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# Auditor General

## AUDIT REPORT

THE RURAL ELECTRIFICATION PROJECT

USAID/PHILIPPINES

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## I. INTRODUCTION

The USAID/Philippines Rural Electrification Project is assisting the Government of the Philippines (GOP) National Electrification Administration (NEA) in the construction of new rural electric cooperatives or the expansion of existing ones; in the further development of the institutional and managerial capability of NEA and the cooperatives; and, improved quantity of work of local A&E firms and construction contractors.

The GOP's National Electrification Program calls for initially establishing a rural electric cooperative in each of 75 provinces by 1977, and completing a backbone system electrically linking all municipalities in the cooperative areas by 1980. The AID assistance is designed to help the GOP in achieving these initial targets. Subsequently, the GOP goal is to totally electrify the countryside by 1990.

Since inception of this USAID project in FY 1972, five, development loans totaling \$78.0 million have been signed with the GOP, and grant funds of \$2.5 million have been obligated (see Exhibit A for details). Essentially, this funding is for the foreign exchange costs of electricity distribution equipment and materials needed for part of the backbone system; plus, technical services rendered by two U.S. engineering firms, Stanley Consultants, Inc. and National Rural Electric Cooperative Association (NRECA). An estimated \$55.0 million of additional foreign exchange assistance will be needed to complete the backbone system.

The GOP has programmed the equivalent of \$138.3 million (including other donor assistance) for project activities (see Exhibit B for details).

By 1980 the Rural Electrification Project is expected to achieve an improved standard of living for rural people, with 12-13 million persons enjoying the amenities of 24-hour, reliable electricity in their homes. Increased agricultural production and development of industry is expected to increase real rural incomes and employment opportunities.

The primary purpose of our audit was to determine whether AID funds were being effectively and efficiently utilized to achieve project objectives, and to identify areas in which improvements could be made.

## II. SUMMARY

The Rural Electrification Project is approximately on schedule, or ahead of schedule, in achieving the quantified goals targeted for December 31, 1976. In perspective, statistics on accomplishments benefit substantially from the takeover by NEA of some existing electrical systems, as compared with the slower process of constructing new systems. And much remains to be done in transforming the present fledgling cooperatives into fully self-sustaining and efficient organizations.

On balance, however, very significant progress has been achieved in what is a large and complex undertaking. As might be expected, opportunities exist to improve procedures and controls in certain management areas. The most significant of the findings developed during our audit and presented in detail in Part III of this audit report are summarized below.

### Project Administration and Management

Status of Future Cooperatives. Thirteen provinces are presently without cooperatives, although one of the stated goals is a cooperative in every province by 1977. Current plans identify six provinces where cooperatives will be established in CY 1977. Management should (a) identify any of the remaining seven provinces where electricity cannot be productively utilized, and (b) proceed to develop workplans and a time-phased construction schedule for the balance of provinces to receive cooperatives (Page 8 ).

Status of Construction. The project has experienced some lag in construction activities. The USAID should therefore monitor progress in realizing planned construction for CY 1977 (Page 9 ).

Management Information and Reporting System. Benefits from this system are reduced because of cooperatives' inability to regularly provide uniform, accurate and up-to-date reports for NEA management review. To augment and eventually supplant diminishing contractor assistance to cooperatives, NEA should develop further in-house capability to provide additional

"shirt-sleeves" assistance in the areas of reporting, accounting, warehousing, and inventory controls and job order procedures (Page 11 ).

USAID Project Monitoring. Time limitations and other unrelated duties have tended to minimize project field trips by the USAID Project Manager. This adversely affects first-hand observations of and involvement in operating problems at the cooperative level. In addition, the Project Manager does not regularly receive NEA internal audit and similar reports which cite problem areas.

We believe added field trips, and receipt of such reports would benefit project monitorship (Page 17 ).

NEA Internal Audits and Reports. Reviews of cooperatives by NEA internal auditors are skewed heavily towards coverage of financial transactions. We believe NEA audit reports would be more informative and useful to both NEA and cooperative management if additional audit coverage was given to other aspects of operations (Page 19 ).

Responses to Audit Reports. Cooperatives are not presently requested to provide feedback to NEA on progress in implementing corrective actions recommended in audit and inspection reports. We believe such feedback would be helpful in assuring whether cooperatives (a) understand the suggested procedures, (b) have the capability, and (c) complete the necessary measures within a reasonable period (Page 21 ).

Independent Audit of Cooperatives. The NEA has not complied with loan agreement requirements for annual audits of assisted cooperatives by independent certified public accountants (CPA). We believe audits by employees of NEA do not satisfy the sense of this requirement. Unless AFD/W will waive this provision of the loan agreements, the USAID should request NEA to comply (Page 21 ).

#### Commodity and Maintenance Management

U.S. Excess Property. All of the four cooperatives we visited had varying amount of deadlined and unused equipment. Efforts should be made to repair, modify or dispose of such

equipment (Page 23 ).

Accountability of AID Loan-Financed Commodities. Warehousing conditions have effectively precluded NEA from conducting accurate physical inventories of loan-funded commodities held in centralized storage facilities in Manila. This results largely from the arrival in-country sooner than expected of large quantities of offshore commodities. While significant amounts have been distributed to using cooperatives, the balances on hand still overtax storage facilities in Manila.

The USAID should follow efforts to conduct a physical inventory in the near future as (a) a lull in receipts, and (b) heavy distributions to cooperatives, make an inventory-taking feasible (Page 24 ).

Distressed Commodities. AID-financed commodities of \$1.4 million have not cleared Philippines customs. Of these, \$.8 million have been held in excess of 90 days.

NEA is taking legal and other actions to resolve this problem, which the USAID should monitor (Page 26 ).

Decentralized Warehousing. Officials of NEA should accelerate considerations being given to establishment of regional (decentralized) warehouses. We believe this scheme offers the benefits of (a) decongestion of the centralized warehouses in Manila, (b) improved inventory control, and (c) speedier delivery of materials and supplies to cooperatives far distant from Manila (Page 27 ).

#### Other Activities

Shipping Requirements. The USAID needs to clarify guidelines for complying with the U.S. statutory requirement that one-half of AID-financed commodities shipped from non-U.S. ports must be shipped on U.S. flag vessels. The NEA is now apparently delinquent in meeting this requirement (Page 28 ).

Insurance Claims. The NEA, and the USAID wish to use these proceeds for small-value procurements. Deposits and pending settlements total \$67,000. Since loan agreements and

AID guidelines specify the use of such funds for the repair or replacement of damaged commodities, appropriate authorization should be obtained for the desired usage (Page 30 ).

Officials of the USAID reviewed the draft of this audit report and generally concur in the findings and recommendations contained herein.

### III. STATEMENT OF FINDINGS AND RECOMMENDATIONS

#### A. Project Administration and Management

##### 1. Summary of the Project

Status of Registered Cooperatives. A total of 78 rural electric cooperative organizations were duly registered as of 30 September 1976 (Exhibit C). The NEA has entered into loan agreements totaling P1.2 million (US\$164.7 million) with 74 of these cooperatives, plus one unregistered electric system project (hereinafter also referred to as a cooperative) administered directly by NEA to service a resettlement community. NEA assistance to these cooperatives include AID loan-funded and other commodities, construction and administrative support funds, and excess property. Costs are charged against these loans as the resources are released by NEA to the cooperatives.

Of 75 cooperatives being loan-funded, 60 cooperatives located in 52 provinces are operational, and the balance of 16 cooperatives located in 10 provinces are under construction. As of September 30, 1976 the status of project accomplishments as compared with December 31, 1976 targets in the implementation plan was as follows:

<u>Description</u>	<u>Target</u> <u>12-31-76</u>	<u>Accomplished</u> <u>9-30-76</u>
Number of Provinces with Cooperatives	60	62 <sup>1/</sup>
Municipalities Electrified	504	384
Barrios Electrified	2,700	3,661
Household Connections (000)	500	423

<sup>1/</sup> Includes 10 provinces in which 16 cooperatives are still under construction and unenergized.

According to the Mission, the project is approximately on target with respect to the planned number of cooperative members to be provided electrical services by December 31, 1976, and progress has been faster than anticipated in the number of barrios electrified.

Using the Mission's definition of "viable coop established", the project target has been slightly exceeded of creating such a cooperative in the targeted number of 60 provinces by December 31, 1976. The Mission considers as viable a cooperative which has been duly registered; has an elected Board of Directors and a Manager; and is capable of proceeding to accumulate (through NEA) the necessary resources, infrastructure and physical facilities needed for providing electricity to member-consumers. By Mission definition, a viable coop need not be providing electrical services. Consequently, the Mission considers as viable 16 registered cooperatives in 10 provinces although they are under construction and unenergized.

Moreover, as of September 30, 1976 there were 422,680 house connections which represent 18 percent of the estimated 2.3 million persons which the 75 cooperatives are expected to ultimately serve (by 1990); and, 21 percent of the 2.0 million house connections targeted by the project-end in 1980. The latest project implementation plan anticipates that also by 1980, the existing and additional cooperatives yet to be organized will be providing electricity to 1,410 municipalities, 13,000 barrios and 2 million households located in all 75 provinces. These households will represent 12-13 million persons, or roughly one-third of the projected rural population.

Status of Future Cooperatives. It is not yet clear whether cooperatives will or should be established in all of the remaining 13 provinces now without cooperatives. The original project target was to have cooperatives in each province by the end of 1977. It now appears, however, some provinces may not be able to productively use electricity due to lack of population and other resources.

Current plans identify six provinces where cooperatives will be formed in CY 1977; for seven provinces, plans are still uncertain. With the exception of Kalinga-Apayao, all of the six scheduled provinces have been the subject of a feasibility study which is a necessary prerequisite to the establishment of a cooperative. Two of the six provinces have an existing but very limited privately-owned electrical system which may be taken over by NEA.

Experience has shown it takes up to three years from date of cooperative registration to develop and energize a new electrical system. In order to energize all provinces by 1980, if this established goal proves feasible, all remaining service areas to be included in the program should be identified now, and appropriate time-phased construction plans developed.

#### Recommendation No. 1

We recommend the USAID/Philippines require NEA to complete workplans showing additional service areas to be served by cooperatives, and to develop an appropriate time-phased construction plan.

Status of Construction. The project has experienced some lag in construction activities. The details showing slippages that have occurred and continue to occur in construction of completed and ongoing cooperatives are shown in Schedule C-1 of this audit report.

Internal reports of the NEA Engineering Directorate reflect construction slippages. However, our review of selected project engineering files did not produce evidence of NEA systematic follow-up to determine the cause and expedite corrective action. We were advised that the responsible A&E firms were most familiar with the day-to-day activities of the construction contractors.

The NEA workplan for CY 1977 calls for the construction under contract of 3,314 KM of distribution lines (involving 56 cooperatives), 651 KM of 69 KV transmission lines (16 cooperatives), 60,050 KV of power plans (8 cooperatives), and 12 cooperative headquarters facilities. This workplan shows the percent of work to be accomplished each month in CY 1977. In view of prior construction slippages, we believe the USAID should monitor construction accomplishments at least quarterly. Officials of NEA indicate reports will be prepared quarterly which will compare actual accomplishments with planned construction.

## Recommendation No. 2

We recommend the USAID/Philippines arrange to receive quarterly project reports of targeted and completed construction of cooperatives to be used in monitoring the project.

Status of Takeover Systems. Approximately 50 percent of current consumers are receiving electrical services for the first time. The other half was formerly served by 131 existing, privately-owned or municipal electric systems servicing 180 towns and 139 barrios. These existing systems were taken over and now constitute all or part of systems presently operated by 41 cooperatives originated under the GOP's National Electrification Program. The acquisition costs of these systems totaled ₱64,390,576.

At takeover, all of the systems required extensive rehabilitation and rebuilding and much of this work remains to be done. Until accomplished, electric service will be unreliable. We have been advised by Mission project officials that in the future it is NEA's intent to give greater emphasis, about 85% to 90%, to new systems construction.

Under the original pre-martial law concept of the Philippines rural electrification program, new cooperative sites were to exclude areas where municipal or private franchise systems already existed. Late in 1972, however, it became GOP policy under a National Electrification Program to consolidate and merge small franchises into larger, more viable units.

Since takeover systems are located in more highly populated middle-sized urban areas, this change in program concept departed from the course of purely rural electrification development. An integrated nationwide electrification program necessarily encompasses urban as well as strictly rural areas. In addition, with few exceptions these centers of population can be considered rural in the sense few streets are paved, industry is lacking, town amenities are limited, and the areas are essentially agricultural.

## 2. Management Information and Reporting System

The NEA's extensive management information and reporting system can be improved, and benefits enhanced, by further standardization and accuracy in cooperatives' reporting procedures, by more in-house analysis of financial reports, and by strengthening NEA's capability to follow up and provide assistance when operating deficiencies at cooperatives are surfaced.

Only some two-thirds of 60 operational cooperatives regularly submit monthly financial and operating reports to the NEA. Utilizing its in-house radio network, the NEA follows up to secure membership data for nonreporting cooperatives; it is not considered practical to obtain additional statistics by this means. We were advised by NEA officials that an unreliable postal system is probably responsible for nonreceipt of some monthly reports. In addition, NEA is considering suspending future quarterly budgetary support releases to nonreporting cooperatives. This should improve the rate of submission of reports.

Moreover, cooperatives' report contents should be up to date and standardized for such reports to be of maximum usefulness to NEA management. Late billings by NEA, and lack of unit pricing data have resulted in cooperatives' delays in recording the receipts of materials and supplies shipped by NEA. This in turn inhibits the preparation, costing and closeout of work-in-process job orders. Some accounting problems are too complicated for the local accountants who then wait for the annual visit by NEA internal auditors to prepare accounting entries. Internal reviews by NEA and NRECA typically cite problems in late postings to the general ledger. Few cooperatives report depreciation on a current basis, thus understating expenses which could wipe out slim operating margins, e.g. excess of revenues over expenses.

In addition, neither the cooperatives nor NEA are giving sufficient weight to monitoring cooperatives' progress towards realizing financial self-sufficiency. NEA loan agreements with cooperatives provide a five-year grace period. Policy guidelines stipulate that within this period, cooperatives should gear their operations and service rates so that each

year they are realizing successively greater net margins. In this way, cooperatives can commence loan repayments when due without a sudden, large increase in service charges to consumers in the final year of the grace period.

However, as a practical matter, the NEA cannot systematically monitor cooperatives' financial viability until assisted cooperatives have the capability of preparing, and submit comprehensive and reliable operational and financial reports. At least quarterly, statements should include provision for plant replacement (depreciation) and future amortization of debts, in addition to current operating data. Current service rates to consumers should produce sufficient revenues to cover these two elements of costs, in addition to meeting current expenses.

Finally, and in our opinion, cooperatives need access to additional outside "shirt-sleeves" assistance before they can produce such reports. Quick visits by the presently contracted consultants, and infrequent NEA internal audit and other reviews, are not having the desired effect. It is our impression such visits serve to identify problems and provide advisory assistance, but time constraints prevent personal participation by such advisors for periods necessary to implement corrective actions or procedures. On repeat visits, the old problems still exist. In the future, consultants' assistance to cooperatives will be decreasing as NRECA phases down the number of advisors, and STANLEY CONSULTANTS focus on power transmission and generation.

Added constraints appear to be the unavailability of a designated point within NEA to which cooperatives can channel appeals for assistance with special problems; some unwillingness of cooperatives to air their difficulties; and, limited staffing and other resources within NEA to respond to appeals.

In making the above comments, we are not unmindful, and we commend progress achieved to date in overseeing the organizing, staffing and training of a sizable number of geographically dispersed cooperatives. But such factors as the scarcity in-country of experienced and fully trained personnel, the necessarily low salaries at inception of cooperative operations, and turnover in personnel, have com-

pounded problems which occur in the early stages of any new operation.

Consequently, cooperatives need added assistance particularly in the areas of reporting, accounting, warehousing and inventory controls and job order procedures.

### Recommendation No. 3

We recommend that USAID/Philippines coordinate with and assist NEA (a) in the formation of a trained task force to work closely with cooperatives in solving operational problems, and (b) publicize among cooperatives the availability of this assistance, as needed.

In addition to the above, we have summarized below the results of our reviews at four cooperatives we visited. The problem areas noted by us are typical of those that NEA auditors and NRECA and Stanley Consultants management assistance teams repeatedly report during their visits to cooperatives.

While we expect that NEA and the USAID will focus on these problems, we are making no specific recommendation in this regard. Our recommendation above has across the board application. The problem areas indicate that cooperatives generally need additional management assistance to become viable operations within some reasonable timeframe.

1. First Bulacan Electric Cooperative, Inc. (IBECO). IBECO is operating at a financial loss because service rates are inadequate to cover (1) high purchase price of power obtained from MERALCO, and (2) high power losses due to the substandard condition of this takeover system. NEA should finalize negotiations for a MERALCO rate reduction, or IBECO rates should be adjusted to cover costs. The 1976 operating deficit at September 30, 1976 was ₱688,886. The rates problem has been reported previously but not resolved.

The cooperative, the third largest in the program, was located in extremely cramped quarters. Although under-

staffed, deficit operations, lack of space, and low salary scales inhibited hiring additional personnel. New headquarters facilities were expected to be ready in February 1977:

Physical inventory of materials and supplies are not performed on a regular basis. Results of NEA auditors' inventory count for period ending February 29, 1976 were not reconciled with warehouse and accounting records. No evidence of reconciliation of IBECO receiving reports with NEA shipping orders. Warehouse space inadequate.

Of a fleet of 28 vehicles and equipment, 7 pieces had been sidelined 2-4 months, and two 1/4-ton trailers had not been used since receipt in November 1974 as they were unsuitable for hauling poles.

Approximately two months delay occurred in (i) completing new headquarters facilities, (ii) mobilizing contractor to commence work on distribution lines.

2. Surigao del Sur Electric Cooperative, Inc. (SURSECO). Present level of available power provides inadequate service to only two of the five towns in the service area. Three towns receive no service, although membership fees have been received from these areas. This power (obtained from the Paper Industries Corporation of the Philippines - PICOP) may be terminated in 1979 when PICOP commences operation of additional facilities. Alternative power from the National Power Corporation is not scheduled to reach the cooperative area until 1980. There is urgent need to assure availability of power to meet current and future needs.

Workplans for final half of CY 1976 not approved, and construction funds and materials not released by NEA. Five construction projects to be completed by force account in 1976 had not yet been started in November 1976; and, there was slippage of 1 to 3 months in jobs completed.

The staffing level (77 employees) was excessive for an operation with only 5,134 member-consumers.

The general ledger being used was in form of worksheets. Accounts could not be readily reconciled to current financial statements. Accounts receivable required adjustment

to reflect free allowances extended to employees of PICOP. Delinquent receivables were owed by board officials. Disconnect teams were reportedly harrassed (jailed). Accountant relies heavily on NEA auditors to periodically assist with posting entries.

The Board of Directors, upon expiration of term, elected (by board resolution) to remain in office. There was no indication of membership vote.

The former Cooperative Engineer is Acting General Manager (AGM), replacing the AGM provided by NEA but subsequently transferred to another cooperative. The Board appears to allow the AGM little initiative in management of cooperative activities.

Physical inventories were being performed, and stock record cards adjusted accordingly, but the accounting records were not being adjusted for differences noted. The storage yard was lower than surrounding area, resulting in flooding. The area was cluttered with unusable poles, crossarms and junk equipment, and parts of the yard were overgrown with tall weeds.

Thirteen of 35 pieces of excess property equipment were under repair or junk, and 6 additional items had remained unused for prolonged periods. Cooperative was interested in disposing of some equipment, but was unsure of procedures.

Job orders have not been completed and closed out.

3. Ilocos Norte Electric Cooperative, Inc. (INEC). The power loss rate was erratic from month to month, varying from 10 percent up to 24 percent for no evident reason.

Force account construction projects in the 1976 approved workplan have been delayed or halted by (i) incomplete projects carried over from 1975, (ii) lack of poles, and (iii) release by NEA of only 43 percent of the approved budget for these projects.

Additional NEA loan will be required for planned expansion of cooperative service area, and rehabilitation of existing takeover systems.

Postings to ledger cards were not up-to-date for receipts and issues of materials, and materials issued to jobs were not being priced and charged to the job. The NEA auditors adjusted the cooperative books of account to reflect materials received from NEA during their December 31, 1975 audit. Subsequent receipts have not been recorded in the books.

Of 45 units of equipment in the motor pool, 13 were not in running order. Four of these units had been out of order 1 to 4 months and two trucks were considered junk by the Chief Mechanic. One low bed trailer and the companion truck-tractor received in November 1975 had never been used because the trailer bed was too long.

4. Iloilo Electric Cooperative, Inc. (ILECO). More effective performance analysis is needed to measure results of current operations, and improve accuracy of future forecasts and workplans. Monthly accomplishment reports submitted to the Board of Directors should show planned as well as actual performance to highlight shortfalls. Reports should explain reasons for shortfalls.

Two key positions have remained vacant for several months, due to low salary rates. These are: Chief Engineer (P650); and Line Superintendent (electrical engineer) (P880).

Materials and supplies received from NEA have not been recorded in the general ledger control accounts. Quantities received, but not cost, have been recorded on stock cards. For nine items of stock counted, four differed from the balances shown on bin cards:

The NEA auditors prepared an adjusted trial balance in connection with their audit of April 30, 1976. These balances reached the cooperative in October 1976, but without explanation for adjustments made. As a result, auditors' adjustments have not been reflected in the general ledger.

The cooperative's policy is not carried out of disconnecting customers when bills remain outstanding more than 15 days. Accounts receivable for housewiring are billed every 2 to 3 months, rather than monthly.

Two trucks of Japanese origin have been deadlined more

than one year due to lack of spare parts.

### 3. USAID Project Monitoring

The Rural Electrification Project is large, with AID inputs exceeding \$80.0 million. We believe our findings in this audit report indicate additional first-hand involvement by the USAID Project Manager would be useful, particularly at the cooperative level.

The assigned USAID Project Manager devotes part-time only to the Rural Electrification Project because of other duties. We were advised he relies heavily on the NEA, NRECA and Stanley Consultant team members to monitor NEA and cooperative day-to-day activities. He reviews the monthly reports prepared by these teams which cite their activities and incorporate summaries of financial and operating reports submitted by the cooperatives.

The Project Manager also advises he has visited some, but not all, cooperatives as time permits. On the average, one or two cooperatives are visited each month. Trip reports, however, are not normally prepared. By accompanying the NEA auditors and inspectors, and NRECA and Stanley Consultants to cooperatives, the Project Manager could personally gauge the problems and conditions adversely affecting cooperative operations.

Moreover, it would be useful if the Project Manager regularly received NEA audit and inspection reports. These reports contain much information on current problems, of which the Project Manager should be currently advised.

#### Recommendation No. 4

We recommend that the USAID/Philippines require expanded field coverage of cooperative activities by the Project Manager, and document results of field visits.

#### Recommendation No. 5

We recommend that the USAID/Philippines arrange with NEA to receive on a regular

basis all internal audit and inspection reports covering cooperatives.

#### 4. Project Evaluation

Two evaluative (Phase I) studies were completed by research organizations in 1976 of certain aspects of the Rural Electrification Project. One of the two Phase I evaluations completed covered the Misamis Oriental Rural Electric Service Cooperative (MORESCO), the pilot and oldest cooperative established under the Philippine Rural Electrification program. The study indicated the benefits of electricity were reaching the rural poor and impacting favorably on various social and economic factors in the cooperative area.

The other completed Phase I study covered both cooperative and noncooperative areas located in four provinces. This was a follow-on to a study made in 1973. While this voluminous study contains numerous tabulated statistics, we discovered no clear picture of improved social and economic conditions relatable to availability of electricity. A mixed pattern of gains and losses (increases and decreases) emerged for both cooperative and noncooperative areas. The study presents no conclusion.

We believe a meaningful project evaluation must measure progress achieved in areas cited as project objectives. These include increased agricultural production and real rural incomes, new employment opportunities, access to social services not previously available, and use of labor-saving or convenience electric appliances. These and other objectively verifiable indicators are set forth in the project logical framework matrix.

The NEA, with the assistance of PASA experts funded by AID, has recently developed the framework and the methodology for an in-depth Phase II evaluation of the entire program. It is planned new comparative data will be collected and evaluated every 18 to 24 months. The project implementation plan anticipated completion of the initial Phase II evaluation in December 1976; however, as it stands now, evaluation is expected to be completed in the first quarter of 1977.

We reviewed the questionnaire to be used in the upcoming

Phase II evaluation and concluded it should result in data useful for measuring factors shown in the project logical framework. Therefore, we make no recommendation in this area.

## 5. Contractors' Performance

The two U.S. firms assisting with the Rural Electrification Project are fulfilling the terms of their respective AID loan-funded contracts entered into with NEA. Officials of NEA advise they are pleased with the caliber of services being provided. Our review of progress reports and discussions with the consultants indicated they are knowledgeable of and are working closely with NEA on project activities. We noted a high degree of mutual cooperation and support.

National Rural Electric Cooperative Association (NRECA), Washington, D.C. Contract amendment No. 5 (to be effective July 1, 1976 but still in process of being finalized) would extend services through December 31, 1978 at an estimated cumulative cost (since April 16, 1973) of \$2.9 million. Services to be provided total 537 person-months of long-term and approximately 40 person-months of short-term assistance. The pending amendment anticipates during the 30-month period from July 1, 1976 to December 31, 1978, a phased reduction in contractor staff from 10 to 3 by December 1978.

Stanley Consultants, Inc., Muscatine, Iowa. Contract amendment No. 2 dated August 1, 1976 extends services through December 31, 1978 at an estimated cumulative cost (since May 30, 1972) of \$2.5 million. Services to be provided total 408 person-months by a 5-member field team for the first 24-month period and by a 6-member team for the second and third 24-month periods. The make-up of the team under the second and third 24-month periods will include one team leader/ electrical engineer; one office planner/electrical engineer; three field electrical engineers; and, one materials/warehousing specialist.

Exhibits E and F of this audit report sets forth the arrival and departure dates of contractors' personnel.

## 6. NEA Internal Audits and Reports

Audit Coverage. Reviews of cooperatives by NEA

internal auditors are skewed heavily towards coverage of financial transactions, with less coverage on other aspects of cooperative management operations. We believe NEA audit reports would be more informative and useful to both NEA and cooperative management if additional coverage was given to (i) operational accomplishments as compared with approved workplans, (ii) warehousing, (iii) vehicle maintenance and inoperative and unutilized equipment, (iv) receipt and issuance of materials, spare parts and equipment, (v) personnel management, and (vi) special problems affecting cooperatives' operations, i.e. lack of adequate power source, adjustment of service rates, or critical shortages of poles or other materials.

Some NEA audit reports contain comments on one or more of the above operational areas. But the scope of the standard audit workplan and subsequent audit reports are far less comprehensive in operational matters than in financial matters.

We noted NEA-NRECA-Stanley Consultants Assistance Teams, when visiting cooperatives, review operational activities in considerable detail. But such team visits are not so frequent that inclusion of these areas in NEA audits of cooperatives would be unduly repetitive or duplicative. Present indications are that Stanley Consultants and NRECA team members in the future will be less active at the cooperative level. Stanley engineers are focusing heavily on the construction of 69 KV transmission lines. There will be fewer NRECA team members.

The internal audits, by title, are deemed Management/Financial reviews and should be correspondingly broad in scope of coverage. Officials of NEA concur and indicate more attention will be given to operational activities.

#### Recommendation No. 6

We recommend that USAID/Philippines require NEA to extend the scope of audits to include comprehensive review and analysis of cooperatives' operational activities and workplans.

Responses to Audit Reports. At present, cooperatives are not required or requested to respond to NEA internal audit reports and inspection reports and recommendations by NEA-NRECA-Stanley Consultants assistance teams. Progress in implementing corrective actions is not known until this is determined during succeeding on-site visits. The elapsed period may be several months, up to a year or more.

Our review of successive reports for a number of cooperatives showed findings tend to be repetitive in nature. For internal audits and inspections to be beneficial, there should be agreement as to the validity and practicality of recommendations, and assurances of the intent and capability of the cooperative to carry out recommendations within a reasonable period.

We therefore believe cooperatives should be requested to acknowledge receipt of NEA audit and inspection reports and indicate their understanding of and concurrence with recommendations. Thereafter, periodic progress reports should be submitted to NEA indicating measures undertaken to implement corrective actions. Continued delay in completing necessary actions will alert management to the need for repeat visits by auditors and management assistance teams.

Officials of NEA were receptive to this proposal.

#### Recommendation No. 7

We recommend that USAID/Philippines require NEA to establish formal procedures for cooperatives to acknowledge receipt of audit and inspection reports, and to periodically report progress to implement recommended corrective actions.

### 7. Independent Audit of Cooperatives

The NEA has not complied with loan agreement requirements for annual audits of assisted cooperatives by independent certified public accountants (CPA). Implementation letters issued by the USAID indicate such CPA audits are "preferable", thus modifying the mandatory requirement contained in loan agreements. In practice, cooperatives are examined only by

NEA's internal auditors.

USAID files indicate that in negotiating the loan agreements, the GOP requested that the CPA audit requirement be deleted on the basis that NEA performs financial audits of cooperatives on a semi-annual basis. The USAID/Philippines sought AID/W concurrence, pointing out that with the exception of one local CPA firm, qualified CPA firms in public utility accounting were not available in the Philippines. AID/W nonetheless concluded that NEA audits did not preclude AID's requirement for independent audits. Subsequently, however, AID/W agreed to delete the independent audit requirement in the loan agreement provided NEA strove to encourage and develop such capability in the Philippines.

Evidently, NEA considered this alternative unacceptable. As it now stands, the independent audit requirement was retained in most loan agreements, but the loan implementation letters are less definite.

Under the first loan (492-H-028) dated May 2, 1972, cooperative books and records are to be regularly audited in accordance with sound auditing standards. The wording of loan agreements 492-T-034 and 492-T-043 dated August 7, 1974 and August 6, 1976 respectively, specify auditing of cooperatives shall be by CPA firms.

Implementation Letter No. 1 for Loan 492-T-034 requires NEA to undertake any audits necessary, including supplementary audits requested by AID to insure compliance with AID requirements. In another paragraph of the same implementation letter, NEA is required to submit cooperative annual financial statements, preferably by a CPA firm, together with a recap annual operating report of all cooperatives.

Subsequent loan implementation letters are silent concerning independent audits of cooperatives, but require audits including supplementary audits, necessary to insure compliance with AID requirements. The USAID has not requested annual or supplementary independent audits of cooperatives to meet loan requirements.

Mission project officials state that, in their opinion,

NEA audits satisfy the need for independent audits. We were advised that since cooperatives are legal entities separate and apart from NEA, audits by NEA are considered independent. They also advised that AID/W had accepted such audits without comment.

In our view, loan agreements impose upon NEA the requirement for independent audits. Audits by its own employees do not satisfy such a requirement. In addition, NEA is vitally concerned with and affected by the success or failure of cooperatives. As a concerned party, it follows that NEA should not exercise the role of independent audit.

#### Recommendation No. 8

We recommend that USAID/Philippines (i) require NEA to comply with present loan agreement requirements, or (ii) request AID/W to amend the loan agreement deleting the requirements for audit by independent CPA firms.

#### B. Commodity and Maintenance Management

##### 8. U.S. Excess Property

U.S. excess property with an original acquisition cost of some \$12.0 million has been acquired for the Rural Electrification Project. Some of this equipment is still in process of being inventoried, allocated, rehabilitated and distributed to using cooperatives. This aspect of the Mission's overall excess property program has received much audit attention in the recent past. Subsequently, the Mission has made, and continues, concerted efforts to resolve previously identified problems.

In this project review we accordingly focused on other aspects of excess property, namely, the condition and utilization of equipment in the possession of cooperatives. Based on the results of visits to four cooperatives, we concluded a central effort should be made to (a) identify equipment on hand and unused for prolonged periods, and (b) assist cooperatives to repair, modify or dispose of such equipment.

All the four cooperatives visited had varying amounts of deadlined and unused equipment. Some had never been used. The reasons varied from lack of spare parts (major and minor), unsuitability to needs, uneconomical to operate, and excess to needs. As a result, some equipment was rusting away in weed infested, uncovered storage areas.

Officials of two cooperatives expressed an interest in disposing of unneeded, unwanted equipment but were unsure of the procedures to be followed.

We believe that cooperatives have the major responsibility for either maintaining or disposing of equipment. But NEA assistance would be helpful in (a) determining the availability of spare parts in Manila, when parts cannot be located in the provinces, (b) promulgating instructions for the disposal of unneeded equipment acquired from U.S. excess property sources, and (c) withholding additional allotments of equipment to cooperatives which have unused/unrepaired equipment on hand.

#### Recommendation No. 9

We recommend that USAID/Philippines require NEA to (a) canvass all cooperatives to identify all unused/unrepaired and unneeded equipment held by cooperatives, and (b) assist cooperatives to repair and utilize, or dispose of such equipment.

#### 9. Accountability of AID Loan-Financed Commodities

Warehousing conditions have effectively precluded NEA from conducting accurate physical inventories of loan-funded commodities held in centralized storage facilities in Manila. Assurance is thus lacking that presently recorded inventory balances, quantities and values, are actually on hand.

This situation is due principally to the receipt earlier than planned of significant lots of offshore goods. While NEA has an impressive record of rapidly distributing large quantities of materials and supplies to cooperatives, the residual of commodities still held in Manila has nonetheless exceeded what can be systematically stacked, sorted and

periodically counted.

Late billings by NEA of commodities shipped to cooperatives, and delays at the cooperative level in recording receipts, prevents the ready management review and overall reconciliation of shipments and receipts. This further clouds the process of tracing AID loan-financed commodities from receipt in Manila, transshipment, and ultimate utilization by the using cooperative.

NEA reports that as of September 30, 1976 \$39.4 million of AID loan-financed commodities have arrived in country, \$27.7 million have been distributed, and \$11.7 million remain on hand.

A Materials/Warehousing Specialist provided to NEA by Stanley Consultants, Inc. devotes approximately 30-40 percent of his efforts to NEA warehousing operations. He advised us, and our subsequent inspections in December 1976 confirmed that, taking an accurate physical inventory would be virtually impossible due to the large volume of goods on hand, and the manner in which they are stacked.

NEA officials anticipate that a lull in receipts, coupled with heavy distribution of commodities to cooperatives, will reduce inventory levels. They are therefore hopeful a physical inventory can be commenced in March 1977, to be concluded within two or three months.

The last inventory in January-February 1976 was inconclusive. Balances on hand as counted were not reconciled with recorded balances, and no adjustments were made to the NEA accounting records. We were advised this was due to uncertainty as to the accuracy of the physical counts.

We recognize the difficulties involved, but believe it behooves NEA to carry out a physical inventory for assurances that recorded commodities are accounted for.

#### Recommendation No. 10

We recommend that USAID/Philippines coordinate closely with NEA to assure an early

inventory of AID loan-financed commodities on hand and adjust accounting records accordingly.

#### 10. Distressed Commodities

Reports of NEA show that \$1,398,715 of AID-financed commodities representing twenty-two shipments have not yet cleared Philippines Customs. Of this amount, commodities costing \$833,714 have been in Customs in excess of 90 days, and therefore unavailable for allocation and distribution to cooperatives. We determined that some partial clearances have occurred from these shipments. Reporting procedures of NEA, however, do not provide interim information on such partial deliveries to NEA warehouses, and the precise amount of distressed cargo is uncertain. This method of reporting also means that the commodities in partial deliveries, although physically in the NEA warehouse, are excluded from commodities considered available for distribution.

Two customs brokers are contracted by NEA to clear imported commodities from Customs. A work order, shipping documents and tax exemption papers are forwarded to the broker before the shipment arrives in country. NEA normally allows six days for the broker to clear commodities from Customs. Commodities are moved to NEA's or the broker's bonded warehouse for storage until such time as they are allocated and subsequently shipped to selected electric cooperatives.

NEA shipment reports and correspondence with brokers provide little information concerning the reasons for non-clearance of project commodities. One of NEA's customs brokers has not responded to the many requests from NEA concerning slowness in clearing materials from Customs. By the end of our audit work at NEA in December 1976, the NEA legal advisor had been instructed to take whatever actions were required to clear up this problem. The outcome of this legal request has not surfaced.

Continued delays in clearing project commodities may cause a delay in fulfilling cooperatives' requests for materials. As a practical matter, we noted no commodities

held in Customs which are needed immediately in order to fill material requests submitted by cooperatives. Inventory levels in warehouses are currently at a high level.

Nonetheless, NEA's procedures should ensure clearance of commodities within a reasonable period, not over 90 days. This will reduce the incidence of damaged and/or pilfered commodities, expedite processing of claims for shortlanded items, and help to avoid depletion of stocks at NEA warehouses.

We also believe commodities representing partial delivery of shipments should be available for allocation and distribution as soon as such commodities reach NEA warehouses. Under present NEA commodity arrival reporting procedures, commodities are available only after an entire shipment has cleared Customs, and a final warehouse receiving and inspection report is made. On occasion, several months can elapse between the initial and final delivery of commodities comprising a single shipment.

Recommendation No. 11

We recommend the USAID/Philippines monitor NEA's efforts to expedite clearance of AID-financed commodities from Customs within the prescribed time in order to eliminate distressed cargo.

Recommendation No. 12

We recommend the USAID/Philippines instruct the NEA to initiate commodity arrival reporting procedures to allow for reporting partial deliveries (interim receipt) of loan-funded commodities to NEA warehouses.

11. Decentralized Warehousing

We believe NEA officials should accelerate considerations being given to establishment of regional (decentralized) warehouses. Such a scheme offers the obvious benefits of (i) decongestion of the centralized warehouses in Manila,

(ii) improved inventory control, and (iii) speedier delivery of materials and supplies to cooperatives far distant from Manila.

Further study is needed, however, to determine whether other factors may discount these advantages. Adequacy of outlying port facilities; availability and cost of warehouses and inland and water transportation; and trained personnel to manage and operate a decentralized storage and distribution system are among the factors requiring investigation.

Program plans contemplate long-term central procurement of commodities by NEA for the countrywide national electrification program. The number of cooperatives will continue to grow, thereby further taxing the present centralized storage and distribution system. It appears timely for a formal determination whether a decentralized system would be advantageous. A well-oriented materials and supply system is important for the efficient safeguarding, distribution and utilization of AID loan-financed commodities.

#### Recommendation No. 13

We recommend the USAID/Philippines urge and assist NEA to investigate the feasibility of decentralizing its storage and distribution of AID loan-financed commodities.

### C. Other Activities

#### 12. Shipping Requirements

Contrary to loan agreement and U.S. statutory requirements, only five percent of loan-funded commodities shipped from non-U.S. ports have been shipped on U.S. flag vessels. Mission guidelines to the Borrower have not been specific concerning the 50 percent shipping requirement included in the loan agreement. As a consequence, a statement has not been included in NEA's quarterly shipping reports indicating how any deficit in meeting this requirement will be made up.

Loan agreements (492-H-028; 492-T-034; 492-T-036; and 492-T-043) include the statutory requirement that at least

50 percent of AID-financed commodities must be shipped on U.S. flag vessels except when AID/Washington has determined that such vessels are not available. Also, at least 50 percent of gross freight revenue generated by all shipments shall be paid to U.S. flag vessels. Specific terms included in the loan agreements specify that the U.S. Cargo Preference Law will apply to loan-funded commodities shipped from U.S. ports and non-U.S. ports, computed separately.

However, Mission implementation letters containing guidelines to NEA for the submission of shipping reports were not specific about separately computing commodities shipped from non-U.S. ports. Shipping reports show that only 5 percent of the loan-funded commodities shipped from non-U.S. ports were on U.S. flag vessels. AID Handbook 15, dated December 6, 1974 shows that U.S. flag liner service is available to the Philippines from the Korea and Taiwan ports. Loan-funded commodities have been shipped from these ports. The U.S. Cargo Preference Law requires participation of U.S. flag vessels to the extent that such vessels are available. A determination of nonavailability must be obtained in advance from AID/W for each shipment in meeting this requirement.

We have talked with Mission officials concerning the 50 percent shipping requirement. They agree that additional instruction should be provided to the Borrower to avoid a possible problem in meeting the statutory requirement.

Recommendation No. 14

We recommend that USAID/Philippines issue instructions to the NEA concerning the 50 percent shipping requirement on U.S. flag vessels from non-U.S. ports.

Recommendation No. 15

We recommend that USAID/Philippines request NEA to include a statement in shipping reports on how any deficit in shipping by U.S. flag vessels from non-U.S. ports will be made up.

### 13. Insurance Claims

The NEA, with USAID concurrence, wishes to use insurance claims proceeds realized from damaged AID loan-funded commodities for purposes not entirely consonant with loan agreement provisions and AID guidelines for the use of such funds.

NEA has received \$43,669 from U.S. insurance companies for settlement of loss or damage claims on shipments of AID loan-funded commodities. Eleven claims totaling \$23,146 are still pending settlement. Funds received have been on deposit for about one year in an NEA special non-interest bearing dollar deposit account in a local Philippine bank. This account was authorized in July 1975 by the Foreign Exchange Department of the Central Bank of the Philippines.

The loan agreements recognize that damage and loss may occur during shipments, and provide that claim proceeds shall be used to replace or repair commodities financed from loan funds. AID guidelines provide that if such proceeds are not utilized for this purpose in a reasonable time, the Borrower shall return the claim proceeds to AID.

The NEA and USAID project officials wish to reserve insurance claim funds for small value procurement. One such procurement, \$2,000 for certain tools and equipment, has recently been completed. With the USAID's approval, these tools and equipment were procured through NEA's consulting engineer's home office in the United States.

Both NEA and USAID officials feel it is not practical or economical to use insurance proceeds to replace damaged materials. Offshore project commodities are normally procured in large quantities, based on invitations for bid. Also, such proceeds would not cover the cost of numerous high-value items used in the program.

Under these circumstances we are persuaded it would be reasonable to utilize insurance proceeds for miscellaneous small value procurements. Before doing so, however, we believe the present loan agreement provisions should be amended to authorize such usage. The Mission advises this matter is being discussed with the Regional Legal Representative.

Recommendation No. 16

We recommend that the USAID/Philippines require the NEA to utilize insurance claim proceeds in the manner prescribed by applicable loan agreement provisions and AID guidelines.

Recommendation No. 17

We recommend that USAID/Philippines obtain appropriate authorization to use insurance claim proceeds in a manner other than that prescribed by the loan agreements.

14. Participant Training

We found that the USAID participant training program was satisfactorily managed. Under the grant Rural Electrification Project, AID provided a total of \$273,000 for training of 80 participants. All have returned from orientation and training trips in the United States. The participants are in the management areas of NEA and the cooperatives, with the larger percentage of participants from NEA.

The training received was generally in electric cooperative management which consisted of classroom work as well as visits to operating cooperatives. This training was to familiarize the participants with the operations of an established cooperative.

#### IV. BACKGROUND AND SCOPE

##### A. Background

A National Electrification Program for the Philippines was launched following a 1964 nationwide survey of the electric power sector. Two pilot electric cooperatives were initiated following the survey and publication of the report, Electric Power Industry in the Philippines. The USAID provided two U.S. dollar loans totaling \$3.4 million in FY 1969 to finance the foreign exchange costs for the engineering service, design, and construction of these two pilot electric cooperatives.

The project agreement for the Rural Electrification Project No. 492-22-220-248 was signed on August 11, 1972 between USAID/Philippines and the National Electrification Administration (NEA) of the Government of the Philippines (GOP). The purpose of the project was to assist the GOP in meeting its goal of total electrification for the Philippines rural areas, and to further the welfare of rural people by providing reliable electric service at reasonable rates. The initial phase of the project was planned for completion in five years. Up to 36 electric cooperatives were to be operational at this time.

U.S. technical assistance totaling \$2.5 million was provided to the NEA to assist its institutional and operational capability for completing the long-range proposal of total electrification for the country. Grant-funded technical assistance was provided through a direct AID contract (No. AID/csd-1504) with the U.S. National Rural Electric Cooperatives Association (NRECA). Contract arrangements were changed to a direct NEA/NRECA contract effective April 16, 1973.

Subsequent to financing of the two pilot cooperatives, five AID loans have provided \$78.0 million for additional assistance to the nationwide electrification program. The first of these, Loan No. 492-H-027 dated November 15, 1971, provided \$600,000 for financing the foreign exchange costs of a U.S. consulting engineering firm, Stanley Consultants, Inc.

The engineering firm was to (i) advise and assist the NEA and the rural electric cooperatives and their local consulting engineering firms in constructing a series of projects defined by NEA studies; (ii) assist Philippine consulting engineers in developing the necessary expertise to prepare long-range, rural electric cooperative system plans; and (iii) advise and assist the NEA in overall commodity procurement management.

Subsequent follow-on AID loans 492-H-028 (1972), 492-T-034 (1974), 492-T-036 (1975) and 492-T-043 (1976) have provided \$77.4 million for the countrywide electrification program. Of this, \$1.9 million was provided for consulting engineering costs. The remaining \$75.5 million has been earmarked for the procurement of offshore commodities required for the construction of rural electric cooperatives. The most recent implementation plan (loan No. 043 signed August 6, 1976) calls for establishing a rural electric cooperative in every province by 1977, and to complete a Phase I backbone system electrically linking all municipalities in each cooperative area by 1980. The USAID loans will assist the GOP in achieving these two initial targets. Subsequently, by 1984, the GOP's program calls for introduction of electricity into all barrios. By 1990, the countryside is to be totally electrified.

The most recent estimate of costs needed for completion of the backbone system by 1980 is \$244.0 million. Of this, \$118.0 million represents foreign exchange costs and \$126.0 million represents local currency costs. In addition to the existing AID development loans, \$55.0 million in foreign exchange is required for offshore procurement of commodities. All commodities are needed in country by 1980 for completion of Phase I, as currently planned. NEA is currently negotiating with other international lending agencies for this shortfall of \$55.0 million in project foreign exchange funding.

The cost of the entire program to totally electrify the countryside by 1990 is estimated at a billion or more dollars (in both local currency and foreign currencies). It is now anticipated there will not be additional AID loans after No. 492-T-043 signed August 6, 1976.

The USAID/Philippines' project paper for this loan concludes (under project description): "By 1980, then, reliable and economical electric power should be available for use 24

hours per day to one-third of the rural population (12-13 million persons). Agricultural production should have increased overall by 20 percent, and in areas where new electric pump irrigation systems have been installed it should have at least doubled. The daily amenities and standard of living experienced by the rural folks, as measured by the number of labor-saving or convenience devices, should have improved to the extent that all connected households have at least one electric appliance and one-third of them having three or more. When these things are achieved, we will consider that the purpose of the project has been achieved."

B. Scope

The Office of the Area Auditor General/East Asia has made a comprehensive examination of the USAID/Philippines grant and loan-funded Rural Electrification Project. The status of project funds is shown in Exhibit A of this audit report.

The principal purposes of the audit were to (i) determine whether the project was achieving its specific objectives, and (ii) identify any significant problem areas which require additional management attention. The review covered project activities from January 1, 1975, cut-off of the prior review, utilizing financial data as of September 30, 1976. Field work was concluded December 10, 1976.

The review included an examination of pertinent project records and reports maintained by the USAID/Philippines and NEA; discussions with responsible officials, and reviews of internal management practices and procedures; field visits to four representative cooperatives; and such other audit procedures deemed necessary in the circumstances.

## V. FOLLOW-UP ON PRIOR AUDIT REPORTS

There were no outstanding recommendations from the prior audit report covering the Rural Electrification Project.

RURAL ELECTRIFICATION PROJECT

EXHIBIT A  
Page 1 of 2

Status of Project Funds  
As of September 30, 1976  
(\$000)

	<u>Obligated</u>	<u>Expended</u>	<u>Unliquidated Balance</u>	<u>Previously Audited</u>	<u>Current Audit Value</u>
A. <u>Technical Assistance Grant (492-11-220-248)</u>					
U.S. Personnel Costs					
Direct Hire	\$ 153	\$ 153	\$ -0-	\$ 132	\$ 21
Contract Services	1,903	1,861	42	961	900
Participants	273	260	13	145	115
Commodities	65	33	32	7	26
Other Costs	<u>93</u>	<u>44</u>	<u>49</u>	<u>2</u>	<u>42</u>
Subtotals	<u>\$2,487</u>	<u>\$2,351</u>	<u>\$ 136</u>	<u>\$1,247</u>	<u>\$1,104</u>
B. <u>Development Loans</u>					
AID Loan 492-H-027	\$ 595 <sup>1/</sup>	\$ 595	\$ -0-	\$ 471	\$ 124
492-H-028	19,400	18,950	450	5,883	13,067
492-T-034	18,000	16,190	1,810	-0-	16,190

RURAL ELECTRIFICATION PROJECT

EXHIBIT A  
Page 2 of 2

Status of Project Funds  
As of September 30, 1976  
(\$000)

	<u>Obligated</u>	<u>Expended</u>	<u>Unliquidated Balance</u>	<u>Previously Audited</u>	<u>Current Audit Value</u>
492-T-036	\$20,000	\$ 8,123	\$11,877	\$ -0-	\$ 8,123
492-T-043	<u>20,000</u>	<u>-0-</u>	<u>20,000</u>	<u>-0-</u>	<u>-0-</u>
Subtotals	<u>\$77,995</u> <sup>2/</sup>	<u>\$43,858</u>	<u>\$34,137</u>	<u>\$6,354</u>	<u>\$37,504</u>
Totals	<u>\$80,482</u>	<u>\$46,209</u>	<u>\$34,273</u>	<u>\$7,601</u>	<u>\$38,608</u>

1/ Authorized \$600,000 - subsequently deobligated to above figure.

2/ 40-year loans, with 10-year grace period. Two percent interest during grace period, three percent thereafter.

RURAL ELECTRIFICATION PROJECTEXHIBIT B  
Page 1 of 2Status of GOP Funding  
As of September 30, 1976  
(P000)

<u>Description</u>	<u>Programmed</u>	<u>Received</u>	<u>Balance</u>
Republic Acts 2717 & 6038	₱ 50,000	₱161,000 <sup>1/</sup>	₱(111,000)
Japanese Reparations	55,500	55,500 <sup>2/</sup>	0
General Revenue	535,000	202,000	333,000
PL 480, Title I Sales <sup>3/</sup>	130,000	63,000	67,000
Franchise Taxes	60,000	17,000	43,000
NEA Trust Fund <sup>4/</sup>	48,018	45,247	2,771
Special Act Fund	12,000	12,000	0
French Loan	<u>133,200</u>	<u>133,200</u> <sup>2/</sup>	<u>0</u>
Totals	<u>₱1,023,718</u>	<u>₱688,947</u>	<u>₱334,771</u>
Equivalent Dollars	<u>\$ 138,340</u>	<u>\$ 93,101</u>	<u>\$ 45,239</u> <sup>5/</sup>

<sup>1/</sup> The ₱111,000 actually received in excess of ₱50,000 appropriation was withdrawn from the Philippine Treasury by approval of the GOP's Commissioner of the Budget.

RURAL ELECTRIFICATION PROJECT

EXHIBIT B  
Page 2 of 2

- 2/ Letter of Credit opened.
- 3/ Country-owned local currency.
- 4/ Fund deposited by NEA with USAID/P exclusively for the rehabilitation of U.S. excess property equipment.
- 5/ Exchange rate ₱7.40 to \$1.00.

RURAL ELECTRIFICATION PROJECT

EXHIBIT C  
Page 1 of 2

Summary of Cooperatives Registered and Under Construction  
As of September 30, 1976

Region	Number of Registered Coops	Loan Agreement		A & E Works <sup>3/</sup>		CONSTRUCTION <sup>3/</sup>					
		Number Coops	Amount	No. Projects Completed	No. Projects On-Going (Projects)	Headquarters Completed (Coops)	Headquarters On-Going (Coops)	Trans/Dist/S-Sta. Completed (Coops)	Trans/Dist/S-Sta. On-Going (Coops)	Power Plant Completed (Coops)	Power Plant On-Going (Coops)
1	4	4	69,152,700	5	3	4	0	4	0	-	-
2	5	5	77,485,700	3	2	2	0	2	2	0	3
3	11	11 <sup>1/</sup>	180,695,105	6	3	3	2	3	3	-	-
4	12	11	142,830,000	7	2	4	2	6	3	5	0
5	7	7	107,678,600	8	4	3	0	1	3	3	0
6	7	7	144,374,400	6	0	5	0	3	2	2	0
7	3	3	66,336,000	3	0	3	0	1	2	1	1
8	8	7	125,982,000	2	6	2	1	2	1	3	1
9	7	7	60,489,800	5	0	0	2	3	1	4	-
10	7	6	107,555,700	4	3	4	0	1	1	-	-
11	6	6	123,812,000	6	0	1	0	2	1	-	-
12	<u>1</u>	<u>1</u>	<u>12,157,000</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>-</u>	<u>-</u>
GRAND TOTAL	<u>78</u>	<u>75 <sup>1/</sup></u>	<u>1,218,549,005 <sup>2/</sup></u>	<u>56</u>	<u>23</u>	<u>31</u>	<u>7</u>	<u>28</u>	<u>20</u>	<u>18</u>	<u>5</u>

RURAL ELECTRIFICATION PROJECT

EXHIBIT C  
Page 2 of 2

- 1/ Includes one electric system not formally registered as cooperative, but receiving AID loan-funded commodity support.  
Administered directly by NEA.
- 2/ Excludes three additional electric projects which receive local currency support only from NEA. Loan agreements total ₱906,803.
- 3/ For data on timeliness of implementation, see Schedule C-1.

RURAL ELECTRIFICATION PROJECT

SCHEDULE C-1

Status of Cooperatives Under Construction  
As of September 30, 1976

	<u>A &amp; E Plans</u> <sup>1/</sup>		<u>Headquarters Complex</u>		<u>Transmission/ Distr./Sub-Stations</u>		<u>Power Plant</u>	
	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>
<u>Status of Completed Work:</u>	<u>56</u>	<u>23</u>	<u>31</u>	<u>7</u>	<u>28</u>	<u>20</u>	<u>18</u>	<u>5</u>
Completed on schedule	5		15		19		11	
Completed 1 - 2 months behind schedule	7		13		3		3	
Completed 3 - 5 months behind schedule	9				6		3	
Completed 6 months or more behind schedule	35 <sup>2/</sup>		3				1	
<u>Status of On-Going Work:</u>								
On schedule		N/A		2		4		2
5% - 20% slippage				1		7		2
25% - 50% slippage				4		7		1
Over 50% slippage				-		2		

<sup>1/</sup> Numbers shown refer to plans, not cooperatives. Some cooperatives involved more than one A & E study.

<sup>2/</sup> Slippage in A & E plans was particularly acute, with 17 projects late by one year or more.

RURAL ELECTRIFICATION PROJECT

EXHIBIT D  
Page 1 of 2

Number of Energized Rural Electric Cooperatives  
As of September 30, 1976

Region	Number Registered Coops	Number Energized Coops	ENERGIZED SYSTEMS									Total Area Coverage		Potential House Connections
			New			Take-over			Total			Towns	Barrios	
			Towns	Barrios	Connections	Towns	Barrios	Connections	Towns	Barrios	Connections			
1	4	4	42	629	29,020	26	0	14,897	68	629	43,917	87	1,799	216,000
	5	4	7	232	19,897	17	0	3,241	24	232	23,138	42	450	144,000
3	11	10 <sup>1/</sup>	25	989	64,297	67	116	104,740	92	1,105	169,037	115	1,732	612,800
4	12	10	13	295	25,112	28	18	37,091	41	313	62,203	74	793	251,700
5	7	6	16	241	13,900	19	0	12,010	35	241	25,910	85	968	214,000
6	7	5	28	256	25,842	5	1	6,571	33	257	32,413	78	1,197	255,000
7	3	2	11	81	3,067	1	0	300	12	81	3,367	30	351	50,000
8	8	6	17	161	7,926	6	0	11,270	23	161	19,196	70	479	171,000
9	7	5	3	41	2,928	2	0	9,139	5	41	12,067	40	529	75,300
10	7	4	40	539	22,730	1	0	2,115	41	539	24,845	64	1,385	124,000
11	6	3	2	57	626	5	4	3,252	7	61	3,878	56	116	174,000
12	1	1	0	1	721	3	0	1,988	3	1	2,709	3	95	24,000
GRAND TOTAL	78	60 <sup>1/</sup>	204	3,522	216,066	180	139	206,614	384	3,661	422,680	744	9,675	2,311,800

RURAL ELECTRIFICATION PROJECT

EXHIBIT D  
Page 2 of 2

- 1/ Includes one electric system (Sapang Palay) not formally registered as cooperative, but receiving AID loan-funded commodity support and administered directly by NEA. Also includes the pilot cooperative MORESCO, which presently has no loan agreement with NEA.
- 2/ Areas to be covered when systems are completed, according to the A & E designs for the 75 cooperatives which now have loan agreements with NEA. (See Exhibit C).
- 3/ Estimated number of power users based on 5% of the population of the areas to be covered. Population figures were from the 1970 population census.

BEST AVAILABLE DOCUMENT

RURAL ELECTRIFICATION PROJECT

EXHIBIT E  
Page 1 of 2

NRECA Contractor Personnel  
Arrival and Departure Dates

<u>Name</u>	<u>Arrived</u>	<u>Departed</u>
William C. Wenner - Team Leader	11-06-71 <u>1/</u> 12-02-73	11-01-73 <u>2/</u> 11-21-74
Peter T. McNeill - Team Leader	10-03-74 10-30-76	09-26-76 *
Charles Ham	04-09-69 <u>1/</u> 06-30-71 07----73 08-03-75	05-29-71 <u>2/</u> 06-02-73 <u>2/</u> 07-01-75 <u>2/</u> *
Raymond A. Shoff	07-25-70 <u>1/</u> 10-08-72 06-15-74 06-07-76	09-09-72 <u>2/</u> 04----74 <u>2/</u> 05-15-76 <u>2/</u> *
T. Coleman Farrel	02-23-73	03-07-75
Hubert Bush	02-12-72 <u>1/</u>	02-11-74
Donald H. Cooper	07-27-73 08-15-75	07-01-75 <u>2/</u> *
Jay D. Lasater	10-02-73 10-30-75	09-30-75 <u>2/</u> *
Edgar Arm	05-27-73 06-23-75	05-08-75 <u>2/</u> *
Louie E. Sansing	10-21-73 01-04-76	12-01-75 <u>2/</u> 12-01-75 <u>2/</u>
John Taylor	02-09-74 06-21-76	05-20-76 <u>2/</u> *
William E. Adams	12-15-74 12-06-75	04-12-75 <u>3/</u> 04-29-76 <u>3/</u>

RURAL ELECTRIFICATION PROJECT

EXHIBIT E  
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NRECA Contractor Personnel  
Arrival and Departure Dates

<u>Name</u>	<u>Arrived</u>	<u>Departed</u>
Jon A. Bellgowan	08-19-75	*

\* At Post

1/ Employed under AID/csd-1504

2/ Home Leave

3/ TDY

RURAL ELECTRIFICATION PROJECT

EXHIBIT F  
Page 1 of 2

Stanley Consultants Contractor Personnel  
Arrival and Departure Dates

<u>Name</u>	<u>Title of Position</u>	<u>Arrived</u>	<u>Departed</u>
John Leavitt	Team Leader/Engineer	9-18-72	9-02-76
Richard C. Lacy	Team Leader/Engineer	9-03-72	9-02-74
Herman Wacker	Elec. Engineer	9-03-72	9-02-74
Dave Metz	Engineer	9-03-72 6-01-75	5-15-75 *
Henry W. Horney	Elec. Engineer	10-22-74	10-08-76
Gilbert F. Moon	Engineer	10-23-74 10-04-76	7-29-76 <sup>1/</sup> *
Gordon S. Roy	Engineer	4-08-73 7-26-75	6-02-75 <sup>1/</sup> *
Peter Rein	Whse. Specialist/Material Handling	8-31-74 10-18-76	8-21-76 <sup>1/</sup> *
Lloyd Yates	Team Leader Operations & Maintenance	5-04-76 8-26-76	7-15-76 <sup>2/</sup> *

Stanley Consultants Contractor Personnel  
Arrival and Departure Dates

<u>Name</u>	<u>Title of Position</u>	<u>Arrived</u>	<u>Departed</u>
Walter D. Jones	Elec. Engineer	9-25-76	*
Fred Biere	TDY in Philippines for Training	12-03-75	12-17-75
Don Osborne	TDY - Training	2-10-76	2-25-76

\* At Post

1/ Leave in U.S.A.

2/ TDY prior to starting tour on 8-26-76

REPORT RECIPIENTS

USAID/Philippines

Director 5

AID/W

Bureau for Asia:

Assistant Administrator (AA/A) 1  
Philippine Desk Officer (A/EAA) 1  
Special Assistant for Program Management  
Compliance (Audit Liaison Officer) 1

Office of the Auditor General:

Area Auditor General/Washington (AAG/W) 8  
Oversight Coordination (AG/OC):  
Program Evaluation (AG/OC/PE) 1  
Policies & Procedures (AG/OC/PP) 1  
Operations Appraisal Staff (AG/OAS) 1

OTHER

Inspector General of Foreign Assistance, State (IGA/W) 1  
Auditor General, Inspections and Investigations Staff  
(AG/IIS/Manila) 1

Summary of Cooperatives Registered and Under Construction  
As of September 30, 1976

<u>Region</u>	<u>Number of Registered Coops</u>	<u>Loan Agreement</u>		<u>A &amp; E Works <sup>3/</sup></u>		<u>C O N S T R U C T I O N <sup>3/</sup></u>					
		<u>Number Coops</u>	<u>Amount</u>	<u>No. Projects Completed</u>	<u>On-Going (Projects)</u>	<u>Headquarters</u>		<u>Trans/Dist/S-Sta.</u>		<u>Power Plant</u>	
						<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>
						<u>(Coops)</u>	<u>(Coops)</u>	<u>(Coops)</u>	<u>(Coops)</u>	<u>(Coops)</u>	<u>(Coops)</u>
1	4	4	₱ 69,152,700	5	3	4	0	4	0	-	-
2	5	5	77,485,700	3	2	2	0	2	2	0	3
3	11	11 <sup>1/</sup>	180,695,105	6	3	3	2	3	3	-	-
4	12	11	142,830,000	7	2	4	2	6	3	5	0
5	7	7	107,678,600	8	4	3	0	1	3	3	0
6	7	7	144,374,400	6	0	5	0	3	2	2	0
7	3	3	66,336,000	3	0	3	0	1	2	1	1
8	8	7	125,982,000	2	6	2	1	2	1	3	1
9	7	7	60,489,800	5	0	0	2	3	1	4	-
10	7	6	107,555,700	4	3	4	0	1	1	-	-
11	6	6	123,812,000	6	0	1	0	2	1	-	-
12	<u>1</u>	<u>1</u>	<u>12,157,000</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>-</u>	<u>-</u>
<b>GRAND TOTAL</b>	<b><u>78</u></b>	<b><u>75 <sup>1/</sup></u></b>	<b><u>₱1,218,549,005 <sup>2/</sup></u></b>	<b><u>56</u></b>	<b><u>23</u></b>	<b><u>31</u></b>	<b><u>7</u></b>	<b><u>28</u></b>	<b><u>20</u></b>	<b><u>18</u></b>	<b><u>5</u></b>

Status of Cooperatives Under Construction  
As of September 30, 1976

	<u>A &amp; E Plans</u> <sup>1/</sup>		<u>Headquarters Complex</u>		<u>Transmission/ Distr./Sub-Stations</u>		<u>Power Plant</u>	
	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>	<u>Completed</u>	<u>On-Going</u>
<u>Status of Completed Work:</u>	<u>56</u>	<u>23</u>	<u>31</u>	<u>7</u>	<u>28</u>	<u>20</u>	<u>18</u>	<u>5</u>
Completed on schedule	5		15		19		11	
Completed 1 - 2 months behind schedule	7		13		3		3	
Completed 3 - 5 months behind schedule	9				6		3	
Completed 6 months or more behind schedule	35 <sup>2/</sup>		3				1	
<u>Status of On-Going Work:</u>								
On schedule		N/A		2		4		2
5% - 20% slippage				1		7		2
25% - 50% slippage				4		7		1
Over 50% slippage						2		

<sup>1/</sup> Numbers shown refer to plans, not cooperatives. Some cooperatives involved more than one A & E study.

<sup>2/</sup> Slippage in A & E plans was particularly acute, with 17 projects late by one year or more.

RURAL ELECTRIFICATION PROJECT

EXHIBIT C  
Page 2 of 2

- 1/ Includes one electric system not formally registered as cooperative, but receiving AID loan-funded commodity support. Administered directly by NEA.
- 2/ Excludes three additional electric projects which receive local currency support only from NEA. Loan agreements total ₱906,803.
- 3/ For data on timeliness of implementation, see Schedule C-1.

RURAL ELECTRIFICATION PROJECT

EXHIBIT D  
Page 1 of 2

Number of Energized Rural Electric Cooperatives  
As of September 30, 1976

Region	Number Registered Coops	Number Energized Coops	ENERGIZED SYSTEMS									Total Area Coverage		Potential House Connections
			New			Take-over			Total			Towns	Barrios	
			Towns	Barrios	Connections	Towns	Barrios	Connections	Towns	Barrios	Connections	2/	2/	
1	4	4	42	629	29,020	26	0	14,897	68	629	43,917	87	1,799	216,000
2	5	4	7	232	19,897	17	0	3,241	24	232	23,138	42	450	144,000
3	11	10 <sup>1/</sup>	25	989	64,297	67	116	104,740	92	1,105	169,037	115	1,732	612,800
4	12	10	13	295	25,112	28	18	37,091	41	313	62,203	74	793	251,700
5	7	6	16	241	13,900	19	0	12,010	35	241	25,910	85	968	214,000
6	7	5	28	256	25,842	5	1	6,571	33	257	32,413	78	1,197	255,000
7	3	2	11	81	3,067	1	0	300	12	81	3,367	30	351	50,000
8	8	6	17	161	7,926	6	0	11,270	23	161	19,196	70	479	171,000
9	7	5	3	41	2,928	2	0	9,139	5	41	12,067	40	529	75,300
10	7	4	40	539	22,730	1	0	2,115	41	539	24,845	64	1,385	124,000
11	6	3	2	57	626	5	4	3,252	7	61	3,878	56	116	174,000
12	1	1	0	1	721	3	0	1,988	3	1	2,709	3	95	24,000
GRAND TOTAL	78	60 <sup>1/</sup>	204	3,522	216,066	180	139	206,614	384	3,661	422,680	744	9,875	2,311,800

- 1/ Includes one electric system (Sapang Palay) not formally registered as cooperative, but receiving AID loan-funded commodity support and administered directly by NEA. Also includes the pilot cooperative MORESCO, which presently has no loan agreement with NEA.
- 2/ Areas to be covered when systems are completed, according to the A & E designs for the 75 cooperatives which now have loan agreements with NEA. (See Exhibit C).
- 3/ Estimated number of power users based on 5% of the population of the areas to be covered. Population figures were from the 1970 population census.