



# THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

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GOVERNMENT OF ASSAM  
ORDERS BY THE GOVERNOR  
ASSAM ELECTRICITY REGULATORY COMMISSION

## NOTIFICATION

The 4th December, 2020

### Assam Electricity Regulatory Commission (Transmission Licensees Standards of Performance) Regulations, 2020.

**No. AERC/750/2020.-** In exercise of powers conferred under Section 181 (za) and (zb), read with Sections 57, 58,59 and 86 (1) (i) of the Electricity Act, 2003 and all other powers enabling in this behalf, and after previous publication, the Assam Electricity Regulatory Commission hereby makes the following regulations to replace the ‘ AERC(Transmission Licensees' Standards of Performance)’ Regulations, 2004.

## CHAPTER 1

General

### 1. Short title and commencement

- i. These Regulations may be called the Assam Electricity Regulatory Commission (Transmission Licensees' Standards of Performance) Regulations, 2020.
- ii. These Regulations shall be applicable to all Intra State Transmission Licensees authorized to establish, operate and maintain transmission systems.
- iii. These Regulations extends to the whole State of Assam.
- iv. These Regulations shall come into force from the date of their notification in the Assam Gazette

### 2. Definitions:-

2.1. In this regulation, unless the context otherwise requires:

- i. "Act" means the Electricity Act 2003;
- ii. “Affected person” means a user of the intra-State transmission system who is affected due to non-adherence to the Standards of Performance specified in these regulations by the intra-State transmission licensee.

- iii. "Availability" in relation to a transmission system in a given period, means time in hours, the transmission system is capable to transmit electricity at its rated voltage from the supply point to the delivery point and shall be expressed in percentage (%) of total hours in a given period;
  - iv. "Commission" means Assam Electricity Regulatory Commission (AERC) functioning as State Electricity Regulatory Commission under section 82 of the Act in the State of Assam;
  - v. "EHV" means Extra High Voltage (voltage level above 33,000 volts);
  - vi. "Grid" means the high voltage backbone system of inter-connected transmission lines, sub-stations and generating plants;;
  - vii. "Grid Code" means the AERC( Electricity Grid code) Regulations, 2018 specified by the Commission for Assam State Transmission System;
  - viii. "Grid Standards" means the standards specified by Central Electricity Authority under clause (d) of section 73 of the Act;
  - ix. "HVDC" means High Voltage Direct Current;
  - x. "Licensee" means a person who has been granted a license by the Commission under Sec 14 of the Act including deemed licensee.
  - xi. "Power System" means all aspects of generation, transmission, distribution and supply of electricity and includes one or more of the following, namely:
    - a) generating stations;
    - b) transmission or main transmission lines;
    - c) sub-stations;
    - d) tie-lines;
    - e) load despatch activities;
    - f) mains or distribution mains; electric supply lines;
    - g) overhead lines;
    - h) service lines;
    - i) works;
  - xii. "SLDC" means State Load Despatch Centre established under sub-section (1) of Section 31 of the Act to ensure integrated operation of power system in the State;
  - xiii. "State Transmission Utility" means the Government Company specified as such by the State Government under sub-section (1) of the Section 39 of the Act;
  - xiv. "Transmission Licensee" means a person who has been granted a licence under section 14(a) of the Act authorizing him to establish, operate and maintain transmission systems;
  - xv. "Transmission System or lines" means all high pressure cables and overhead lines (not being an essential part of the distribution system of a licensee) transmitting electricity from a generating station to another generating station or a sub-station, together with any step-up and step-down transformers, switch-gear and other works necessary to and used for the control of such cables or overhead lines, and such buildings or part thereof as may be required to accommodate such transformers, switchgear and other works;
  - xvi. "User" includes a user of any segment/ element of the intra-State Transmission System and shall include all generators, licensees, Open Access Consumers directly connected to the intra-State Transmission System;
- 2.2. Words and expressions used in these regulations and not defined herein but defined in the Act shall have the meanings as assigned to them under the Act.

**CHAPTER 2****OBJECTIVE, NORMS AND METHODOLOGY**

**3. Objective.**— The objectives of these regulations are to ensure compliance of the Standards of Performance by the intra-State transmission licensees and to provide for an efficient, reliable, coordinated and economical system of electricity transmission, non-adherence of which would entitle the affected parties to compensation.

**4. Standards of Performance.**—

4.1. All intra-State transmission licensees shall comply with the Standards of Performance specified in these regulations:

**a) Transmission System Availability**

**i.** The transmission system availability shall be calculated element-wise on monthly basis, in the manner as provided in the AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2018 for Generation, Transmission, SLDC, Wheeling and Retail Supply, as amended from time to time and any subsequent enactment thereof.

**ii.** The transmission elements under outage due to following reasons shall be deemed to be available:

a) Shut down availed for maintenance of another transmission scheme or construction of new element or renovation/ up gradation/ additional capitalization in existing system approved by the Commission. If the other transmission scheme belongs to the transmission licensee, the SLDC may restrict the deemed availability period to that considered reasonable by him for the work involved. In case of dispute regarding deemed availability, the matter may be referred to the Commission within 30 days.

b) Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of SLDC or post apply in case of emergency.

**iii.** The element-wise monthly availability of the transmission system shall not be below the availability as given under:

<b>Sl. No.</b>	<b>Transmission Elements</b>	<b>Availability (% of time)</b>
(i)	AC Transmission line	90
(ii)	ICTs	90
(iii)	Reactors	90
(iv)	Static VAR Compensator	90
(v)	Series Compensator	90
(vi)	HVDC (Back-to-back Stations and bi-pole links)	85

**Notes:—**

1) Tower collapse shall not be counted for the purpose of calculation of monthly availability of AC transmission line and HVDC bipole line, if it not attributed to the transmission licensee.

- 2) Failure of Inter-Connecting Transformer (ICT) and Reactor shall not be counted for the purpose of calculation of availability of Inter-Connecting Transformer and Reactor.
- 3) The element-wise monthly availability shall be certified by the SLDC.

**b) Restoration time.**

Restoration time for different types of failures of transmission line and Inter-Connecting Transformer (ICT) and reactors shall not exceed the following time limit:

<b>Sl. No.</b>	<b>Types of failures</b>	<b>Restoration Time (Days)</b>
<b>1.</b>	<b>Insulator failure</b>	
	Plain Terrain	1
	Hilly Terrain	2
<b>2.</b>	Tower after collapse by Emergency Restoration System (ERS)	12
<b>3.</b>	<b>Tower after collapse</b>	
	Plain Terrain	30
	River Bed	50
	Hilly Terrain	50
<b>4.</b>	<b>Snapping of phase conductor</b>	
	Plain Terrain	2
	Hilly Terrain	3
<b>5.</b>	<b>Failure of earth wire</b>	
	Plain Terrain	2
	Hilly Terrain	3
<b>6.</b>	<b>Failure of Inter Connecting Transformers (ICTs)</b>	
	Restoration of the failed ICT	120
<b>7.</b>	<b>Failure of Reactors</b>	
	Restoration of the failed reactor	120

- 4.2. Any failure by the intra transmission licensee to maintain the standards of performance specified in these regulations shall render the said licensee liable to payment of compensation to an affected person claiming such compensation under the provisions of the Act.

Provided that, the licensee shall not be liable to pay the compensation for the failure to maintain the standards of performance as specified under regulation 4.1.(b) in extraordinary circumstances, subject to permission from the Commission.

Provided that the payment of compensation by the Intra-State transmission licensee shall be without prejudice to any penalty, which may be imposed or any prosecution which may be initiated by the Commission as provided in the Act.

**4.3. Methodology for compensation.—**

- i. An affected person who has suffered a loss on account of non-adherence to the Standard of Performance by any intra-State transmission licensee may make an appropriate application to the Commission for award of compensation:
- ii. Provided that no claim for compensation shall be entertained if the application for the claim is filed after expiry of a period of ninety days (90) from the end of the month when the availability of the transmission system falls short of the availability specified in regulation 4.1 (a)
- iii. or ninety days from the date of restoration of transmission element, as the case may be, for the standards prescribed in regulation 4.1(b) of these regulations.
- iv. Provided also that, the Commission may entertain an application for claim of compensation after the expiry of the said period of 90 days, if the Commission is satisfied that there was sufficient cause of non-filing the appeal within that period.
- v. The Commission after giving reasonable opportunity of hearing to the transmission licensees and on being satisfied regarding liability to pay compensation, may award the compensation to the affected person.
- vi. the compensation to be paid by the intra-State transmission licensee to the affected person shall be limited to the transmission charges as determined by the commission in the Tariff order from time to time.
- vii. the intra-State transmission licensee shall not be entitled to recover the amount of compensation awarded through tariff from the users of the transmission of electricity:

**Compliance of the order of the Commission**

- 4.4. In case of non compliance of the order/ direction passed by the commission, proceeding u/s 142 of Electricity Act, 2003 will be initiated.

**CHAPTER 3****INFORMATION TO BE FURNISHED BY THE INTRA-STATE  
TRANSMISSIONLICENSEES****5. Information to be furnished by the intra-State Transmission Licensees.—**

- 5.1 All intra- State transmission licensees, in accordance with section 59 of the Act, shall furnish to the Commission,
- (a) the level of performance achieved,
  - (b) the number of cases in which compensation payable and already paid,
  - (c) the aggregate amount of the compensation payable and already paid, in the formats in the Schedule of these regulations.
- 5.2 Such information in the requisite formats shall be submitted to the Commission twice during the financial year, i.e by 1<sup>st</sup> week of October for the period 1<sup>st</sup> April to 30<sup>th</sup> September and by 1<sup>st</sup> week of April for the period 1<sup>st</sup> October to 31<sup>st</sup> March.
- 5.3 All intra-State transmission licensees shall display on their websites the actual performance against the specified Standards of Performance on a monthly basis and the amount of compensation paid, if any, in the formats enclosed in the Schedule.

**CHAPTER 4**  
**MISCELLANEOUS**

**6. Power to Relax.—**

The Commission may, if it considers necessary or expedient to do so and for the reasons to be recorded in writing, relax adherence to any specific Standard of Performance during Force Majeure conditions such as war, mutiny, civil commotion, riot, flood, cyclone, Storm, lightning, earthquake, grid failure, and strike/curfew, lockout, fire affecting the intra-State Transmission Licensee's installations and operation activities, Epidemic/Pandemic on large scale or under such other specific circumstances:

Provided that the Intra-State Transmission Licensee shall not be discharged from its liability on account of its failure to maintain the Standards of Performance under these regulations if such failure can be attributed to the negligence or deficiency or lack of preventive maintenance of the intra-state transmission system or failure to take reasonable precaution which has resulted in loss to the affected person.

**7. Power to remove difficulties.—**

If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

**8. Power to Amend.—**

The commission may, at any time after consultation with the licensees and other persons likely to be affected add, vary, alter, modify or amend any provisions of these regulations.

**9. Repeal and savings-**

Save as otherwise provided in this regulation, the AERC (Transmission Licensees' Standards of Performance) Regulations, 2004 along with all amendments to date, notified by the Commission, stands Repealed.

**M. K. DEKA, (Retd.),**

Secretary,

Assam Electricity Regulatory Commission,  
Guwahati-22.





**II. Elements where restoration time has exceeded the standards specified in Regulation 4.1 (b).**

<b>Element Name</b>	<b>Restoration time as specified in Regulation 4.1 (b) (in days)</b>	<b>Actual restoration time (in days)</b>

**III. Details of compensation payable or paid by the intra-State transmission licensee**

<b>Element Name</b>	<b>Violation of Regulation 5 (a)</b>		<b>Violation of Regulation 5(b)</b>		<b>Compensation Payable (in Rs.)</b>	<b>Compensation paid (in Rs.)</b>
	<b>% Availability prescribed</b>	<b>Actual % Availability</b>	<b>Restoration time prescribed (in days)</b>	<b>Actual restoration time (in days)</b>		
<b>Total</b>						

**IV. Data to be compiled by the intra-State Transmission Licensees**

The restoration times for different types of failures of a transmission line and failure of Inter-Connecting Transformer (ICT) and reactor in the following format:

<b>Sl. No.</b>	<b>Types of failures</b>	<b>Restoration Time (Days)</b>
<b>A.</b>	<b>Elements of the Transmission line for Single Circuit (S/C), Double Circuit (D/C) and Multi-Circuit (M/C) towers for each KV class separately</b>	

	Insulator failure	Terrain type		
		Plain	River bed	Hilly
1.	(i) Insulator failure in single phase			
	(ii) Insulator failure in two phases			
	(iii) Insulator failure in three phases			
2.	Tower after collapse by Emergency Restoration System (ERS) for S/C, D/C and M/C separately			
3.	Tower after collapse without Emergency Restoration System (ERS) for S/C, D/C and M/C separately			
4.	<b>Tower damage (not collapse)</b>			
	One arm damage			
	Two arms damage			
	Three arms damage			
	Twisting of Tower			
	others			
5.	<b>Snapping of phase conductor</b>			
	Conductor snapping in single phase			
	Conductor snapping in two phases			
	Conductor snapping in three phases			
6.	Failure of earth wire			
7.	Insulator failure with conductor snapping			
8.	Any other combination of failures			
<b>B.</b>	<b>Elements of the sub-station for each kV class separately</b>			
1.	<b>Failure of Inter Connecting Transformers (ICTs)</b>			
	Restoration of the failed ICT			
	<b>Other major failures in ICTs</b>	<b>Single phase unit</b>	<b>Three phase unit</b>	
	(i) Replacement of faulty bushings			
	(ii) Replacement of failed/ blasted bushings			
	(iii) Replacement of faulty tap changers			
	(iv) Others			
2.	<b>Failure of Reactors</b>			
	Restoration of the failed reactor			

#### V. Data to be furnished by the intra-State Transmission Licensees to SLDC

(1) The Dependability Index defined as  $D = N_c / (N_c + N_f)$

Where  $N_c$  = is the number of correct operations during the given time interval and

$N_f$  = is the number of failures to operate at internal power system faults

- (2) The Security Index defined as  $S = N_c / (N_c + N_u)$   
where  $N_u$  = is the number of unwanted operations.
- (3) The Reliability Index defined  $R = N_c / (N_c + N_i)$   
where  $N_i$  = is the number of incorrect operations and is the sum  
of  $N_f$  and  $N_u$ .
- (4) From above  $1/S + 1/D = (1/R) + 1$
- (5) The number of trippings of each transmission element. Five or more trippings of a transmission element in a month to be put on the website by the intra-State Transmission Licensees and reported to the Commission by SLDC.

**Note.—**

1. The data for these indices are presently prescribed for collection by the System Operator.
2. These indices shall be computed by the SLDC and furnished to the Commission by 1<sup>st</sup> week of October for the period 1<sup>st</sup> April to 30<sup>th</sup> September and by 1<sup>st</sup> week of April for 1<sup>st</sup> October to 31<sup>st</sup> March.