

BANGLADESH RURAL ELECTRIFICATION BOARD

PBS INSTRUCTION 100-01

ENGINEERING AND MATERIAL ADMINISTRATION

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Approval Date: 07/03/1979

Revision Date: 19/02/2020

SUBJECT: ENGINEERING AND MATERIAL ADMINISTRATION

I. PURPOSE

This instruction sets forth responsibilities for the administration of functions relating to engineering and material.

II. GENERAL

All functions relating to engineering and material for RE(Rural Electric) systems of PBS shall be administered by the following Office/ Directorates within the Engineering and Material Department under the Member (D&O) and Member (P&O). The detail function of all of these office and directorate are elaborately described in BREB Instruction 800-01 and 800-02. Apart from that, some specific functions and responsibilities are mentioned related to engineering and material used in RE system under respective areas and responsibilities of two Chief Engineers with their associated Offices and respective areas of responsibility are as follows:

A. Chief Engineer (Projects)

1. Supervision of civil works, electrical substation, switching station and distribution line construction of BREB & PBSs in accordance with Annual Development Program(ADP).
2. Co-ordination between BREB and PBS in respect of construction.
3. Supervision of works between all the Superintending Engineers & Executive Engineers.
4. Fixation of yearly construction target of each approved project in respect of each PBS and supervision of implementation of the approved target.

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5. Monitoring of construction progress and resolving problems arising if any in order to maintain steady progress.
6. Preparation of monthly construction progress report of sub-station, switching station and electric line construction and forward such progress report to relevant official of BREB.
7. Works relating to appointment of A&E consultant and contractor and administration.
8. Works relating to evaluation of performance of construction contractors and renewal of prequalification.
9. Preparation of development and revenue budget in respect of projects and expenditure control.
10. Supervision or Works relating to taking over of substation, switching station and electric line from BPDB/ DPDC/ DESCO/ WZPDCO/ NZPDCO/ PGCB and other organization/company/utility.
11. Works relating to personnel administration of officers and employees of subordinate Directorates.
12. Participation in different committees of BREB Board.

B. Chief-Engineers (Planning & Operation)

1. Supervision relating to Electric System design.
2. Coordination of relating to takeover of BPDB/ DPDC/ DESCO/ WZPDCO/ NZPDCO/ PGCB electric sub-stations and lines.
3. Supervision relating to preparation of BREB/Imported/locally purchased material specifications procurement, PSI (Pre-Shipment Inspection)/ FAT (Factory Acceptance Test)/ PLI (Post Landing Inspection), issuing of materials.
4. Supervision relating to clearance, remittance of taxes and duties, insurance claim and transportation of materials.
5. Supervision relating to storing, clearing and movement of materials, security of material of annual inventory of materials as well as warehouse and store management.

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6. Supervision relating to co-ordination between BREB sub-station/ switching station and BPDB/ DPDC/ DESCO/ WZPDCO/ NZPDCO/ PGCB Sub-station/ switching station and system protection.
7. Supervision relating to works on renewable energy technology.
8. Supervision of works relating to tender evaluation of imported/locally purchased materials.
9. Monitoring of system planning and development program of RE system.

C. Additional Chief-Engineer

1. Planning and implementation of construction and up-gradation of electrical and civil infrastructures of BREB and PBS.
2. Material and warehouse/ store management, inventory control;
3. Study report examine and strategic planning for future projects and their cost effective material specification develop.
4. Load management and system loss study. Material planning to reduce system loss;
5. Periodic inspection of consumer meters to protect pilferage and to reduce system loss;
6. Carry out study to finding out problematic area of frequent outage and lock out;
7. Development of digital information system of RE system and material planning for this purpose.

D. Directorate of Material Planning and Specification Standardization:

1. Determination of material and equipment requirement and cooperation to Project Directors for preparing such requirement and preparation of plan for procurement of such material and equipment for timely and planned implementation of Rural Electrification Programme with the.
2. Preparation of Bill of Materials, bill of Quantity, bid document and cooperation to Project Directors for preparing such Bill of Materials, bill of Quantities, bid document for invitation of tender for procurement of materials.

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3. Technical evaluation of tender (if nominated) prior to awarding work order for procurement of materials.
4. Allocation of materials procured against project to different PBSs in accordance with Annual Development program (ADP).
5. Preparation of material shortage list in different projects/ PBS stores and taking of appropriate measure to resolve the issue.
6. Adopting appropriate measure for use of slow moving and dead stock items.
7. Assist Program Planning Directorate to prepare project proposal.
8. Responding to various questions raised by various suppliers in respect of technical information incorporated in tender document.
9. Provide assistance to Procurement Directorate and other Procuring Entity (PE) for preparing of international and local tenders.
10. Co-ordination of works of sub-ordinate officers & staffs.

E. Directorate of Inspection and Testing:

1. Pre-Shipment/delivery Inspection (PSI), Factory Acceptance Test (FAT), Post Landing Inspection (PLI) and preparation inspection report in case of locally procured materials for rural electrification program. As well as makes comment regarding the quality of the materials on the basis of inspection/test for the acceptability by BREB.
2. Post Landing Inspection is made and prepared inspection report for the materials imported from outside of the country and assesses the quality of the materials according to the specifications and standards.
3. Pre-award factory inspection is done in order to assess the capability of the new manufacturers as per BREB requirements.
4. Directorate of I&T helps the Directorate of Procurement and other PE of BREB and PBS to appoint Pre-Shipment Inspection (PSI) Agent.
5. Evaluates the inspection report of PSI Agencies and recommends the shipment clearance on the basis of inspection report.

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6. Test the samples submitted along with tender for the procurement of the materials by BREB/ PBS and accordingly report to the competent authority.
7. Directorate of I&T helps the Directorate of MP&SS to develop new specification and amends the existing specification according to the requirement of BREB.

F. Directorate of System Operation

1. Supervision of works relating to electric line, sub-station operation and switching station and maintenance under its jurisdiction.
2. Works relating to determination of requirement, procurement and allocation of material and equipment for operation and maintenance purpose.
3. Works relating to safe and appropriate operation of various equipment used in RE system like transformer, OCR/ ACR/ Breaker, voltage regulator, CRP, SAS etc.
4. Monitoring of metering of PBSs in order to remove pilferage and reduce system loss.
5. Preparation and updating of Manual and Safety Procedures for each activity of PBS electric system, ensuring practice of such manual and procedure.
6. Preparation of regular maintenance schedule of electric network system, substation and switching station and implementation thereof and responding to emergency situation arising in respect to operation and maintenance of such network system, substation and switching station.
7. Ensure and implement technical aspects of substation appropriately before energization.
8. Adaptation of appropriate measures to resolve problems relating to load shading by contracting BPDB, DPDC, DESCO, WZPDCO, NZPDCO, PGCB etc..
9. Adaptation of plan and program for development of professional skill of officers and employees of BREB and PBS engaged in operation and maintenance activities of RE system and implement such program thereof.
10. Other works assigned by BREB higher officials.

G. Directorate of System Engineering and Design:


1. Establishing Electrical and Mechanical Design Criteria and Standards.


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