



# Consultation Paper On Standards of Performance (Under Section 57 of Electricity Act, 2003)

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Joint Electricity Regulatory Commission for the State of Goa and  
Union Territories

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## **2. Definitions**

- 1) In this paper, unless the context otherwise requires:
  - (a) “Act” means the Electricity Act, 2003;
  - (b) “Billing cycle” means the period for which the bill is raised;
  - (c) “Breakdown” means an occurrence relating to the equipments of the distribution system of the licensee including electrical line up to the consumer meter that prevents its normal functioning;
  - (d) “CEA” means the Central Electricity Authority referred to in subsection (1) of the Section 70 of the Act;
  - (e) “Commission” means the Joint Electricity Regulatory Commission for the state of Goa and Union Territories;
  - (f) “Electricity Rules” means the Indian Electricity Rules, 1956 to the extent saved by the Act or the rules made under the Electricity Act thereafter;
  - (g) “Electricity Supply Code” means the code as may be notified by the Commission under Section 50 of the Act;
  - (h) “Low Tension (LT)” means a voltage of 230 volts between phase and neutral or 400 volts between any two phases under normal conditions subject to the percentage variation permissible under the Electricity Rules;
  - (i) “Meter means a device suitable for recording consumption of electrical energy supplied or any other parameter during any specified period and shall include, wherever applicable, other associated equipment such as CT, PT etc Necessary for such recording;  
It shall also include any seal or sealing arrangement provided by the Licensee for preventing unauthorised use of electricity;
  - (j) “Service Line” means an electric supply line through which energy is, or is intended to be supplied by the Licensee from a distributing main to a single consumer or group of consumers from the same point of the distributing main.
- (2) Unless the context otherwise requires words or expressions occurring in this paper and not defined herein but defined in the Act / Electricity Rules/ shall bear the same meaning as respectively defined in the Act/ Electricity Rules/ or in absence thereof, the meaning as commonly understood in the Electricity Supply Industry.

## **3. Guaranteed and Overall standards of performance**

- (1) The Standards specified in the Schedule - I shall be the Guaranteed Standards of Performance, being the minimum standards of service that a Licensee shall achieve, and the Standards specified in the Schedule-II shall be the Overall Standards of Performance which the Licensee shall seek to achieve in the discharge of his obligations as a Licensee.
- (2) The Commission may from time to time add, alter, vary, modify or amend the contents of the Schedule – I and Schedule –II by general or special order(s).

#### **4. Compensation**

- (1) The Licensee shall be liable to pay to the affected consumers compensation specified in Schedule – III for Licensee’s failure to meet the Guaranteed Standards of Performance specified in Schedule – I. The compensation shall be paid by the Licensee in the manner specified in Schedule III.
- (2) The Licensee shall pay the compensation referred to under sub-regulation (1) above by way of adjustment in the current or future electricity bill(s) as laid down in Schedule-III.

#### **5. Information on Standards of Performance**

- (1) For Guaranteed Standards, Licensee shall furnish to the Commission, in a report for every month and in a consolidated annual report, the following information:
  - a) The levels of performance achieved by the Licensee with reference to the standards specified in Schedule – I to this paper;
  - b) The number of cases in which compensation were payable under Regulation (4) above, and the aggregate amount of the compensation payable and paid by the Licensee,
  - c) The number of claims made by the consumer against the licensee for failure to meet the Guaranteed Standards of Performance and the action taken by the Licensee including the reasons for the delay in payment, or non-payment of compensation for such claims; and
  - d) The measures taken by the Licensee to improve performance in the areas covered by Guaranteed Standards and Licensee’s targets of improved performance for the ensuing year.
- (2) The monthly reports under sub-regulation (1) shall be furnished to the Commission within 15 days of the close of the month and the annual report under the sub-regulation (1) shall be furnished to the Commission within 30 days of the close of the financial year.
- (3) The Licensee shall furnish to the Commissions, in a report for every quarter and in a consolidated annual report for each financial year, the following information as to the Overall Standards of Performance:
  - a) The level of performance achieved with reference to those specified in Schedule – II of this paper; and
  - b) The measures taken by the licensee to improve performance in the areas covered by Overall Standards and licensee’s targets of improved performance for the ensuing year.
- (4) The quarterly reports under sub-regulation (3) shall be furnished to the Commission within 15 days of the close of the quarter and the annual report under the said sub-regulation (3) shall be furnished to the Commission within 30 days of the close of the financial year.
- (5) The Commission shall, at such intervals as it may deem fit and not inconsistent with the provisions of the Act, arrange for the publication of the information furnished by Licensees under this Regulation.

## **6. Exemption**

- (1) The standards of performance specified in this paper shall remain suspended during Force Majeure conditions such as war, mutiny, civil commotion, riot, flood, cyclone, lightning, earthquake, lockout, fire affecting the Licensee's installations.
- (2) Non-compliance of a standard contained in this paper shall not be treated as a violation, and the Licensee shall not be required to pay any compensation to affected consumer(s), if such violation is caused due to grid failure, a fault on the Transmission Licensee's network or on account of instructions given by SLDC, over which the Licensee has no reasonable control.
- (3) The Consumer Grievances Redressal Forum (CGRF) established by the Licensee under Section 42(5) of the Act and the Regulations issued by the Commission in that behalf, may by a general or special order after hearing the Licensee and the affected consumer(s) / consumer groups, release the Licensee from the liability to compensate the consumers for any default in the performance of any standard if the CGRF is satisfied that such default is for reasons other than those attributable to the Licensee and further that the Licensee has otherwise made efforts to fulfill his obligations. Such cases shall be reported by CGRF to the Commission on monthly basis.

## SCHEDULE – I

### 7. Guaranteed Standards of Performance

<b>Nature of cause of power supply failure</b>	<b>Maximum Time Limit for restoration</b>
1.1) Fuse blown out or MCB tripped	Within 4 hours for Urban areas Within 8 hours for Rural areas
1.2) Service line broken/ Service line snapped from the pole	Within 6 hours for Urban areas Within 12 hours for Rural areas
1.3) Fault in distribution line/system	Rectification of fault and thereafter Restoration of normal power supply within 12 hours Temporary Supply to be restored within 4 hours from alternate source,
1.4) Distribution transformer failed/burnt	Replacement of failed transformer : within 24 hours in urban areas within 48 hours in rural areas Temporary Restoration of supply through mobile transformer or another backup source within 8 hours,
1.5) HT mains failed	Rectification of fault within 12 hours. Temporary restoration of power supply within 4 hours,
1.6) Problem in grid (33 kV or 66 kV) substation	Repair and restoration of supply within 48 hours. Restoration of supply from alternate source, within 6 hours,
1.7) Failure of Power Transformer	Rectification action plan to be intimated to the Commission within 72 hours Rectification to be completed within 15 days
Note: Licensee shall make arrangements to provide alternate supply in his area of supply within 6 months from the date of notification of these regulations.	

## 7.2 Quality of Power Supply

### 7.2.1 Voltage variations:

- (1) The Licensee shall maintain the voltages at the point of commencement of supply to a consumer within the limits stipulated hereunder, with reference to declared voltage:
- In the case of Low Voltage, +6% and -6%;
  - In the case of High Voltage, +6% and -9%; and,
  - In the case of Extra High Voltage, +10% and -12.5%.

- (2) The voltage problem shall be resolved with the time limits specified in Table given below:

No.	Cause of problem related to voltage variation	Time limit for the rendering service
1.	Local problem	Within 4 hours
2.	Tap of transformer	Within 3 days
3.	Repair of distribution line / transformer / capacitor	LT system within 30 days, HT system within 120 days. Capacitor within 30 days.
4.	Installation & Up-gradation of HT / LT System	Within 180 days

### 7.2.2 Harmonics

The distribution licensee shall follow the voltage and current Harmonics distribution limits as specified by the CEA in the Grid Connectivity Standards applicable to distribution systems.

## 7.3 Complaints about meters

Subject to the Provisions of the Electricity Supply Code:

Nature of complaint	Time to be taken by Licensee
Complaint lodged for accuracy test of meter	Within 30 days of receiving the complaint, the Licensee shall test the meter and if needed, the meter shall be replaced within 15 days thereafter
Complaint lodged for defective / stuck meter	Within 30 days of receiving the complaint, the Licensee shall check the meter and if needed, the meter shall be replaced within 15 days thereafter
Complaint lodged for burnt meter	The Licensee shall restore supply within 6 hours upon receipt of complaint bypassing the burnt meter and new meter shall be provided within 3 days

#### 7.4 Transfer of Consumer's connection and conversion of services

The Licensee shall give effect to a request for transfer of consumer's connection, change of category and conversion of the existing services from Low Tension to High Tension and vice-versa within the following time limits:

<b>Nature of request</b>	<b>Time to be taken by Licensee</b>
Change of consumer's name due to change in ownership/occupancy for property	Change shall be effected in two billing cycles.
Transfer of consumer's name to legal heir	Change shall be effected in two billing cycles.
Load reduction	Licensee, after verification, shall sanction the reduced load within 30 days after receipt of the application.
Change of category	Licensee shall inspect the premises and change the category within 10 days from the date of receipt of application
Shifting of meter/line etc.	(1) One month for giving the estimated amount to the consumer for shifting (2) Within one month of the consumer depositing the estimated amount as mentioned above.

#### 7.5 Complaints about consumer's bills

<b>Nature of complaint</b>	<b>Time to be taken by Licensee</b>
Complaints on billing	Licensee shall acknowledge the complaint immediately, if received in person, or within 3 days from the date of receipt if received by post. If no additional information is required, Licensee shall resolve the complaint and intimate the result to the consumer within 15 days of receipt of the complaint. In case any additional information is required, the same shall be obtained, the issue resolved and result intimated to the consumer within 30 days of receipt of the complaint.

**7.6 Issues relating to disconnection/ reconnection of supply**

<b>Issue under consideration</b>	<b>Time to be taken by Licensee</b>
Non payment of dues by the consumer	Licensee to give 15 days notice to pay the dues and if not paid, the Licensee may disconnect the consumer's installation on the expiry of the notice period.
Request for reconnection	In case consumer requests for reconnection within a period of six months after disconnection, the Licensee shall reconnect the consumer's installation within 5 days of payment of past dues and reconnection charges. However in case consumer requests for reconnection after six months of disconnection, the connections would be reconnected only after all the formalities as required in the case of a new connection are complied with by the consumer including payment of pending dues, service line charges, security deposit etc., as applicable, for that Category of Consumer.

**7.7 The time limits prescribed in this Schedule will be computed from the time when the complaint is filed with the designated offices of the licensee or at the call centers.**

## SCHEDULE-II

### 8. Overall Standards of Performance

- (1) **Normal fuse -off calls:** The Licensee shall maintain the percentage of fuseoff calls rectified within the time limits prescribed under sub-paragraph 1.1 of Schedule-I to total calls received at not less than 99%.
- (2) **Line Breakdowns:** The Licensee shall ensure restoration of power supply within the time limits prescribed in sub-paragraph 1.3 of Schedule-I. The Licensee shall achieve this standard of performance in at least 95% of the cases.
- (3) **Distribution Transformer Failures:** The Licensee shall maintain the percentage of distribution transformers replaced within the time limits prescribed in sub-paragraph 1.4 of Schedule-I to the total distribution transformers failed at not less than 95%.
- (4) **Period of scheduled outages:** Interruption in power supply due to scheduled outages, other than the load-shedding, has to be notified in advance and shall not exceed 12 hours in a day and in each such event, the Licensee has to ensure that the supply is restored by 6:00PM. The Licensee shall achieve both of these standards of performance in at least 95% of the cases.
- (5) **Reliability Indices:** The following reliability/outage indices are prescribed by the Institute of Electrical and Electronics Engineers (IEEE) Standard 1366 of 1998. The Licensee shall compute and report the value of these indices to the Commission from 2009 -10 onwards:
  - (a) **System Average Interruption Frequency Index (SAIFI):** The Licensee shall calculate the value as per the formula and methodology specified below.
  - (b) **System Average Interruption Duration Index (SAIDI):** The Licensee shall calculate the value as per the formula and methodology specified below.
  - (c) **Momentary Average Interruption Frequency Index (MAIFI):** The Licensee shall calculate the value as per the formula and methodology specified below.
- (6) **Method to compute Distribution System Reliability Indices:** The Indices shall be computed by stacking, for each month all the 11KV/33KV feeders in the Licensee's area of supply, and then aggregating the number and duration of all interruptions in that month for each feeder. The Indices would then be computed using the following formulae:

$$1. \text{ SAIFI} = \frac{\sum_{i=1}^n (A_i * N_i)}{N_t}$$

Where,

A<sub>i</sub> = Total number of sustained interruptions (each longer than 5 minutes) on ith feeder for the month

N<sub>i</sub> = Connected load of ith feeder affected due to each interruption

N<sub>t</sub> = Total connected load at 11KV in the Licensee's area of supply

n = number of 11KV feeders in the licensed area of supply

$$2. \text{ SAIDI} = \frac{\sum_{i=1}^n (\text{Bi} * \text{Ni})}{\text{N}_t}$$

Where,

- Bi = Total duration of all sustained interruptions on ith feeder for the month.
- Ni = Connected load of ith feeder affected due to each interruption
- Nt = Total connected load at 11KV in the Licensee's area of supply
- n = number of 11KV feeders in the licensed area of supply

$$3. \text{ MAIFI} = \frac{\sum_{i=1}^n (\text{Ci} * \text{Ni})}{\text{N}_t}$$

Where,

- Ci = Total number of momentary interruptions (each less than or equal to 5 minutes) on ith feeder for the month
  - Ni = Connected load of ith feeder affected due to each interruption
  - Nt = Total connected load at 11KV in the *Licensee's area of supply*
  - n = number of 11KV feeders in the licensed area of supply
- Note: The feeders must be segregated into rural and urban and the value of the indices must be reported separately for each month.*

**4. The Licensee shall propose the target level of these indices annually while submitting ARR.** The Commission would thereafter notify these indices.

- (7) **Voltage Unbalance:** The Licensee shall ensure that the voltage unbalance does not exceed 3% at the point of commencement of supply. Voltage Unbalance (VU) shall be computed in the following manner:

$$\text{Voltage Unbalance} = (\text{VH}-\text{VL})/\text{VH}:$$

Where VH and VL are highest and lowest phase Voltages for LT system or highest and lowest phase Voltages for HT & EHT systems.

- (8) **Billing mistakes:** The Licensee shall maintain the percentage of bills requiring modifications following complaints to the total number of bills issued, not greater than 10% for year 2009-10, 5% for year 2010 -11, 2% for year 2011-12 and 1% for 2012 -13 and thereafter.
- (9) **Faulty meters:** The Licensee shall maintain the percentage of defective meters to the total number of meters in service, not greater than 3%.
- (10) **Minimise electrical accidents:** Increase or decrease in no. of electrical accidents compared over a period of time will also be an indicator of the Licensee's performance.

(11) **The Summary of Overall performance standards is as follows:**

<b>Service area</b>	<b>Overall Standard of Performance</b>
<b>Normal fuse-off calls</b>	At least 99% calls received should be rectified within prescribed time limits in both Cities and Towns and in Rural areas
<b>Line Breakdowns</b>	At least 95% of cases resolved within time limit in both Cities and Towns and in Rural areas
<b>Distribution Transformer (DTR) failure)</b>	At least 95% of DTRs to be replaced within prescribed time limits in both Cities and Towns and in Rural areas
<b>Period of scheduled outage</b>	Maximum duration in a single stretch Restoration of supply by 6:00 PM At least 95% of cases resolved within time limit
<b>Continuity Indices</b> SAIDI SAIFI MAIFI	To be laid down by the Commission based on the targets proposed by the Licensees.
<b>Frequency variations</b> <b>Voltage Unbalance</b>	To maintain supply frequency within range as per IEGC. Maximum of 3% at point of commencement of supply.
<b>Percentage billing mistakes</b>	Not exceeding 10% for year 2009-10, 5% for year 2010-11, 2% for year 2011-12 and 1% for 2012-13 and thereafter.
<b>Percentage faulty meters</b>	Not exceeding 3%.

**SCHEDULE –III**

**9. Guaranteed Standards of Performance and Compensation to Consumers in Case of Default**

Service Area	Standard	Compensation payable in case of violation of Standard (default shall be considered from the time consumer has made complaint)	
		Compensation payable to individual consumer if the event affects a single consumer	Compensation payable to individual consumer if the event affects more than one consumer
<b>I. Billing</b>			
First Bill	Within 2 billing cycles	10% of the billed amount subject to maximum of Rs. 250/-	Not Applicable
In case bills are raised even after disconnection on consumer's request		Rs. 250/- for each case	
<b>II. Transfer of consumer's connection and conversion of services</b>			
Change of consumer's name due to change in ownership/occupancy for property	Within 2 billing cycles of acceptance of application	Rs. 50 for each day of default	Not applicable
Transfer of consumer's name to legal heir	Within 2 billing cycles of acceptance of application		
Load reduction	30 days after receipt of the application		
Change of category	Within 10 days of acceptance of application		

<b>III. Disconnection/ Reconnection of supply</b>			
Consumer wanting up to date bill	Licensee to carry out special reading and prepare final bill, including all arrears up to the date of billing, within the specified time frame.	Rs. 50 for each day of default	
Request for reconnection	In case consumer requests for reconnection within a period of six months after disconnection, the Licensee shall reconnect the consumer's installation within 5 days of payment of past dues and reconnection charges.		
<b>IV. Meter complaints</b>			
Testing of meter	Within 30 days of receipt of complaint	Rs. 25 for each day of default	Not applicable
Replacement of burnt meter	Within 6 hours restoration of supply by bypassing the burnt meter. Meter to be replaced within 3 days	Rs. 50 for each day of default	Not applicable
Replacement of defective meter	Within 15 days of declaring meter defective.	Rs. 50 for each day of default	Not applicable

<b>V. Power supply failure</b>			
Fuse blown out or MCB Tripped (in case fuse or MCB belongs to Licensee i.e. pole or feeder pillar fuse)	Within 4 hours for Urban areas Within 8 hours for Rural areas	Rs. 10 for each hour of default	Rs. 5 for each hour of default to each consumer affected
Service line broken Service line snapped from the pole	Within 6 hours for Urban areas Within 12 hours for Rural areas		
Fault in distribution line/system	Rectification of fault and thereafter Restoration of normal power supply within 12 hours		
Distribution transformer failed/burnt	Replacement of failed transformer within 48 hours	Rs. 100 for each day of default	Rs. 50 for each day of default to each consumer affected
HT mains failed	Rectification of fault within 12 hours	Rs. 200 for each day of default	Rs. 100 for each day of default to each consumer affected
Problem in grid (33 Kv or 66 Kv) substation	Repair and restoration of supply within 48 hours		
Failure of Power Transformer	Rectification to be completed within 15 days	Rs. 500 for each day of default per day	Rs. 250 for each day of default to each consumer affected
<b>VI. Voltage fluctuation</b>			
Local problem	Within 4 hours	Rs. 50 for each day of default	Rs. 25 for each day of default to each consumer affected
Tap of transformer	Within 3 days		
Repair of distribution line / transformer / capacitor	Within 30 days	Rs. 100 for each day of default	Rs. 50 for each day of default to
Installation & Up-gradation	Within 90 days		

of HT / LT System			each consumer affected
Damage to consumer's apparatus due to Voltage fluctuations	Immediate	Repair charges subject to a maximum of Rs 500/- per apparatus	
VII. Complaints/Applications under sub-regulation 7.4 above.	As mentioned in sub-regulation 7.4 above.	Rs 100 for each day of default.	

#### **10. Manner of payment of compensation amount:**

- (1) The Licensee shall register every complaint of a consumer regarding failure of power supply, quality of power supply, meters, bills etc., at their designated office(s) which should be within easy reach of the consumer and intimate the complaint number to the consumer.
- (2) The Licensee shall maintain consumer-wise records regarding the Guaranteed standards of performance in order to give a fair treatment to all consumers and avoid any dispute regarding violation of standard.
- (3) All payments of compensation shall be made by way of adjustment against current and/or future bills for supply of electricity, but by not later than 90 days from the date of violation of a Guaranteed Standard unless demanded by the consumer as a direct payment. If the Licensee, however, fails to dispense the compensation amount as laid down in Regulation (9) above the aggrieved consumer(s) can approach the respective Consumer Grievance Redressal Forum for redressal of grievances of consumers to seek such compensation. In such event, additional penalty may be levied on licensee for not faithfully implementing the regulations on case-to-case basis.

By order of the Commission

(J.S Sehwat)

Secretary

Joint Electricity Regulatory  
Commission For state of Goa  
and Union Territories