

ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

Regulation No. /2004

LICENSEES' STANDARDS OF PERFORMANCE

DRAFT REGULATIONS INVITING SUGGESTIONS / COMMENTS

In exercise of the powers conferred under Section 181 (za) and (zb) read with sections 57 and 59 of the Electricity Act, 2003 and all powers enabling it in that behalf, the Andhra Pradesh Electricity Regulatory Commission hereby frames the following Regulations regarding the Licensees Standards of performance, namely:-

1. Short title, commencement and interpretation

- (1) These regulations may be called the Andhra Pradesh Electricity Regulatory Commission (Licensees' Standards of Performance) Regulations, 2004.
- (2) These regulations shall be applicable to all licensees engaged in distribution or trading of electricity in the State of Andhra Pradesh.
- (3) These regulations extend to the whole of the State of Andhra Pradesh.
- (4) These regulations shall come into force on the date of their publication in the Andhra Pradesh Gazette.

2. Definitions

- (1) In these regulations, unless the context otherwise requires:-
 - (a) "Act" means the Electricity Act, 2003;
 - (b) "area of supply" means the area within which a licensee is authorised by his licensee to supply electricity;
 - (c) "Commission" means the Andhra Pradesh Electricity Regulatory Commission;
 - (d) "Extra High Tension/Extra High Voltage" means the voltage exceeding 33000 volts under normal conditions;
 - (e) "High Tension/High Voltage" means the voltage exceeding 440 Volts but, not exceeding 33000 volts under normal conditions;
 - (f) "Licensee" shall mean the Distribution Licensee and wherever the context so requires shall include the Transmission and Trading Licensees;
 - (g) "Low Tension/Low Voltage" means the voltage that does not exceed 230/440 Volts under normal conditions;

(2) Words and expressions used and not defined in these regulations shall bear the same meaning as in the Act or in absence of any definition in the Act, 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-III 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-III.

4. Compensation

(1) The licensee shall be liable to pay to the affected consumers compensation specified in Schedule – II for Licensee's failure to meet the Guaranteed Standards of Performance specified in Schedule – I. The compensation amount shall be paid by the Licensee in the manner specified in Schedule II.

(2) The licensee concerned shall pay the compensation referred to under sub-clause (1) above within ninety days of violation of a Guaranteed Standard of Performance.

(3) The liability of compensation under sub-clause (1) above shall be applicable to towns and cities from the month subsequent to the month in which these regulations are notified by the Commission in the Andhra Pradesh Gazette. For rural areas, the Commission shall specify the effective date for payment of compensation in consultation with the licensees.

5. Information on Standards of Performance

(1) For Guaranteed Standards, each 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 Licensees with reference to those specified in Schedule – I to these regulations;
- (b) The number of cases in which compensation was paid under clause 4 above, and the aggregate amount of the compensation payable and/or paid by the Licensee, and
- (c) The measures taken by the licensee to improve performance in the areas covered by Guaranteed Standards and licensee's assessment of the targets to be imposed for the ensuing year.

(2) For Overall Standards, each Licensee shall furnish to the Commission, in a report for every quarter and in a consolidated annual report, the following information:

- (a) The level of performance achieved with reference to those specified in Schedule – III to these regulations; and,

- (b) The measures taken by the licensee to improve performance in the areas covered by Overall Standards and licensee's assessment of the targets to be imposed for the ensuing year.

(3) 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 these Regulations.

6. Exemption

(1) The standards of performance specified in these regulations shall remain suspended during Force Majeure condition such as war, mutiny, civil commotion, riot, flood, cyclone, lighting, earthquake or other force and strike, lockout, fire affecting the licensee's installations and activities.

(2) The Commission may by a general or special order issued for the purpose and after hearing the Licensee and the affected consumer group release the Licensee from the liability to compensate the consumers for any default in the performance of any standard if the Commission 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.

7. Issue of orders and practice directions

Subject to the provisions of the Electricity Act, 2003 and these regulations, the Commission may, from time to time, issue orders and practice directions in regard to the implementation of the regulations and procedure to be followed and various matters, which the Commission has been empowered by these regulations to specify or direct.

8. 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 special order, do or undertake or direct the licensees to do or undertake things, which in the opinion of the Commission are necessary or expedient for the purpose of removing the difficulties.

9. Repeal and Savings

(1) The Andhra Pradesh Electricity Regulatory Commission (Standards of Performance) Regulation, 2000 shall stand repealed.

(2) Notwithstanding such repeal, anything done or any action taken or purported to have been done or taken including any order direction or notice made or issued under the repealed regulations shall be valid.

(3) Nothing in these regulations shall affect the rights and privileges of the consumers under any other law including the Consumer Protection Act, 1986.

Secretary
A. P. Electricity Regulatory Commission

GUARANTEED STANDARDS OF PERFORMANCE

I. Restoration of Power Supply

1.1 **Normal Fuse-off:** The licensee shall restore power supply in the case of normal fuse-off calls (replacing Horn Gap (HG) fuses or Low Tension (LT) fuses at the distribution transformer or at the consumer premises) within 4 hours of receiving the complaint in towns and cities and within 12 hours of receiving the complaint in rural areas. Individual fuse-off calls at consumer premises, wherever the fault is of such nature that it requires shutting down the power supply affecting other consumers also, shall not be attended to between 6PM and 8AM except in case of essential services like water supply, hospitals etc., and other important Government services.

1.2 **Line Breakdowns:** In case of line breakdowns, the licensee shall ensure restoration of power supply within 6 hours of occurrence of breakdown in towns and cities and within 24 hours of occurrence of breakdown in rural areas.

1.3 **Distribution Transformer failure:** The licensee shall restore supply in the case of distribution transformer failures by replacement of transformer within 24 hours of receiving the complaint in towns and cities and within 48 hours of receiving the complaint in rural areas.

1.4 **Period of scheduled outages:** Interruption in power supply due to scheduled outages shall be notified by the licensee at least 24 hours in advance and shall not exceed 12 hours in a day. In each such event, the licensee shall ensure that the supply is restored by 6:00 PM.

II. Quality of Power Supply

2.1 Voltage Variations

(i) 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:

- (a) In the case of Low Voltage, +6% and -6%;
- (b) In the case of High Voltage, +6% and -9%; and,
- (c) In the case of Extra High Voltage, +10% and -12.5%.

(ii) On receipt of a voltage variation complaint, the licensee shall verify if the voltage is varying outside the limits specified in sub-paragraph (i) above and if confirmed, the licensee shall

- (a) Improve the voltage variations within 10 days of original complaint if no expansion/enhancement of network is involved;
- (b) Resolve the complaint within 120 days, if up-gradation of distribution system is required.

2.2 Harmonics

(i) The licensee shall maintain the limits of harmonics as per the stages prescribed hereunder:

Stage-1: The cumulative Total Voltage Harmonic Distortion (THD_v) at the Point of Commencement of Supply for each consumer connected at 132KV and above shall be limited to 3% (as per Grid Code of Andhra Pradesh).

Stage-2: The cumulative Total Voltage Harmonic Distortion (THD_v) at the Point of Commencement of Supply for each consumer connected at 33KV shall be limited to 8% (as per Grid Code of Andhra Pradesh).

Stage-3: The cumulative Total Voltage Harmonic Distortion (THD_v) at the Point of Commencement of Supply for each consumer connected at 11KV shall be limited to 8% (as per Grid Code of Andhra Pradesh).

(ii) Stage-1 shall be effective on the expiry of 6 months from the date of publication of these regulations.

(iii) The Commission will specify the effective dates for Stage-2 and Stage-3 after consultation with the licensees.

(iv) The assessment method for recording harmonic levels shall be as laid out in the Grid Code of Andhra Pradesh, until the Commission lays down a separate procedure.

2.3 Complaints about meters

(i) The licensee shall inspect and check the correctness of the meter within 7 working days of receiving the complaint. If the meter is not working (stuck up, running slow, fast or creeping), the licensee shall replace the meter within 30 days of receiving the original complaint.

(ii) The licensee shall replace burnt out meters within 7 days of complaint if the burning of meter is not due to causes attributable to the consumer like tampering, defect in consumer's installation, meter getting wet, connecting unauthorized additional load by consumer etc. If the meter is burnt due to causes attributable to the consumer, the licensee shall serve a notice to the consumer for recovery of cost of the meter within 7 days of detection, and shall replace the meter within 7 days of receiving the payment from the consumer and after necessary corrective action is taken to avoid future damage to the meter.

III. Applications for New connections/Additional Load

3.1 Cases where power supply can be provided from existing network

(i) The licensee shall release supply to an applicant within 30 days of receipt of a complete application accompanied by prescribed fees, charges and security:

Provided that in case of applications requiring supply under Low Tension Agricultural category, such obligation on the part of the licensee shall be limited to the number of connections that can be covered within the target fixed for the year for release of agricultural connections. The licensee shall inform the

applicants in writing within 15 days of receipt of application, if the applicants' case cannot be covered in the programme of release of agricultural connections fixed for the year.

- (ii) The licensee shall keep the fees, charges and security payable by the applicants for new connections notified and also specify the same on the application form.

3.2 Cases where power supply requires extension of distribution mains

- (i) The licensee shall acknowledge the receipt of the application within 2 days and shall intimate to the applicant in writing, the amount of security and other charges payable within 7, 15, 30 and 45 days of receipt of application for Low Tension, High Tension (11KV), High Tension (33KV) and Extra High Tension (above 33KV) respectively.
- (ii) The supply of electricity in such cases shall be effected by the licensee within the time limits specified hereunder:

Voltage of supply	Period from date of payment of required security and other charges, within which supply of electricity should be provided
Low Tension	30 days
High Tension – 11000 Volts	45 days
High Tension – 33000 Volts	90 days
Extra High Tension – Above 33000 Volts	180 days

Provided that the distribution licensee may approach the Commission for extension of time specified above, in specific cases where the magnitude of extension is such that it requires more time, duly furnishing the details in support of such claim for extension. Such request should be made immediately after preparation of the estimate for such extension.

3.3 Erection of substation to extend supply

In cases of application for new connection, where extension of supply requires erection and commissioning of new 33/11KV substation, the distribution licensee shall submit to the Commission within 15 days of receipt of such application, a proposal for erection of such 33/11KV substation together with the time required for erecting and commissioning the substation, and get the same approved by the Commission. The licensee shall commence power supply to the applicant within the time period so approved by the Commission.

Provided that if the substation is meant to extend supply to an individual consumer, the licensee shall commence erection of the substation only after receipt of necessary security from the applicant.

Provided further that where such substation is covered in the investment plan approved by the Commission, the distribution licensee shall not be required to take any further approval from the Commission and shall complete erection of such substation within the time period specified in such investment plan.

- 3.4 The licensee shall not, however, be held responsible for the delay, if any, in extending supply, if the same is on account of problems relating to statutory clearances, right of way, acquisition of land, or the delay in consumer's obligation to obtain approval of Chief Electrical Inspector to Government for his High Tension or Extra High Tension installation, etc. over which licensee has no reasonable control.

IV Transfer of ownership and conversion of services

4. The licensee shall give effect to transfer of ownership, change of category and conversion of the existing services from Low Tension to High Tension and vice-versa within the following time limits:

- | | | |
|--|---|--|
| (a) Title transfer of ownership | } | - within 7 days of receipt of application, with necessary documents and prescribed fee, if any |
| (b) Change of category | | |
| (c) Conversion from Low Tension single phase to Low Tension 3-phase and vice-versa | } | - within 30 days from the date of payment of necessary charges by the consumer |
| (d) Conversion from Low Tension to High Tension and vice-versa | | |

V Complaints about consumer's bills

5.1 (i) The licensee shall acknowledge the consumer's complaint immediately, if received in person and within 2 days, if received by post. The licensee shall resolve the complaint regarding electricity bills within 24 hours of its receipt, if no additional information is required to be collected and within 7 days of receipt of complaint in case any additional information is required.

(ii) In case the complaint is genuine and revision of bill already issued becomes necessary, the due date for payment of bill shall be reckoned from the date of revised bill for the purpose of disconnection of supply or for levy of additional charges for belated payment.

5.2 Reconnection of supply following disconnection due to non-payment of bills

The licensee shall restore power supply to a consumer, whose supply has been disconnected due to non-payment of electricity bills, within 2 hours of receipt of production of proof of payment by the consumer in towns and cities, and within 12 hours of production of proof of payment by the consumer in rural areas.

SCHEDULE –II

**PROPOSED GUARANTEED STANDARDS OF PERFORMANCE AND LEVEL OF
COMPENSATION TO CONSUMER FOR DEFAULT IN EACH CASE**

Service area	Standard	Compensation payable to affected consumer	Manner of payment
Normal Fuse-off			
Cities and towns	Within 4 hours	Rs. 100 in each case of default	Automatic
Rural areas	Within 12 hours		
Line Breakdowns			
Cities and towns	Within 6 hours	Rs. 100 to each affected consumer	To be Claimed
Rural areas	Within 24 hours		
Distribution Transformer failure			
Cities and Towns	Within 24 hours	Rs. 200 to each affected consumer	To be Claimed
Rural areas	Within 48 hours		
Period of scheduled outages			
Maximum duration in a single stretch	Not to exceed 12 hours	Rs. 200 to each affected consumer	To be Claimed
Restoration of supply	By 6:00 PM on any day		
Voltage Variations			
No expansion/enhancement of network is involved	Within 10 days	Rs. 200 in each case of default	Automatic
Up-gradation of distribution system is required	Within 120 days	Rs. 500 in each case of default	
Harmonics			
EHT connections	Not more than 3% at point of commencement of supply	Rs. 200 for each case of default	To be Claimed
HT connections	Not more than 8% at point of commencement of supply		
Meter Complaints			
Inspect and check correctness	Within 7 days	Rs. 100 in each case of default	To be Claimed
Replace slow, creeping or stuck up meters	Within 30 days	Rs. 100 in each case of default	Automatic
Replace burnt meters if cause not attributable to consumer	Within 7 days of receipt of complaint	Rs. 200 in each case of default	Automatic
Replace burnt meters in all other cases	Within 7 days of payment of charges by consumer		
Application for new connection/additional load			
Connection feasible from existing network			
Release of supply	Within 30 days of receipt of application (alongwith prescribed charges)	Rs. 100 for each day of default	Automatic

Service area	Standard	Compensation payable to affected consumer	Manner of payment
Network expansion/enhancement required for providing connection			
Release of supply – Low Tension (including agriculture)	Within 30 days of receipt of prescribed charges	Rs. 100 for each day of default	To be Claimed
Release of supply – High Tension 11KV supply	Within 45 days of receipt of prescribed charges	Rs. 500 for each day of default	To be Claimed
Release of supply – High Tension 33KV supply	Within 90 days of receipt of prescribed charges	Rs. 500 for each day of default	Automatic
Release of supply – Extra High Tension services	Within 180 days of receipt of prescribed charges		
Erection of Substation required for release of supply	Within the time period as approved by the Commission	Rs. 1000 for each day of default	Automatic
Transfer of ownership and conversion of service			
Title transfer of ownership	Within 7 days of receipt of application	Rs. 100 for each day of default	Automatic
Change of category	Within 7 days of receipt of application	Rs. 100 for each day of default	Automatic
Conversion from LT 1-ph to LT 3-ph	Within 30 days from the date of payment of charges		
Conversion from LT to HT and vice-versa	Within 30 days from the date of payment of charges	Rs. 200 for each day of default	Automatic
Resolution of complaints on consumer's bills			
If no additional information is required	Within 24 hours of receipt of complaint	Rs. 50 for each day of default	Automatic
If additional information is required to be collected	Within 7 days of receipt of complaint		
Reconnection of supply following disconnection			
Towns and cities	Within 2 hours of receipt of payment from consumer	Rs. 100 for each case of default	Automatic
Rural areas	Within 12 hours of receipt of payment from consumer		

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 and payment of bills etc. and intimate the complaint number to the consumer.
2. The Licensee shall maintain all records regarding the Guaranteed standards of performance in a consumer-wise manner 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 existing, current, and/or future bills for supply of electricity
4. The compensation claims shall be dealt with in the following manner:

Automatic: This mode of payment requires the Licensee to calculate and pay the compensation amount to the affected consumer automatically, following non-compliance to a particular standard. However, the consumer can approach the Licensee to claim compensation, if the standard is violated and the Licensee fails to dispense the compensation in a reasonable amount of time.

To be Claimed: This mode of payment requires the consumer to bring to the notice of the Licensee that the standard has been violated and accordingly claim the compensation amount from the Licensee.

OVERALL STANDARDS OF PERFORMANCE

1.1 **Normal fuse-off calls:** The licensee shall maintain the percentage of fuse-off calls rectified within the time limits prescribed under sub-paragraph 1.1 of Schedule-I to total calls received at a value not less than 99%.

1.2 **Line Breakdowns:** In case of line breakdowns, the licensee shall ensure restoration of power supply within 6 hours of occurrence of breakdown in towns and cities and within 24 hours of occurrence of breakdown in rural areas as prescribed in sub-paragraph 1.2 of Schedule-I. The licensee shall achieve this standard of performance in at least 95% of the cases.

1.3 **Distribution Transformer Failures:** The licensee shall maintain the percentage of distribution transformers replaced within the time limits prescribed in sub-paragraph 1.3 of Schedule-I to the total distribution transformers failed at a value not less than 95%.

1.4 **Period of scheduled outages:** As specified in sub-paragraph 1.4 of Schedule-I, interruption in power supply due to scheduled outages 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.

1.5 **Reliability Indices**

(i) 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 from 2002-03 onwards:

- (b) **System Average Interruption Frequency Index (SAIFI):** The licensee shall calculate the value as per the formula and methodology specified below.
- (c) **System Average Interruption Duration Index (SAIDI):** The licensee shall calculate the value as per the formula and methodology specified below.
- (d) **Momentary Average Interruption Frequency Index (MAIFI):** The licensee shall calculate the value as per the formula and methodology specified below.

Method to compute Distribution System Reliability Indices

The Indices shall be computed for the Discom as a whole by stacking, for each month all the 11KV feeders in the supply area, excluding those serving predominantly agricultural loads, 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:

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

A_i = Total number of sustained interruptions (each longer than 5 minutes) on i^{th} feeder for the month

N_i = Connected load of i^{th} feeder affected due to each interruption

N_t = Total connected load at 11KV in the Distribution licensee's supply area

n = number of 11KV feeders in the licensed area of supply (excluding those serving predominantly agricultural loads)

$$2. \quad \text{SAIDI} = \frac{\sum_{i=1}^n (B_i * N_i)}{N_t} \quad \text{Where,}$$

B_i = Total duration of all sustained interruptions on i^{th} feeder for the month.

$$3. \quad \text{MAIFI} = \frac{\sum_{i=1}^n (C_i * N_i)}{N_t} \quad \text{Where,}$$

C_i = Total number of momentary interruptions (each less than or equal to 5 minutes) on i^{th} feeder for the month

Note: The feeders must be segregated into rural and urban and the value of the indices must be reported separately for each month.

(i) The licensee shall compute the value of these indices separately for feeders serving predominantly agricultural loads. The methodology for computation of indices shall remain the same as in the case of other feeders.

(ii) Based on the information provided by the licensees, the Commission would notify the target levels for these indices annually.

1.6 Frequency variations: The licensee shall achieve coordination with other network constituents such as State Transmission Utility, State Load Dispatch Center, distribution licensees and other transmission licensees in an endeavour to maintain the supply frequency within $\pm 3\%$ of nominal frequency (50Hz), as per the Indian Electricity Rules 1956, as applicable at present and as may be amended from time to time. The licensee shall conduct hourly measurement of supply frequency and report the number of events when the supply frequency was outside prescribed limits.

1.7 Voltage Unbalance: The licensee shall ensure that the voltage unbalance does not exceed 3% at the point of commencement of supply. Voltage Unbalance shall be computed in a manner to be specified by the Commission separately or as part of the Distribution Code or Distribution Operating Standards.

1.8 Street Light faults

1.8.1 The licensee shall rectify line faults and restore streetlights within 24 hours of detection or receipt of complaint, whichever is earlier. The licensee shall achieve this standard of performance in at least 90% of the cases.

1.8.2 In case of a fused light or defective unit, the licensee or the local body, as the case may be, shall replace the light or rectify/replace the unit within 24 hours of detection or receipt of complaint, whichever is earlier. The licensee shall achieve this standard of performance in at least 90% of the cases.

1.9 **Billing mistakes:** The licensee shall maintain the percentage of bills requiring modifications following complaints to the total number of bills issued, at a value not greater than 0.1%.

1.10 **Faulty meters:** The licensee shall maintain the percentage of defective meters to the total number of meters in service, at a value not greater than 3%.

1.11 The Summary of Overall performance standards is as follows:

Service area	Standard	Overall Standard of Performance
Normal fuse-off calls		At least 99% calls received should be rectified within prescribed time limits
Line Breakdowns		
Cities and towns	Within 6 hours	At least 95% of cases resolved within time limit
Rural areas	Within 24 hours	At least 95% of cases resolved within time limit
Distribution Transformer failure		At least 95% of DTRs to be replaced within prescribed time limits
Period of scheduled outage		
Maximum duration in a single stretch	12 hours	At least 95% of cases resolved within time limit
Restoration of supply by 6:00 PM		At least 95% of cases resolved within time limit
Continuity Indices		
SAIFI		To be laid down by the Commission
SAIDI		
MAIFI		
Frequency variations		To maintain supply frequency within +/- 3% of 50Hz.
Voltage Unbalance		Maximum of 3% at point of commencement of supply
Street light faults		
Rectification of line faults	Within 24 hours	At least 90% of cases resolved within time limits
Replacement of fused/defective units	Within 2 days	At least 90% of cases resolved within time limits
% billing mistakes		0.1%
% faulty meters		3%

