XD-ABH-913-A

FINAL EVALUATION OF THE COOPERATIVE PROGRAM SUPPORT GRANT WITH NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Prepared for:
Office of Private and Voluntary Cooperation
Bureau of Food and Human Assistance
Agency for International Development

By:

Garfield R. Stock, Ph.D., Consultant

Evaluation Team

Bard C. Jackson, Director, Special Projects, NRECA
Frank Mertens, Project Officer, AID/FHA/PVC
Garfield R. Stock, Ph.D., Consultant

October 1993

FINAL EVALUATION OF AID COOPERATIVE PROGRAM SUPPORT GRANT WITH NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

TABLE OF CONTENTS

Executive Summary i

I. Introduction 1

A. The Organization 1
B. The Cooperative Program Support Grant 1
C. Purpose of the Evaluation 2

II. Findings 2

A. Scope of Work, Implementation Plan and Projected Outputs 2
B. Effectiveness and Appropriateness of Principal Activities 3
C. Impact of CPSG on Rural Electrification in the Developing World Where NRECA Worked 8
D. Relationship of the Project to Other Activities that NRECA Provides 9
E. Effectiveness and Value of The "New Initiatives Program" 10
F. Unanticipated Issues and Circumstances of Program Planning 10
G. Financial Procedures, Management, Administrative Functions and Coordination with AID 11
H. Assumptions, Constraints and Performance Indicators 12
I. Recommendations as to Improvements of the Project 14
J. Economic Efficiency of the Program 15
K. Follow-On Activities to Make the Program More Successful 16
L. Incorporation of Recommendations of Midterm Evaluation into Project Development 17

Appendix 18

EXECUTIVE SUMMARY

In 1989, the National Rural Electric Cooperative Association (NRECA) signed a five year Cooperative Agreement with the U.S. Agency for International Development, Bureau for Food and Humanitarian Assistance, Office of Private and Voluntary Cooperation (AID/FHA/PVC) in the amount of $4,476,000 under AID's Cooperative Program Support Project. The grant period was from April 1, 1989 through March 31, 1994, and included $3,250,000 from the central budget and $1,226,000 from Mission and Bureau support.

The goal of the Cooperative Program Support Grant (CPSG) is to bring about development by increasing the supply and productive use of electrical energy in rural areas of developing countries. The purpose of the grant is to provide support to NRECA to promote and strengthen the long-term capacity of national and sub-national electric power authorities to respond to energy needs of rural populations with reliable and affordable electric energy, through the development and support of rural electric cooperatives.

The project was to focus on the development and support of rural electric cooperatives which includes the development of a secure financial base, reduction in construction costs, maintaining adequate operations systems and skills, raising consumer services and productive energy use and improving access to rural electrification innovations.

The evaluation of the CPSG was carried out in July and August of 1993. The purpose of the evaluation is to carry out a comprehensive examination of the performance and implementation of the CPSG with NRECA under AID project 938-0192. This is in accordance with the scope of work of the Cooperative Agreement. The evaluation will determine the capability of the project to strengthen and expand NRECA's international operations. The project was last evaluated in 1992.

The following methodology was used in order to perform this evaluation: (1) review of background information, (2) visit the NRECA main office and interview personnel, (3) interview personnel in FHA/PVC and other AID offices with whom NRECA had buy-ins initiated through the project, and (4) contact per fax personnel from Missions and other organizations where the project worked or is presently working.

The project has been very successful as measured by the Scope of Work, implementation plan and projected outputs. The evaluation found that NRECA has met or greatly surpassed nearly all projected indicators for the grant period.

The CPSG is important as NRECA is able to leverage the grant. Many projects have their beginning because of the CPSG which provides the seed money.

The evaluation found that the project was instrumental in strengthening and expanding NRECA's international operations
through organizational development and resource enhancement. The project has had a very positive impact and improved organizational effectiveness at NRECA headquarters.

A number of activities that NRECA has undertaken have resulted in a strengthening of its institutional capabilities through:

--Increased awareness of NRECA's international activities.

--Increased membership participation in overseas work.

--Developed a broader more secure funding base.

--An increased number of manuals and instructional materials were developed.

--Refinement of accounting procedures.

--Development of computerized program for tracking donated equipment.

--Improved evaluations due to devoting a position to these issues.

--Allowed the organization to become involved in many new challenges. These challenges from developing countries stretched the personnel and caused them to grow professionally. This professional growth strengthened NRECA substantially. It prepared the staff to take on new challenges presented by unique situations in the ever-expanding list of developing countries requesting assistance.

All recommendations from the midterm evaluation were addressed by NRECA in a satisfactory manner.

No significant problems surfaced during the evaluation. Should the project be duplicated in the future, the following recommendations are made to enhance program potential and effectiveness.

1. An effort should be made to expand the technical volunteer aspect of the project. Volunteers could come from various sources, especially retired personnel of U.S. electric cooperatives.

2. The Sister Cooperative Program should be expanded. Although recommended to be discontinued by the midterm evaluation, the programs that are in effect have shown results and it is felt that this program has more potential than shown in the past.

3. Expand the relationship with other cooperative development organizations. For example, the use of Volunteers in Overseas Cooperative Assistance (VOCA) volunteers and the Peace Corps would reduce costs. These volunteers could carry out democratic cooperative board, staff, and management training which would assure support for the democratic nature of the cooperatives. Electric distribution must be administered in a democratic manner for the success of the cooperative business organization.

4. To further increase leveraging, greater emphasis should be placed on "train the trainer" activities. This type of training results in increased benefits due to the multiplier effect.

5. Increased distribution of public information about the results of the program should be explored. Awareness of the positive results of the program could generate greater private financial support for expansion of sustainable electrification of the rural areas of the world.

6. Develop a system/mechanism for evaluating the economic and social impact of projects. Data on such things as improved standard of living, sustained business activity, and trade impact could be gathered by local cooperatives in developing countries. This information could be used in the U.S. to develop an increased awareness of the value of these programs.

7. Develop a formal system to review projects for "lessons learned." Lessons learned need to be gleaned from evaluations and categorized by function so that they are readily available for staff consideration. This will provide a closer look at projects by the persons involved and enable the lessons learned to be shared among all staff.

8. Develop improved communications with AID Missions. Some responses from questionnaires sent to Missions indicated a need for improvement in this area.

9. Explore non-core grant funding resources and other donor organizations (e.g., Inter-American Development Bank, World Bank, etc.), mission buy-ins, etc.

Lessons Learned: NRECA has formal and informal methods to transfer "lessons learned" from one project to others around the world. Formally, all projects are evaluated. A copy of the evaluation report is given to each Regional Assistant Administrator who is responsible for gleaning the appropriate "lessons learned" to improve the performance of his ongoing projects. Additionally, the international staff holds a retreat annually to openly discuss common problems and explore improvements to operations.

FINAL EVALUATION OF AID COOPERATIVE PROGRAM SUPPORT GRANT WITH NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

I. INTRODUCTION

A. The Organization

The National Rural Electric Cooperative Association (NRECA) was founded in 1942 to support and expand the nation's rural electric program. At that time only 38% of farms were electrified and poverty was widespread and endemic in the rural regions of the country. In the process of providing affordable, reliable electricity to those who desired it, NRECA's staff developed management tools, technical innovations, and programs to meet the needs of the rural electric cooperatives and other U.S. rural electric utility systems.

In 1962 NRECA opened a parallel campaign overseas to gain ground in its war on rural poverty. Its mission is to help supply electricity to rural people worldwide who want it. The invaluable American experience would be directly applied to developing countries. NRECA has helped build more than 200 rural electric systems in 15 countries.

B. The Cooperative Program Support Grant

NRECA received a Cooperative Program Support Grant (CPSG) from the U.S. Agency for International Development (AID) for the period beginning April 1, 1989 and ending March 31, 1994. The total estimated amount to be awarded during the grant period is $4,476,000. This includes $3,250,000 from the central budget and $1,226,000 from Mission and Bureau support.

The goal of the CPSG is to bring about development by increasing the supply and productive use of electrical energy in rural areas of developing countries.

The purpose of the CPSG is to provide support to NRECA to promote and strengthen the long-term capacity of national and sub-national electric power authorities to respond to energy needs of rural populations with reliable and affordable electric energy, through the development and support of rural electric cooperatives.

To complete its work, NRECA addressed five key areas of intervention: institutional development, technical support, training, demand-side management, and technology enhancement. The core grant supported each of these interventions through project identification and development, direct short-term assistance, and the setting up of long-term sustainable support systems.

The agreement also maintains a range of activities aimed at broadening the involvement of NRECA's membership in its overseas work. These activities include outreach efforts to increase the awareness of the U.S. rural electric community of NRECA,s international programs.

C. Purpose of the Evaluation

The purpose of the evaluation is to carry out a comprehensive examination of the performance and implementation of the CPSG with NRECA under AID project 938-0192. This is in accordance with the scope of work of the Cooperative Agreement. The evaluation will determine the capability of the project to strengthen and expand NRECA's international operations. The project was last evaluated in 1992.

II. FINDINGS

A. Scope of Work, Implementation Plan and Projected Outputs

The goal of the CPSG is to bring about development by increasing the supply and productive use of electrical energy in rural areas of developing countries. As a measure of reaching this goal, during the grant period NRECA would have brought about 500,000 new rural connections; an increased number of income-producing electric connections and increased productive usage rate by farms, agricultural processors, rural industries, and small business enterprises; and created new employment from the use of electricity in agricultural or other income-generating activities.

The projected number of connections was greatly surpassed. As of July, 1993, the number of meters in Bangladesh had increased by 499,815. In Indonesia, the World Bank REI project showed 100,000 connections and 6,000 in cooperatives. In El Salvador, there were 10,000 connections and in the Philippines, 40,000 connections.

There have been increased connections and usage by 9,921 small industries in Bangladesh and a 10% increase in the West Bank. Data is not available on the creation of new employment.

The attainment of these objectives is an indication of the successful implementation of the plan.

The purpose of the CPSG is to provide support to NRECA to promote and strengthen the long-term capacity of national and sub-national electric power authorities to respond to energy needs of rural populations with reliable and affordable electric energy. This is to be accomplished through the development and support of rural electric cooperatives, specifically for: development of a secure financial base; reduction of construction costs; maintenance of adequate operations systems and skills; increase of consumer services and productive energy use; and improvement of access to rural electrification innovations.

Measurements to indicate that the purpose was achieved include:

35 new rural electric cooperatives established; five new rural electrification development programs established; ten programs to promote productive uses of electricity established within utilities; a trend of improved technical operations efficiency ratios in 100 utilities; a trend of improved managerial and financial operations ratios in 50 utilities; and one cooperative service association formed by rural electric cooperatives.

All of these objectives were met or greatly surpassed with one exception. While 100 utilities were projected to have improved technical operations efficiency ratios, the actual number as of July, 1993 is 89.

A major activity of the grant program is to increase the awareness and involvement of NRECA's membership in its international program. This aspect of the grant program is progressing very well. The various programs which support this conclusion include members providing assistance to host country institutions, procuring equipment and commodities, volunteering for short-term assignments as a support and backstop for NRECA field staff for training personnel, and the "sister" cooperative program.

NRECA has consistently met or surpassed all of the projected outputs. For example: five unsolicited proposals were projected but 11 were prepared; 30 technical assistance tasks were projected, but 35 were carried out; the three projected manuals on demand-side management were developed; instructional material on least-cost distribution was to be developed and 100 documents distributed, instead 2,500 copies of Micro Hydropower Source and 500 REA Bulletins were distributed and the least-cost distribution document is approximately 85% complete; three workshops on productive uses were projected, but five were held; three least cost design studies were projected, but five were held; transfer of $500,000 of surplus donated equipment was projected, but the used value of equipment transferred was $892,000; 400 documents were projected to be distributed, but 2,500 Micro-Hydropower Source books, 500 REA Bulletins and 700 miscellaneous documents were distributed; three video programs were developed, Overseas Report was published bi-annually and brochures were developed; and the projected publications are 75-90% complete.

These are examples indicating a high level of achievement. Performance in these areas was excellent.

B. Effectiveness and Appropriateness of Principal Activities

1. Institutional Development

Under the Cooperative Agreement, based on its experience and the cooperative form of organizing energy systems, NRECA planned to prepare country-specific strategies for developing long-term institutional development projects to create and support rural electrification programs based on the U.S. cooperative model where it had a realistic chance for working effectively and

surviving.

Institutional development projects have been very successful. Many of NRECA's clients have developed into self-sustaining systems, such as, for example, in Bangladesh.

Institutional development is a strength of NRECA assistance. The effectiveness of NRECA's activities is demonstrated by the fact that the World Bank is supporting initiatives in the Philippines and the institutional development study in Indonesia. In addition to solicited projects, several of the unsolicited proposals accepted by NRECA will support institutional growth of cooperative establishments or provide the basis for future cooperative development. This speaks highly of NRECA's administration of the core grant.

Another aspect of institutional development is the use of the Sister Cooperative Program. This program exchanges utility personnel to increase understanding of the U.S. institutional model, i.e., how the regulatory and financial systems work, functions of the board of directors, and how cooperatives can work together. This program got off to a slow start and did not reach projected levels.

Countries where activities in the area of institutional development have been carried out or are in progress include Bolivia, Costa Rica, Brazil, Honduras, Nicaragua, Argentina, El Salvador, Indonesia, West Bank, South Africa, India, Columbia, Uruguay, and Estonia.

Special efforts are given to establishing and/or strengthening common service associations as a basis for creating long-term support for rural electric cooperatives in a country or region.

The number of countries the project leveraged to work in is very impressive. The activities had a dramatic impact, socially and economically.

2. Technical Support

The technical support provided under the CPSG was to be aimed at installing appropriate engineering and operational systems for rural electric development. Targeted technical assistance was to be provided to correct problems related to inappropriate technology in developing countries. Technical assistance was also to be used to strengthen operations, since many overseas utilities are weak in basic utility operations systems.

The technical support provided by NRECA is very important to developing countries. It both strengthens the utility and is effective in reducing short-term and long-term costs.

Technical support was provided in Costa Rica, El Salvador, Bolivia, Guatemala and the Philippines. The log frame projected 30 technical assistance tasks would be carried out during the grant period; the actual number was 35 as of July 1993.

The technical assistance provided is very cost effective which causes this assistance to be in high demand. Technical assistance projects were financed by buy-ins, add-ons, the World Bank, UN agencies, and various foundations. The technical support area results in increased leveraging of the CPSG.

In the technical support area, NRECA International Division is performing at very high levels. As evidence of this high level of performance, NRECA is continuously asked to take on new projects. In Bangladesh, for example, in December 1991 NRECA signed a new contract to extend technical service assistance to the year 1996. Forty electric cooperatives have been formed and a decade-long national program of electrification has been fur led by USAID and various other lenders.

3. Training

NRECA excels in the training area. Over the years it has developed a wide range of educational and training programs specifically suited to the requirements of professional and technical employees of electric utilities in developing countries.

The participants are technical employees of electric utilities in developing countries and have specific professional needs. Classroom seminar activity, as well as on-the-job training, is provided. This training and educational activity is highly rated by the participants.

The information provided is such that it can be used individually once participants are back on the job in their developing countries. These programs are conducted both in the U.S. and overseas.

Training is carried out directly and also through the Sister Cooperative program. Under this program, technical expertise is exchanged between U.S. cooperative workers and cooperative workers in developing countries through a program of learning by doing. This also increases the technical and managerial strength of the rural electric cooperatives in developing countries.

The on-site training programs developed by NRECA have proven to be very successful.

The training and educational programs developed by NRECA during the grant period are extremely appropriate and effective as a part of the overall program strategy. For example, in Indonesia, a request was received to provide training for two groups of staff from the National Power Company. The training was funded by the International Bank for Rural Development.

Training at NRECA has been highly developed and is delivered at a high level of excellence. Thirty thousand plus persons have received training funded by bilateral project funds. A very small number have been trained with CPSG funds. The reputation of the training program is such that there is a constant demand for these services.

4. Demand-Side Management

Under the Cooperative Agreement, NRECA was to introduce new demand-side management concepts developed in the U.S. rural electric cooperative system to improve the efficient use of power system investment, together with productive use promotion, as part of an overall effort to strengthen the utility-consumer communication link.

Cooperatives pride themselves on following the "not for profit, but for service" principle. The U. S. rural electric cooperatives have built their success on service to the community and their membership. This community trust has been important in developing programs of power load sharing and conservation of energy use. Demand-side management is important in the reduction of long-run system expansion costs. This U.S. program has become part of the NRECA overseas emphasis. Their overseas programs have helped to raise awareness of the need to be concerned about consumers' productive use of electricity. This has been a continual activity in the grant work.

There has been a continued and expanded effort to identify follow-up project opportunities for productive-use program development with an emphasis on environmentally sustainable electric use.

In El Salvador, a demonstration trailer was put into service and toured the countryside giving instruction on productive energy use and safety in using appliances and tools. In Bolivia, NRECA proposed a follow-up productive use program to the UN Fund for Drug Abuse Contract. This, as a part of the new project in Bolivia, is aimed at increasing the range of alternative income/employment producing opportunities in the coca-cultivation region of Bolivia.

In the West Bank, NRECA programs have influenced utilities in extending operation hours to decrease peak load on generators. This provided better service to customers. Also, additional hours of service have made it possible for more commercial enterprise development, contributing to the economic viability of the region.

As a result of a Productive Use of Electricity seminar conducted in Ghana, NRECA was requested to undertake a study to set up a pilot program for three areas of rural Ghana as part of the World Bank funded national rural electrification program.

Individuals who were in attendance at the seminar which resulted in the program included representatives of the Ministry of Energy, the Electric Corporation of Ghana, Volta River Authority and various end-users representing both public and private sectors of the country.

The activity has been substantial and results have been excellent in the demand-side management and end-use development programs.

Based on the log frame, the projected output in this area was to develop or modify three documents on demand-side management. NRECA developed manuals on: Heat Pumps,

Management of Distribution Losses, and Consumer Energy Efficiency. These manuals were distributed in various countries.

5. Technology Enhancement

Under the Cooperative Agreement, NRECA was to undertake various activities over the life of the grant to increase the access of developing country utilities to new developments in rural electric technology, management, and finance. This included research and research application, evaluation studies, development of innovative financing approaches, and the supply of utility equipment to developing country utilities from surplus sources among NRECA's member utilities.

The program to transfer surplus equipment has been very successful. NRECA supplies surplus utility equipment donated from U.S. utilities to developing countries. This program has a multifaceted impact. For example, it reduces land fill and environmental impact problems in the U.S. and, at the same time, provides equipment to develop and expand utilities in developing countries. In addition, it allows developing countries to experience the quality of U.S. equipment. This increases the possibility of future purchases of new equipment from U.S. manufacturers. Future purchases will enhance trade, affecting the balance of payments and providing economic development activity in the U.S.

NRECA included notices of the surplus material program in various NRECA outlets which reached all local rural electric cooperatives. A computerized program was developed to enable tracking of the available inventory. Within a short period of time after the establishment of the program, the bank of available equipment included several hundred entries covering offers from 220 NRECA members, as well as other utilities.

The log frame projected a transfer of $500,000 of surplus donated equipment from the U.S. to overseas rural electric systems. The used value of surplus equipment transferred over the grant period to date is $892,000. The new market cost of the equipment would have been about $3,070,000.

Further cost effectiveness of this program is achieved by using semi-volunteer staff time to arrange the packaging of the machinery and the shipping of the surplus materials. During 1991, NRECA was awarded a grant of $35,000 under AID's Ocean Freight Reimbursement Program to help defray costs of shipping surplus equipment to Guatemala, Belize, and the Philippines. NRECA International Foundation was awarded $40,000 for shipping equipment to Guatemala, El Salvador, and the Philippines in 1992.

Other initiatives were taken in the environmental area. In an amendment to the CPSG, NRECA received $100,000 to pursue activities in support of AID's global warming strategy. This initiative addresses the problem of global warming by improving the efficiency of rural utilities that use hydroelectric power, a substitute for power generation through fossil fuel burning. The approach is hydro watershed protection through reforestation of river banks to prevent soil

erosion, the siltation of river beds, and the resulting loss of hydro power capacity. The reforestation component will be coupled with a program for rational forest management. Through this initiative, a legal review was made of a scheme whereby the NRECA Foundation would acquire rain forest plots and convert them to eco-reserve projects. Also, a watershed program was designed and implemented for Guatemala.

There are many activities in the technology enhancement area. Many overseas rural cooperative members are attending NRECA annual meetings. This gives them the opportunity to learn about new materials, equipment, tools and technology for rural electrification. In the program year 1992-93, 14 countries were represented at the annual meeting.

NRECA is supporting a graduate student and his project to develop software to allow field staking of distribution lines. This program is 75% complete. NRECA continues to development brochures, articles, and videos. A publication on least-cost distribution is 90% complete and a publication on evaluation is 90% complete.

The technology enhancement activities reviewed indicate that very appropriate actions were taken and that these actions are highly effective in cost reduction and environmental impact for the rural electrification of the lesser developed countries of the world.

C. Impact of CPSG on Rural Electrification in the Developing World Where NRECA Worked

NRECA has worked in Bangladesh for many years. The start of the rural electrification program was through AID funding of a Comprehensive Feasibility Study in 1976. Finding the project feasible, USAID provided $50 million in project aid to fund 13 rural electric cooperatives as pilot projects. In 1978, USAID increased the amount to $70 million because of the reception of the program by the people. In subsequent years, World Bank, Asian Development Bank, Finland, and the Canadian International Development Agency have been involved in supporting the project. NRECA and the Gilbert Commonwealth (the Erstwhile Commonwealth Associates, Inc.) started the Rural Electric Cooperatives in Bangladesh.

In March of 1993, the annual report indicates work in the following countries and the term of the present contract: Bangladesh, 1991-96; El Salvador, 1988-95; Central America, 1987-94; Philippines, 1990-94, Bolivia, 1990-96; Poland, 1990-93; San Andres, 1992-93; Philippines, 1992-93; West Bank, 1989-94; India, 1992-93; Nicaragua, 1991-94; China, 1992-93; and Indonesia, 1991-92.

The sheer number of countries that NRECA is working in at this time is an indication of the value of the service provided and the impact this project has had on rural electrification in the developing world. A further indication of the economic and social impact and the value of service performed is evidenced by the continuous long-term activity in Bangladesh.

In the countries where NRECA has worked, the impact has been immeasurable. For example, providing electric lights for students to study, making it possible for business activity that utilizes electric power, and providing jobs for workers using electric sewing machines which enables these workers to compete in the world market. In general, the social and economic impact is tremendous.

There is a great dilemma created when one attempts to precisely measure the exact economic impact of the expenditure of AID dollars on international rural area development through providing power in the rural area. The cost of the impact measurement is so great it would deter and limit the funds for the efficient expansion of electric service. History records the impact in economic and social growth that rural electrification has had in the U.S. It is safe to assume that with political democracy in place, one could expect the same impact in developing countries as was experienced in the U.S.

D. Relationship of the Project to Other Activities that NRECA Provides

The CPSG has continued to provide the seed money which is necessary to maintain NRECA's international division in order that a large number of funds from other sources can be attracted to provide a service worldwide based on a highly successful U.S. model. As time goes on, because of the geometric expansion of knowledge about rural electrification successes, the CPSG will provide greater and greater leveraging for the expansion of NRECA's worldwide activity.

There is also the long-term impact of the CPSG. Small amounts of grant funds are often responsible for starting a large project funded by other funding agencies or by a World Bank loan. The success of the large project can bring about additional expansion of activities, such as technical assistance to reduce costs and provide for expansion of the number of customers served, which may influence the funding of additional projects. This is the sequence of events when one reads the history of the Bangladesh project from 1978-1993.

In February of 1993 a workshop was coordinated in India which covered metering, billing, and collection for personnel of the State Electricity Board. A follow-up workshop was scheduled for July 1993. The request for the workshop resulted from discussions with USAID and officials in India. This visit was funded by the CPSG. The workshops were funded through a buy-in.

NRECA has worked and will continue to work through the balance of 1993 in the Philippines. This work is funded by AID and the World Bank. Examples can be cited from country to country. Most of these projects had their beginning because of the CPSG which provided the seed money. After that beginning, the value of the activity provided to the lesser developed country motivated the officials of the country to influence funding from other sources to provide the help needed for expansion, technical upgrading, and further development of efficiencies in their rural electric systems.

E. Effectiveness and Value of The "New Initiatives Program"

The New Initiatives Program has been very effective and of great value to the program recipients, as well as to NRECA from the education and development point of view. Three program grants were received.

In the grant for the Philippines, NRECA assisted a rural electric cooperative in creating a telephone cooperative by using a surplus switchboard donated through the NRECA Foundation. This project was shared with the National Rural Telephone Association which was the primary implementor of the project.

Another New Initiatives Program was for wood pole promotion. This program was implemented in Columbia and Central America to test a successful U.S. program for improving the quality of locally manufactured poles used in transmission lines. New national standards were implemented for selection, and pole plant procedures, inspection and quality control programs were completed. As much as a 50% savings can be realized by using the wood pole technology in place of a concrete pole system.

This project's results, when shared with other countries, can have a very significant economic impact on rural electrification. Cost savings can make it possible to expand service to a greater area, serving a wider population.

The third New Initiatives Program was the Global Warming Initiative. Two areas were addressed under this special grant. One was the completion of a legal/feasibility assessment of NRECA orchestrated purchases of Brazilian or other rain forest as donations to private eco-reserve projects.

The second part of the initiative included development of watershed stabilization projects in Central America. It also involved improving the efficiency of rural utilities by using hydroelectric power instead of burning fossil fuel. Electricity at a lower cost would allow the reforestation of river banks and national forest management to be effective. Lower cost electricity would replace wood for cooking allowing the forests to grow and develop.

These New Initiatives Programs have a significant value. For example, the results and findings of the Global Warming Initiative have a worldwide social and economic impact for present and future generations. Technology developed in the Global Warming and other Initiatives can be duplicated in all lesser developed countries. Documentation of the procedures and lessons learned are important in order for the duplication of the projects to be as efficient as possible.

F. Unanticipated Issues and Circumstances of Program Planning

Unanticipated issues identified include the opening of Eastern Europe, the Newly Independent States (NIS), and China. The recent democratization was not anticipated in the CPSG proposal.

NRECA International Programs Division has responded as opportunities presented themselves. For example, funding was provided for a buy-in for a project in Estonia. Assistance is being given to the power sector of Estonia in the decentralization of their operations. Possible consideration will be given to the use of local cooperatives for power distribution.

An unsolicited proposal was submitted to AID to support nuclear power plant safety in NIS. The consideration for funding of this proposal was transferred to the Department of Energy. Another NIS proposal is to provide technical assistance to the commercial department in the electric utility serving Kazakhstan.

A request was honored to host three delegations from China at the NRECA annual meeting in 1992. The delegations included representatives of the Ministry of Water Resources (10 persons) and the Provincial Power Bureaus of Jianagsu (6 persons) and Hebaei (6 persons). While attending and participating in the meeting sessions, they also had the opportunity to experience current state of the art utility equipment and technology exhibited by more than 200 suppliers. Following the annual meeting, all three delegations participated in separate study tours which included visits to rural electric cooperatives across the U.S.

NRECA also arranged separate study tours for two delegations of high level officials from the Ministry of Energy. NRECA's International Program Division administrator and an engineering consultant toured China in the fall of 1992 to determine interest in upgrading rural electric construction standards and designs and in utilizing U.S. equipment.

These activities demonstrate the various unanticipated issues and circumstances of program planning and the appropriate actions taken to address these targets of opportunity. No U.S. Government funds were used to finance any activity in or of direct benefit to China.

G. Financial Procedures, Management, Administrative Functions and Coordination with AID

Changes have been made to improve financial procedures, which have improved the coordination with AID. NRECA has established account numbers and allocated funds for each of the grant interventions. These include institutional development, technical support, training, demand-side management and technology enhancement. The grant funds have been further allocated by region such as Asia, Latin America, Africa and others. These accounting procedure changes were instituted because of recommendations of the midterm evaluation.

Also, a personnel position has been assigned to monitor responsibility for the grant. This has made a great improvement in the management and administrative functions. This management and administrative function responsibility includes preparing the internal budget, reviewing time charged to the grant, monitoring monthly expenditures, and reporting to AID.

There is now a clear line of authority for administrative functions. The International Program Division organizational chart is very clear. All accounting procedures are clearly defined. The

accounting department, which handles all of the NRECA accounts, was found to be very professional in its administration and management.

With new accounting procedures, reports more clearly identify expenditures and activities funded by the CPSG. The more clearly these expenditures are related to the core grant, the easier it is to determine if the grant objectives have been reached.

With the redefining of a position, a staff person has been assigned to the evaluation function. This will help to identify results and link them to financial expenditures. Administration of projects has been greatly enhanced by the formalization of the evaluation position.

The administrator of the International Programs Division uses a consultative style of management. This position works with each of the regional program administrators and directors. These administrators and directors work with staff to complete programs and provide other administrative functions.

The evaluation found that the administration of the program is operating in an effective manner. Communications are open and there are frequent consultations between staff members, particularly in project development.

NRECA annually conducts an organizational management and operations course. This course includes classroom and on-site electric cooperative field studies. It provides an opportunity for all staff members to gain a greater understanding of the administration of projects in all parts of the world.

The use of the E-mail system has enhanced coordination with AID. The coordination with AID has further been improved with the addition of a staff person at AID headquarters to support CPSG administrative detail. When the Project Officer is not available, this allows for immediate replies and assistance to cooperative development organizations. It makes possible the processing of reports and requests when the Project Officer is not available.

H. Assumptions, Constraints and Performance Indicators

One important assumption was that rural electrification is included in developing countries government and utility development plans. This is a very viable assumption. If the government policy strongly promotes rural electrification and has funds available for unsolicited proposals, this will greatly enhance the project activity. Also, utilities and donors must be willing to make capital investment funds available for rural electrification. These are very valid assumptions and the degree to which these assumptions are realized greatly impacts the overseas project activities of NRECA.

Further assumptions that must be met for success were stated as complementary social, agricultural, industrial, and infra-structure investments must be made and that credit is available,

including to small and micro rural entrepreneurs.

These are valid assumptions without which rural electrification projects cannot be implemented. The number of projects that can be carried out is limited to the developing countries that are both willing and able to provide these conditions.

Other valid assumptions that must be met were identified as: government and electric power authorities are willing to cooperate to pursue approaches to rural electrification; governments maintain a supportive position to long-term rural electric development; financing for rural electrification is available; cooperation from other organizations in productive use planning and programs; recommendations for technical operations and management practices are adopted; and there is no significant opposition from national electrification bodies.

This set of assumptions is very important to sustainable projects in lesser developed countries. NRECA has done an excellent job in the identification of these important assumptions. If assumptions are not realized by countries, they become constraints in project development. The image that NRECA projects as it provides information to developing countries and to AID missions becomes very important in convincing countries that the support for rural electrification can provide for total economic development that will be sustainable.

Because results are important in projecting NRECA International Division, there needs to be precise evaluations and research of projects which are working.

The next set of assumptions are such that NRECA International could have more control over them than those discussed previously. Requests for technical assistance, to a great extent, is a function of the level of expertise demonstrated in past performance. This is also true for training and institutional development assistance. Also, the assumptions relating to the selection of the staff are controllable. The technical assistance, training, and institutional development activities have been highly successful, which is an indication that the staff has a high degree of expertise.

Demonstrated excellence in performance will cause host countries, USAID missions and other donors to provide the funding needed to develop projects. For these assumptions to continue to be true, all projects must be carried out at a sustainable high level of effectiveness. NRECA must continually function at a more effective level than competitors.

Constraints such as lack of funds have an influence on the number of projects implemented. This is one area over which NRECA could have more control by leveraging of the CPSG. By showing sustainable economic results, NRECA should be able to attract funds from other sources. In addition, if sustainable economic results can be shown, this could convince a host country to borrow capital to move ahead on a rural electrification project when they understand the economic feasibility of the project. Sustainable economic development as a result of a project could pay off over time by providing economic development, including trade activities, that would be sustainable.

The performance indicators in the grant proposal need to be stated in more results-oriented terms. Projects need to include a mechanism for feedback from the developing country cooperatives on results of projects. From this data, an analysis could be made and impact assessed. For example, instead of stating that 30 technical assistance tasks would be carried out, it would be helpful to project what changes would occur because of the technical assistance tasks. In technical assistance evaluations, participants should be asked to project savings in reduced labor costs or in equipment having an extended life.

Another example is with the projected performance indicator of 500,000 new rural connections. Could the evaluation of the project attempt to determine if there were x number of cottage industries started that could be exporting products, adding to the economic development of the country? This performance indicator was used, but it would be useful for reporting purposes to go one step further and gather financial impact data resulting from the project. It is suggested that the greater the social and economic impacts that can be verified, the greater will be the public relations value of the project.

This type of performance indicator and its in-depth evaluation can generate a greater number of projects. These types of economically sustainable results would also be valuable information to report to NRECA members and result in an increased willingness to provide more financial support for overseas rural electrification projects.

I. Recommendations as to Improvements of the Project

The following recommendations are made to enhance program potential and effectiveness in the event the project is duplicated in the future.

1. Because funding is always in short supply, an effort should be made to expand the technical volunteer aspect of the project. Volunteers could come from various sources, especially retired U.S. electric cooperative personnel.

2. The Sister Cooperative Program should be expanded. This program was off to a slow start and was recommended to be discontinued by the midterm evaluation. However, the sister cooperatives that are in effect have shown results, and it is felt that this program has more potential than was realized in the past.

3. Expand the relationship with other cooperative development organizations. For example, the use of VOCA volunteers and the Peace Corps would reduce costs. These volunteers could carry out democratic cooperative board training, staff and management training which would assure support for the democratic nature of the cooperatives. Electric distribution must be administered effectively in a democratic manner for the success of the cooperative business organization.

4. To further leverage the project, greater emphasis should be placed on "train the trainer" activities. This type of training results in increased benefits as a result of the multiplier effect.

A small amount of core grant funds would fund the NRECA trainer and workshops to train, for example, in-country workers who in turn would be able to conduct similar training activities in the countries where rural electric cooperatives are in place. After the initial training of the local in-country training staff, periodic refresher courses would continue the function indefinitely. This would allow for the CPSG to make possible the expansion of the program into many new countries.

5. Increased distribution of public information about the results of the program should be explored. This could include use of the mass media, newspaper feature articles and other news channels. The positive results of the program could generate greater private financial support for expansion of sustainable electrification of the rural areas in the world. More national newspaper exposure, TV news, special reports and international media special reports would provide the exposure for expansion of the program in the future.

6. Develop a system/mechanism for evaluating the economic and social impact of projects. Data on such things as improved standard of living, sustained business activity, and trade impact could be gathered by local cooperatives in developing countries. This information could be used in the U.S. to increase awareness of the value of these programs.

7. Develop a formal system to review projects for "lessons learned." Lessons learned need to be gleaned from evaluations and categorized by function so that they are readily available for staff consideration. This will provide a closer look at projects by the persons involved and enable the lessons learned to be shared among all staff.

8. Develop improved communications with AID Missions. Some responses from questionnaires sent to Missions indicated a need for improvement in this area. See the response from USAID/Honduras in the Appendix.

9. Explore non-core grant funding resources and other donor organizations (e.g., Inter-American Bank, World Bank, etc.), mission buy-ins, etc.

J. Economic Efficiency of the Program

The economic efficiency of the program is rated very high. The fact that a very large number of unsolicited proposals were prepared and funded leveraged the CPSG at a substantial level. This allowed a great service to be performed in the lesser developed countries.

Because of the high level of success of NRECA's projects in various countries, the word is spreading that NRECA has the experience to solve rural electrification problems. This has been true in Asia and South America, more than Africa. As a practical matter, the pursuit of unsolicited proposals is concentrated in areas of the greatest response. This adds to the economic efficiency of the project. In the future, the situation may change and Africa, for example, may begin to accept more unsolicited proposals.

Unsolicited proposals to address the unanticipated targets of opportunity are also an indication of economic efficiency. NRECA has responded on a timely basis to these opportunities as they were determined to have funding available for potential projects. Further evidence of economic efficiency is the fact that the administration and management of NRECA operates in a highly efficient and professional manner.

The Sister Cooperative Program, which has had a slow beginning, is a way of increasing economic efficiency. Volunteers donate labor which provides a substantial savings which leverages the CPSG. This program should grow in the future, providing increased economic efficiency.

The substantial donations of used equipment by member systems of NRECA also contributed to the economic efficiency of the program.

K. Follow-On Activities to Make The Program More Successful

The cost of establishing a rural electrification system in a lesser developed country is very high. A system to periodically monitor completed projects to identify needs before they develop into large problem areas would be beneficial. This would eliminate higher costs later on when it may become critical that certain technical assistance be provided. This could further enhance the economic efficiency of the project as it is continued in future years. Over the long run, this small expenditure could provide further leverage for the entire sustainable life of the project. With this type of follow-on activity, project results would be sustained over an indefinite period of time.

When unsolicited proposals have been rejected or not funded, careful monitoring should continue, waiting for changes that may occur which could provide a new window of opportunity for possible funding of the original proposal, with perhaps a few changes incorporated.

The program to donate surplus equipment to cooperatives in developing countries would benefit by a follow-on program. This follow-on could assess how program costs, such as expanded staff time and shipping and packaging costs, could be funded in order to expand the program to other lesser developed countries, as well as continue the flow of used surplus materials to countries who have already received surplus electrical equipment and are asking for more when it is available. The other serendipitous value of this program is that lesser developed countries where such projects are working will import new electrical supplies from U.S. manufacturers. This contributes to the balance of trade as well as maintains a higher level of U.S. worker employment.

With the assignment of a full-time evaluator and research position, areas can be identified that should be pursued for follow-on activities. An in-depth evaluation of a project can identify certain situations which need follow-on attention to maintain high economic efficiency of projects.

L. Incorporation of Recommendations of Midterm Evaluation into Project Development

NRECA has effectively incorporated the recommendations of the midterm evaluation into project development.

The recommendation to formalize CPSG monitoring responsibility has been assigned. These responsibilities include preparing the internal budget, reviewing time charged to the grant, monitoring monthly expenditures, and reporting to the AID office of FHA/PVC.

Another recommendation was to modify cost accounting procedures to include subcategories covering the five areas of intervention. This recommendation has been implemented. NRECA has established account numbers and allocated funds for each of the grant interventions (institutional development, technical support, training, demand-side management, and technology enhancement). Grant funds have been further allocated regionally among Africa, Asia, Latin America and other designated areas of the world. Relating expenditures to areas of results will provide for a more clear accounting.

In response to the recommendation that NRECA be encouraged to examine its use of the add-on mechanism funded from Mission support budgets, NRECA has promoted the add-on to conduct the Metering and Billings seminars for the AID Mission in New Delhi and for a study in Tunisia.

NRECA has reevaluated the logical framework (outputs) and made adjustments as considered necessary. These new outputs include a more realistic approach to outputs projected. A detailed evaluation of these projected results can be valuable for future projects and publicizing the economic impact of results.

The recommendation to formalize the evaluation coordinator position has been implemented. One position has been redefined and will be devoted, for the majority of time, to evaluation issues.

These changes are projected to improve the efficiency of project development. In particular, research and evaluation findings are very important in developing new projects. The findings of completed projects provide new facts and lessons learned which can greatly improve new projects, as these findings are incorporated into future project proposals.

APPENDIX

A. Methodology

The following methodology was used in order to complete this evaluation:

1. Review of background information.

2. Visit the NRECA main office and interview personnel.

3. Interview personnel in FHA/PVC and other AID offices with whom NRECA had buy-ins initiated through the project.

4. Contact per fax personnel from Missions and other organizations where the project worked or is presently working.

B. MISSION EVALUATIONS

Bolivia AID/FHA/PVC

FINAL EVALUATION
NRECA
CENTRALLY FUNDED
COOPERATIVE PROGRAM SUPPORT GRANT

Gar Stock, Consultant

TO: Charles Hash, USAID/Bolivia

DATE: September 1, 1993

NRECA received a Cooperative Program Support Grant (CPSG) in April 1, 1989 in the amount of $3,250,000, for five years. FHA/PVC is responsible for administering the Grant. The CPSG is scheduled to be completed by April, 1994 and FHA/PVC is conducting a final evaluation.

NRECA is currently operating the Bolivia Rural Electrification Development Project. While no funds from the CPSG are used for direct project implementation, NRECA has provided grant-furded development and support services. To assist us in the completion of the evaluation we would appreciate your thoughts on the following questions. Please return them via E-Mail. In advance, thank you very much for your consideration.

1. Project Development and Design: How would you rate the overall project development, design, and impact of this project?

Very Effective Somewhat Effective Not Effective

Comments: The Electrification for Alternative Development Project design and development was supported by a Mission buy-in to the CPSG.

2. Personnel Selection and Support: How would you rate the quality of project staff and the support received from the NRECA Washington Office?

Very Effective Somewhat Effective Not Effective

Comments: Support is first-rate.

Management and Administration: How effectively were management and administrative functions handled?

Very Effective Somewhat Effective Not Effective

Comments: No comment.

4. Limited Program Services: How effective and valuable was any feasibility study, policy analysis, sectoral studies, non-project related training or other activities undertaken by NRECA in your country?

Very Effective Somewhat Effective Not Effective

Comments: All catagories performed have had direct impacts on implementation under ADEP.

25. How would you rate the overall effectiveness of NRECA with respect to its main project and relations with the Mission:

Very Effective Somewhat Effective Not Effective

Comments: Strong lines of communication between NRECA and the Mission, augmented by a superior COP under NRECA/Bolivia.

PRECA
Honduras

To: Frank E. Mertens@FHA.PVC@AIDW
Cc:
Bcc:
From: Jaime Gomez
Subject: Cooperative Program Supp
Date: Friday, September 10, 1993 at 12:42:58 pm
Attach:
Certify: N
Forwarded by:

Cooperative Program Support project evaluation

Mission has not monitor Cooperative closely subject project (as ROCAP does). However, we are responding to your questionaire bellow, in the understanding that our relation with this project is not intense.

1. Very effective

2. Somewhat effective

3. Somewhat effective

4. Very effective

5. Somewhat effective

Hond(NRE

AID/FHA/PVC

FINAL EVALUATION
NRECA
CENTRALLY FUNDED
COOPERATIVE PROGRAM SUPPORT GRANT

Gar Stock, Consultant

TO: Marshall D. Brown, USAID/Honduras

DATE: September 1, 1993

NRECA received a Cooperative Program Support Grant (CPSG) in April 1, 1989 in the amount of $3,250,000, for five years. FHA/PVC is responsible for administering the Grant. The CPSG is scheduled to be completed by April, 1994 and FHA/PVC is conducting a final evaluation.

NRECA is currently operating the Honduras Rural Electrification Development Project. While no funds from the CPSG are used for direct project implementation, NRECA has provided grant-funded development and support services. To assist us in the completion of the evaluation we would appreciate your thoughts on the following questions. Please return them via E-Mail. In advance, thank you very much for your consideration.

1. Project Development and Design: How would you rate the overall project development, design, and impact of this project?

Very Effective Somewhat Effective Not Effective

Comments: Very Effective. NRECA is working in difficult areas within the electrical sector in Honduras such as the decentralization of electric utilities, Productive Uses of Electricity and standardizing design norms. Already they have accomplished against insurmountable odds in the establishment of the first private electric company on the island of Roatan, Honduras.

2. Personnel Selection and Support: How would you rate the quality of project staff and the support received from the NRECA Washington Office?

Very Effective Somewhat Effective Not Effective

Comments: Very Effective. NRECA has established a local office in Honduras and the support staff is excellent. We have very little contact with NRECA/Washington coming in to Honduras to work in the program.

Management and Administration: How effectively were management and administrative functions handled?

23

Very Effective Somewhat Effective Not Effective

Comments: Somewhat Effective. At the start of the program, NRECA did not have sufficient local personnel to establish key contacts to promote their objectives. NRECA had to rely on temporary officials who did not have the time to establish the right contacts within the local participating entities. It was only when they located a permanent employee within Honduras and later with the establishment of the local office that the projects (especially the Roatan project) started getting underway. Another weakness within NRECA is their failure to communicate to the Mission their ongoing activities, accomplishments etc., which is why we are unable to give you additional comments.

4. Limited Program Services: How effective and valuable was any feasibility study, policy analysis, sectoral studies, non-project related training or other activities undertaken by NRECA in your country?

Very Effective Somewhat Effective Not Effective

Comments: Somewhat Effective. We understand that the National Electric Corporation (ENEE) is about to institutionalize the Demand Assessment Methodology (DAM) within their organization.

25. How would you rate the overall effectiveness of NRECA with respect to its main project and relations with the Mission:

Very Effective Somewhat Effective Not Effective

Comments: Somewhat Effective. Again, due to the lack of communication by NRECA on the development of their projects and their upcoming activities we find our relation with NRECA to be at times difficult. A case in point is that there have been several occasions in which NRECA has given us very little advance notice to clear their personnel arriving in country for TDY activities. In addition, rarely do we get briefings concerning their accomplishments. However, there has been a marked improvement in this area with the appointment of Pete Smith as the new Regional Project Manager.

Bolivia AID/FHA/PVC

FINAL EVALUATION
NRECA
CENTRALLY FUNDED
COOPERATIVE PROGRAM SUPPORT GRANT

Gar Stock, Consultant

TO: Charles Hash, USAID/Bolivia

DATE: September 1, 1993

NRECA received a Cooperative Program Support Grant (CPSG) in April 1, 1989 in the amount of $3,250,000, for five years. FHA/PVC is responsible for administering the Grant. The CPSG is scheduled to be completed by April, 1994 and FHA/PVC is conducting a final evaluation.

NRECA is currently operating the Bolivia Rural Electrification Development Project. While no funds from the CPSG are used for direct project implementation, NRECA has provided grant-funded development and support services. To assist us in the completion of the evaluation we would appreciate your thoughts on the following questions. Please return them via E-Mail. In advance, thank you very much for your consideration.

1. Project Development and Design: How would you rate the overall project development, design, and impact of this project?

Very Effective Somewhat Effective Not Effective

Comments: The Electrification for Alternative Development Project design and development was supported by a Mission buy-in to the CPSG.

2. Personnel Selection and Support: How would you rate the quality of project staff and the support received from the NRECA Washington Office?

Very Effective Somewhat Effective Not Effective

Comments: Support is first-rate.

Management and Administration: How effectively were management and administrative functions handled?

Very Effective Somewhat Effective Not Effective

Comments: No comment.

4. Limited Program Services: How effective and valuable was any feasibility study, policy analysis, sectoral studies, non-project related training or other activities undertaken by NRECA in your country?

Very Effective Somewhat Effective Not Effective

Comments: All catagories performed have had direct impacts on implementation under ADEP.

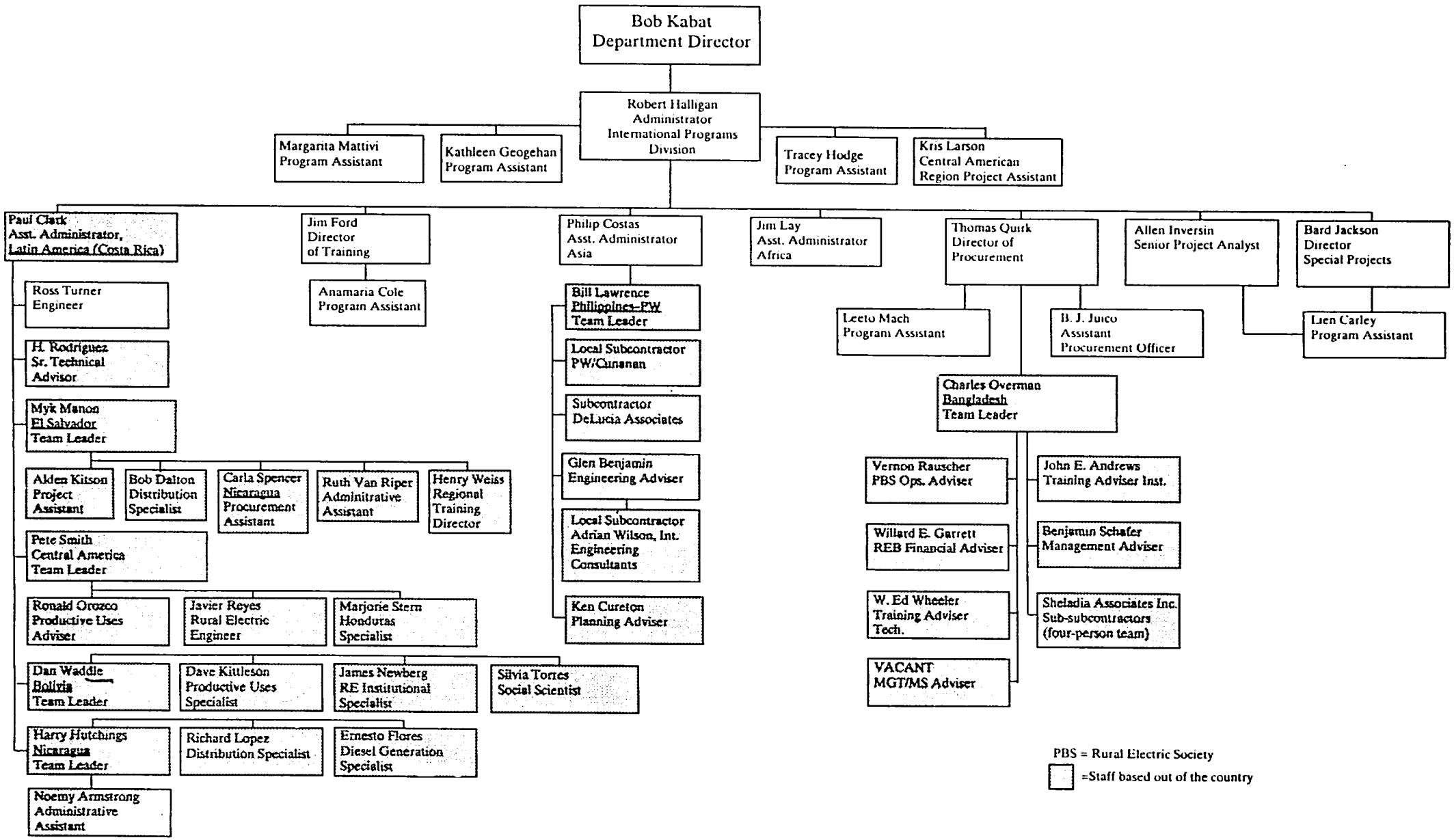
25. How would you rate the overall effectiveness of NRECA with respect to its main project and relations with the Mission:

Very Effective Somewhat Effective Not Effective

Comments: Strong lines of communication between NRECA and the Mission, augmented by a superior COP under NRECA/Bolivia.

C. OTHER BACKGROUND INFORMATION

INTERNATIONAL PROGRAMS DIVISION



LOGICAL FRAMEWORK STATUS

Project Life: April 1989 to March 1994
Date Prepared: July 93

PROJECT TITLE: INSTITUTIONAL SUPPORT GRANT

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	STATUS
GOAL To bring about development by increasing the supply and productive use of electrical energy in rural areas of developing countries.	Measures of goal 500,000 new rural connections	1988 / 1993 Bangladesh 269,908 769,723 - 499,815 meters Philippines 2,850,433 2,878,463 - 28,030 meters Indonesia; Ache - ~ 3,000 connections El Salvador project - ~20,000 connections Bolivia project - ~15,000 connections TOTAL 565,845
	Increased number of income-producing electric connections and increased productive usage rate by farms, agricultural processors, rural industries, and small business enterprises.	1988 / 1993 Bangladesh 6,000 15,921 - 9,921 small industry Philippines 174,193 198,938 -24,745 small industry & commercial West Bank Increased by 10% Central American No data available
	Creation of new employment from use of electricity in agricultural or other income-generating activities.	No data available

LOGICAL FRAMEWORK STATUS

Project Life: April 1989 to March 1994
Date Prepared: July 1993

PROJECT TITLE: INSTITUTIONAL SUPPORT GRANT

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	STATUS
PURPOSE To promote and strengthen the long-term capacity of national and sub-national electric power authorities to respond to energy needs of rural populations with reliable and affordable electric energy, through the development and support of rural electric cooperatives.	Conditions that will indicate purpose has been achieved: 35 new rural electric cooperatives established.	1988 1993 Bangladesh 33 45 12 El Salvador 0 1 1 West Bank 14 16 2 South Africa 0 2 2 Philippines 117 119 2 *Indonesia 3 ~2,000 ~2,000 Honduras 0 1 1 Columbia 0 1 1
	Five new rural electrification development programs established.	New programs were started in El Salvador, Nicaragua, Bolivia, Guatemala, Philppines, and Indonesia
	Ten programs to promote productive uses of electricity established within utilities.	Programs in Guatemala, Costa Rica cooperatives (3), Belize, and Philippines (15), and El Salvador.
	Trend of improved technical operations efficiency ratios in 100 utilities, i.e., kWh sold/kWh generated or purchased.	Operational improvements completed in 33 co-ops in Bangladesh Efficiency improvement in 50 co-ops in the Philippines Efficiency improvements in 6 co-ops in the West Bank Total 89 co-ops
	Trend of improved managerial and financial operations ratios in 50 utilities.	Managerial ratios improved in 120 systems in the Philippines in 5 systems in the West Bank in 7 systems in Bangladesh
	One cooperative service association formed by rural electric coops.	Co-op associations organized in Costa Rica and Brazil.

* Village-level co-ops involved in meter reading and collection services only.

LOGICAL FRAMEWORK STATUS

Project Life: From April 1989 to March 1994

PROJECT TITLE: INSTITUTIONAL SUPPORT GRANT

Date Prepared: July 1993

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	STATUS
OUTPUT Viable strategies for rural electric and cooperative development	Five unsolicited proposals presented (three to USAID and two to other funding sources).	AID NIS Nuclear Safety Africa Rural Electrification Strategy Pilot RE project - Pakistan Atlantic Coast Electrification - Nicaragua Rural Electric Private Finance Center Alternative Development Electrification; Bolivia Meter reading, billings, and collection (India) Other POLAND Small Hydropower Rural Electrification Assessment; UTE Rural Electrification Project Design; Brazil Materials Handling; Philippines
Technical and training assistance missions to improve technical, managerial, and operational systems and skills.	30 technical assistance tasks carried out.	Pakistan - 1 Brazil - 3 Uruguay - 2 India - 3 Indonesia -3 Philippines- 5 Costa Rica 4 South Africa 2 Ghana - 3 Mexico 1 Guatemala 3 Honduras - 2 Grenada 1 Dominica 1 Nepal - 1 Tunisia 2 Bolivia 3 El Salvador 4 35
Instructional material on demand-side management techniques developed and disseminated.	Development or modification of three documents on demand-side management.	NRECA Developed manuals on: - Heat Pumps - Management of Distribution Losses - Consumer Energy Efficiency which were distributed to various countries
Instructional material on least-cost RE design developed and disseminated.	100 documents distributed	Approximately 2,500 copies of the Micro Hydropower Source have been distributed since 1989. In addition, approximately 500 REA Bulletins, specifications, and guidelines have been distributed. The Least-Cost Distribution document is approximately 85% complete.

LOGICAL FRAMEWORK STATUS

Project Life: From April 1989 to March 1994

PROJECT TITLE: INSTITUTIONAL SUPPORT GRANT

Date Prepared: July 1993

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	STATUS
OUTPUT (cont.)		
Instructional material on other rural electrification technology, management, and finance developed and disseminated.	Three workshops in productive uses and other topics.	Workshops were held in Ghana, Belize, Guatemala, Honduras and El Salvador.
	Development or modification of three studies on least-cost design.	Least cost design studies held in Guatemala, Uruguay, Yemen, Tunisia, and Nepal.
Sources of equipment from utility surplus supplies identified and developed.	Transfer of $500,000 of surplus donated RE equipment from US to overseas rural electric systems.	Market value Used / New 1993 - $170,000 / $ 480,000 1992 - 465,000 / 1,800,000 1991 - 120,000 / 362,000 1990 - 117,000 / 353,000 1989 - 20,000 / 75,000
Information on NRECA/IPD services disseminated to electric coops and national agencies in U.S. and overseas.	400 documents distributed overseas.	Documents distributed: 2,500 Micro-Hydropower Sourcebooks ~ 500 REA Bulletins ~ 700 Miscellaneous other
Research/discussion papers on major issues in electrification.	Development or modification of brochures, articles, or videos communicating NRECA services and activities.	Video programs developed on the El Salvador Project, Bangladesh program, and the Roatan project. Overseas Report was published bi-annually each Fall and Winter. Brochures developed for the Central America program and the IPD.
	Two substantial publications prepared; project evaluation methodology developed.	Publication on least-cost distribution 85% complete Publication on evaluation (logframe) 90% complete Aguan Valley evaluation complete Staking software program and instruction 75% complete

24

AID/OTR–0192–A–00–9140–00

26–Jul–93

Institutional Support Grant
Cumulative Expenses from April 1, 1992 through June 30, 1993

Programmic Areas:	Activity #	Budget	Expenses Thru Last Quarter	Expenses This Quarter	Expenses To Date	Balance
Program Management	168311	$403,640.00	$255,489.26	$72,718.94	$328,208.20	$75,431.80
Institutional Development	168312	200,880.00	140,554.85	30,915.98	171,470.83	29,409.17
Technology Support	168313	133,920.00	42,930.17	11,858.71	54,788.88	79,131.12
Training	168314	133,920.00	49,418.79	30,052.89	79,471.68	54,448.32
Demand Side Management	168315	178,560.00	40,141.02	(480.53)	39,660.49	138,899.51
Technology Enhancement	168316	145,080.00	31,903.49	9,942.98	41,846.47	103,233.53
Evaluation	168302	84,000.00	9,565.56	6,503.10	16,068.66	67,931.34
Procurement	168303	20,000.00	3,389.92	2,760.04	6,149.96	13,850.04
East Europe	168320	0.00	324.20	665.28	989.48	(989.48)
Total – Core Grant Program		$1,300,000.00	$573,717.26	$164,937.39	$738,654.65	$561,345.35
Utility Pole Tech	168304	93,029.00	92,264.68	0.00	92,264.68	764.32
Bolivia Buy–In	168305	111,466.00	106,098.29	0.00	106,098.29	5,367.71
Environmental Issues	168306	100,000.00	39,378.49	4,617.56	43,996.05	56,003.95
Guatemala Buy–In	168307	28,110.00	19,433.72	0.00	19,433.72	8,676.28
Estonian Decent. Elec. Dist.	168308	99,083.00	1,886.09	8,554.86	10,440.95	88,642.05
PFC India Buy–In	168309	188,271.00	9,157.62	26,903.42	36,061.04	152,209.96
Total – Core Grant Buy–Ins /1		$619,959.00	$268,218.89	$40,075.84	$308,294.73	$311,664.27
Grand Total		$1,919,959.00	$841,936.15	$205,013.23	$1,046,949.38	$873,009.62

/1 Please note that Total Core Grant Buy–Ins is from inception to date (June, 1990 to date).