# HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION SHIMLA

# NOTIFICATION

Shimla, the 30th April, 2011

No. HPERC/ 401 In exercise of the powers conferred by sub-section (1) of section 181 and Clauses (za) and (zb) of sub-section (2) of section 181, read with sections 57, 58, 59 and clause (i) of sub-section (1) of section 86, of the Electricity Act, 2003 (36 of 2003) and all other powers enabling it in this behalf, and after previous publication, the Himachal Pradesh Electricity Regulatory Commission makes the following regulations further to amend the Himachal Pradesh Electricity Regulatory Commission (Distribution Performance Standards) Regulations, 2010, published in the Rajpatra, Himachal Pradesh, dated 12th October, 2010, namely:—

## REGULATIONS

- 1. Short title and commencement- (1) These regulations shall be called the Himachal Pradesh Electricity Regulatory Commission (Distribution Performance Standards) (First Amendment), Regulations, 2011.
- (2) These regulations shall come into force from the date of their publication in the Rajpatra, Himachal Pradesh.
- 2. Amendment of Regulation 4.— In sub-regulation (2) of regulation 4 of the Himachal Pradesh Electricity Regulatory Commission (Distribution Performance Standards) Regulations, 2010 (hereafter called as the said regulations).—
  - (a) the sign "-I" after the word "Schedule" shall be omitted; and
  - (b) for the words and figures "31st March,2011", the words and figures "31st March,2012 shall be substituted.
- 3. Amendment of Schedule.- In the Schedule to the said regulations in sub-item (I) item of (4) for the words and figures "1st April,2011", the words and figures "1st April,2012" shall be substituted.

By the order of the Commission

-Sd-Secretary.

## TRANSPORT DEPARTMENT

#### NOTIFICATION

Shimla-2, the 11th October, 2010

No. Tpt-C(17)-2/2009.—In continuation of this department Notification of even No. dated 16-01-2010 and 12-03-2010, the Governor of Himachal Pradesh is pleased to appoint/nominate Shri Vinod Kumar C/o MIT CAMPUS, VPO Bani, Tehsil Barsar District Hamirpur as Non-Official Member to the Advisory Council of HRTC in place of Sh. Ashok Thakur, Contractor, Hamirpur who shall cease to be the member of said council with immediate effect in the public interest.

By order, Sd/-Principal Secretary (Transport).

# HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION SHIMLA

#### NOTIFICATION

Shimla the 8th October, 2010

No. HPERC/ 401.—In exercise of the powers conferred by sub-section (1) of section 181 and Clauses (za) and (zb) of sub-section (2) of section 181, read with sections 57, 58, 59 and clause (i) of sub-section (1) of section 86, of the Electricity Act, 2003 (36 of 2003) and all other powers enabling it in this behalf, and after previous publication, the Himachal Pradesh Electricity Regulatory Commission hereby makes the following regulations:-

## REGULATIONS

# CHAPTER -I - PRELIMINARY

- 1. Short title, extent and commencement.—(1) These regulations shall be called the Himachal Pradesh Electricity Regulatory Commission (Distribution Performance Standards) Regulations, 2010.
- (2) These regulations shall be applicable to all licensees engaged in the distribution of electricity in the State of Himachal Pradesh and all the distribution system users including electricity consumers.
- (3) These regulations shall come into force from the date of their publication in the Rajpatra, Himachal Pradesh.
  - 2. Definitions.—In these regulations, unless the context otherwise requires,-
  - (1) "Act" means the Electricity Act, 2003 (36 of 2003);
  - (2) "area of supply" means the area within which a distribution licensee is authorised by his licence to supply electricity;
  - (3) "call centre" means the office set up with adequate technology and systems to register complaints round the clock;

appointments	had at the above levels at the specific request of any consumer	
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#### 3. Efficiency Parameters

Parameters	Targeted Level of Standard of Performance	
(a) Faiture of - (i) 33/11 kV Power Transformers (ii) 11/0.4 kV Distribution Power Transformers	Not exceeding 0.5% in a year of the number of transformers in service at the beginning of year.  Not exceeding 5% in a year of the number of transformers in service at the beginning of year.	
(b) % of Stopped/Defective Meters	Not exceeding 2 % of the meters installed	
(c) % T& D Losses	Subject to Commission's directions in ARR/Tariff Order from time to time	
(d) % Collection Efficiency	Overall Annual Average monthly collection efficiency not less than 99%  LT Consumers Overall Annual Average monthly collection efficiency not less than – 95%  HT & EHT consumers Overall Annual Average monthly collection efficiency not less than – 100%  Where monthly collection efficiency = Amount realized divided by the amount assessed during the month.  Bills challenged in any court of law shall not be considered for the purpose of collection efficiency.	

# (4) Reliability & Quality of Power Supply

(I) Reliability of the distribution system operated by the licensee shall be computed on the basis of number and duration of sustained interruptions in pre-defined period of time e.g. quarterly, annually etc. In a power system, it may take a few minutes or repetitive operation of protective devices, to restore power after transient faults or to reroute power in the network to restore supply to the affected area.

The licensee shall compute and report the value of following sustained interruption indices, prescribed by the Institute of Electrical and Electronics Engineers (IEEE) Standard 1366 of 2003, from 1st April, 2011 and till then, the methodology for calculation of reliability indices shall continue as specified under the Himachal Pradesh Electricity Regulatory Commission (Distribution Licensees' Standards of Performance) Regulations, 2005):

Sustained interruptions, not classified as a part of momentary event, which last more than five minutes duration shall be considered for judging the reliability of the system and momentary interruptions (including all reclosing operation that occur within five minute of the first interruption), not exceeding five minutes duration, from the first interruption shall be ignored in computation.

# a. SAIFI

SAIFI (System Average Interruption Frequency Index) indicates how often the average customer experiences a sustained interruption over a pre-defined period of time. Mathematically, this is as follows,

SAIFI= <u>Same Total Number of Consumers Interrupted</u>
Total Number of Consumers served

i.e. 
$$SAIFI = \sum_{N_I} N_I$$

Where, N<sub>i</sub> = No. of interrupted consumers for each sustained interruption event during a quarter.

N<sub>T</sub>= Total no. of consumers served in the area,

#### b. SAIDI

SAIDI (System Average Interruption Duration Index) indicates the total duration of interruption for an average consumer, as consumer minutes or consumer hours, during a pie-defined period. Mathematically, this is as follows,

SAIDI= Σ Customer Interruption Durations
Total Number of Customers Served

i.e. 
$$SAIDI = \sum_{r_i N_i} N_T$$

ri = Restoration time for each interruption event

 $N_{i=}$  No, of interrupted consumers for each sustained interruption event during the quarter.

NT= Total no, of consumers served in the area.

# c. Consumers Average Interruption Frequency Index (CAIFI)

Consumers average interruption frequency index gives the average frequency of sustained interruptions for those consumers experiencing sustained interruptions. The consumer is counted once regardless of the number of times interrupted for this calculation.

$$CAIFI = \frac{\sum N_i}{CN}$$

Where

N<sub>i</sub> = Total no, of interrupted consumers for each sustained interruption event during the quarter.

CN = Total number of consumers who have experienced a sustained interruption during the quarter.

## d. Consumers Average Interruption Duration Index (CAIDI)

Consumers average interruption duration index is the average time required to restore service. Mathematically, simplified

CAIDI = SAIDI / SAIFI

-CAIDI shall be calculated for a sub-station, for a circle and for the Licensee as a whole. The index shall be expressed in interruption minutes per consumer per year.

-SAIFI, SAIDI, CAIFI and CAIDI indices shall be calculated for a sub-station, for a circle and for the Licensee as a whole quarterly and the consolidated indices value should form part of the report under sub-regulation 10(1).

While the indices, the following types of interruptions shall not be taken into account:

- (a) Planned outages i.e. interruption due to "State Annual Outage plan" prepared in advance for the financial year SLDC if not deferred taking into account the statutory requirements (Clause 5.8.4 (f) of the State Grid Code)
- (b) Momentary interruptions of duration less than five minutes
- (c) Contingency outages in intra-State transmission network as identified under clause 3.5,1 (a)of the State Grid Code.
- (d) Outages due to Force Majeure reasons beyond the control of the Licensee like fire, earthquake, floods, storms, and riots etc. including forced outages i.e. an outage of a generating unit or a transmission facility due to a fault or other reason which has not been planned.

Within six months of these regulations coming into force, the Licensee shall declare Reliability Index (RI) in the form of SAIDI & SAIFI in its area of supply and shall publish it in local newspaper having wide circulation in that area.

The Commission shall fix benchmarks for standards of reliability on the basis of data collected for one year and revise the levels to be achieved from time to time for ensuring improvement in the performance of the licensee.