

PD-ABY-977

**TECHNICAL ASSISTANCE FOR  
RURAL POWER FOR POVERTY REDUCTION PROGRAM**

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***RPPR II QUARTERLY REPORT***

**1 April 2003 Through 30 June 2003**

**Prepared By**

**NRECA INTERNATIONAL, LTD.**

**In Partnership With**

**RURAL ELECTRIFICATION BOARD OF BANGLADESH**

**And**

**USAID MISSION TO BANGLADESH**

**QUARTERLY REPORT FOR 04/03 TO 06/03**  
*Technical Assistance for Rural Power For  
Poverty Reduction II Program*

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## **I. Executive Summary**

The following serves as a summary of the progress made on various activities under each of the four Activities and the subsequent Tasks, with additional details included under section III:

### **Program Activity A: Planning and System Engineering**

#### **Task A.1: Service Territory Database**

- Completed the GIS fieldwork for Pabna PBS-2 that was initiated in 2nd quarter.
- Initiated and completed the GIS fieldwork for Natore PBS-1.
- Began incorporating the GIS field data from Pabna PBS 2 into the main GIS database for this PBS.
- Developed a draft REB Policy Instruction, "Coordinating Development of GIS for PBS System Maps and Data Base" that broadly defines the purpose of GIS, process to be used in its development, and division of responsibilities between the various stakeholders.
- In consultation with REB, made the determination to insert Dhaka PBS-1 into the GIS development schedule for the upcoming Fall season after the rains have ended in order to facilitate the planning project at Dhaka-1.

#### **Task A.2: PBS Short and Medium Range Planning**

- E&O Advisor continued the field trips to the PBSs to familiarize himself with the PBSs and determine what their greatest needs are in terms of planning and analysis. This effort had to be postponed last quarter due to travel restrictions imposed at the advisement of USAID.
- Worked with the Short Term (ST) Planning Specialist to orient him during his initial three-week assignment to Bangladesh and helped familiarize him with the overall RE Program, the REB, and with specific focus on Dhaka-1 and Manikganj PBSs.
- The ST Planning Specialist reviewed the relevant policies and guidelines that apply to the planning project for PBSs, REB and local consultants, as well as completely a review of the present planning processes being used by the PBSs.
- Began the process of gathering the necessary system data for Manikganj PBS in to develop the Planning Document for this PBS.

### **Program Activity B: Operations and Maintenance Programs**

#### **Task B.1: Preventive Maintenance Programs**

- E & O Advisor resumed visits (the trips that were postponed from last quarter, due to travel restrictions imposed per the advisement of USAID.) to a number of PBSs to develop better understanding of the O&M activities of the PBSs.
- Worked with NRECA computer personnel to roll out the initial software for record keeping of equipment including distribution transformers, power transformers, and voltage regulators.
- Made necessary arrangements for the ST Maintenance Specialist (STS) to make his first visit to Dhaka early next quarter.
- Began the evaluation of existing line and equipment maintenance practices.
- Continued the recruitment of a local professional as maintenance engineer in support of this task, including interviews with candidates.

### **Task B.2: Material Supply for O&M Program**

- There was limited activity on this task this quarter due to both the fact that there were densely packed visits that were postponed by other STS's because of the Iraq War, and also that NRECA has not yet selected an STS for this area.
- The NRECA Arlington office continued with recruiting efforts to locate an interested and qualified STS having the necessary skill sets required for the Materials Specialist position.
- During visits to PBSs on other tasks, the Engineering & Operations Advisors continued to identify some of the O&M material supply problems that REB and PBS personnel are facing at this time.
- Began the selection process to determine which two PBSs will participate in the pilot material supply project

## **Program Activity C: Strengthen Utility Performance**

### **Task C.1: Strengthen Training Program and Procedures**

- Continued with on-going work of curriculum development activity for REB and PBS .
- Completed training manuals for one engineers program (Operation and Maintenance of OCR) and one management training program (Management: Its Nature and Scope)
- Continued with the curriculum development activity for two financial training manuals on PBS Accounting Procedures
- Completed the development of Curriculum Outline for the engineering training manual on Voltage Regulators
- Continued with additional work on planning for the training needs assessment for the REB and PBS
- Initiated planning for regional consultation tour to Pakistan and Malaysia to investigate training institutions.

### **Task C.2: Enhance Computerization in REB and PBSs**

- Continued support to REB Rates and Contract Cell with plan to have the MIS report for June 2003 to be processed and printed from the Statistical Database software and distributed to the concerned users.
- Initiated working on a new software for REB Revolving Fund Trustee Board.
- Completed the design and development of the software for the PBS Equipment Record Cards.
- Completed the implementation of the installation and training for Exploring Internet at 15 PBSs, which included providing training for a total of 56 employees (15 General Managers and 10 Executive Engineers).

### **Program Activity D: Supplemental Tasks**

#### **Task D.1: Updating Engineering and Construction Standards**

- Participated in various meetings with REB relating to changes in the current Material and/or Construction Specifications for combination bypass/disconnects switches, surge arrestor mounting etc.
- Met with PBS, REB and local consultants at Dhaka-1 to discuss expansion options at EPZ-1 Substation.
- Investigated the issues surrounding the significant changes in the ratings of the Australian Slash Pine species that are being proposed for use as wooden pole in RE Program in order to determine if change can be properly substantiated.

#### **Task D.2: Socio-Economic Impact Assessment**

- Continued follow-up support to PBSs in implementing the socio-economic Baseline Database System Activities.
- Identified the next nine PBSs where the Socio-economic Baseline Database System will be implemented.
- Completed numerous tasks related to planning for the Conference on the Socio-Economic Impact Study that was completed in October 2002.

## II. Quarterly Reporting and Overview of RPPR II Program

### Background on Quarterly Reporting:

Under the terms of NRECA International, Ltd's Contract with USAID, Quarterly Reports are to be submitted to provide information as to the status of the technical assistance provided under the Rural Power For Poverty Reduction (RPPR) II Program. It should be noted that this technical assistance effort follows a similar approach as to the RPPR Program in that it is "resulted oriented" and is very specific in terms of what is to be accomplished during the 5-year program. Unlike earlier Host Country Contracts (HCCs) between NRECA and REB where NRECA provided overall assistance to REB in all aspects of the RE Program, the RPPR II includes only specific Activities and Tasks. For this reason, it should be understood that Quarterly Reports for the RPPR II Program will present information as to the status of these activities and will not provide the same "broad-based" reporting on the entire RE Program as was done by NRECA under the previous HCCs with REB.

Comments on various other observations made by NRECA on the overall RE Program will be included, but for the most part will be primarily related to those areas that have direct and/or indirect impact on RPPR II activities.

### General Description of RPPR II Program:

The objective of the RPPR II is to continue USAID's support of rural electrification in Bangladesh by concentrating on strengthening business operations and sector management so as to ensure institutional self-sufficiency and sustainability. Ultimately, the RPPR II will support USAID's overall objectives of poverty reduction in Bangladesh. The activities undertaken by REB and NRECA during this first year of the RPPR II program will be aimed at beginning the process of strengthening management and technical capability of the a group of selected PBSs. These activities will promote credibility and viability among these entities so that IFI and MDB donor funding will continue to be available for infrastructure and ongoing technical assistance; and will assist in preparing the REB system for the changes in the Bangladesh electric industry.

### RPPR Mission Statement:

*"To reduce rural poverty by enhancing the capacity of the PBSs to provide efficient user-owned electric service for the benefit of the customers."*

### RPPR II Program Objectives:

The overall RPPR II Program will promote the sufficiency and sustainability of the RE Program as a means of ensuring that the gains made over the last twenty five years will be continued with a reduced need for foreign assistance. Specifically the RPPR Program involves the completion of the eight specific Tasks under four Program Activities that support the following four main objectives:

- **Planning and System Engineering:** This Activity involves the completion of two tasks, including extending the geographic information systems (GIS) to an additional seven PBSs beyond the four systems developed under RPPR; developing improved planning capabilities at REB and the consulting engineering firms serving two PBSs. These efforts will be led by a long term Engineering and Operations Advisor supported by two short-term specialists. The GIS Specialist will provide specific technical support for development of the GIS task. The Planning Specialists will provide training to the

consulting engineers in advanced analysis techniques. The expertise developed from the work in these limited number of PBSs will be expanded to additional PBSs.

- **Operations and Maintenance Program:** The focus of this Activity will include undertaking two tasks - strengthening preventive maintenance programs at two PBSs and working with the REB to institutionalize maintenance materials procurement and warehousing at REB and the PBSs. This Activity will be led by the Engineering and Operations Advisor and will be supported by two short-term specialists. The Maintenance Systems Specialist will provide specific guidance on execution and planning of line and equipment maintenance tasks. The Materials Specialist will work with REB and the PBSs to streamline maintenance material acquisition and warehousing.
- **Strengthening Utility Performance:** This focus area will involve two tasks. NRECA will work to strengthen the REB training function and complete the computerization task begun under RPPR I. The effort will be guided and managed by the Team Leader. The Team Leader will be supported by two short term specialists with expertise in training and computerization. Because of the demands on the Team Leader's time and the limited funding available to support the specialists, the bulk of the responsibility for execution of both the training support and computerization programs will fall to seasoned local professionals, all of whom are long term NRECA employees
- **Supplemental Tasks:** This focus area includes Tasks of a specific nature which have been requested by REB and which do not fall into any of the categories above. One task consists of a review and updating of the engineering and construction standards in use at REB with an eye to adapting them both to changing times and to new requirements for such things as construction of primary line in densely populated urban areas taken over from BPDB. In addition, the need for a socio economic assessment of the impact on rural poverty of electrification has been recognized for some time, and this focus area will include the further institutionalization at REB of capability for evaluating such impacts. The standards review will be carried out by an Engineering Specialist under the supervision of the Engineering and Operations Advisor, while the socio economic assessment will be conducted by local professionals on NRECA's staff under the supervision of the Team Leader.

#### **RPPR Program Elements:**

- Implementing Agency: Rural Electrification Board
- Duration: Five Years: Sept 26, 2002 through September 30, 2007
- Total Amount: US\$ 9.69 million (Tk.56.2 crore)
- Donor Funding: US Agency for International Development (USAID) - Contract

#### **Program Implementation Strategy As "Partnership"**

The design and development of the original RPPR I Program was through a "partnership" between the REB, USAID, and NRECA International, Ltd, and this partnership arrangement will continue in RPPR II. The design of the Program was completed under a *Tripartite Agreement* between the partners. With the incorporation of the RPPR II Program into the *Strategic Objective Grant Agreement* which was executed on March 20, 2000 between the GOB's Economic Resource Division (ERD) and USAID, the partners formally entered into a *Trilateral Agreement* that provides direction for the implementation of the RPPR II Program. This Agreement, which was executed on October 29, 2002, outlines the various responsibilities of the respective partners.

### **III. Quarterly Status & Planning on Program Activities with Tasks**

#### **Program Activity A: *Planning and System Engineering***

##### **Task A.1: Service Territory Database**

###### Status as of this Quarter:

- Completed the GIS fieldwork for Pabna PBS-2 that was initiated in 2<sup>nd</sup> quarter.
- Initiated and completed the fieldwork for Natore PBS-1. The fieldwork included training field technicians and geo-referencing all PBS distribution system attributes.
- Began the integration of data gathered from Pabna PBS-2 and Natore PBS-1 into GIS data base for each respective PBS.
- In consultation with REB, defined roles and responsibilities of various stakeholders contributing to the GIS program, including the responsibilities assumed by REB, PBSs, engineering consulting firms, and NRECA.
- Drafted and proposed a new REB Instruction entitled, "Coordinating Development of GIS for PBS System Maps and Data Base" the purpose of which is to broadly define the purpose of GIS, the process to be used in its development, and the division of roles and responsibilities between the various stakeholders involved in execution of the GIS program.

###### Plans For Next Quarter:

- Complete the integration of Natore PBS-1 distribution system data in GIS.
- Complete the integration of Pabna PBS-2 distribution system data in GIS.
- Initiate the planning and preparation for the fieldwork to geo-reference electric distribution attribute data at Dhaka PBS-1 that will begin in the Fall after the rainy season has ended with a starting target date of mid-October. Dhaka 1 will be the third PBS for GIS under RPPR II.
- Finalize REB Instruction "Coordinating Development of GIS for PBS System Maps and Data Base" and secure REB Board approval.

##### **Task A.2: PBS Short and Medium Range Planning**

###### Status as of this Quarter:

- E&O Advisor continued the field trips to the PBSs to develop an improved understanding of the PBSs and to determine what their greatest needs are in terms of planning and analysis. This effort had to be postponed during previous quarter due to travel restrictions imposed at the advisement of USAID (Iraq Conflict).
- The first RPPR II assignment was completed by the Short Term (ST) Planning Specialist in early June. This initial assignment was delayed to the travel restrictions imposed by USAID due to the Iraq conflict.
- Completed overall orientation for the ST Planning Specialist in order to familiarize him with Bangladesh, the Dhaka city area, REB, the PBSs, and specifically the Manikganj PBS service area.
- Accompanied the ST Planning Specialist to the offices of ECBL and TSL, which are the two local engineering consultants to the PBSs selected for participation in the two pilot planning projects that will be completed under RPPR II.

- The ST Planning Specialist completed a review of the appropriate REB/PBS policies and guidelines that apply to the planning process for PBSs, REB and local consultants in order to become familiar with how distribution planning has been done up to this time.
- Both ST Planning Specialist and the E&O Advisor visited the two PBSs selected for the Pilot Planning Project – Manikganj PBS and Dhaka PBS-1.
- Worked with PBS personnel to support the gathering of the system data for Manikganj PBS that will be required for developing the Planning Document for this PBS.
- Continued the recruitment process (including interviewing potential candidates) for a local professional Utility Engineer to support the work associated with the planning process.

Plans For Next Quarter:

- Proceed with work by the ST Planning Specialist on the development of the computer model for Manikganj PBS that will be used in the Milsoft analysis software during the planning process. This work will be done in the US being that it can be done there thus maximizing resources.
- Begin the development of the Short Range Work Plan for Manikganj PBS using the system data gathered during this quarter.
- Continue to make visits to Manikganj and Dhaka-1 PBSs to assist personnel with the updating of their records that will be used in the planning studies. In addition efforts will be made to further enhance their overall record keeping and to improve their understanding of its importance for proper planning and operations of an electric utility.
- Assist the ST Planning Specialist in the interpretation and correction of data to be used in the development of the Short Range Work Plan document.
- Continue the recruitment process (including interviewing potential candidates) for a local professional Utility Engineer to support the work associated with the planning process.

**Program Activity B: *Operations and Maintenance Programs***

**Task B.1: Preventive Maintenance Programs**

Status as of this Quarter:

- E & O Advisor completed visits to a number of PBSs to develop better understanding of the O&M activities of the PBSs and the unique challenges they face. These were the trips that were postponed from last quarter, due to travel restrictions imposed of USAID.
- Worked with NRECA computer personnel to provide input in the development and roll out of the initial software for record keeping of equipment including distribution transformers, power transformers, and voltage regulators. This software package was labeled as the Electronic Equipment Card (EEC) package.
- Developed preliminary plans for orienting the ST Maintenance Specialist to the Bangladesh RE Program as well as tasks to be completed during his initial assignment to Bangladesh. The Specialist was scheduled to arrive at the start of the upcoming quarter.
- Continued the recruitment of a local professional as maintenance engineer in support of this task, including interviews with candidates.

Plans For Next Quarter:

- Work with ST Maintenance Specialist who will be on his initial assignment to Bangladesh in order to orient him to Bangladesh and the RE Program.

- The ST Maintenance Specialist will proceed with the following tasks during his initial assignment:
  - Formulation of a preliminary plan for approaching this Task
  - Identification of various obstacles that must be removed in order to have an improved maintenance program for the PBSs.
  - Develop initial training plan for improving the O7M skills of PBS and REB personnel.
  - Consider options to eliminate the back log of work that sometimes occurs at the REB Savar Work Shop.
  - Conceptualize the use of software in the maintenance processes at REB and the PBSs.
- Continue the review of REB & PBS maintenance guidelines, and begin developing recommended revisions.
- Based on what was learned from the initial implementation of original software package, assist the NRECA Computer Tram staff in developing a revised version of the initial Electronic Equipment Card (EEC) software that will be much more user-friendly, by providing most data choices in dropdown boxes.
- Continue the recruitment of a local professional as maintenance engineer in support of this task, including interviews with candidates.

**Task B.2: Material Supply for O&M Program**

Status as of this Quarter:

- Due to other priorities, and the fact that NRECA has not yet contracted with a ST Materials Specialist, at this time, there was limited activity on this task this quarter.
- Continued recruitment efforts to identify a STS having the necessary skill sets for the Materials Specialist position.
- Identified some of the material supply problems they face at the PBSs, and REB itself during visits to PBSs that were related to other tasks,.
- Began the selection process to determine which two PBSs will participate in the pilot material supply project.

Plans For Next Quarter:

- Continue the selection process to determine which two PBSs will participate in the pilot material supply project. There is no need to speed the process, since significant work will not begin until a specialist arrives.
- Identify and execute contract with ST Materials Specialist.

**Program Activity C: Strengthen Utility Performance**

**Task C.1: Strengthen Training Program and Procedures**

Status as of this Quarter:

- Continued with following curriculum development activities :
  - Based on the findings of the pilot test, finalized the revisions and submitted the final copies of the following training manual to REB's Training Directorate:



- In Pakistan the tour would involve investigations of the WAPDA Distribution Training activities including the Distribution Training Academy (its development was USAID-funded in 80's and 90's) in Islamabad.
- In Malaysia, the tour would focus on the Training activities of the TBN, which is the national utility which has been corporatized and operates a self sustaining training institute for its employees.

Plans for Next Quarter:

- Continue with various curriculum development subtasks including:
  - Proceed with the development of the Curriculum Outlines for the following training manuals in consultation with the concerned personnel of REB's Training Directorate and Curriculum Committees and submit these to the Curriculum Committees for formal approval:
    - ☐ Repair and Maintenance of Voltage Regulator for Engineers (TO 235)
    - ☐ Repair and Maintenance of Voltage Regulator for Technicians (TO 237)
    - ☐ Repair and Maintenance of Voltage Regulator for Lineman (TL 044)
  - Proceed with the development of the following training manual based on the recommendations received from the Curriculum Committee members and REB's Training Directorate:
    - ☐ PBS General Accounts Manual (IF 300, IF 305, IF 310)
  - Complete the necessary revisions based on the findings of the pilot test and submit the final copies of the following manual to REB's Training Directorate:
    - ☐ Management: Its Nature and Scope for REB/PBS Accountants Personnel (IM 106)
  - Proceed the work of translating the following training manuals into Bangla:
    - ☐ Management: Its Nature and Scope for REB/PBS Officers (IM 105)
    - ☐ Management: Its Nature and Scope for REB/PBS Accountants Personnel (IM 106)
  - Continue with the revision and reformatting of the "draft" curriculum materials for the following training programs:
    - ☐ Installing & Maintaining Solar Home Systems for the REB/PBS Technical Personnel
    - ☐ Managing A Solar Home Systems Program for the REB/PBS Management Personnel
- Proceed with further preparatory work related to the proposed strategy for conducting an assessment of the training needs for the REB and PBSs , including the ongoing involvement of the concerned personnel of the REB Directorate.
- Continue with planning for the regional consultations tour to Pakistan and Malaysia including making contact with the concerned individuals who would be making the necessary arrangements to host the four member REB delegation.

**Task C.2: Enhance Computerization in REB and PBSs**

Status as of this Quarter:

- Completed the installation and training of Internet for the General Managers and other employees for the following fifteen (15) PBSs:

Thanurgaon	Dinajpur-1	Dinajpur-2	Rangpur-2
Nilphamari	Kuri/Lalmonirhat	Cox's Bazar	Chittagong-1
Chittagong-2	Feni	Noakhali	Comilla-1
Comilla-2	Laxmipur	Chandpur	

- Provided ongoing support to the Rates and Contract Cell for implementing the Statistical Database through "on-the-job training" that was provided by the NRECA System Analyst.
  - The target has been set by the Rates and Contracts Cell to have the June 2003 MIS Report generated using the Statistical Database software package.
- Established advanced security feature in the PBS Statistical Database (Form 550) software package with restricted privileges to different levels of users in the PBSs and completed the necessary training for the relevant personnel on how to use these new features.
- Provided support and training to PBSs at NRECA office on an "as needed basis" with regard to both the Statistical Data Base and the Payroll software applications.
- Completed necessary updates of the PBS Payroll application, as per discussions with REB Office Systems personnel and completed necessary arrangements for deployment of changes to PBSs.
- Initiated development of a plan to conduct a formal evaluation of the current level of computerization at REB and the PBSs as per the RPPR II Scope of Work with the provision to incorporate these findings into a strategic plan for the IT sector of the RE Program.
- Designed and developed PBS Equipment Record Card Software for tracking the installation and maintenance of all distribution equipment within the PBS systems
  - Conducted field testing of the software and made necessary revisions so package is ready for installation in a selected number of PBSs.
- At the request of the Revolving Fund Trust Board (RFTB), designed and developed of a software package for managing the transactions associated with the Revolving Fund management of REB.
- Installed the Payroll software package in the following PBSs and trained two persons from each of these PBSs..

Shariatpur	Bagerhat	Rajbari	Faridpur
Gopalganj	Magura	Madaripur	

Plans For Next Quarter:

- Complete the installation and training on PBS Payroll Software Package for the following 28 PBSs.

Rangpur-1	Joypurhat	Naogaon	Sherpur
Netrokona	Kishoreganj	Mymensingh-3	Munshiganj
Meherpur	Kustia	Kustia	Jhenaidah

Jessore-1	Jessore-2	Satkhira	Satkhira
Khulna	Bsrisal-1	Barisal-2	Pirojpur
Bhola	Patuakhali	Jhalukathi	Sunamganj
Sylhet-1	Sylhet-2	Brahmanbaria	Cox's Bazar

- Continue with the ongoing support for software development tasks at REB and the PBSs including the following:
  - Continue testing of Material Management software at REB HQ based on plan within REB to establish a "mini-LAN" with participation of the four participating Directorates (Accounts; Material Planning Standards & Specifications; Procurement; and Clearance, Storage & Movement)
  - Provide support and training to PBSs at NRECA offices on an as needed basis with regard to the Statistical Data Base and the Payroll software applications.
  - Assist with ongoing deployment of REB version of Statistical Database in REB Rates and Contract Cell and continue with on-the-job training for REB staff leading to REB's formal adoption of the software package.
- Continue to support the ongoing development of the REB Computer Cell and provide direction for the utilization of the World Bank funding for the installation of the LAN/WAN at the headquarters.
- Continue preparation user manuals and other documentation.
- Demonstrate the Equipment Record Card software to the concerned REB senior officials and General Managers from a selected number of PBSs.
- Complete cross-checking Form-550 data of each PBSs with those in the REB Rates and Contract Cell in preparation for formal adoption of the package by REB in June 2003 and the development of the MIS Report from this database beginning in June 2003.
- Install the Equipment Record software at least in three PBSs and train relevant people on the operation of this software package..
- Prepare an intensive training program on the "Basic Computer Application" for the employees of all the PBSs and develop a plan for implementing this much needed training.

## **Program Activity D: *Supplemental Tasks***

### **Task D.1: Updating Engineering and Construction Standards**

#### Results as of this Quarter:

- Participated in meeting with REB relating to changes in the current Material Specification for combination bypass/disconnects switches.
- Participated in discussions with REB concerning the surge arrestor mounting and minimizing the lead length from the surge arrestor to the protected equipment.
- Met with PBS, REB and local consultants at Dhaka-1 to discuss expansion options at EPZ-1 Substation.

- On behalf of REB, continued investigations related to significant changes in the ratings of the Australian Slash Pine species that are being proposed for use as wooden pole in RE Program and the use of “weight per unit volume” versus “weight/weight” methods of establishing CCA retention. This involvement included the following:
  - An extensive review of the data provided by the Australian supplier and preparation of report that did not substantiate the change in the rating.
  - An indepth review of the appropriate methodology used for determining CCA retention requirements for various species used for utility poles with a report being prepared and submitted to REB with the recommendation to return to it previous “weight per unit volume” method instead of the newly adopted “weight/weight” method that can not be supported by proper scientific research.
  - Attended meeting with REB senior officials where decisions were taken on these two issues as per the recommendations made in the NRECA reports.
- At REB’s request, initiated a review of the bid submitted for wooden poles under the World Bank tender that for South African Eucalyptus species to determine if these poles are suitable for the Bangladesh RE Program.

Plans For Next Quarter:

- Complete the report on recommended system changes required to deal with neutral theft based on the field assessment work that was completed during RPPR I and which has already been discussed with REB.
- Examine the issues initially raised by World Bank regarding its interest in having NRECA’s assistance to support the establishment of standards and specifications to help resolve problematic issues (e.g., meter installations, etc.) that are becoming more widespread due to the PBS takeover of “pockets” and load centers from BPDB under the new World Bank project.
- As part of standard practice, advise and assist REB regarding engineering related issues in support of ongoing changes in equipment and new technology that requires a review prior to making changes in equipment specifications and standards.
- Continue with the investigation with regard to the REB’s acceptance of South African Eucalyptus species for wooden poles to be used in Bangladesh RE Program.

**Task D.2: Socio-Economic Impact Assessment**

Status as of this Quarter:

- Completed installation of the revised “Data Entry Software” in 20 computers of three PBSs and their 17 Zonal offices and trained an additional 20 PBS staff on the operation of the data entry process.
- Conducted a one-day training on “data collection system” to 131 new staff working at four PBSs and Zonal offices. These field visits included discussions with GM, AGM & DGM regarding data collection status and data quality. In addition to the formal field visits, both telephonic and other correspondence continued with a number of GMs & DGMs regarding progress of data collection and data reliability.
- Revised the TOT Manual on the Foundation Course – particularly, included additional 12 pages regarding “cross-checking and finding data inconsistencies”.

- In consultation with relevant officials of REB, completed the final selection of nine (9) new PBSs, who will participate in the extension of the Socio-economic Baseline Database System to these PBSs located in different geographical areas of the RE Program.
- Worked jointly with NRECA's Arlington Office in the preparation, of one and half page summary of the Social and Economic Impact Assessment Study that was completed in October 2002.
- Continued interaction with various donors in support of efforts to address socio-economic issues within the RE Program including the following:
  - Assisted JBIC personnel in the development of the TOR for a small Study on poverty reduction issues within three JBIC supported PBSs
  - Provided input to team of international and local consultants working on the Dutch funded study that will develop a Gender Strategy and Action Plan for the RE Program.
- Involved in the planning and preparation of the conference on "Economic and Social Impact Evaluation of the Bangladesh RE Program – Study Findings and Implications for Future" scheduled for early July. Work included:
  - Development of program schedule
  - Preparation of Invitation cards and invitation lists
  - Logistical arrangements with Sonargoan Hotel in Dhaka.

Plan for the Next Quarter:

- Conduct the SE Conference scheduled for 6 & 7 July and prepare of the Conference Proceedings.
- Proceed with data accumulation from PBSs & preparation of the "Baseline Data Quality Report".
- Continue to provide support and troubleshooting at PBS level for the Socio-Economic Baseline System.
- Prepare a plan for implementation of the initial TOT on "Baseline System" for the staff of the next nine PBSs.
- Proceed with Training on "Data Collection Procedure" to eleven PBSs with includes two of the originally selected PBSs and the nine new PBSs.
- Continue to support USAID's initiative to have partners involved with presentations on USAID programs during various IMMAM Training sessions and deliver a presentation on the RE Program and the impacts of having access to electricity, as well as a field trip to a nearby PBS.
  - The upcoming quarter will include a program at the Uttara Training Academy.

## **IV. Quarterly Status & Planning of Project Management For RPPR II**

### ***Project Management/Administration For Program-Related Issues***

#### Status as of this Quarter:

- The Arlington office continued with recruitment and processing of candidates for the various short-term positions.
  - Completed the contracting of the following short-term specialists: Planning Specialist and the Maintenance Systems Specialist.
  - Began processing for contracting of Computer Systems Specialist identified last quarter.
  - Continued effort for recruitment of the Materials Management Specialist, and the Training Specialist.
- Dhaka Office continued specific efforts to identify suitable candidates for the two engineering positions, including having conducted interviews of several candidates. As of the end of the reporting period, the rigorous testing and interviewing had still not resulted in identifying adequately qualified candidates.
- Based on results of modular office units in Computer Section, the Dhaka office completed the procurement and installation of modular office units for improving the work environment and staff productivity in the office areas used by the Training Team and the Engineering section.
- Completed the procurement and installation of new computer equipment for the Dhaka office that will improve efficiency and effectiveness of the staff. This initiative also included the reallocation of equipment to ensure all staff have the best equipment currently available on the project.
- Continued with investigations with USAID, US Embassy and other NGOs in order to locate suitable medical insurance providers for incorporating this coverage for local staff. These investigations involved further communications with various providers as well as customers of these various providers.

#### Plans for Next Quarter:

- The Arlington office will complete processing of the following short-term specialists: Computer Systems Specialist. Recruitment efforts will continue for selection of Computer Systems Specialist, Materials Management Specialist, and Training Specialist.
- The Dhaka office will continue recruitment efforts to find suitable candidates for the two local engineering positions.
- Finalize the installation of the new computer equipment (CPU's, monitors, UPS, laptops, etc.) for Dhaka office that were coming into the country from overseas after the end of the reporting period.
- Continue with earlier investigations of potential medical insurance providers for incorporating this coverage for local staff including consultation with USAID/Embassy and other NGOs.

## V. Brief Summary of Related Observations & Other RE Activities

### *Key Operational Information*

The following table reflects key operational information regarding the sixty seven (67) commercially operating PBSs included in the RE Program for the months of March, April, May, and June as contained in the selected REB Management Information System (MIS) Reports:

Description	March 2002	April 2003	May 2003	June 2003	Change - 3 Mos Per'd
System Loss (12 mo. Avg.)	17.44%	17.39%	17.40%	17.33%	-0.11%
System Loss (this month's Avg.)	17.26%	15.30%	17.43%	15.75%	-1.51%
Percentage of Collection (12 mo. Avg.)	96.82%	96.51%	96.71%	97.90%	+1.08%
Percentage of Collection (this mo. Avg.)	106.71%	97.85%	100.33%	138.20%	+31.49%
Accounts Receivable (# mo. Outstanding)	2.38	2.37	2.31	1.92	-0.46%
Total Villages Energized	37,723	37,944	38,059	38414	+691
Number of New Meter Connections	37,203	44,447	58,069	46,076	+8,873
Total # of Meters Connections	45,65,728	46,10,175	46,68,244	47,08,488	+142,760
Total Km of Energized Line	1,52,451	1,53,687	1,54,896	1,57,829	+5,378
MWH Purchased YTD - % of change last yr.	23%	24%	25%	25.49%	-----

- As of the end of this reporting period (June 2003) coincides with the end of the *2003 Fiscal Year*, it is an appropriate to quickly note two key indicators that quickly reflect just how rapidly the overall RE Program continues to grow.
  - The *number of total connections for the entire Program* grew from 3,996,058 in June 2002 to 4,708,488 as of June 2003. These totals translate into an increase of 650,126 new connections for this fiscal year which averages to more than 54,000 new consumers each month and converts to an average of nearly 1,800 new connections each and every day of the year.
  - The total line amount of distribution line operated by the PBSs is now 157,829 km, which reflects an increase of 16,093 km of line.
- For this three month reporting period, the operational statistics for the 67 energized PBSs continue to reflect that the overall RE Program shows significant expansion with 142,760 new connections made during this reporting period. This averages out to 47,587 per month or 1,866 per work day based on an average of 25.5 day working days/month. As part of this ongoing expansion, 691 new villages received

electric service. Also, the total amount of *energized line* increased by 5,378 km during these three months for an average of 1,793 km/month or 70.3 km/day during an average month of 25.5 work days.

- As of the end of the reporting period, the overall *12-Month Average System Loss* for all 67 operating PBSs decreased slightly by 0.11% over the three-month reporting period. As noted in previous reports with the process of taking over of lines and facilities from BPDB and DESA continuing, the increases in losses are to be expected for a period of time and will require continued monitoring by REB and joint efforts to bring these new areas under control in order to bring the losses down to appropriate levels. The pattern of a lower losses is a positive sign that loss reduction efforts are working in some of the PBSs. Efforts to control system loss must remain a priority item for all PBSs. As noted in an earlier report, the extensive takeovers are being implemented under the new World Bank/IDA and these will require a significant effort to control the losses in these new areas.
- There was a reduction of 1.51% in the *Average Monthly System Loss* for the reporting period which bringing this statistic to 15.75%. This figure continues to show a positive result for this indicator, which had been showing light increases over the past several months. As was noted under comments for *12 Mos. Average for System Loss*, several PBSs have losses that are well above the acceptable levels and proper attention must be given to assist these PBSs with corrective action.
- The overall *Percentage of Collection (12 mos average)* shows a slight positive change of 1.08% increasing to 97.90%. This increase in overall percentage does not fully reflect the 31.49% improvement for the *Percentage of Monthly Collection (this month Average)*, which moved to 138.20% , which is an improvement of 40.35% above April's respectable collection rate of 97.85%. These exceptional results reflect significant efforts by REB (including Member (Finance) and others) who worked with the concerned offices and departments to secure end of year payment from the GOB to cover extensive arrears from GOB offices, mosques, etc.
- The total *Accounts Receivable* showed a very positive improvement of 0.46% during the reporting period thus resulting in a total of 1.92 months outstanding as of the end of the 2003 Fiscal Year. As mentioned above the progress on this indicator is partly due to the efforts of REB and the PBSs, but also due to this issue having been raised by the World Bank/IDA to the GOB as something that required positive action. Having resolution to some of the problems related to these arrears should remove some of the burden that was previously being carried by the PBSs. These results should have help move some of the struggling PBSs towards be able to attain financial viability.
- Another indicator that identifies positive growth is the one related to *MWH Purchased Year to Date*. The continued growth in demand is reflected by the monthly increases for the three months of the reporting period showing increases of 24%, 25% and 25.49% for each of the respective months in the reporting period. These figures represents the percentage of positive change in the total number of MWH purchased for the year when compared to the same period in the previous year. These increases continue to document some of the findings of the October 2002 "Economic and Social Impact Assessment" related to load growth and some of the positive increases in economic activities due to having electric service in rural areas.

### ***Other Related Activities and Relevant Information***

- Worked with REB's Program Planning Directorate for making necessary revisions to the original RPPR II TAPP that resulted from participating in meeting with Ministry personnel. These revisions included changes to both the narrative portion, which described the overall program with Activities and Tasks from the approved Scope of Work, as well as the presentation of the budget information taken from the

approved budget that was included in NRECA's contract. This submission also involved the development of a summary of accomplishments made during the RPPR I Program.

- NRECA continued as active member of RE Donors' Group that has been formed to improve donor coordination in RE Sector and attended specific meetings that were held in April and June.
- In support of the RE Donors' Group, continued to work further with representatives from the Netherlands, DFID, and Norwegian Embassy to finalize the TOR that outlined the functioning of the Donor Group, which would in turn be discussed and agreed upon by other representatives within the Group.
- In addition to its participation in regular RE Donors' Group, NRECA staff participated in meetings on various RE issues with representatives from JBIC, the World Bank, The Netherlands, and DFID.
- Participated in meetings with Team members assigned under Dutch funding to develop a Gender Strategy and Action Plan for the RE Program.
- Participated in an important field visit on May 27<sup>th</sup> to Manikanj PBS that was set up for the US Executive Director to the World Bank (Ms. Carole Brookings) that provided her an orientation to the Bangladesh RE Program. Based on comments made by Ms. Brookings, the results of this visit could potentially result in a briefing being made to the other Executive Directors at the World Bank.
- Continued involvement with RE Donors and participation various meetings with representatives from The Netherlands Embassy and USAID regarding development of Terms of Reference related to technical assistance that would be funded by their Development Corporation and delivered by NRECA International Ltd. Dhaka. Efforts continued to finalize a formal description as to the how this TA Fund would function. Supported efforts of donors and REB to move this initiative forward within ERD.
- Participated in regularly scheduled meetings of USAID's Energy Team contractors that are now being held at the Mission.
- At REB's specific request, continued with NRECA's representation on the REB Revolving Fund Committee that meets on monthly basis to review loan requests from the PBSs and provide general management of the Fund. Some of the key actions included the following:
  - Worked jointly with REB personnel to finalize the procedures for administration of the Fund and for loan accounting in preparation for review by the REB management. Efforts also related to the loan accounting procedures for the Fund, as well as taking decisions for automating the accounting.

## Quarterly Report Exhibits

### A. Implementation Schedule

The Implementation Schedule presented in this Quarterly Report reflects the Annual Work Plan for the RPPR II Program prepared for Year #1.

The Implementation Schedules have been developed using *Microsoft Project* in order to monitor progress and modify as necessary. Subsequent Quarterly Reports will reflect progress on each activity and the various subtasks

**EXHIBIT - A**

**IMPLEMENTATION SCHEDULE  
With Focus on Year #1**

RPPR II First Year Workplan and Implementation Schedule

ID	Task Name	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Activity 1: Planning & Engineering												
2	Task A1: Develop Service Facility Database												
3	A1.1 Select three PHS & consulting engineers												
4	A1.1.1 Identify PHS & consulting engineers												
5	A1.1.2 Compensation agreement w consulting engineers executed												
6	A1.1.3 Final selection contract conducted												
7	A1.1.4 PHS hardware development												
8	A1.1.1 Purchase & process software												
9	A1.2.2 Develop land base												
10	A1.2.3 Field training consulting engineers												
11	A1.2.4 Support field data collection												
12	A1.2.5 GIS Training												
13	A1.2.6 Hardware & software specification to RFP												
14	A1.2.7 Tests and User Acceptance												
15	Task A2: PHS Short and Medium Term Planning												
16	Recruit local specialist												
17	Select PHS & consulting engineers												
18	Identify PHS & consulting engineers												
19	Negotiate consulting engineer compensation agreement												
20	Scout on workshop process												
21	Train consulting engineers on use of analysis software												
22	Hardware specifications for engineering software												
23	RFP provides computer												
24	Functioning software training												
25	Collection of data for work plan for one PHS												
26	Review maps and topographic data for accuracy												
27	Organize operational performance data												
28	Prepare analytical models												
29	Activity B: Operations and Maintenance Programs												
30	Task B1: Resource Preservative Maintenance Programs												
31	Recruitment of local staff												
32	Selection of participating PHS												
33	Evaluation of bus & equipment maintenance practices												
34	Review of bus & equipment inspection practices												
35	Task B2: Material Supply for O&M Program												
36	Feature needs for material												
37	Identify objectives of activity & responsibilities for material acquisition												
38	Acquire materials in accordance with deployment plan												
39	Evaluate workability & resource practices												

1 Project RPPR II  
Date September 2002

Task  
Progress  
Milestone

Summary  
Roll Up Task  
Roll Up Milestone

Project Summary  
Group By Summary  
Empty Task  
Spin

## RPPR II First Year Workplan and Implementation Schedule

ID	Task Name	2003											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
40	<b>Activity C: Strengthen Utility Performance</b>												
41	Task C.1: Strengthen Training Program & Procedures												
42	Begin training needs assessment (3Q3 thru 3Q4)												
43	Coordinate activities of RPPR training team (REB, PBSs, NRECA, USAID)												
44	Support REB training academy development												
45	Curriculum development improvement program												
46	Regional & other training tours												
47	<b>Task C.2: Enhance Computerization Program</b>												
48	Computerization assessment report												
49	Implementation plan for HQ LAN												
50	Continue application software development at PBSs												
51	Develop exit strategy for NRECA computerization support												
52	Evaluate internet communications between HQ and PBSs												
53	<b>Activity D: Optional Programs</b>												
54	Task D.1: Engineering and Construction Standards												
55	Recommend system changes required to deal with neutral theft												
56	Review distribution construction standards												
57	Review equipment specifications												
58	Task D.2: Socio Economic Impact Assessment												
59	Baseline data collection												
60	Strengthen monitoring and socio economic analytic capability at REB												

2 Project RPPR II  
Data September 2002

Task

Progress

Milestone



Summary

Rolled Up Task

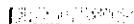
Rolled Up Milestone



Rolled Up Progress

Split

External Tasks



Project Summary

Group By Summary

