were inaccurately projected;

3. provide and pay a full-time staff for the program.

The implementing agency for the project is the National Electrification Administration which was established in 1969 under the provisions of R.A. No. 6038 and reorganized and expanded in accordance with Presidential Decree No. 269 dated August 6, 1973.

NEA is chaired by Minister Geronimo Velasco of the Ministry of Energy. Members of the Board include: Dr. Jaime C. Laya, Commissioner of the Budget; Mr. Conrado del Rosario, Vice President of National Power Corporation; Dr. Alfredo Junio, Minister of Public Works, Communications, and Transportation; Gen. Ceferino Carreon (Ret.), Chairman of the Board of Communications, and, Leonardo G. Coloso, Acting Administrator of the National Electrification Administration.

Leonardo Coloso has recently been named Acting Administrator for the NEA and he is assisted by the Deputy Administrators. The Deputy Administrators supervise seven directorates. Competence at the Deputy Administrator and Director level is ranked from good to excellent. NEA's competence at all other levels of the organization continues to improve and there is no doubt as to its ability to continue to implement the NEA training effort.

The rural electrification training office is headed by Mejardo Arcelo. The competence of the training office is attested to by the fact that 23 different subjects have been taught to international participants. Records indicate that more than 500 international participants have already received training at NEA including double-counts for those trained in more than one area. Included in this total are participants from Bangladesh, Pakistan, Indonesia, New Guinea, Thailand, India, Jordan and Bolivia. In addition, the staffs of the operating cooperatives have been trained in 747 training activities reaching 27,137 participants. The construction and staffing of the electrification training centers will enable NEA to continue its training activities in an atmosphere more conducive to learning and the interchange of ideas among the participants. It is currently estimated that 200 participants per year from as many as 10 countries will attend training courses lasting an average of about one month. In addition, more than 500 Filipinos will be trained in courses lasting an average of one week.

IV. Financial Analysis and Plan

The summary of program costs to be incurred in the Rural Electrification Training Center Project is summarized below. Details of the costs can be found in Annex A.

Table A

SUMMARY COST ESTIMATE AND FINANCIAL PLAN  
(US \$000)

Source	AID		Host Country		Other		Total
	FX	LC	FX	LC	FX	LC	
USE:							
1. Construction		250		182			432
2. Equipment	(57)*			133			190
3. Operating Costs				465			465
TOTAL	(57)*	250		780			1,087

\*Obligated in FY 1977 ProAg

Although savings might accrue to the project as a result of utilizing excess property commodities, the estimates included in the tables represent the best estimate of the amount of money that will be necessary to equip and operate the two facilities. The excess property commodities that are presently available for program use may not be available by the time this project is authorized, hence the reluctance to incorporate the savings into the financial plan.

The USAID funded portion of the program will concentrate on the building of the two centers and the procurement of equipment for the centers. The day to day operating expenses as well as the training center staff salaries will continue to be the responsibility of the Philippine National Electrification Administration. In addition,

the FY 1977 Project Agreement for Electrification has set aside \$57,000 in grant funds for the procurement of equipment for the NEA training program; however, the money cannot be used until a contract is signed for the actual construction of the two centers. The money will be available through December 31, 1978.

#### V. Implementation Plan

Following the approval of this project paper in August, 1978, the National Electrification Administration will continue working on the needs assessment for the two new facilities and the construction plans resulting from the needs assessment. Both of these tasks are scheduled to be completed in October, 1978 at which time an invitation for bid will be issued for the construction of the two learning facilities.

By the end of October, 1978 the construction contract will be awarded and the Rural Electrification Training Office (RETO) will begin field testing any new innovative methods and/or materials suggested by the needs assessment of the previous month. As the RETO staff has been active in the training field for the past six years, the bulk of the necessary information concerning electrification training is already available; however, the RETO staff will use the ensuing six months to test new methods for presenting material and will concentrate on making the presentations more conducive to learning.

A major innovation in the teaching format might be the introduction of audio visual equipment in the classroom; video tape recordings, slide presentations, movies and audio tape recordings in addition to still photography. All of these methods have been used in the past to augment the classroom lecture material and the success of bringing the feeling of field work experience into the study or classroom environment will be evaluated. In no case will the audio visual presentations be used to supplant actual field work as the exposure to realistic conditions and problems is considered to be the optimum learning situation. Some of the work in designing and producing new materials can be channeled through the National Media Production Center in Manila, and several staff persons from the NMPC could be detailed to the project in order to establish a firmer foundation for growth; however, the present NEA training staff has adequate technical skills at the present time to use all audio visual equipment.

The RETO is also contemplating the purchase of an inexpensive offset printing system in order to be able to produce high quality, low-cost course materials for the training centers. If the facilities presently being used by NEA are able to absorb the added burden expected as a result of the two training centers, then existing facilities will be used instead of duplicating present capabilities. RETO is concerned not only with cost but also with turn-around time in processing, so that even though the present facilities may be cheaper, if they cannot deliver materials on a timely basis then a separate training center printing capability will be needed.

As new methods are tested and audio visual materials are experimented with under classroom situations, the RETO staff will evaluate their use and appropriateness for the project. In December, 1978, the NEA training staff will review all of the testing done during the previous six months period and will decide on the final content for course material as well as any modifications that will be necessary in the construction of the training facilities. Although no major changes are anticipated, the placement of partitions, availability of utilities, and other minor changes to the details of the centers may be suggested as a result of the previous six month's testing and evaluation. In January, 1979, the compilation of the final course material will begin in order to be prepared for the first training group in May of the same year. By June, 1979 the two facilities will be completed and the additional staff necessary for the successful operation of the facility will have been hired and trained.

The first groups of participants to be trained at the new facilities will be brought to the centers in mid-1979. The initial group will be made up of Philippine nationals seeking training in the electrification area so that set-up problems due to unforeseen adjustments that are required by the program will be as trauma free as possible. Following the completion of the first training course, adjustments will be made to the program as necessary and an evaluation of the training effort will point out the areas that need further work and development. Once RETO is confident that it has all of the initial bugs out of the program, the training staff will begin recruiting on an international scale and trainees will be accepted from other countries in the new centers for classes to be held in the second semester of 1979. Following the initial international training, an evaluation will be conducted to point out the areas for improvement, and changes will be made to the program as necessary.

Table B

WORK SCHEDULE

WORK ITEMS	1 9 7 3					1 9 7 9						
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
A. Preparation of Plans	████████████████████											
B. Advertisement				██████████								
C. Screening of Bidders					██████████							
D. Issuance of Plans					██████████							
E. Bidding						██████████						
F. Construction Period, 150 days							██					

- 14 -

Table C

CASH FLOW CHART

WORK ITEMS	1 9 7 3					1 9 7 9					
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
A. A & S Pre-Construction (\$70,000)		\$20,000	\$20,000	\$30,000							
B. Construction Contractor							\$750,000	\$750,000	\$750,000	\$750,000	
C. A & S Construction Supervision (2 sites)							15,000	15,000	15,000	15,000	(210,000)

\* Provision for extension services of one (1) month.

In addition to conducting evaluations during and after the training courses, RETO is planning to conduct a major evaluation of the training effort at the new center in early 1980. By that time, several groups will have completed training at the facilities - both Philippine and international participants - and a detailed evaluation study can be done on the success of the RETO training effort. Following that major evaluation, RETO will continue major evaluations on a regular basis.

#### VI. Evaluation Plan

The National Electrification Administration's training branch is presently conducting evaluation activities for its ongoing training projects. The bulk of these activities center around questionnaires distributed to course participants soliciting their comments about the quality of training, format of instruction, and satisfaction with their knowledge of the course material. The evaluation plan for the training center project will use the present information as a foundation and then augment it with outside observations as well as internal control situations that test the effectiveness of various training approaches. In addition, follow-up ex-post-facto studies will be conducted once participants have returned to their posts in order to check on the retention of information as well as the relevance of course material.

In early 1980, an evaluation team will look at the training program vis a vis the teaching objectives outlined in the logical framework, the learning objectives as stated by course participants and the design of the training program as dictated by the needs assessment. In addition, the evaluation team will produce the framework for future detailed evaluations so that RETO can continue the evaluation process in future years. As follow-up information will have already been gathered from program participants, and on-going course evaluations will be readily available, NEA should have a sound foundation for building an on-going system by 1980.

**ANNEX A**

**Supporting Data**

Table 1

**NEA RURAL ELECTRIFICATION TRAINING CENTERS**  
**Financial Plan**  
 (\$1=₱7.3)

**FUND SOURCES:**

USAID	\$250,000 =	₱1,825,000
	57,000 =	416,000 <u>1/</u>
Sub-total		₱2,241,000
NEA	\$315,000 =	₱2,299,000
RETO Budget, Revenues	\$465,000 =	₱3,395,000
Sub-total		₱5,694,000
TOTAL		<u>₱7,935,000</u>

**APPLICATION OF FUNDS:**

	RETO	2 Centers	Total
Construction Costs	--	₱ 3,150,000	₱ 3,150,000
Audio-Visual/Office Equipment/Furniture and Fixtures/Etc.	₱ 353,700	1,024,602	1,378,302
Operating Costs (for three years)	1,881,799	1,525,375	3,407,174
TOTAL	<u>₱ 2,235,499</u>	<u>₱ 5,699,977</u>	<u>₱ 7,935,476</u>

1/ These funds were previously obligated in ProAg No. 77-10.

Table 2

CONSTRUCTION COSTS  
(in Pesos)

Cost per Center:

Material Cost	₱ 604,000	
Labor Cost	242,000	
Sub-total		846,000
Air Conditioning	113,000	
Overhead, Profit, & Tax	178,000	
Site Development	321,000	
Contingencies	42,000	
Total per Center		1,500,000
Total for Two Centers		<u>3,000,000</u>
A & E Fee (for two Centers)		
a) Pre-construction	70,000	
b) Construction Supervision	80,000	
TOTAL COST OF CONSTRUCTION, TWO CENTERS		3,150,000

Table 3

**Audio Visual Equipment and Office/Household Equipment,  
Furnishings and Vehicles**

<u>I t e m s</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Estimated Cost</u>	<u>Total</u>
<b>A. Audio-Visual Equipment:</b>				
Slide Projectors w/ slide	2	P3,000	P 6,000	
Movie Projector 16mm w/ screen	1		30,000	
Amplifier	1		3,600	
Speakers	4	600	2,400	
Microphones	8	240	1,920	
Turntable w/ records	1		3,000	
Megaphone	1		600	
Switchboard 37-B w/ 20 telephone sets			30,000	
Open reel tape recorder	1		5,500	
Portable Cassette Tape recorder	1		2,000	
Blackboards	4		400	
			<u>P 85,420</u> x 2	P170,840
<b>B. Office Furnitures &amp; Equipment:</b>				
Typewriter, manual, standard	1		1,500	
Typewriter, electric	1		9,600	
Spirit duplicator	1		5,500	
Portable calculator	1		3,600	
Tables, office	5	1,080	5,400	
Tables, typi	2	480	960	
Tables, library	1		600	
Conference tables 6'x3'	5	1,800	9,000	
Chairs, library	48	100	4,800	
Chairs, office	8	500	4,000	
Cabinet, filing, 2 drawers	1		540	
Cabinet, filing, 4 drawers	2	510	1,020	
Cabinet, storage filing, 4 drawers	2	450	900	
Bookshelves	5	960	4,800	
Set, sala	2	4,200	8,400	
Cabinet, index card, 2 drawers	6	720	4,320	
Punchers	2	90	180	
Staplers	2	90	180	
			<u>P 65,300</u> x 2	P130,600
<b>C. Dormitory:</b>				
Beds with mattresses, single	40	1,000	40,000	
Bedsheets, cotton	150	30	4,500	
Bed covers, cotton	100	60	6,000	
Blankets	150	35	5,250	
Pillows, foam with cover	80	18	1,440	
Pillow cases, white	150	15	2,250	
Towels, big, cotton	100	25	2,500	
Towels, facial, cotton	100	5	500	
Mirrors (looking)	20	60	1,200	
Thermos, stainless	20	42	840	
Pitcher, stainless	20	42	840	
Tumblers, glass	60	6	360	
Tray, glass	20	25	500	
Study tables w/ chair	18	400	7,200	
Lamps, for reading	20	150	3,000	
Ashtrays, glass	80	12	960	
			<u>P 77,340</u> x 2	P154,680

Table 3 (cont'd)

<u>I t e m s</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Estimated Cost</u>	<u>Total</u>
<b>D. Conference Lecture Hall:</b>				
Classroom chairs w/ folding writing arm	50	₱400	₱ 20,000	
Chairs	50	100	<u>5,000</u>	
			₱ 25,000 x 2	₱ 50,000
<b>E. Dining Hall:</b>				
Square tables	15	500	7,500	
Dining chairs	50	150	7,500	
Table cloth	30	100	3,000	
Flower vases	20	24	480	
Napkin holder	20	12	240	
Place mats	40	10	400	
Sets of sauce container	20	24	<u>480</u>	
			₱ 19,600 x 2	₱ 39,200
<b>F. Kitchen Utensils/Items/Appliance</b>				
Gas burner, ring table model	4	700	2,800	
Oven, 3 racks, built-in electric	1		5,000	
Freezer, upright, 12 cu.ft.	1		4,500	
Refrigerator, 12 cu. ft.	1		4,800	
Electric grinder	1		3,000	
Blender	1		500	
Toaster	1		300	
Waffle maker	1		450	
Mixer, electric w/ accessories	1		2,300	
Pressure cooker	1		1,200	
Rice cooker	1		1,000	
Knives, stainless ; Butcher	3	15	30	
" " Utility	6	6	36	
" " Fish	2	12	24	
" " Bread	2	7.50	15	
Measuring cups: solid	2 sets	25	50	
" " liquid	2 "	40	80	
Measuring spoons; stainless steel	2	20	40	
Cooking spoons:				
Basting, different sizes	2	24	48	
Wooden spoon, different sizes	3	12	36	
Turner, stainless " "	6	18	108	
Ladle, stainless steel	2	28	56	
Brush, soft bristle	2	10	20	
Fork, stainless steel	3	22	66	
Mixing Bowl, different sizes	2 sets	350	700	
Utility Bowl, plastic different sizes	2	100	200	
Utility Tray, aluminum	10	20	200	
Dinner Ware (fine china)	100		10,000	
Coffee saucer, cup; Bread/				
Salad plate, Luncheon, Dinner,				
Serving plates				

Table 3 (cont'd)

<u>I t e m s</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Estimated Cost</u>	<u>Total</u>
Flatware (Stainless steel)	100		₱ 4,000	
Teaspoons, Dinner/soup spoons, dinner fork, bread & butter knives, dinner knives	of each kind			
Glasses: Tumbler/drinking, fine glass	150	6	900	
Juice glass, tall, thin	80	8	640	
Mugs, thick glass	60	9	540	
Pots, etc.				
Sauce pans, diff. sizes	1 set		1,500	
Kettle, copper, heavy, big	2	250	500	
Griddle, electric	1		2,000	
Deep fat fryer, aluminum	1		2,000	
Coffee maker w/ accessories	1		1,500	
Water cooler, stainless steel	1		2,000	
Thermo, big w/ push button	1		200	
Peeler, manual, stainless	6	26	156	
Grater, manual, stainless	1 set		40	
Strainers, diff sizes	1 set		300	
Beater, Rotary, manual	1		36	
Wire Wisk, regular size	1		30	
Chopping Board, wooden diff. sizes	4 sets	6	24	
Tea set: cream & sugar	6 sets	50	300	
Towels: Dish, Hand, Kitchen	36 each		650	
Scraper, rubber w/ handle	4	6	24	
Can Opener, electric	2	300	600	
Can Opener, manual	3	28	84	
S erving Trays, aluminum	60	18	1,080	
Ice maker	1		700	
Baking pans:				
Rectangular	4 sets	20	80	
Layer, aluminum	4	12	48	
Tube pans aluminum	4	28	112	
Jelly roll, big	4	10	40	
Muffin things	36	6	216	
Pie pan	6	14	84	
Cookie sheet	6	8	48	
Double Boiler, aluminum	1		60	
Cannisters, stainless, diff sizes	2 sets	250	500	
Sifter, stainless, big	1		60	
			<u>58,611</u> x 2	₱ 117,222
G. Vehicles				
Coaster (23 seater)	1		90,000	
Land Wagoner	1		30,000	
Jeep	1		22,000	
			<u>142,000</u> x 2	₱ 284,000

Table 3 (cont'd)

<u>Items</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Estimated Cost</u>	<u>Total</u>
<b>H. Curtains:</b>				
Dormitory (16 rooms)			P 8,000	
Conference Lecture Hall			3,000	
Dining Hall			3,000	
Lobby (1st & 2nd floor)			<u>2,000</u>	
			P16,000 x 2	P 32,000
<b>I. Recreational Facilities</b>				
			P23,000 x 2	46,000
<b>T O T A L</b>			<hr/>	
			P 512,271 x 2	P 1,024,542

Table 4  
**TRAINING CENTERS**  
**SUMMARY OF OPERATING COSTS**

<u>I T E M</u>	<u>AMOUNT</u>
1. Salaries and Wages	P 142,992
2. Gasoline, Grease and Oil	119,160
3. Electric Consumption	87,384
4. Water Consumption	31,776
5. Postage and Telegram	9,930
6. Telephone	19,860
7. Security Services (24 hours)	67,524
8. Laundry Services	39,720
9. Repair and Maintenance	79,440
10. Insurance (Fire)	19,860
11. Subscriptions	9,930
12. Office Supplies & Materials	39,720
13. Employees Benefits	26,056
	<hr/>
	P 693,352
14. Contingencies (10%)	69,335
	<hr/>
TOTAL	- P 762,687
	<hr/>
For 2 centers	- P1,525,374
	<hr/>

Table 60  
 Estimated Total Operating Expenses  
 for (3) three years per Training Center  
 (LUELCO & MORESCO)  
 (With 10% Increase/Year)

<u>I T E M</u>	Monthly (1st yr.)	Annually (1st yr.)	Annually (2nd yr.)	Annually (3rd yr.)	TOTAL (3 years)
1. Salaries and Wages (8 employees)	P 3,600	P 43,200	P 47,520	P 52,272.	P 142,992
2. Gasoline, Grease and Oil	3,000	36,000	39,600	43,560	119,160
3. Electric Consumption	2,200	26,400	29,040	31,944	87,384
4. Water Consumption	800	9,600	10,560	11,616	31,776
5. Postage and Telegram	250	3,000	3,300	3,630	9,930
6. Telephone Bills	500	6,000	6,600	7,260	19,860
7. Security Services (3 Security Guards)	1,700	20,400	22,440	24,684	67,524
8. Laundry Services	1,000	12,000	13,200	14,520	39,720
9. Repair and Maintenance	2,000	24,000	26,400	29,040	79,440
10. Insurance	500	6,000	6,600	7,260	19,860
11. Subscription	250	3,000	3,300	3,630	9,930
12. Office Supplies and Materials	1,000	12,000	13,200	14,520	39,720
13. Employees Benefits	656	7,872	8,659	9,525	26,056
	<u>P 17,456</u>	<u>P 209,472</u>	<u>P 230,419</u>	<u>P 253,461</u>	<u>P 693,352</u>
14. Contingencies (10%)	1,745	20,947	23,041	25,346	69,335
TOTAL	<u>P 19,201</u>	<u>P 230,419</u>	<u>P 253,461</u>	<u>P 278,807</u>	<u>P 762,687</u>
Two Centers	x 2	x 2	x 2	x 2	x 2
GRAND TOTAL	<u><u>P 38,403</u></u>	<u><u>P 460,838</u></u>	<u><u>P 506,922</u></u>	<u><u>P 557,614</u></u>	<u><u>P 1,525,375</u></u>

Table 4b

ESTIMATED OPERATING EXPENSES

(Monthly)

One Center

1. Salaries and Wages ₱ 3,600

<u>Position</u>	<u>Salary</u>	
	<u>Monthly</u>	<u>Annually</u>
1 Housekeeper	₱ 650	₱ 7,800
1 Cook	550	6,600
1 Kitchen Helper*	350	3,500
2 Chambermaids*	700	7,000
1 Janitor-Gardener	350	3,500
2 Drivers*	1000	10,000
<u>8</u>	<u>₱3200</u> or	<u>₱38,400</u> or
	\$432.43	\$ 5,189.19

\* - 10 months only (Contractual basis)

2. Gasoline, Grease and Oil 3,000

Gasoline - ₱1,200  
 20 liters/da x 30 =  
 600 liters/mo. x ₱2/liter

Wash, Grease, Oil and  
 Spray

300  
 ₱1,500  
 x 2 centers  
 = ₱ 3,000

3. Electric Consumption (8,972 kw hrs. per mo @ ₱.25 kw/hr) 2,200

4. Water Consumption (45,000 gal per month @ 50 gal/person) 800  
day

5. Postage and Telegram 250

Stamps for:

Letters - ₱60.00  
 Brochures - 110.00

Telegram - 80.00  
 ₱250.00

6. Telephone Bills 500  
includes long distance calls7. Security Services (From Security agency) 1,700  
Three (3) guards on rotation ( 3 shifts)

8. Laundry Services 1,000

Laundry, dry cleaning expenses for curtain,  
bed sheets, towels, etc.

Table 4b (cont'd)

Operating Expenses

9. Repair and Maintenance		2,000
Office equipment	- P 600	
Building	- 700	
Vehicle	<u>700</u>	
	P2,000 or	
10. Insurance (Fire)		500
Premium for building & equipment insurance		
11. Subscription		250
Newspaper, Magazine & other reading materials		
12. Office Supplies & Materials		1,000
<u>Qty.</u>	<u>Items</u>	<u>Amount</u>
3 pds	Yellow pad paper	P 8.75
3 rms	Bond paper (long)	48.83
5 "	" " (short)	67.40
2 "	Onion Skin (long)	17.92
3 "	" " (short)	22.80
6 "	Mimeo paper(long)	93.66
10 "	" " (short)	134.80
1 doz.	Pencil	8.60
1 "	Erazer	2.00
4 pcs	Typewriter ribbon	21.80 (ord.)
2 "	" "	12.00 (IBM)
2 btls.	Corrector fluid	72.50
2 "	Sno-pake	40.00
3 bx	Stencil # 62	132.90
2 doz	Ball Pen	14.16
5 pcs	Touch N Go	13.90
4 tube	Mimeo Ink	150.20
1 doz.	Folder (long)	2.88
2 "	" (short)	7.68
2 "	Envelope (short)	3.00
10 pcs.	Illustration board	52.25
1 bx.	Map pin	3.80
5 pd.	Columnar pad(16")	21.25
7 pd.	" " (8)	22.75
1 rl.	Scotch tape	11.10
1 rl.	Musking tape	<u>13.07</u>
		P1000.00
13. Employees Benefits		656.00
Clothing Allowance	- P 200.00	
SSS Insurance	- 208.00	
Accident Insurance	- 38.00	
Incentive/Emergency allowance	- <u>210.00</u>	
		P 656.00

Table 5

RURAL ELECTRIFICATION TRAINING OFFICE (RETO)  
1979 - 1981

I. Operational Expenditures

	<u>Monthly</u>	<u>1st Year</u>	<u>2nd year</u>	<u>3rd Year</u>	<u>Total</u>
A. Salaries & Wages	₱17,125	₱205,500	₱ 225,050	• 248,555	• 680,205
B. Transportation & Travel	2,700	32,400	35,640	39,204	107,244
C. Gasoline, Grease & Oil	2,880	34,560	35,288	38,103	108,951
D. Electric Consumption	600	7,200	7,560	7,938	22,698
E. Water Consumption	200	2,400	2,520	2,645	7,566
F. Postage, Telephone/Telegram	2,000	24,000	25,200	26,460	75,660
G. Rental (RETO Office)	8,250	99,000	103,950	109,148	312,098
H. Repair & Maintenance	1,000	12,000	12,600	13,230	37,830
I. Office Supplies & Materials	6,219	74,628	89,554	107,465	271,647
J. Employees Benefits	2,196	26,232	28,855	31,741	86,828
	43,160	517,920	588,217	624,590	1,710,727
K. Miscellaneous	4,315	51,792	55,821	62,458	171,372
<b>T O T A L</b>	<b>₱47,475</b>	<b>₱569,712</b>	<b>₱ 625,038</b>	<b>₱ 687,049</b>	<b>₱1,891,799</b>

II. Office Equipment

• 294,700

III. Furnitures & Fixtures

• 59,000

₱2,255,499

Table 6

FREQUENCY OF CENTER'S USE

OFFICE	NUMBER OF COURSES	FREQUENCY PER YEAR	NUMBER OF PARTICIPANTS	NUMBER OF DAYS	TOTAL/YEAR	
					NUMBER OF PARTICIPANTS	NUMBER OF DAYS
RETO	4	2	25	30	200	240
TRAINING DIV.	5	2	35	7	355	70
CO-OP or CO-OP REGIONAL GROUPS	3	2	35	7	210	42
<b>T O T A L</b>	<b>12</b>	<b>6</b>	<b>95</b>	<b>44</b>	<b>765</b>	<b>352</b>

Table 7

23 Subjects have been taken up since 1976 by nine (9) countries.

ASIA (USA)	ASIAN DEV. BANK	THAILAND	PAPUA NEW GUINEA	PAKISTAN	JORDAN	INDONESIA	INDIA	BOLIVIA	BANGLADESH	Subject
						7			10	CIVIL/ELECTRICAL INSPECTIONS
						18			10	CONTRACT ADMINISTRATION
				3		4				DEV. IN-COUNTRY ENG'G & CONST. CAPABILITIES
				3		4				DEV. OF IN-COUNTRY MFG. & MAT. SUP. FACILITIES
				10		9			4	DEVELOPMENT OF AN INFORMATION PROGRAM
				3		4			4	DEV. OF A NATL. ELECTRIFICATION ORG.
				10		9			4	DEVELOPMENT OF A TRAINING PROGRAM
						7			10	DISTRIBUTION LINE DESIGN AND STAKING
				10		9			14	FEASIBILITY STUDIES
				16		25			12	FINANCING AN ELECTRIFICATION PROGRAM
				16		25			12	INSTITUTIONAL DEVELOPMENT OF CO-OPS
						8			10	MATERIALS MANAGEMENT
				10		9			4	ORGANIZATION OF AN ELECTRIC CO-OP
4	2	4	3	4	1	23	1	1	7	ORIENTATION - TOUR
				3		4			4	OVERVIEW OF FINANCIAL CONTROL SYSTEM
						8			10	PERT/CPM
2	2	3	2	10	1	25	1	1	14	PHYSICAL DEVELOPMENT OF ELECTRIC CO-OP SYS.
				3		4			4	PLANNING PHYSICAL TARGETS
						7			10	POLE PROCUREMENT
									10	SAFETY (ELECTRICAL)
									10	SECTIONALIZING AND FAULT CURRENT CAL.
2	2	3	2	16	1	18	1	1	12	SOCIO-ECONOMIC EVALUATION
						7			10	WORK ORDER PROCEDURES

Table 8

## INTERNATIONAL TRAINING ACTIVITIES ON RURAL ELECTRIFICATION \*

COURSE TITLE	DURATION	COUNTRIES INVOLVED	TOTAL PARTICIPANTS TRAINED	ELECTRIC CO-OPS VISITED		
Conference-Study Tour on Rural Electrification - Philippine Experience	March 1 - 11, 1976	Bangladesh Bolivia India Indonesia Jordan	Papua NG Pakistan Philippines Thailand USA	25	ALECO LUELCO MORESCO TARELCO	
Conference-Workshop on Developing a National Program on Rural Electrification	August 24 - September 18, 1976	Bangladesh Indonesia Pakistan		11	BENECO LUELCO MORESCO PELCO	
Conference-Workshop on Initial Steps of Electric Co-op Development	January 17 - February 26, 1977	Bangladesh Indonesia Pakistan		23	ALECO BENECO CASURECO I CASURECO IV CANORECO	CENECO LUELCO MORESCO QUEZELCO VRESCO
Seminar-Workshop on Engineering Aspects for Electric Co-op Developers	June 3 - July 29, 1977	Bangladesh		10	BATELEC I BENECO FLECO LUELCO	MORESCO SAPPRESCO TARELCO
Observation-Tour on Management and Operations of Some Electric Co-ops in the Philippines	November 16 - 22, 1977	Indonesia		16	BATELEC I CAPELCO ILECO I ILECO II	
Seminar-Workshop on Engineering and Management Aspects for Electric Co-op Developers	June 9 - 30, 1978	Indonesia		19	BATELEC I BECO I BENECO CAGELCO I INEC	ISECO ISELCO I LUELCO TARELCO
Seminar on Materials Management for Electric Co-op Personnel	June 12 - 20, 1978	Bangladesh		5	BECO I NEECO I	
Observation-Tour on Rural Electrification for Selected Embassy Personnel of Asean Countries	July 28 - 29, 1978	Indonesia Malaysia Singapore Philippines		7	BATELEC I	

\* Conducted by NEA/RETO (Philippines)

## SUBJECT DESCRIPTIONS

### Civil/Electrical Inspections

Inspection policy and procedure: the inspector, the inspector's report, relations with the contractor, job orders and instructions to contractors. Inspection procedures.

### Contract Administration

Construction industry. Organization for construction. Phases of project management. Bases of contract. Bonds. Piece-work contract. Negotiated architecture and engineering contracts. Preparation of slate. Conduct of work. Procedure for administering construction contracts.

### Development of In-Country Engineering and Construction Capabilities

Selection. Advantage. Disadvantages. Training. Engineering and construction costs. Difficulties and restrictions. Application in other countries. Role of NEA.

### Development of In-Country Manufacturing and Materials Supply Facilities

Advantages of in-country procurement. Disadvantages. Cost comparisons. Difficulties and restrictions. NEA experience. Projects in the pipeline.

### Development of an Information Program

The Information Division organizational set-up. Staffing. Functions and objectives. In-house activities. Field assistance: member services program. Information drive. Newsletter assistance. Media coverage. Developing methods for program implementation (dissemination). Organization for flexibility.

### Development of a National Electrification Organization

Elements of the NEA organization. Engineering and management of materials. Cooperatives organization and development. Finance and regulation. Phasing of organizational development with program implementation. Organization for flexibility.

### Development of a Training Program

The NEA Training Division. Determining Training Needs. Evolution of a training Program. Scheduling of training activities. Evaluating a training course.

### Distribution Line Design and Staking

Design concepts. "Integrated Design" approach. Mechanical design: wind load, primary and secondary construction units, strength limitations, use of staking and stringing sag tables. Electrical design: grounding, KW demands, voltage drops, selecting and sizing electric distribution equipment. Transformer connections.

### Feasibility Studies

Philippine experience, methodology. Base data and load analyses. System design. System costs. Financial and feasibility analyses. Project discussion and analyses.

### Financing an Electrification Program

Fund sources for NEA. Terms on NEA borrowings. Loans in electric co-ops. Terms on co-op loans. System of financial accounting and audits. Need for long-term commitments. Spreading of resources-priorities. Other assistance to co-ops. Co-op contribution to expansion program.

### Five-Year Plan

Economics: energization schedules, incremental consumers, energy use, incremental load. Physical requirements. Investment requirements. Financial projection: rates, sources and uses of funds, projected balance sheet.

### Human Relations for Manager

T-Groups as strategy for individual/group learning. Barriers to effective communications. The communication process. The Management process. Some issues and problems. Superior-subordinate relationships. Basic ways of motivating subordinates. Career planning.

### Institutional Development of Cooperatives

Principles of co-op organization. Pre-organizational activity-site selection. Organization. Loan signing. Membership drive. Management training. Functional training. Co-op training. The Information function. Management systems installation and development: accounting, inventory control, etc., the electric co-op as an umbrella organization.

### Materials Management

Material management procedures. Materials procurement procedures at both NEA and co-op levels include material allocation and shipping procedures. Materials identification, coding and standardization, stock accounting. Warehousing functions.

### Organization of an Electric Co-op

The NEA Co-op Development Division. Electric co-op operations. The Provincial Electric Co-op Team. Steps in organizing organizational set-up and staffing pattern. Hiring the electric co-op manager. Initial budget requirements of an electric co-op.

### Orientation - Tour

NEA - Status. Overview of rural electrification program. Co-op visits.

### Overview of Financial Control System

Contract of loan: budget, release, accounting, audit/examination of funds. The monthly financial and statistical report: statement of operations, consumer sales and revenue data. Balance sheet. General statistics.

### PERT/CPM

Concepts. Principles. Mechanics. The PERT Network: Basic elements, rules, steps. Advantages. Application. Exercises.

### Physical Development of Electric Co-op System

The environment and the physical plant. Concepts related to the development of physical facilities; the MORESCO approach, the backbone approach. Feasibility study. Architectural and engineering design. Materials procurement and handling. Right-of-way. Distribution system design. Construction: the four-corner relationship of the contractor, A & E firm, electric co-op and NEA. Headquarters facilities. Independent generation. Interim power arrangements.

### Planning Physical Targets

Field investigations. System design and cost. Financial feasibility study. Procurement of materials. Construction schedule. Maintenance and operation.

### Pole Procurement

Wood Identification. NEA pole specifications. Wood preservation. Pole inspection procedures. Co-op pole procurement.

### Rates

Objectives. Principles/Philosophy. Developing rates Studies. Policies. Procedure. Implementation.

### Safety (Electrical)

Accidents. Personnel protective equipment. Proper storage and house-keeping. Hazards - house lighting, power circuits, power plants, power plants, power substations, transmission and distribution lines. Grounding of equipment. Motor and appliances. Safety procedures. First aid. Accident investigation and reporting.

### Sectionalizing and Fault Current Calculations

Sectionalizing steps. Fault current calculations. Selection of sectionalizing devices. Coordination. Problem solving. Preparation of sectionalizing study outline. Discussions.

Socio-Economic Impact

Power use: urban, rural; residential, commercial, industrial. Small scale industries. Agricultural and agro-business uses. Effect on employment, women. NEA's evaluation program. Electric co-op survey reports. Nationwide survey: impact of Electrification. Future evaluation studies.

Work Order Procedures

Types of construction materials. Accounting for materials, labor, and overhead. Close-out procedures. Classification of construction assembly units to plant account. Construction by contract and force account. Continuing property record. Accounting for special equipment items.

Annex B

<u>Program Goal</u>	<u>Measures of Achievement</u>	<u>Verification</u>	<u>Assumptions</u>
Expansion of rural electric programs operating in the developing countries of Asia	Electric power available to more rural residents on a 24 hour basis through established cooperatives	Measure the number of rural families having access to electrification. Persons having received training deployed in the field	Rural electrification remains a priority project in countries participating in the training program
<u>Project Purpose</u>	<u>End of Project Status</u>	<u>Verification</u>	<u>Assumptions</u>
To provide trained manpower to work in the conceptualization, administration and technical implementation of rural electrification projects in the developing nations of Asia in order to improve rural electric service	Program graduates in responsible positions and influencing development of rural electrification in respective countries: Philippines <u>1000</u> Indonesia <u>100</u> Bangladesh <u>100</u> Pakistan <u>50</u> Other <u>100</u>	Records and follow-up correspondence with participants Records from participating electrical cooperatives	Sufficient trained manpower will be deployed to improve the development and operation of electrical facilities in rural areas Rural electrification remains a development priority
<u>Outputs</u>	<u>Magnitude of Outputs</u>	<u>Verification</u>	<u>Assumptions</u>
Rural Electrification Training centers constructed - 26 course syllabi and training aids for various courses offered - 72 courses taught filling 350 days of instruction	2 centers (one in Misamis Oriental and one in La Union) Transferrable technological software packages on course-work outlined in PP Operative auditorium, 2/24 bed live-in facilities, and two demonstration labs for field work activities	Visual observation and inspection Documentation of information exchanges Program evaluations	Rural Electrification Training Center continues to receive trainees Operation of facility will continue as high priority for GOP and NEA NEA can establish excellence in training field sufficient to attract trainees from Asia
<u>Inputs</u>	<u>Implementation Targets</u>	<u>Verification</u>	<u>Assumptions</u>
USAID: \$250,000 GOP: \$315,000 Staff for facility Land for construction Materials	USAID: FY 1978 - \$250,000 GOP: FY 1978 - \$315,000 FY 1979 - Budget support for RETO as necessary	Budget records	USAID: Full allotment will be received as plan GOP: Budget requirements will be allotted on timely basis for both budget years

Initial Environmental Examination

Project Location: Misamis Oriental (MORESCO) and La Union (LUELCO)

Project Title: Rural Electrification Training Center Project

Project Number:

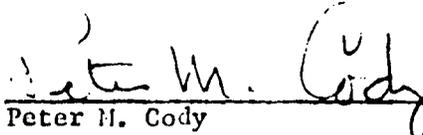
Funding: FY 78 \$250,000

Life of Project: FY 78-79

IEE Prepared By: Hank Merrill  
Capital Development Office      March 15, 1978  
USAID/Philippines

Environmental Action Recommended: Negative Determination

Concurrence:

  
\_\_\_\_\_  
Peter M. Cody  
Director  
USAID/Philippines

17 AUG 1978  
Date

INITIAL ENVIRONMENTAL EXAMINATION

I. Examination of Nature, Scope, and Magnitude of Environmental Impacts

A. Description of Project

The Rural Electrification Training Centers project will establish two training centers, one in Laguindingan, Misamis Oriental, and one in Aringay, La Union, and will operate them for a minimum of three years. The Centers will be open to participants from the Philippines and other developing nations of Asia, and the training will be aimed at the expansion of rural electric distribution systems in their respective countries.

The Centers will consist of classroom, dormitory, and eating facilities. Each of the Centers will occupy a small plot of land on or near the site of the rural electric cooperative headquarters. Water and electric power will be supplied by the electric cooperative, and each center will have its own waste disposal system.

B. Identification and Evaluation of Environmental Impacts

Impact on the environment from the establishment of these centers will be very limited. Some disruption of the soil will take place during construction, but this will be temporary in nature and as soon as construction is completed the site will be landscaped and planted with grass, shrubs, and trees. Each Center will be equipped with a self-sufficient sewerage system, including septic tanks and related facilities, and so should not impact on the environment. There may be very slight changes in employment patterns in the surrounding area as people will be need to operate and support the Centers, but the impact is not expected to be significant.

Since establishment of the centers will result in the expansion of rural electric distribution systems in the Philippines and other countries, the larger program impact must also be considered. An "Environmental Assessment of the Rural Electrification Program" conducted in the Philippines by the Inter-Agency Committee on Ecological Studies in 1978, however, concluded that the construction and maintenance of rural electric distribution systems has minimal effect on the natural environment. We believe therefore that the larger program

impact will also be minimal.

II. Recommendation for Environmental Action

The establishment and operations of the Rural Electrification Training Centers is not a major action which will have a significant effect on the human environment. An Environmental Assessment or an Environmental Impact Statement is therefore not required. It is recommended that a Negative Determination be executed.

IMPACT IDENTIFICATION AND EVALUATION FORM  
RURAL ELECTRIFICATION TRAINING CENTER

Impact  
Identification  
and  
Evaluation 2/

Impact Areas and Sub-areas 1/

A. LAND USE

- |  |        |
|--|--------|
| 1. Changing the character of the land through: |        |
| a. Increasing the population -----             | None   |
| b. Extracting natural resources -----          | None   |
| c. Land clearing -----                         | Little |
| d. Changing soil character -----               | None   |
| 2. Altering natural defenses -----             | None   |
| 3. Foreclosing important uses -----            | None   |
| 4. Jeopardizing man or his works -----         | None   |
| 5. Other factors                               |        |
| _____  |        |
| _____  |        |

B. WATER QUALITY

- |   |      |
|---|------|
| 1. Physical state of water -----        | None |
| 2. Chemical and biological states ----- | None |
| 3. Ecological balance -----             | None |
| 4. Other factors                        |      |
| _____                                   |      |
| _____                                   |      |

1/ See Explanatory Note for this form.

2/ Use the following symbols: N - No environmental impact  
L - Little environmental impact  
M - Moderate environmental impact  
H - High environmental impact  
U - Unknown environmental impact

C. ATMOSPHERIC

- 1. Air additives ----- None
- 2. Air pollution ----- None
- 3. Noise pollution ----- None
- 4. Other factors
- \_\_\_\_\_
- \_\_\_\_\_

D. NATURAL RESOURCES

- 1. Diversion, altered use of water ----- None
- 2. Irreversible, inefficient commitments ----- None
- 3. Other factors
- \_\_\_\_\_
- \_\_\_\_\_

E. CULTURAL

- 1. Altering physical symbols ----- None
- 2. Dilution of cultural traditions ----- None
- 3. Other factors
- \_\_\_\_\_
- \_\_\_\_\_

F. SOCIOECONOMIC

- 1. Changes in economic/employment patterns ----- Little
- 2. Changes in population ----- None
- 3. Changes in cultural patterns ----- None
- 4. Other factors
- \_\_\_\_\_
- \_\_\_\_\_

G. HEALTH

- |   |             |
|---|-------------|
| 1. Changing a natural environment -----   | <u>None</u> |
| 2. Eliminating an ecosystem element ----- | <u>None</u> |
| 3. Other factors                          |             |
| _____                                     | _____       |
| _____                                     | _____       |

H. GENERAL

- |                                 |                 |
|---------------------------------|-----------------|
| 1. International impacts -----  | <u>None</u>     |
| 2. Controversial impacts -----  | <u>None</u>     |
| 3. Larger program impacts ----- | <u>Little *</u> |
| 4. Other factors                |                 |
| _____                           | _____           |
| _____                           | _____           |

I. OTHER POSSIBLE IMPACTS (not listed above)

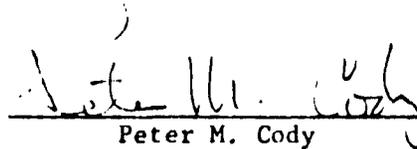
_____	_____
_____	_____
_____	_____

\* The "Environmental Assessment of the Rural Electrification Program" conducted in the Philippines by the Inter-Agency Committee on Ecological Studies (1978) states in conclusion that:

The study indicates that direct adverse environmental effects are limited and short-term in nature. The construction and maintenance of the (electrical) distribution systems have minimal effects on the natural environment.

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

I, Peter M. Cody, the principal officer of the Agency for International Development in the Philippines, having taken into account, among other things, the maintenance and utilization of the projects in the Philippines previously financed or assisted by the United States, do hereby certify that, in my judgement, the Philippines has both the financial capability and the human resources capability to effectively maintain and utilize the proposed Rural Electrification Regional Training Centers Grant.



Peter M. Cody  
Director  
USAID/Manila

17 AUG 1978

Date

6C(2) - PROJECT CHECKLIST

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

1. GENERAL CRITERIA FOR PROJECT.1. App. Unnumbered; FAA Sec. 653(b)

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project; a) A letter of congressional notification  
(b) is assistance within (Operational Year Budget) country or International organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)? b) no

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? a) yes  
b) yes

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance? a) no

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973); a) NA

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? a) construction phase of project is certified by director, and program will not exceed \$1,000,000.

A.

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?

7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

a) Project could be regionally funded or made part of multi-lateral effort; however, after international training is finished much of the benefit from the centers will accrue to the Philippines. Multilateral assistance better utilized for direct electrification funding.

a) Yes: c and e

The rural electrification effort in the Philippines is based on cooperative organization and management

The availability of electric power in rural areas will enable industrial development to occur in areas previously used solely for agriculture.

a) development of electrical cooperative development may stimulate appropriate commodity sales

a) The GOP is contributing \$315,000 in peso funds for the project and the U. S. is contributing \$250,000. Foreign exchange commodities will be procured with the USAID funding.

a) no

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level; increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

a) local labor will be hired to run centers both of which are located in rural areas

b) project is directed toward the stimulation of rural electric cooperative growth

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [Include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

- (1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;
- (2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;
- (3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;
- (4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:
  - (a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;
  - (b) to help alleviate energy problem;
  - (c) research into, and evaluation of, economic development processes and techniques;
  - (d) reconstruction after natural or manmade disaster;
  - (e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;
  - (f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

The introduction of electrification to rural areas by graduates of this training program may well influence agriculture, rural development as well as nutrition.

Several correlations have been made between the introduction of electric power and the decrease in fertility. In addition, electrical power would allow for refrigeration and a reliable source of nighttime power thus contributing to health programs

Lighting and power resources would allow for non-work hours instruction as well as additional income producing activities

rural electrification will contribute to all of these activities in the following manner:

The Philippine program is already working closely with the National Rural Electric Cooperative Assoc.

Rural electrification will help deliver energy to remote areas

The training center will be very interested in the relationship of energy and development

Electrification may allow for some disasters to be avoided

AID already has sizable investment in infrastructure and training center will make it more efficient

Electric cooperatives begun by trainees may result in small scale industry being possible as a result of a cheap, continuous power source

J1

(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing?

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on: (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

a) The rural electrification program in the Philippines has been grant funded in the past, and previous activities have sponsored said activity

a) Host country contributing more than one-half of costs

a) no

a) Yes to item #3

One of the keys to rural development is the availability of a cheap power sources on a continuous basis, the rural electrification effort in the Philippines has made this available to 3,000,000 residents.

a) The rural electrification training effort will supply the necessary manpower to plan, implement and maintain rural electrical systems in the Philippines and other Asian nations interested in rural electrification.

81

g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

a) rural electrification has been demonstrated to have a positive effect on development, hence the training centers will make a positive contribution

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

a) U. S. commodities may be imported to countries developing their electrical system

## 2. Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

a) Other sources are supporting the electrical system development in said countries

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

a) the Philippines is presently paying all loans on schedule

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

a) NA

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

a) yes

e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?

a) refer to project paper

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

a) NA

3. Project Criteria Solely for Security Supporting Assistance

FAA Sec. 531. How will this assistance support promote economic or political stability?

a) NA

4. Additional Criteria for Alliance for Progress

[Note. Alliance for Progress projects should add the following two items to a project checklist.]

a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

a) NA

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

a) NA

AGENCY FOR INTERNATIONAL DEVELOPMENT <b>PROJECT AUTHORIZATION AND REQUEST                  FOR ALLOTMENT OF FUNDS PART I</b>				1. TRANSACTION CODE <input type="checkbox"/> A ADD <input type="checkbox"/> B CHANGE <input type="checkbox"/> C DELETE		PAF 2. DOCUMENT CODE 5							
3. COUNTRY/ENTITY REGIONAL				4. DOCUMENT REVISION NUMBER <input type="checkbox"/>									
5. PROJECT NUMBER (7 digits) <input type="text" value="498-0260"/>		6. BUREAU/OFFICE A SYMBOL B CODE ASIA <input type="text" value="04"/>		7. PROJECT TITLE (Maximum 40 characters) <input type="text" value="RURAL ELECTRIFICATION TRAINING"/>									
8. PROJECT APPROVAL DECISION <input type="checkbox"/> A APPROVED <input type="checkbox"/> B DISAPPROVED <input type="checkbox"/> C DEAUTHORIZED				9. EST. PERIOD OF IMPLEMENTATION YRS <input type="text" value="01"/> QTRS <input type="text"/>									
10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)													
A. APPROPRIATION		B. PRIMARY PURPOSE CODE		PRIMARY TECH. CODE		E. 1ST FY		H. 2ND FY		K. 3RD FY			
				C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN		
(1)	FN	201S	062		250								
(2)													
(3)													
(4)													
TOTALS					250								
A. APPROPRIATION		N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED		A. GRANT		B. LOAN	
		C. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	ENTER APPROPRIATE CODES: 1. LIFE OF PROJECT 2. INCREMENTAL LIFE OF PROJECT					
(1)						250				1			
(2)													
(3)													
(4)													
TOTALS						250		C. PROJECT FUNDING AUTHORIZED THRU		FY		7 8	
12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000):								13. FUNDS RESERVED FOR ALLOTMENT					
A. APPROPRIATION		B. ALLOTMENT REQUEST NO.						TYPED NAME (OPTIONAL)					
		C. GRANT	D. LOAN					Leon E. Vaughn, Controller, USAID/Phil. SIGNATURE					
(1)	FN	250					DATE						
(2)													
(3)													
(4)													
TOTALS		250											
14. SOURCE/ORIGIN OF GOODS AND SERVICES								<input type="checkbox"/> 000 <input type="checkbox"/> 941 <input checked="" type="checkbox"/> LOCAL <input type="checkbox"/> OTHER					
15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED													

FOR PPC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE
		MM DD YY		MM DD YY

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS

PART II

Name of Country: Philippines

Name of Project: Rural Electrification  
Training

Number of Project: 498-0260

Pursuant to Part I, Chapter 1, Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize a Grant to the Government of the Philippines (the "Cooperating Country") of not to exceed Two Hundred Fifty Thousand United States Dollars (\$250,000) the ("Authorized Amount") to help in financing local costs of goods and services required for the project. The project consists of the construction and equipping of two centers for the training of managers and administrators of rural electrification programs from other Asian countries (hereinafter referred to as the "Project").

I hereby authorize the initiation of negotiations and execution of the Project Agreement in accordance with A.I.D. regulations and Delegations of Authority subject to the following essential terms and covenants and major conditions; together with other such terms and conditions as A.I.D. may deem appropriate.

Source and Origin of Goods and Services:

Goods and services financed by A.I.D. under the project shall have their source and origin in the Cooperating Country.

First Disbursement: Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

- (a) Plans and specifications, bid documents, cost estimates, and time schedules for carrying out the Project; and
- (b) Executed contracts for construction and A&E services for the Project acceptable to A.I.D. with firms acceptable to A.I.D.

Clearances:

<u>Name</u>	<u>Title</u>	<u>Date</u>	<u>Initials</u>
William F. McDonald	Chief, Capital Development	8/14/78	WFM
William F. Mulcahy	Program Officer	8/14/78	WFM
Rodney W. Johnson	Regional Legal Advisor	8/14/78	(phone)
Leon E. Vaughn	Controller	8/15/78	LEV
Dennis P. Barrett	Deputy Director	8/15/78	DPB
Approved: <u>Peter M. Cody</u>	Peter M. Cody, Director USAID/Philippines	Date: <u>17 AUG 1978</u>	

## DRAFT PROJECT DESCRIPTION

The Rural Electrification Training Center project will establish two training centers, one in Misamis Oriental and the other in La Union, and operate the two centers for a three year period. The two centers will contribute toward attainment of the project goal: expansion of rural electric programs operating in the developing countries of Asia. Training at the facilities will be offered in:

1. National Electrification Development Planning
2. Management and Administration of Electrical Cooperatives
3. Technical Training for Rural Electrification Program Operation

The training facilities will be open to participants from both the Philippines and other developing nations of Asia, and specific course work will be tailored for the respective participants.

The purpose of this project is to provide trained manpower to work in the conceptualization, administration and technical implementation of rural electrification projects in the developing nations of Asia in order to improve electrical service. As the Philippines already has experience in rural electrification training, and many neighboring Asian countries are beginning massive electrification programs, it is only natural that the Philippines should take the lead in training and support activities.

In order to achieve the project purpose and goal, the Project will design, build, furnish, equip and staff two rural electrification training centers. One of the centers will be located in Misamis Oriental and the other in La Union. The National Electrification Administration's Rural Electrification Training Office (RETO) will be the implementing office for this project. Based on a detailed analysis of project needs the project will require the equivalent of more than one-half million dollars in funding over the next two years. The United States will contribute \$250,000 and the Government of the Philippines will contribute \$315,00 plus provide the annual operating budget of NEA/RETO. Project expenditures are projected to be the Peso equivalents (calculated at ₱7.3 = \$1) of:

	<u>U. S.</u>	<u>GOP</u>	<u>Total</u>
Construction	\$250,000	\$182,000	\$432,000
Equipment/Furnishings	-	133,000	133,000
Total	\$250,000	\$315,000	\$565,000
Operations		465,000	465,000

The United States will reimburse up to seventy-five percent (75%) of the construction costs and/or of the equipment costs, not to exceed a total amount of \$250,000. All of the other required project funding will be supplied by the Government of the Philippines. The Project will commence in 1978, and the facilities will be finished in 1979. Procedures for reimbursement will be the subject of future Project Implementation Letters.



REPUBLIC OF THE PHILIPPINES  
**DEPARTMENT OF ENERGY**  
OFFICE OF THE SECRETARY  
MANILA

GERONIMO Z. VELASCO  
Secretary

August 10, 1978

Mr. Peter M. Cody  
Director  
U S A I D  
Roxas Blvd.  
Metro Manila

S i r :

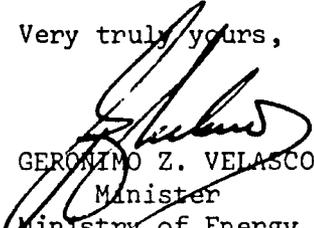
Since the creation of the Rural Electrification Training Office (RETO) two years ago, eight international training activities have already been conducted for the purpose of assisting developing countries in setting-up their own rural electrification programs. All eight training activities have been jointly sponsored by NEA and the United States Agency for International Development (USAID).

With the present inflation rates, the cost of conducting each training activity has become prohibitive so that the NEA Board of Administrators, in its Resolution No. 82 dated August 10, 1978, approved the construction of two training centers - one in MORESCO and the other one in LUELCO - as future sites of similar training activities, provided however that the manner of equipping the centers shall be left to the discretion of NEA.

In this connection, may we request USAID to assist NEA in financing the partial cost of the construction of said training centers by allotting a grant of \$250,000.00 to NEA for this purpose.

Hoping for your usual cooperation.

Very truly yours,



GERONIMO Z. VELASCO  
Minister  
Ministry of Energy