

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**PBS INSTRUCTION 100-18**

**POWER INTERRUPTION RECORDING  
AND  
REPORTING PROCEDURE**

**BANGLADESH RURAL ELECTRIFICATION BOARD**  
**PBS INSTRUCTION NO. 100-18**

Approval Date: 07/03/1979  
Revision Date : 19/02/2020

**SUBJECT: POWER INTERRUPTION RECORDING AND REPORTING  
PROCEDURE**

**I. PURPOSE AND SCOPE**

This instruction provides procedures on recording and reporting service interruptions (outage) and on the use of interruption records in the operation and maintenance of PBS.

**II. GENERAL**

**A. Purpose of Interruption (outage) Records**

The quality of electric service depends greatly on reliability. Reliability depends to a large degree on interruption. Therefore, knowledge is required to reduce the number and extent of interruptions, their causes, and the steps to be taken for speedy restoration of service.

Well-planned procedures for interruption reporting and analysis will improve efficiency in handling complaint calls and responding to them so that the work can be done promptly and with a minimum of wastage of time.

The main purpose of interruption reporting and follow up are:

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-18: POWER INTERRUPTION RECORDING AND REPORTING PROCEDURE				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
07/03/1979	BREB	BREB Board	Page 1 of 31	4
Revision Date: 26/12/1984, 14/11/1996, 01/09/2013 & 19/02/2020				

(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB

(Md. Duhidul Islam) (Md. Wazammer Haq)  
Consultant, TAPP, BRF Consultant, TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Kamrul Ahsen Mollik)  
Asst. Secy. (Board), BREB.

1. To make certain when a complaint is received that all of the information needed for responding to the trouble call will be available.
2. To identify multiple reports from the same line outage in order to expedite work and minimize duplication and confusion.
3. To provide a record of causes and extent of interruptions, for determining adequacy of maintenance and for planning system improvement to increase service reliability.
4. To aid in informing consumers and in responding to consumer complaints.
5. To provide information required by BREB, PGCB, DPDC, DESCO, BPDB or any other public sector regulatory bodies.

#### B. Description of Units and Terms

1. The terms interruption and outage are interchangeable for much of this instruction. The term interruption is used when referring to loss of service to consumers. The term outage is used when referring to component failure of a system.
2. For discussing the quality of service, or service reliability, other terms are needed to define the extent of interruptions.
  - a) Annual service interruption hours per Consumer is the interruption index specified by BREB to indicate the average length of time each year that a consumer of the PBS is without service. The unit for measuring this interruption is the consumer-hour, i.e., the product of the number of affected consumers multiplied by duration of the interruption in hours.

The annual service interruption hours per consumer is calculated by adding consumer hours for all interruptions during the year and dividing the sum by the average number of consumers receiving service during that period. The

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-18: POWER INTERRUPTION RECORDING AND REPORTING PROCEDURE				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
07/03/1979	BREB	BREB Board	Page 2 of 31	4
Revision Date: 26/12/1984, 14/11/1996, 01/09/2013 & 19/02/2020				

(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

(Md. Duhidul Islam)  
Consultant, TAPP, BREB

(Md. Mozammel Haque)  
Consultant, TAPP, BREB

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Personnel), BREB

index may be maintained separately for parts of the system such as substations wise or zonal offices wise or by causes, but the index for the entire system should always, be calculated.

- b) Service interruption hours per consumers, "year-to-date" is used in compiling a monthly or quarterly report for comparing with like months of previous years.
- c) The number or interruptions experienced during a month, quarter, or year helps to indicate the amount of employee time required for service and maintenance because of outages from particular causes. Some PBS's can maintain records for the cost of resting service.

### III. INTERRUPTION REPORTING

BERC (Bangladesh Energy Regulation Commission) requires different indices to calculate performance of an electrical utility to ensure quality service of their customers. Some of those indices are as follows-

- System Average Interruption Frequency Index (SAIFI)
- System Average Interruption Duration Index (SAIDI)
- Customer Average Interruption Duration Index (CAIDI)
- System Customer Average Interruption Frequency Index (CAIFI)
- Average Service Availability Index (ASAI)
- Momentary Average Interruption Frequency Index (MAIFI)
- Supply Variation Measured Outside Limits
- Supply Voltage Dips
- Supply Voltage Unbalance
- Supply Voltage Flicker

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-18: POWER INTERRUPTION RECORDING AND REPORTING PROCEDURE				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
07/03/1979	BREB	BREB Board	Page 3 of 31	4
Revision Date: 26/12/1984, 14/11/1996, 01/09/2013 & 19/02/2020				

(Md. Mozibur Rahman)  
Consultant TAPP, BREB

(Md. Duhidul Islam)  
Consultant TAPP, BREB

(Md. Mozammel Haque) / (Md. Abdul Khaleque)  
Consultant TAPP, BREB / Consultant TAPP, BREB

(Md. Ahsanul Haque)  
Consultant TAPP, BREB

(Debashish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০



## Reliability Reporting Form QS1 of BERC

There are six lines and 11 columns in the reporting form. The following explanation gives in detail.-

- Line-1: The name of the Reporting Company/ PBS;  
Line-2: Principal circuit number. Say Circuit (Feeder) 2B of Substation number 1003,  
then it can be written as 1003-2B;  
Line-3: Branch number (if any) of main circuit number 1003-2B;  
Line-4: Location of sub-station;  
Line 5: Operating voltage in kV;  
Line 6: Reporting month and year;

- Column-1: Reporting Date;  
Column-2: Event number;  
Column-3: Time Off i.e. when power supply is turned off;  
Column-4: Time On i.e. when power supply is turned on;  
Column-5: Total Duration of interruption i.e. (Column-4) – (Column-3);  
Column-6: Total number customers served by the affected circuit;  
Column-7: Total number of customers experienced sustained interruption;  
Column-8: Total number of customers experienced momentary interruption;  
Column-9: Total KVA connected in the affected circuit;  
Column-10: Total KVA interrupted;  
Column-11: Total number interrupted Device Operated.

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-18: POWER INTERRUPTION RECORDING AND REPORTING PROCEDURE				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
07/03/1979	BREB	BREB Board	Page 5 of 31	4
Revision Date: 26/12/1984, 14/11/1996, 01/09/2013 & 19/02/2020				

(Md. Mozibur Rahman) Consultant, TAPP, BREB  
(Md. Duhidul Islam) Consultant, TAPP, BREB  
(Md. Mozammel Haq) Consultant, TAPP, BREB  
(Md. Abdul Khaleque) Consultant, TAPP, BREB  
(Md. Ahsanul Haque) Consultant, TAPP, BREB  
(Debasish Chakraborty) PD, TAPP, BREB  
(Kamrul Ahsan Mollik) Asst. Secy. (Board), BREB  
৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

