

BANGLADESH RURAL ELECTRIFICATION BOARD

**PBS INSTRUCTION 100-20
BREB INSTRUCTION 500-07**

**ENERGIZATION AND COMMISSIONING OF ELECTRIC NETWORK
SYSTEM (ELECTRIC LINES OR LINE SECTION AND SUB-STATION)**

BANGLADESH RURAL ELECTRIFICATION BOARD
PBS INSTRUCTION 100-20/ BREB INSTRUCTION 500-07

Approval Date: 07/03/1979

Revision Date : 19/02/2020

**SUBJECT: ENERGIZATION AND COMMISSIONING OF ELECTRIC NETWORK
SYSTEM (ELECTRIC LINES OR LINE SECTION
AND SUB-STATION)**

I. PURPOSE

To establish and set forth BREB policy procedure with respect to the energization and the commissioning of electric network system and the required approvals and notifications prerequisite to the energization.

II. GENERAL

The energization of electric network system is for the purpose of connecting the system to its source of power and testing the equipment and construction for satisfactory performance. Commissioning of the system is the act of turning the system over to the PBS for operation and service to its consumer members.

III. POLICY AND PROCEDURE

A. In order to provide electric service to members and other consumers at the earliest possible date and to assist in the elimination of conductor theft, it shall be the policy of BREB and PBS to energize electric lines or line sections as soon as they are ready for service.

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B. Final Joint Inspection

Before energization of sub-station and electric lines, the Contractor will request or final inspection of the sub-station/electric lines along with a free hand single line diagram of the line section to be energized and duly filling up 5 (five) copies of BREB Form No. 459 (Notice of Electric Sub-Station/ Line Energization Form). On receiving the request of final inspection the consultant will thoroughly check sub-station/electric lines and will identify deviations if any and will notify the contractor to rectify those deviations within stipulated time of 7(seven) days or less. After rectification the contractor will notify the consultant that the deviations have been rectified and the sub-station/electric lines are now ready for final inspection. The Consultant will forward this notification to the AE of BREB or AGM(E&C)/AGM(O&M)/DGM(Tech-HQ) of PBS to organize joint (final) inspection. In case of construction is being carried out by BREB, AE of BREB will fix up a date for joint (final) inspection and inform the contractor, consultant and PBS. In case of construction is being carried out by PBS, AGM(E&C)/AGM(O&M)/DGM(Tech-HQ) of PBS will fix up a date for joint (final) inspection and inform the contractor and consultant.

The joint inspection will be conducted by the following persons.

- (a) Representative of BREB (For Sub-station AE, for electric line AE or his/her representative)
- (b) Representative of PBS, AGM (E&C)/ AGM(O&M) or selected by him/ her (not below the rank of AJE).
- (c) Consultant's Engineer (not below the rank of Junior Engineer)

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(d) Contractor's Supervisor/ Representative.

In case of construction by PBS, representative of BREB may not be required to attend.

During the final joint inspection As Built Staking Sheet will be verified for its

correctness. If the final joint inspection finds the system satisfactory then, the representatives will sign the As-Built Staking Sheets as endorsement of acceptance.

C. Energization

In order to establish the responsibility for the electric lines operation with the PBS, the 5 (five) copies of Notification of Electrical Sub-station/ Line Energization BREB Form No.459 will be forwarded to the Executive Engineer or Sr. GM/ GM by the Consultant. In case the construction is being carried out by BREB, the Executive Engineer will approve the Energization Notice and post his/ her records of electric lines to be turned over to the PBS for operation and forward 2 copies to the AGM(O&M), 1 copy to Consultant & 1 copy to Contractor 7 (seven) days ahead of Energization date. In case the construction is being carried out by PBS, the Senior General Manager/ General Manager will approve the Energization Notice and post his/ her records of electric lines for operation and forward 2 copies to the AGM(O&M), 1 copy to Consultant & 1 copy to Contractor 7 (seven) days ahead of Energization date.

The AGM(O&M) of PBS will fix a date for energization. If an interruption of service to an electric line that will feed the new line section is required, then the Notice should be accompanied by the necessary "Request for Outage" (BREB Form No. 458). Upon receipt of the Notice of Electrical Line Energization, the AGM(O&M) will make a physical inspection of the electric line and line equipment, familiarize him/

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herself with the customers to be served, schedule meter sets and service connections, and post his/ her operating maps and records as to the electrical line in service. Posting of information in the operating maps must be completed within seven (7) days.

1. Energization of Sub-stations and electric lines will be done by the PBS's personnel under the direction and supervision of the PBS's engineer, Consultant, the BREB officials and Contractor or other authorized officer.
2. Only those employees of the PBS, who have been successfully trained to energize RE system will be permitted to participate in the energization.
3. Distribution transformers shall remain disconnected from the primary HV conductor.
4. Approved Engineers of BREB to act as Government Electrical Inspectors must be notified in advance of energization to permit them to make an inspection of the system before energization.
5. A notice must be placed either in the press in the area, where energization of electric lines is to take place notifying the public of that fact or the public may also be notified by local announcement.
6. The system shall be energized in segments, beginning with the sub-station and continuing from sectionalizing point to sectionalizing point working outward from the sub-station.
7. Switches and sectionalizing devices shall be operated to ensure their satisfactory operation.
8. Particular attention should be given to junctions and taps from the primary line to observe see that all connections have been properly made in the system neutral.
9. No electric line shall be energized until it is totally complete including LT under-build. Daily interruptions after energization is not desirable. For backbone

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electrical lines may be partly energized for the safety of the conductors. In case of energization of other three phase lines, the section shall be between two sectionalizing points or between HT dead ends those are a part of the original line design. HT and LT laterals from the line section need not be completed prior to the energization of the line section. Single phase lines will normally be energized only after the entire line is completed, complete with LT under build and transformer installations.

The only exception to this will be where the extreme end of the electric line cannot be completed for an extended period of time because of high water, shortage of materials and construction obstacle. It shall be assumed that all LT lines and laterals served by the HT line being energized will also be energized at the same time or not later than one week after the HT line is energized and that the LT lines can be safely energized without interrupting service to the HT line which serves it.

10. Formal energization of sub-station shall be made by using BREB Form No. 459, after performing necessary testing and commissioning works. Before formal energization, prescribed form of testing and commissioning will have to be filled up with the signatures by the members of standing committee of sub-station testing and commissioning. Sub-station testing and commissioning shall be carried out in accordance with the procedure laid down in Sub-station Testing and Commissioning section of PBS Instruction 100-29. Filled up form of Sub-station testing and Commissioning shall be a part of BREB Form No. 459 for energization a Sub-Station.

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