

BANGLADESH RURAL ELECTRIFICATION BOARD

**PBS INSTRUCTION 100-59/
PBS INSTRUCTION 300-60**

**ENGINEERING & OPERATIONS
RECORD UPDATE PROCESS**

BANGLADESH RURAL ELECTRIFICATION BOARD
PBS INSTRUCTION 100-59/ PBS INSTRUCTION 300-60

Approval Date: 31/10/2005

Revision Date : 19/02/2020

SUBJECT: ENGINEERING & OPERATIONS RECORD UPDATE PROCESS

I. Background

Due to the continuing growth of consumers, both in number and in per capacity KWH consumption, the electrical network system in the PBSs are continuously changing. In addition of new laterals, new transformer are installed, old transformer are replaced by higher capacity ones, single-phase lines are converted to three-phase, lines are upgraded with higher size of conductor, etc. These changes must be accurately noted in a timely manner for PBS to operate at satisfactory levels of efficiency and reliability. If the records are not kept accurate and up-to-date, consumers cannot be assured power supply with satisfactory levels of quality and reliability. Without accurate Engineering and Operations (E&O) records, operational efficiency of the PBS is sure to decrease. Therefore a systematic process of continuous updating of E&O records must be followed at the PBS level. This instruction will detail how that process should be implemented.

II. Purpose:

To establish standard procedure for updating equipment data in electronic format, which will be helpful to find out, manufacture wise or equipment wise its quality, loaded condition, maintenance time etc. For this purpose a software known as **ERC (Equipment Record Card) Software** has been using in PBS system.

III. Policy

(A) Availability of ERC (Equipment Record Card) Software:

Senior General Manager/ General Manager of PBS will select one Junior Engineer, as a

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS INSTRUCTION 100-59/ PBS INSTRUCTION 300-60: ENGINEERING AND OPERATIONS RECORD UPDATE PROCESS				
Date of Origin	Reviewed by	Approved by	Page No.	Revision No.
31/10/2005	BREB	BREB Board	Page 1 of 37	2
Revision Date: 01/09/2013 & 19/02/2020				

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Junior Engineer (ERC). Junior Engineer (ERC) will maintain transformer and other equipment record information in computer with ERC software, alone or with the help of consultant (if there is contract with consultant). ERC software is specially developed for this purpose. ICT Directorate of BREB will make this software available for the PBSs. The equipment will be inspected as per guidelines of PBS instructions 100-29 and 100-30. Subsequently the data will be input from respective inspection forms into the ERC software (or into equipment record cards prior to the availability of ERC software).

(B) Responsibility of maintaining ERC Update

The primary oversight responsibility to assure compliance to the guideline by the PBS Instruction 100-59 shall over all lie with the Office of the Superintending Engineer, GIS. However, at the field level GIS activities of PBS will be monitored by Zonal Superintending Engineer and Executive Engineer. They will report on follow up of ERC activities to the Superintending Engineer, GIS Upon necessary and request of the Office of the Superintending Engineer, GIS will be assisted in technical matters by ICT Directorate. Training Directorate will conduct training for manpower development on ERC updating process and system study including load flow study in cooperation with Office of the Superintending Engineer, GIS and ICT Directorate.


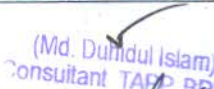





(C) Updating of ERC and Specific responsibility at PBS level

For the purpose of updating ERC and fixing up specific responsibility at PBS level, this instruction is divided into five several Parts. They are as follows-

- Part-1: Equipment (Transformer, VR, ACR/ OCR/ OCB etc.) Record Update;
- Part-2: Update of Operational Diagram and Maps;
- Part-3: Substation and Network System O&M Record Update;
- Part-4: Operating Responsibilities for Data Flow and Record Updating;
- Part-5: Reporting on Data/ Record Update Progress.

To accurately keep the E&O (Engineering and Operational) records up-to-date, it is

BANGLADESH RURAL ELECTRIFICATION BOARD				
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Date of Origin	Reviewed by	Approved by	Page No.	Revision No.
31/10/2005	BREB	BREB Board	Page 2 of 37	2
Revision Date: 01/09/2013 & 19/02/2020				

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mandatory that the pole in the field have the correct pole number physically placed on the pole. The pole should be numbered according to the up-to-date and corrected operational diagram and detail maps. PBSs will therefore need to adopt necessary measures to maintain correct numbers physically on the poles in the field.

Note: Prior to physically placing pole numbers on the poles in the field, it is very important that Retainer Engineer of the consultant assure the operational diagram and details maps 100% accurate and up-to-date according to actual power lines in the field.

For ease of updating, the operational diagram and maps shall be maintained in digital format in the computer by the consultants.

Part-1: Equipment (Transformer, VR, ACR/ OCR/ OCB etc.) Record Update

1.01 Scope

This part of the instruction presents guideline for ongoing update of Equipment (Transformer, VR, ACR/ OCR/ OCB etc.) data as changes take place in the PBS system. This instruction is intended to provide guidance in the following manner:

- To assist the PBS store Keeper to record accurate data on issued equipment;
 - To assist the PBS O&M personnel to collect accurate field data pertaining to installed or removed equipment;
 - To assist the PBS personnel to collect connected consumer data in the prescribed format.
- The above data can be collected by PBS personnel or by retainer contract with consultant. Collected data shall be submitted DGM(Tech-HQ) or AGM(E&C/O&M). He/ She will handover data to Junior Engineer (ERC) or consultant. Junior Engineer (ERC) or consultant shall enter data into ERC software.

1.02 Use of Forms

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS INSTRUCTION 100-59/ PBS INSTRUCTION 300-60: ENGINEERING AND OPERATIONS RECORD UPDATE PROCESS				
Date of Origin	Reviewed by	Approved by	Page No.	Revision No.
31/10/2005	BREB	BREB Board	Page 3 of 37	2
Revision Date: 01/09/2013 & 19/02/2020				

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To facilitate data recording at field level and passing-on this data to the Junior Engineer (ERC) or consultant necessary forms will be used in the manner as stated in the following table. PBS will have these forms printed as per sample of Form 100-59-01, Form 100-59-02 and Form 100-59-03 provided in this document.

Name of Form	Purpose of Use	Used by	Copy needed	Copy distribution list
Equipment Issue Record (Form No. 100-59-01)	For Recording Nameplate Data of issued each equipment	PBS HQ Store	3 Copies.	1 Copy: DGM(Tech-HQ)/ AGM(O&M) 1 Copy: Recipient of Equipment 1 Copy: Store Record
Equipment Installed Record (Form No. 100-59-02)	For Recording pole location of the equipment being installed	PBS HQ, ZO, Sub-ZO, Area Office Complain center, Contractor	3 Copies.	1 Copy: DGM(Tech-HQ)/ AGM(O&M) 1 Copy: O&M section 1 Copy: as record of Contractor/ PBS lineman
Equipment Removal Record (Form No. 100-59-03)	For Recording pole location, serial no. of equipment being removed	PBS HQ, ZO, Sub-ZO, Area Office Complain center, Contractor	4 Copies.	1 Copy: DGM(Tech-HQ)/ AGM(O&M) 1 Copy: O&M section 1 Copy: as record of Contractor/ PBS lineman 1 Copy: Store Keeper

1.02.01: Equipment Issued From Store

1. When Storekeeper issues equipment to Contractor, PBS Headquarter, Zonal Office, he/ she record equipment Nameplate information on an equipment Issue Record (Form No. 100-59-01) and send 1 copy to this to AGM(O&M) for forwarding to DGM(Tech-HQ).
2. Junior Engineer(ERC) or Consultant will input the Equipment Data into ERC Software which will establish an Equipment Card (Soft Copy) in the ERC Software.

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Date of Origin	Reviewed by	Approved by	Page No.	Revision No.
31/10/2005	BREB	BREB Board	Page 4 of 37	2
Revision Date: 01/09/2013 & 19/02/2020				

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