

PD-ACA-817

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

USAID Contract No. 388-C-00-02-00124-00
USAID Project No. 388-0287-06

RPPR II QUARTERLY REPORT

1 April 2004 Through 30 June 2004

Prepared By

NRECA INTERNATIONAL, LTD.

In Partnership With

RURAL ELECTRIFICATION BOARD OF BANGLADESH

And

USAID MISSION TO BANGLADESH

QUARTERLY REPORT FOR 04/04 TO 06/04
*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

- Initiated and completed installation of ERC software in Tangail PBS and Narsingdi PBS-1, including training of personnel who were to be involved with this work.
- Initiated engineering & operations record updating procedures at Tangail PBS Comilla PBS-1 for determining as to whether this PBS will be included in future GIS projects.
- Initiated pole numbering in all the sub-stations under Dhaka PBS-1 using grid system to better support the GIS work that was done in that PBS and to test this method for potential use in other PBSs having complex distribution systems.
- Assisted Mymensing PBS-2 and Narsingdi PBS-1 to get their poles numbered in the field to match their single line diagrams and for accurate incorporation into the GIS

Task A.2: PBS Short and Medium Range Planning

- Continued to assist Manikganj PBS in implementation of the procedures to keep their Engineering & Operations records current and complete.
- Continued to assist and encourage Manikganj PBS to install numbers on their poles in the field.
- Continued to make visits to Dhaka PBS I to motivate and assist personnel with the updating of the records that will be used in planning studies.
- Proceeded with efforts to finalize the Construction Work Plan for Mankiganj PBS that has been under development.

Program Activity B: Operations and Maintenance Programs

Task B.1: Preventive Maintenance Programs

- Worked on the identification of the equipment/materials required for the annual maintenance program for substations within the PBSs selected for the pilot maintenance program scheduled early 2005 and submitted this list to REB approval and necessary procurement actions.
- Completed the review and revision of the two main PBS Maintenance Guidelines, which are PBS Policy Instructions 100-29 and 100-30 and submitted both of these to REB for finalization and subsequent approval.

- Utilizing the Wood Pole Plant Specialist, conducted a field survey in order to determine the condition of REB wood poles presently in service and to make subsequent recommendations as to a cost effective test/treatment program to increase the service life of the poles.

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

- Completed the orientation to Bangladesh and the REB/PBS system for the Materials Specialist in connection with his assignment that includes working on the current OMRR policy and equipment/material listing in order to improve the availability of OMRR materials at the PBSs.
- Assisted in preparation of list/indent for the equipment and materials required for the annual maintenance program for all substations in the three PBSs selected for the pilot maintenance program scheduled for early 2005.
- Reviewed the existing OMRR material list and, in consultation with REB/PBS personnel, continued working on the addition of items proposed for inclusion to this list.
- Reviewed the existing OMRR policy and continued working with REB and PBS personnel to identify provisions of the policy that still required further updating in order to make the policy more comprehensive and effective.

Program Activity C: Strengthen Utility Performance

Task C.1: Strengthen Training Program and Procedures

- Finalized and submitted the training materials (Trainer and Trainee manuals) for "Operation and Maintenance of Voltage Regulator" having REB and PBS engineers as the target population.
- Continued with the development of the Trainer and Trainee manuals for the "REB Material Accounting Procedure" training program after receiving feedback and comments by the REB Curriculum Review Committee.
- Preceded with the ongoing development of training materials for the program entitled "Planning and Acting – Getting the Job Done" that is being designed and developed for PBS Billing and Cash Supervisors.
- Continued with further work on the draft report on the Training Needs Assessment for the employees of REB and PBSs, as well as other personnel associated with the RE Program.
- Implemented the regional consultation to Pakistan and Malaysia that focused on electric utility training institutions in support of REB's development of the proposed Training Academy to be funded by the Asian Development Bank.

Task C.2: Enhance Computerization in REB and PBSs

- Completed the study of the existing computerized billing systems, which were designed and developed by local vendors and then initiated the design, development and testing of different modules of the new integrated Consumer Information System (CIS) for the PBSs as per the REB Board decision.

- Completed initial design and development of the basic data acquisition routines and prepared data entry screen as part of developing the Consumer Information System (CIS) for the PBSs and completed some initial in-house testing of the various modules
- Arranged for special training for NRECA staff related to Oracle Database Administration in order to support the transition of REB applications to the use of Oracle as the preferred platform for managing the large data bases that will be associated with the ongoing computerization of both REB and the PBSs.
- Continued with the delivery of the training program entitled "Computer Operating Fundamentals". In this quarter 87 employees of 8 PBSs received this training of whom 46 certificates were issued.
- Initiated discussions with REB on the need for additional computer training particularly related to database management for selected REB personnel working in the Finance and Accounting sections of REB.

Program Activity D: Supplemental Tasks

Task D.1: Updating Engineering and Construction Standards

- Reviewed some preliminary options for the design of 11 KV feeders exiting from substations in order to determine how it might be possible to ensure the presence of the appropriate hardware line isolating equipment that could be installed to create "visual opens" to help ensure safe working conditions when substation maintenance is being performed. The modification of the standard substation layout may also be required. (Note: This was initiated due to maintenance work being performed under Task B.1.)
- Determined that Milsoft program can be used to model the national grid for analysis purposes to better meet the growing power needs of the PBSs.
- Based on the continued interest of the World Bank and REB, formally notified USAID on the need to pursue this 33 KV system study and as of the end of the reporting period NRECA was still awaiting a formal reply from USAID on whether to proceed with this new subtask under the RPPR II Contract.

Task D.2: Socio-Economic Impact Assessment

- Completed with the development of the draft Review Report related to the accomplishments completed of the RPPR-I, which is expected to be finalized in the near future.
- Conducted a number of short briefing sessions with the new Executive Director on concept of the Socio-economic Baseline Database system, its implementation status since September 1997 and current progress of the participating PBSs in terms of their current year targets for data collection.
- Provided REB's Socio-economic Monitoring and Evaluation Cell (SEMEC) with the baseline data, which had been collected by the participating eight PBSs during FY 2002 – 2003.
- Conducted a number of Refresher Training courses, follow up and troubleshooting activities as per requirements of the participating PBSs.

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. Two short-term specialists will support the Team Leader 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:

- Continued with GIS fieldwork for Narsingdi PBS-1 with the expectation that this quarter will pretty well mark the end of this work with the rainy season beginning and continuing through at least the end in September.
- Continued with the integration of the distribution system data for Dhaka PBS-1 into the GIS database.
- Initiated and completed installation of ERC software in Tangail PBS and Narsingdi PBS-1, including training of PBS personnel and associated personnel from the local Engineering Consultant providing service to that PBS.
- Supported efforts for Transformer record card data updating for Mymensingh PBS-2 and Narsingdi PBS-1.
- Reviewed transformer and consumer data from Pabna PBS-2 that was resubmitted, and while it was more complete than the last set it had not yet been integrated into the GIS database, nor checked for accuracy, however there is reason for optimism that it will be of sufficient quality to allow the GIS project to continue there.
- Initiated engineering & operations record updating procedures at Tangail PBS and Comilla PBS-1 as the success of this initiative will be a key factor for determining as to whether these PBSs will be included in future GIS projects.
- Initiated pole numbering in all the sub-stations under Dhaka PBS-1 using grid system to better support the GIS work that was done in that PBS and to test this method for potential use in other PBSs having complex distribution systems.
- Assisted Mymensingh PBS-2 and Narsingdi PBS-1 to initiate "pole-numbering" projects in order to get their poles numbering in the field to match their single line diagrams and for accurate incorporation into the GIS

Plans For Next Quarter:

- Complete the integration of the transformer record card data into the GIS database for Natore PBS-1 and Pabna PBS-2, assuming the data they have resubmitted is of sufficient accuracy and completeness.
- Complete reproduction of detail map of Dhaka PBS-1 using GIS technology.
- Initiate the integration of the transformer record card data into the GIS database for Mymensingh PBS-2.
- Continue to assist PBSs with the engineering & operations record update process.

Task A.2: PBS Short and Medium Range Planning

Status as of this Quarter:

- Continued to assist Manikganj PBS in implementation of the procedures to keep their Engineering & Operations records current and complete. It is hoped that this process will be sufficiently institutionalized by the end of next quarter so the PBSs can continue with its ongoing implementation.
- Continued to assist and encourage Manikganj PBS to install numbers on their poles in the field.
- Continued to make visits to Dhaka PBS 1 to assist personnel with the updating of the records that will be used in planning studies that will be necessary to complete the development of the two-year Construction Work Plan for the PBS.
- Made significant efforts to further enhance the overall record keeping practices at the various PBSs and reinforce to both REB and the PBSs why this record keeping practice is so important to all aspects of engineering and utility operations.
- Proceeded with efforts to complete the on-site review of the Construction Work Plan for Mankiganj PBS that has been under development in order to have it finalized.

Plans For Next Quarter:

- Initiate operational data gathering in anticipation of the planning study that will be completed for Dhaka PBS-1, as part of the development of its Two Year Work Plan.
- Initiate the development of a "computer model" for Dhaka PBS-1 to be used in various technical studies using the Milsoft engineering package to be performed in conjunction with the development of its Two Year Work Plan.
- Continue to assist the STS Planning Specialist by interpreting and correcting data gathered from Dhaka PBS-1, which will be incorporated into its Two Year Work Plan.
- Continue to assist personnel with the proper implementation of the procedures to keep their Engineering & Operations records current and complete and to reinforce to the management of Manikganj PBS the importance of this process. As noted previously it is hoped that this process will be sufficiently institutionalized by the end of next quarter so the PBSs can continue with its ongoing implementation.
- Advise and assist Manikganj PBS regarding the numbering of poles installed with the PBS service territory to match the single line diagrams.
- Begin development of an educational presentation on the projects included in RPPR II with a plan to have the presentation to REB/PBS officers, and perhaps members of the donor community, sometime during the coming months when the Planning Specialist is scheduled to be in Bangladesh.
- Initiate work on the development of a PBS Policy Instruction that will outline the specific responsibilities for the record keeping process, including the use of the "electronic record keeping (ERC) software package.

(Note: This work can be linked with the work being performed under the Task D.1 - Updating Engineering and Construction Standards.)

- Continue follow-up for procurement/allocation of equipment material for proposed sub-station maintenance in three PBSs during next winter.
- Review the final report submitted by the Wood Pole Specialist and determine what options are available to the REB and the PBSs in terms of methods that might be adopted to maximize the service life of the wood poles.

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

Status as of this Quarter:

- Provided the Materials Specialist necessary orientation for on the situation in Bangladesh and the REB PBS system with respect to his work associated with the review the current OMRR policy and equipment material listing.
- Assisted with the preparation of specification, working out quantities, locating possible source of suppliers, checking REB stock status, and preparing the indent for the equipment and materials required for the annual maintenance program for all substations associated with the three PBSs selected for the pilot maintenance program scheduled early 2005. This work was completed under the direction of the Material Specialist and in consultation with REB.
- Reviewed the present OMRR material list and, in consultation with REB PBS personnel, continued working on the additional items proposed for inclusion to this list.
- Initiated a review of the existing OMRR policy and continued working in consultation with REB and PBS personnel to identify provisions of the policy that still required further updating in order to make the policy more comprehensive and effective. This included a review of the current methods of procurement, storage, material management records and material management computer capabilities etc. according to the current practice within REB and the PBSs.

Plans For Next Quarter:

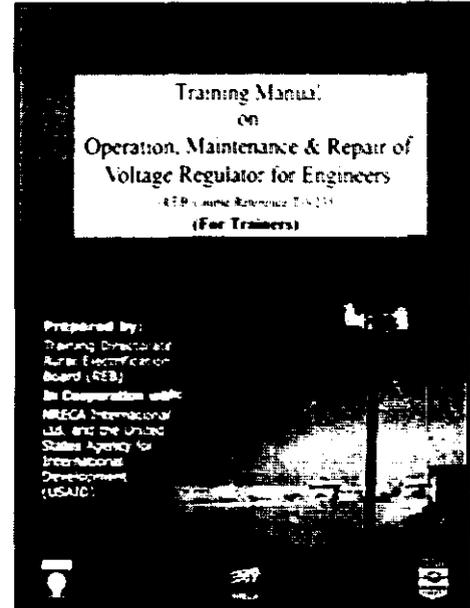
- Collect historical data from selected PBSs to assess volume of O&M material consumption and to determine consumption rates and future ordering requirements.
- Continue with the collection of relevant information from selected PBSs as to the mode of procuring O&M material, as well as other important factors such as lead time required for delivery, inventories, etc..
- Gather relevant information related to problems arising within REB and PBS with respect to the implementation of the OMRR policy and seek solutions to the identified problems as well as other information that will support improvements in both practice and the OMRR policy instruction.

Program Activity C: Strengthen Utility Performance

Task C.1: Strengthen Training Program and Procedures

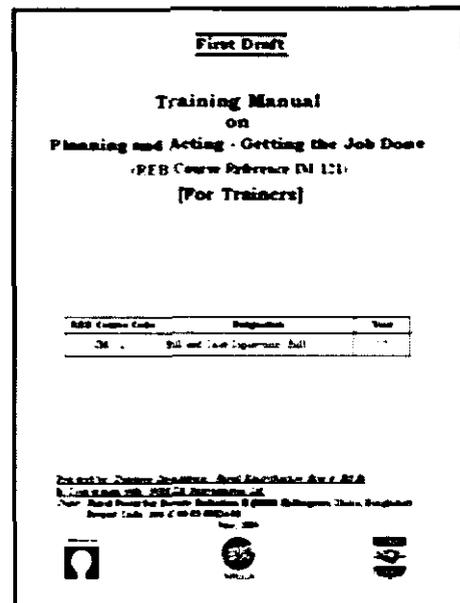
Status as of this Quarter:

- Continued with following curriculum development activities in consultation with the concerned personnel of REB's Training Directorates:
 - Finalized the development of the following training manual after receiving feedback in the pilot test and submitted to Training Directorate of REB:
 - ≡ Operation, Maintenance & Repair of Voltage Regulator for Engineers (TO 235)
 - Continued with the development of the following training manual:
 - ≡ Maintenance & Repair of Voltage Regulator for Lineman Part III Passed (TL 044)
 - Proceeded with the work for developing training manual on the following training program after receiving comments and recommendations from REB Curriculum Review Committee on its curriculum outline:
 - ≡ Material Accounting for Assistant Directors (Finance) and Accountants of REB (IF 520)



(Note: This work has included some interaction with the concerned REB officers assigned with responsibilities related to material accounting and the current REB Policy Instruction on material accounting. It is anticipated some revision of this policy will be required as part of the overall curriculum development process in order to ensure the training reflects the actual policy and procedure being implemented at REB.)

- Submitted the first draft of following training manual (Trainer and Trainee) for Bill and Cash Supervisor (Bill) of PBSs to REB and monitored the comments of the REB Curriculum Review Committee:
 - ≡ Planning and Acting -- Getting the Job Done (IM 121)
- Implemented the regional consultation to Pakistan and Malaysia that focused on electric utility training institutions which was conducted to support REB's development of the proposed Training Academy to be funded by the Asian Development Bank.



- Implemented the regional consultation to Pakistan and Malaysia that focused on electric utility training institutions in support of REB's development of the proposed Training Academy to be funded by the Asian Development Bank.
- Prepared the draft report on the Training Needs Assessment (TNA) of employees of REB and the PBSs
- Contributed in editing, scanning and synchronizing of text and various illustrations and forms that were all related to the revisions being made to REB Policy Instructions – 100-29 and Policy Instructions – 100-30, both of which support the implementation of Task B.1 (Preventative Maintenance Program).

Plans for Next Quarter:

- Continue with curriculum development subtasks including:
 - Continue with the task of developing the training manual (Trainer and Trainee) for the following programs:
 - ≡ Maintenance & Repair of Voltage Regulator for Lineman Part III Passed (TL 044)
 - ≡ Material Accounting for Assistant Directors (Finance) and Accountants of REB (IF 520)
 - Proceed with the completion of the development of the training manual (Trainer and Trainee) and the subsequent pilot-testing for the following training program:
 - ≡ Planning and Acting Getting the Job Done for the Bill and Cash Supervisors of PBS (IM 121)
- Per REB's specific request, proceed with the organization of Training of Trainers (TOT) for the REB and PBSs employees who act as trainers in the training events.
(Note: It is anticipated that this TOT will focus on "instructional techniques" that will assist with the enhancement of skills for trainers where by they can better facilitate the participation of those attending the training programs.)
- Continue with the work of completing the necessary revisions required to finalization the draft Training Needs Assessment (TNA) report for REB and PBSs after receiving the initial feedback and comments from REB Training Directorate personnel.

Task C.2: Enhance Computerization in REB and PBSs

Status as of this Quarter:

- Initiated the design and development of an integrated Consumer Information System (CIS) for the PBSs as part of the priority decision taken in the "Strategic Planning for Information Technology" workshop held in January 18-19, 2004.
 - Completed the design and development of the basic data acquisition routines as identified and the appropriate screens have been designed and develop. These screens will be used to enter the codes for village, union, thana, district, bank and bank branch, consumer application detail, consumer meter order (CMO) detail, CT/PT information, consumer load, info on wiring inspection, data on various

deposits, project donor information, meter detail etc. These screens have been tested with the test data at NRECA office.

(Note: Once the Hardware and software has been procured at the two pilot PBSs (Mymensingh-3 and Kishoreganj), these modules, along with the other modules will be installed there for testing and training the PBS personnel.)

- Completed the entry of the basic codes, which are common to all PBSs, through the specific screens developed.
- Requested the experienced Billing Supervisor of Dhaka PBS-1 during a daylong session at NRECA to check the correctness of the basic data entry screens. The daylong session with the Billing Supervisor was very successful.
- Initiated developing other modules of the CIS viz. Consumer meter reading, Bill processing etc.
- NRECA software development team attended three weeks' long training program on Oracle Database Administration in order to support the transition of REB applications to Oracle as the preferred platform for managing the large data bases that will be associated with the ongoing computerization of both REB and the PBSs.
- Organized meeting to discuss the issues related to CIS with the senior REB management.
- Continued with ongoing development work with various software packages including as needed training related to the following:
 - Supported the Rates and Contract Cell on an as needed basis in its expanding use of the Statistical Data Base for the development of the MIS Report.
 - Organized meeting with the Controller of Accounts and Finance regarding the required training for the Rate Cell employees on Database.
- Continued conducting the training course entitled 'Computer Operating Fundamentals' for the PBS employees. During this reporting period, 87 employees from 8 different PBSs received this training while 46 certificates have been prepared and sent to the respective employees through the concerned PBSs.
- Initiated discussions with REB's Controller of Finance and other concerned Finance personnel regarding the need for providing specific types of computer training (e.g. database, etc.) for REB's Rate Cell staff and other REB staff working in the finance and accounting areas.
 - Based on results of these discussions, the initial plan was for the REB Director (Training) to explore options that are available for local computer training vendors, which could then be supplemented with specific training by NRECA personnel on the more extensive utilization of the packages developed by NRECA (e.g. Statistical Data Base, etc.).
- Continued our support and training to PBSs and REB personnel at NRECA office and on-site at PBSs on an "as needed basis".

Plans for next quarter:

- Continue with the on-going software development activities to complete the remaining tasks, install the software package in the pilot PBSs and train the relevant employees on the developed software package. The specific tasks in this area are the following:
 - Complete the design, development and testing of the remaining modules, including the following and others that are deemed necessary to complete the CIS package: Meter Reading process; Bill process; Bill Print; Bill Adjustment; Adjustment with Debit Memo/Credit Memo (DM/CM) etc.
 - Install the software package (as soon as the pilot PBSs procure the required Hardware and Software) and start unit testing with real data
 - Train the PBS assigned personnel on CIS software, initially on data entry modules.
 - Begin code entries those are specific to PBSs
 - Begin bulk data entry (consumer master data) of all consumers
- Organize a number of demonstration sessions of CIS software for the concerned representatives from the PBSs, REB Computer Cell and REB Office System (Finance) in order to show features of the software package and to obtain feedback .
- Proceed with the preparation of the CIS user manual that will be used for training the PBS personnel and to serve as desk references for the concerned PBS staff.
- Initiate the development of the Data Flow Diagrams for the total computerization activities of PBSs and REB (as is ideal for functioning electric utilities) by the Computerization Specialist during his next visit.

(Note: These Diagrams will serve as general guidelines to be followed by the software development team for the various packages/modules that will be part of the ongoing software development effort.
- Initiate work on the revision of the existing PBS Instruction 200-06, in order to incorporate the changes in the Instruction that will reflect the revisions that will be required due to change from a manual billing process to one that is automated.
- Continue with implementation of the "Computer Operating Fundamentals" course with coverage to be at least seven more PBSs in this coming quarter.
- Continue to provide ongoing support and training to PBS and REB personnel at NRECA office or if necessary at the PBSs on an "as needed basis"

Program Activity D: *Supplemental Tasks*

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

Results as of this Quarter:

- With respect to changes in engineering practice, the REB did not raise any new specific issues during the reporting period, thus no specific support was required during the reporting period.

- Reviewed some preliminary options for the design of 11 KV feeders exiting from substations in order to determine how it might be possible to ensure the presence of the appropriate hardware/line isolating equipment that could be installed to create "visual opens" to help ensure safe working conditions when substation maintenance is being performed. The modification of the standard sub-station layout may also be required.
(Note: This was initiated due to maintenance work being performed under Task B.1.)
- Determined that Milsoft program could be used to model the national grid for purposes of preparing alternatives analysis of expansion of the 33kV systems while looking at options for accessing the 132kV grid to better meet the needs of the PBSs.
(Note: This is a priority for the World Bank)
- Based on the continued interest of the World Bank and REB, formally notified USAID on the need to pursue this 33 KV system study and as of the end of the reporting period NRECA was still awaiting a formal reply from USAID on whether to proceed with this new subtask under the RPPR II Contract.

Plans For Next Quarter:

- Continue consultation with REB regarding the potential options for the design of 11 KV feeders exiting from substations in order to determine how it might be possible to ensure the presence of the appropriate hardware/line isolating equipment that could be installed to create "visual opens" to help ensure safe working conditions when substation maintenance is being performed. Initiate work on the modification of the standard sub-station layout if the decisions taken dictate various changes are required.
(Note: This was initiated due to maintenance work being performed under Task B.1.)
- 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.
- Based on the position taken by USAID with respect to the RPPR II Scope of Work, prepare a proposal for World Bank regarding preparation of a 132 33kv system expansion plan and then continue to interface with USAID with respect to how the work is accomplished.
- Initiate plans for completing the review of the REB Engineering and Construction Policies and Standards when the Engineering Specialist will be available in Bangladesh on an extended assignment from August through December as is currently planned for.

Task D.2: Socio-Economic Impact Assessment

Status as of this Quarter:

- Completed with the development of the draft Review Report related to the accomplishments completed of the RPPR-I, which is expected to be finalized in the near future.
- Conducted a number of short briefing sessions with the new Executive Director on concept of the Socio-economic Baseline Database system, its implementation status since September 1997 and current progress of the participating PBSs in terms of their current year targets for data collection.

- Provided REB's Socio-economic Monitoring and Evaluation Cell (SEMEC) with the baseline data, which had been collected by the participating eight PBSs during FY 2002 – 2003.
- Conducted a number of Refresher Training courses, follow up and troubleshooting activities as per requirements of the participating PBSs.
- As part of the ongoing dissemination of the socio-economic impact assessment, arranged for the outside production of 125 CDs containing the document entitled "Economic and Social Impact Evaluation Report on the Bangladesh RE Program", October 2003 with copies were provided to the NRECA office, Arlington and the Dhaka office.
- In support of capacity building efforts, Mr. Rashed (Data Administrator, NRECA) and Mr. AIM Latiful Azam (Deputy Director, REB) completed a twelve-day "SPSS Training" course conducted by the Institute of Statistical Research and Training (ISRT), University of Dhaka, and as part of the training provided the baseline data to the SEMEC, which had been collected by the eight participating PBSs during FY 2002 – 2003.
- Completed a one-day Refresher Training course on the Baseline Data Collection Techniques & Procedures for 35 enumerators of the Dhaka PBS-1.
- Completed two one-day Refresher Training course on the Baseline Data Entry Techniques & Procedures to 13 support staff of the Comilla PBS-1 (four male and two female) and Meherpur PBS (five male and two female).
- Completed visits to nine PBSs for follow up on the progress of the baseline data collection system and to provide necessary troubleshooting at PBS Headquarters and Zonal offices. Each visit included sharing of experiences and ideas among the involved senior management staff.

Plans For Next Quarter:

- Proceed with completion of the draft of the baseline report based on the collected data from the period of July 2002 to June 2003 (FY 2003-04) and submit it to REB for review and discussion.
- Continue involvement with the new Executive Director, REB regarding the nature and level of involvement the NRECA staff with the socio-economic activities of the World Bank/IDA project and the support to be provided to REB's SEMEC in promotion of the socio-economic activities of the RE Program.
- Proceed with accumulation of data collected through out the period of June 2003 to June 2004 and preparation of the Implementation Report regarding quantitative and qualitative performance of the 17 PBSs currently involved with the collection of the socio-economic baseline data for the period of July 2003 to June 2004.
- Proceed with continuation of the follow up and troubleshooting support to these 17 PBSs regarding smooth implementation/institutionalization of the Socio-economic Baseline Database System.

- Proceed with implementation of a TOT for PBS senior staff involved with the management and implementation of the Socio-economic Baseline Database system in order to ensure personnel at the various PBSs can have the proper training to support the data collection system. This is particularly important for newly posted personnel or for those transferred into a participating PBSs from a PBS where this system is not being implemented.
- As per need of PBS management, proceed with implementation of a number of Refresher Training courses in the nine PBSs (those incorporated in the last year) on SE Baseline Data Collection Techniques and Procedures with particular focus being on the knowledge and experiences gathered by the PBS personnel during the past six months.

IV. Quarterly Status & Planning of Project Management For RPPR

Project Management/Administration For Program-Related Issues

Status as of this Quarter:

- The Arlington office completed mobilization requirements to allow the Materials Management Specialist to travel to Bangladesh for his initial assignment under RPPR II.
- The Arlington office continued with recruitment and processing of candidates for the various short-term positions.
 - Initial inquires indicates that the Dr. Randall Dupont is interested in serving as the Training Specialist and processing will begin next quarter to arrange the contracting of his services.

(Note: Dr. Dupont was one of the primary instructors who delivered some of the training programs that were arranged by NRECA under funding from the Asian Development Bank in the Fall of 2003..)

- In an attempt to secure a more reliable internet service having a higher quality data transfer speed, the Dhaka office reviewed the options available for local providers and arranged for the transfer and set up of a new service from another local service provider (firm selected was Global, which focuses primarily offices and commercial accounts.)
- 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 proceed with contracting arrangements with Dr. Randal Dupont to serve as the Training Specialist, which was the remaining STS slot that had not been filled. .
- Continue with earlier investigations of potential medical insurance providers for incorporating this coverage for local staff including consultation with USAID Embassy and other NGOs.

(Note: The Embassy USAID are undergoing a review of their Job and Wage classifications and a new matrix for salary and other benefits is expected in the not too distance future. This may provide some options from which to Dhaka office to follow in providing similar benefits package, particularly with respect to medical insurance coverage.)

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 April, May and June 2004, as contained in the selected REB Management Information System (MIS) Reports:

Description	Mar 2004	April 2004	May 2004	June 2004	Change - 3 Mos Period
System Loss (12 mo. Avg.)	15.85%	15.60%	15.52%	15.60%	-0.25%
System Loss (this month's Avg.)	15.02%	12.46%	16.31%	16.61%	+1.59%
Percentage of Collection (12 mo. Avg.)	97.16%	97.43%	97.84%	98.06%	-0.90%
Percentage of Collection (this mo. Avg.)	101.06%	88.81%	110.64%	131.78%	+30.71%
Accounts Receivable (# mo. Outstanding)	2.17	2.19	2.13	1.81	-0.36%
Total Villages Energized	40,601	40,743	40,937	41,125	+524
Number of New Meter Connections	52,221	55,808	62,428	47,963	166,199
Total # of Meters Connections	5,228,537	5,284,345	5,346,773	5,394,736	166,199
Total Km of Energized Line	167,788	169,062	170,287	173,125	+5,337
MWH Purchased YTD - % of change last yr.	18.33	16.91%	16.70%	16.32%	-----

- 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 **166,199 new connections** being made during this reporting period. This averages out to **55,399 per month** or **2,173.20 per working day** based on an average of 25.5 day working days/month. As part of this ongoing **expansion**, **524 new villages** received electric service. Also, the total amount of **energized line increased** by **5,337 km** during these three months for an average of **1,779 km/month** or **69.76 km/day** during an average month of 25.5 working days.
- As of the end of the reporting period, the overall **12-Month Average System Loss** for all 67 operating PBSs **decreased** by **0.25%** over the three-month reporting period.

Note: As has been indicated in previous reports, the ongoing project with the World Bank involving the takeover of significant amounts of distribution line and pockets (initially fixed at up to 3 MW load centers) continues to challenge the PBSs regarding their capabilities to get the losses associated with these areas under control.

- There was a small **increase** of **1.59%** in the **Average Monthly System Loss** for the reporting period which bringing this statistic to **16.61%**.

- The overall *Percentage of Collection (12 mos average)* shows a slight increase of **0.90%** bringing the collection rate to **98.06%**. This collection rate continues to reflect an earnest effort on the part of the PBS to collect its bills, as well as willingness by the PBS members to pay their electric bills. The *Percentage of Monthly Collection (this month Average)* showed a marked increase of **20.83%**, which moved from **89.81%** for **February '04** up to **110.64%** for **May 04**.
- The total *Accounts Receivable* showed a slight increase of **0.05%** during the reporting period thus resulting in a total of **2.13 months outstanding** and owed to the PBSs.
- 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 of **8.33%**, **16.91%** and **16.70%**. As noted in previous Quarterly Reports, these figures represent 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 positive increases continue to help 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

- NRECA continued as active member of RE Donors' Group that has been formed to improve donor coordination in RE Sector and to address issues impacting the RE Program. One formal meeting of the RE Donors was held in mid-June at DFID.
- In addition to the RE Donors' meeting held during the reporting period, NRECA staff did participate in meetings on various RE issues with representatives from JBIC (4/28 04) and DFID (05/23 04).
- Participated in a half-day Workshop sponsored by the Power Ministry where the State Minister of Power presented a review of the current status of the Power Sector and identified its future needs to representatives of the donor community, private sector and other interested attendees.
- Participated in a series of meetings with PA Consulting team members and REB officers regarding efforts to help formulate recommendations about how the RE Program would interface with the Bangladesh Energy Regulatory Commission (BERC).
(Note: This involvement will result in having input into what PA Consulting is likely to recommend to the GOB through their report that is a deliverable under their current USAID contract.)
- Participated in various sessions with REB personnel regarding the Bangladesh RE Program and NRECA's involvement and the function of the cooperative model for a six-member delegation from Assam. The delegation included the Chairman of the Assam State Electricity Board, the Acting Chairman of the Assam Regulatory Commission, as well as other officers from the ASEB.
- At REB's continued request, NRECA remained active in attending the REB Revolving Fund Committee meetings that are held on monthly basis to review loan requests from the PBSs and provide general management of the Fund. Work still relates to finalizing procedures for administration of the Fund and for loan accounting in preparation for review by the REB management.
- As it had done in its letter to REB Chairman in December 2003, NRECA continues to have strong reservations about the extent to which PBS "patronage capital" is being used for investments in RPC ventures. NRECA believe that capital for good generation projects is available from other sources and these PBS funds should remain in support of distribution efforts, which still require significant investments and where low interest capital is not easily accessible.

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 #2.

The Implementation Schedules have been developed using *Microsoft Project* in order to monitor progress and modify as necessary.

B. Budget Information

The Budget information presented in this Quarterly Report reflects the total budgeted amounts for the four individual Activities and reflects the costs for each line item for this Quarter and provides a remaining balance.

EXHIBIT - A

**IMPLEMENTATION SCHEDULE
With Focus on Year #2**

RPPR II Second Year Workplan and Implementation Schedule - 3rd Qtr.

ID	Task Name	2004											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Activity A: Planning & Engineering												
2	Task A.1: Develop Service Territory Database												
3	Select three PBSs & consulting engineers for this Phase												
4	Identify PBSs & consulting engineers - Completed												
5	Data collection seminar conducted - Completed												
6	GIS landbase development for three PBSs												
7	A 1 2 1 Purchase & process satellite imagery - Completed												
8	Develop land base from satellite imagery - On schedule												
9	Field Training and supervise field data collection - Ongoing												
10	Prepare GIS with field data for participating PBSs												
11	Continue & complete GIS development for PBSs from Yr #1 - Ongoing												
12	Develop actual GIS for three new PBSs - Ongoing - Some Data Problems												
13	GIS Training												
14	Assist REB w/hardware & GIS Software procurement - Delayed/ongoing												
15	GIS and ArcView orientation - GIS Cell and Consultants (Delayed)												
16	Task A.2 PBS Short and Medium Term Planning												
17	Continue development of Work Plan for 1st PBS - Manikauj												
18	Continue monitoring data collection for accuracy - Completed												
19	Continue refinement of analytical models on Milssoft - Ongoing												
20	Complete and finalize Work Plan												
21	Conduct seminar on new planning process - Delayed until Sept												
22	Develop Work Plan for 2nd PBS - Dhaka I												
23	Monitor data collection for accuracy - Delayed due to data inaccuracies												
24	Prepare analytical models on Milssoft - Delayed see above												
25	Complete and finalize Work Plan - Delayed see above												
26	Conduct seminar on new planning process - Delayed for STS assignment												
27	Train consulting engineers on use of analysis software												
28	Assist REB & C Engg w/procurement of hardware & engg software												
29	Institute engineering software training for REB and C Engg - Some delay												
30	Test Electronic Record Card System & implement for PBSs - Ongoing												
31													
32	Activity B: Operations and Maintenance Programs												
33	Task B.1. Preventative Maintenance Programs												
34	Enhancing O&M Policies and practices												
35	Continue evaluation of line & equipment maintenance practices												
36	Review of line & substation inspection guidelines w/recommendations												
37	Conduct seminar on findings and recommendations for O&M												
38	Submit Draft Final on Substation & Line O&M Guidelines - Deliverable - Submitted 6/15												
39	Reinforce Preventative Maintenance Programs												
40	Support of ERC system (see Task A.2) for O&M purposes												
41	Conduct hands on training during winter/substation O&M period - Completed												

RPPR II Work Plan
Year #2
10/03 to 09/04 3rd Qtr

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

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EXHIBIT - B

BUDGET INFORMATION
With Focus on 3rd Quarter FY 2003-04

RPPR II Program
Budget Information - 3rd Quarter FY 2003-04

	Total Amount Budgeted	Cumulative Thru Mar-04	Cumulative Thru Jun-04	Expenditure 3rd Qtr	Balance Available Thru 9/30/07
Activity A					
Cost Elements					
Material and services	\$ -	\$ -	\$ -	\$ -	\$ -
Direct Labor	\$ 1,036,182	\$ 285,415	\$ 342,695	\$ 57,280	\$ 693,487
Indirect Costs	\$ 522,340	\$ 192,596	\$ 233,061	\$ 40,466	\$ 289,279
Other Costs	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ 118,061	\$ 44,978	\$ 54,906	\$ 9,928	\$ 63,155
Consulting	\$ -	\$ 37,496	\$ 46,104	\$ 8,608	\$ (46,104)
Other Direct Costs	\$ 184,213	\$ 94,285	\$ 96,455	\$ 2,170	\$ 87,758
Administration Allocated to Activities	\$ 476,849	\$ 338,371	\$ 387,687	\$ 49,317	\$ 89,162
Total Costs	\$ 2,337,645	\$ 993,142	\$ 1,160,909	\$ 167,767	\$ 1,176,736
Activity B					
Cost Elements					
Material and services	\$ -	\$ -	\$ -	\$ -	\$ -
Direct Labor	\$ 753,376	\$ 82,258	\$ 122,283	\$ 40,025	\$ 631,093
Indirect Costs	\$ 420,573	\$ 49,337	\$ 67,928	\$ 18,591	\$ 352,645
Other Costs	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ 87,726	\$ 16,973	\$ 31,391	\$ 14,418	\$ 56,335
Consulting	\$ 270,000	\$ 60,396	\$ 95,117	\$ 34,721	\$ 174,883
Other Direct Costs	\$ 90,795	\$ 9,404	\$ 13,120	\$ 3,716	\$ 77,675
Administration Allocated to Activities	\$ 214,919	\$ 90,099	\$ 103,231	\$ 13,132	\$ 111,688
Total Costs	\$ 1,837,389	\$ 308,468	\$ 433,070	\$ 124,603	\$ 1,404,319
Activity C					
Cost Elements					
Material and services	\$ -	\$ -	\$ -	\$ -	\$ -
Direct Labor	\$ 1,840,559	\$ 352,717	\$ 441,585	\$ 88,869	\$ 1,398,974
Indirect Costs	\$ 615,908	\$ 77,176	\$ 107,862	\$ 30,687	\$ 508,046
Other Costs	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ 132,564	\$ 17,710	\$ 40,443	\$ 22,733	\$ 92,121
Consulting	\$ 180,000	\$ 40,438	\$ 64,813	\$ 24,375	\$ 115,188
Other Direct Costs	\$ 87,849	\$ 35,365	\$ 40,145	\$ 4,780	\$ 47,705
Administration Allocated to Activities	\$ 1,522,324	\$ 219,224	\$ 251,175	\$ 31,951	\$ 1,271,149
Total Costs	\$ 4,379,204	\$ 742,629	\$ 946,023	\$ 203,394	\$ 3,433,181

Exhibit B

	Total Amount Budgeted	Cumulative Thru Mar-04	Cumulative Thru Jun-04	Expenditure 3rd Qtr	Remaining Balance
Activity D					
Cost Elements					
Material and services	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000
Direct Labor	\$ 377,248	\$ 74,026	\$ 82,230	\$ 82,230	\$ 295,018
Indirect Costs	\$ 247,619	\$ 34,252	\$ 35,741	\$ 1,489	\$ 211,878
Other Costs	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ 61,787	\$ 12,677	\$ 13,309	\$ 632	\$ 48,478
Consulting	\$ -	\$ 10,000	\$ 10,000	\$ -	\$ (10,000)
Other Direct Costs	\$ 2,156	\$ 33,783	\$ 33,886	\$ 103	\$ (31,730)
Administration Allocated to Activities	\$ 159,658	\$ 91,430	\$ 104,755	\$ 13,326	\$ 54,903
Total Costs	\$ 898,468	\$ 256,167	\$ 279,920	\$ 23,753	\$ 618,548
Total Summary					
Cost Elements					
Material and services	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000
Direct Labor	\$ 4,007,365	\$ 794,416	\$ 988,794	\$ 268,404	\$ 3,018,571
Indirect Costs	\$ 1,806,440	\$ 353,360	\$ 444,592	\$ 91,232	\$ 1,361,848
Other Costs	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ 400,138	\$ 92,338	\$ 140,048	\$ 47,710	\$ 260,090
Consulting	\$ 450,000	\$ 148,330	\$ 216,033	\$ 67,703	\$ 233,967
Other Direct Costs	\$ 365,013	\$ 172,838	\$ 183,606	\$ 10,768	\$ 181,407
Administration Allocated to Activities	\$ 2,373,750	\$ 739,123	\$ 846,849	\$ 107,725	\$ 1,526,901
Summary of Total Costs	\$ 9,452,706	\$ 2,300,405	\$ 2,819,923	\$ 519,518	\$ 6,632,783
Fixed Fee	\$ 237,544	\$ 55,578	\$ 66,793	\$ 11,215	\$ 170,751
Total Costs Plus Fixed Fee	\$ 9,690,250	\$ 2,355,983	\$ 2,886,716	\$ 530,733	\$ 6,803,534

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