TELANGANA STATE ELECTRICITY REGULATORY COMMISSION
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Metering issues – Location, Ownership, Cost Recovery Mechanism and Responsibilities of Licensees/Generating Companies

Proceedings No. TSERC/Secy/13/2015 **Dated: 02-02-2015**

Read the following:

(i) CEA (Installation and operation of meters) Regulation, 2006.
(ii) CEA (Installation and operation of meters) Amendment Regulation, 2010.
(iii) CERC (Open Access in inter-State Transmission) Regulations, 2008.
(iv) CERC (Open Access in inter-State Transmission) (Amendment) Regulations, 2009
(v) CERC(Open Access in inter-State Transmission) (2nd Amendment) Regulations, 2013
(vi) APERC-Licensee's duty for supply of electricity on request, Regulation 4 of 2013.

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1.0 Background:

Section 55 of the Electricity Act, 2003 (Act, 2003) deals with the installation of correct meters and the Central electricity Authority (CEA) in exercise of powers vested under the Act, 2003 has issued "the Installation and operation of meters, Regulation, 2006 ". The Regulation deals with issues like, type of meters, ownership of meters, location of meters, accuracy class of meters, energy accounting and sealing of interface meters. The Central Electricity Regulatory Commission (CERC) issued "Open Access in inter – State Transmission Regulations, 2008" related to open access issues. Under Section 55 (3), the Commission has the responsibility of ensuring the implementing of the provisions contained in Section 55 and the Regulations made under Section 55 (1) by Central Electricity Authority.

2.0 In the course of implementing the Regulations made, the Transmission and Distribution Licensees have raised certain issues connected with,

1) Ownership of meters,
2) Cost bearing mechanism of meter and allied equipment
3) Installation responsibility, testing and
4) Location of meters.

3.0 Consequently the erstwhile Andhra Pradesh Electricity Regulatory Commission (APERC) had initiated the process of mitigating the same by initiating a discussion paper and based on the submissions of the stakeholders to pass an order laying down the guidelines. Necessary comments / submission were received by the

APERC. At the stage of issuing of the necessary order and account of implementation of the A P Reorganisation Act, 2014, the Telangana State Electricity Regulatory Commission is formulated w.e.f 03.11.2014 and the erstwhile APERC ceases functioning as per the AP Reorganisation Act.

4.0 For completing the procedure of obtaining Comments/Suggestions of the stakeholders after the formation of the Telangana State Electricity Regulatory Commission, the draft proceedings were placed on the website of the Commission on 06-01-2015 and the time was given up to 21-01-2015. In all, Comments/Suggestions received from 5 nos. stakeholders. All the comments/suggestions were taken into consideration. In order to effectively implement the provisions of Section 55(3) of the Act, 2003 and the Regulations made by the CEA under Section 55 (1) or otherwise, read with Regulation 54 of the Andhra Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations 1999, the Telangana State Electricity Regulatory Commission hereby issues the following proceedings.

5.0 Applicability:

These proceedings shall be applicable to generating companies and licensees who are engaged in the business of generation, transmission, distribution, and supply of electricity and to all Open Access consumers in the State of Telangana.

6.0 Relevant provisions of CEA Regulation

The Commission has considered the following provisions as are mentioned in the regulation issued by the CEA which are extracted hereunder:

(a) Definitions in CEA Regulation under clause 2:

"*2 (1) (i) 'Check Meter' means a meter, which shall be connected to the same core of the Current Transformer (CT) and Voltage Transformer (VT) to which main meter is connected and shall be used for accounting and billing of electricity in case of failure of main meter;*

2 (1) (j) 'Consumer Meter' means a meter used for accounting and billing of electricity supplied to the consumer but excluding those consumers covered under Interface Meters;

2 (1) (k) 'Correct Meter' means a meter, which shall at least have, features, Accuracy Class and specifications as per the Standards on Installation and Operation of Meters given in Schedule of these Regulations;

2 (1) (n) 'Interface Meter' means a meter used for accounting and billing of electricity, connected at the point of interconnection between electrical systems of generating company, licensee and consumers, directly connected to the Inter-State Transmission System or Intra-State Transmission System who have to be covered under Availability Based Tariff (ABT) and have been permitted open access by the Appropriate Commission;

2 (1) (o) 'Main Meter' means a meter, which would primarily be used for accounting and billing of electricity;

2 (1) (v) 'Standby Meter' means a meter connected to CT and VT, other than those used for main meter and check meter and shall be used for accounting and billing of electricity in case of failure of both main meter and check meter;

2 (1) (w) 'Supplier' means any generating company or licensee from whose system electricity flows into the system of another generating company or licensee or consumer;"

7.0 Ownership of meters:

(1) Clause 6(1) of CEA Regulation reads as follows:

"6. Ownership of meters.-

(1) ***Interface meters***

(a) All interface meters installed at the points of interconnection with Inter-State Transmission System (ISTS) for the purpose of electricity accounting and billing shall be owned by Central Transmission Utility (CTU).

(b) All interface meters installed at the points of interconnection with Intra-State Transmission System excluding the system covered under sub-clause (a) for the purpose of electricity accounting and billing shall be owned by state Transmission Utility (STU).

(c) All interface meters installed at the points of inter connection between the two licensees excluding those covered under sub-clauses (a) and (b) for the purpose of electricity accounting and billing shall be owned by respective licensee of each end.

(d) All interface meters installed at the points of inter connection for the purpose of electricity accounting and billing not covered under sub-clauses (a), (b) and (c) shall be owned by supplier of electricity."

7.1 Analysis:

Interface meters:

(i) The Supplier shall own all interface meters installed at the points of inter connection for the purpose of electricity accounting and billing.

(ii) As per 2(1) (w) of CEA Regulation cited in reference (1), 'Supplier' means any generating company or licensee from whose system electricity flows into the system of another generating company or licensee or consumer.

(iii) From the above, a Supplier can be a generating company, transmission licensee or a distribution licensee from whose system electricity flows into the system of another generating company or licensee or consumer.

(iv) If a consumer is connected to the Distribution system, the Distribution Licensee will become supplier and shall own the meter. If a consumer is connected to the transmission system, the Transmission Licensee being the supplier shall own the meter.

7.2 Directive:

The Distribution Licensees or Transmission Licensees or Generating Companies, being Suppliers, shall own all interface meters and maintain the meters and allied equipment. Maintenance includes rectification, replacement of defective meters and allied equipment by the Supplier.

8.0 Interface Meters and cost bearing mechanism:

The Commission considered the following provisions as are mentioned in the regulation issued by the CERC in CERC Open Access Regulations, 2008 which are extracted hereunder:

(a) Definition of Intra-state entity;

"2 (1) (h) "intra-State entity" means a person whose metering and energy accounting is done by the State Load Despatch Centre or by any other authorized State utility;"

(b) Special Energy Meters;

"22.(1) Special Energy Meters shall be installed by the Central Transmission Utility for and at the cost of the regional entities and by the State Transmission Utility or the distribution licensee as the case may be, for and at the cost of the intra-State entities."

8.1 Analysis:

(i) As per the definition of "Intra-state entity", the State Load Despatch Centre (SLDC) does energy accounting for all open access consumers and Distribution Licensees (Distribution Licensees). Hence, all open access consumers and Distribution Licensees will become Intra-state entities.
(ii) As per the definition of "Special Energy Meters", the State Transmission Utility (STU) or Distribution Licensee as the case may be, shall install meters for and at the cost of the intra State entities, i.e., Open Access users (intra-state entities).

8.2 Directive:

a) The STU or Distribution Licensee as the case may be, shall procure meters for and at the cost of the intra-State entities, i.e., Open Access

users. The responsibility of installing interface meters lies with the STU or Distribution Licensee as the case may be at the cost of entities.

b) The STU or Distribution Licensee as the case may be, shall communicate estimated cost to carry out works related to installation of Interface meters within seven working days from the date of receipt of application from the applicant, who seeks open access. The Licensee shall complete installation of metering equipment, including meter testing within a period not exceeding 45 days from the date of receipt of full payment.

c) Alternatively, the STU or Distribution Licensee as the case may be, is entitled to receive monthly meter rent as approved by the Commission, if metering and allied equipment is provided without requiring security from the consumer.

9.0 Responsibility of Meters testing:

Clause 18(1) (a) of CEA regulation reads as follows:

"*18 (1)(a) At the time of commissioning, each interface meter shall be tested by the owner at site for accuracy using standard reference meter of better accuracy class than the meter under test."*

9.1 Analysis:

As per clause 18(1)(a) of CEA Regulation, the responsibility of meter testing lies with the Licensee. The Licensees do not possess accreditation from "National Accreditation Board for Testing and Calibration Laboratories (NABL)", Govt. of India for their laboratories. In the absence of NABL accreditation, the Licensees are not authorized to test and calibrate the meters.

9.2 Directive:

The Licensees (Transmission Licensees and Distribution Licensees) shall get accreditation of NABL for their laboratories. The responsibility of meter testing lies with the Licensee. The Licensees shall test the meters for accuracy on their own or get tested the meters by NABL accredited laboratories. The Licensees shall not levy any charge for meter testing. However, if a consumer requests meter testing to verify its accuracy in his own interest, in such case, the Licensee is entitled to collect meter testing cost from the consumer.

10.0 Sealing of Meters:

Clause 12(1) (a) and 12(2) (a)of CEA regulation reads as follows:

12 (1) Sealing arrangements:

(a) All meters shall be sealed by the manufacturer at its works. In addition to the seal provided by the manufacturer at its works, the sealing of all meters shall be done as follows at various sealing points as per the standards given in the Schedule:

(i) Sealing of interface meters, shall also be done by both the supplier and the buyer.
(ii) Sealing of consumer meters shall be done by the licensee.
(iii) Sealing of energy accounting and audit meters shall be done by the licensee or generating company as the case may be.

12 (2) Removal of seals from meters

(a) Interface meters

Whenever seals of the interface meters have to be removed for any reason, advance notice shall be given to other party for witnessing the removal of seals and resealing of the interface meter. The breaking and re-sealing of the meters shall be recorded by the party, who carried out the work, in the meter register, mentioning the date of removal and resealing, serial numbers of the broken and new seals and the reason for removal of seals.

10.1 Directive:

a) Sealing arrangements of all the interface meters and removal of seals from interface meters, shall be done as mentioned in clauses 12(1)(a) and 12(2)(a) of CEA Metering Regulations, 2006.
b) The provisions which are not covered in this proceedings shall be followed as per the CEA Metering Regulations, 2006

11.0 Location of interface meters for Generating Stations / Captive Power Plants

The Commission has considered the following provisions as are mentioned in the regulation issued by the CEA which are extracted hereunder:

Clause 7 (1) (1) of CEA Regulation:

Main meter - on all out going feeders of Generating Station.
Check meter – on all out going feeders of Generating Station.
Standby meter - (i) High voltage (HV) side of Generator Transformer
(ii) High voltage (HV) side of all station auxiliary transformers

11.1 Directive:

All Generating stations shall install all interface meters i.e., Main Meter, Check Meter and Standby Meter as mentioned in 7(a). (Clause 7 (1) (1)) of CEA Regulation 2006 on Installation & Operation of Meters

12.0 Location of Interface meters (Consumers availing open access who are not having dedicated feeders)

The Commission considered the following provisions as are mentioned in the regulation issued by the CEA which are extracted hereunder:
Clause 7 (1) (4) of CEA Regulation reads as follows:

(i) "Consumer directly connected to the Inter-State Transmission System or Intra-State Transmission System who have to be covered under Availability Based Tariff and have been permitted open access by the Appropriate Commission

(ii) For consumers connected to distribution system and permitted open access by the Appropriate Commission.

(iii) Any other system not covered above."

12.1 Analysis:

As per CEA Regulations, the ownership always lies with the STU or Distribution Licensee, as the case may be.

12.2 Directive:

The Commission examined the provisions of CEA Regulations and the powers vested to it therein in respect of location of Open Access consumer interface meters and decided the following locations:
Location of main meter: At Consumer premises.
Location of check meter: At Consumer premises, connected to the same core of CT and VT to which main meter is connected.
Location of Standby meter: At consumer premises on a separate CT and VT.

In case of existing HT services who are already availing open access, where space is the constraint, installation of standby meters shall not be insisted.

13.0 Location of Interface meters for Consumers availing open access who are on dedicated feeders

a) The provisions mentioned in Clause 2 (f) of Regulation No.4 of 2013 are observed to be inconsistent with the Tariff Order and GTCS provisions. The condition to avail power supply to the extent of 50% of the line capacity is contradicting the Tariff Order conditions.

b) Apart from the above, the licensees are facing space constraints in the substations to erect three interface meters viz., Main Meter, Check Meter and Standby Meter. The security of meters and allied equipment "Seals" is also important. The consumers may not take the responsibility, for loss of meter seals and any mal functioning of meters.

13.1 Directive:

With regard to location of meters, the Commission examined the issue of location of meters for dedicated feeders and decided the metering locations as follows:

As regards location of meters on dedicated feeders and to remove difficulties faced by Consumers and Licensees', the Commission decided to delete the clause 2 (f) and clause 7 (3) of Regulation No.4 of 2013. Accordingly, necessary steps for deletion of the clauses 2 (f) and 7 (3) of Regulation 4 of 2013 will be dealt with. The necessary amendments to the Regulation No 4 of 2013, will be made in due course of time.

Location of main meter: At consumer premises.

Location of check meter: At consumer premises, connected to the same core of CT and VT to which main meter is connected.

Location of Standby meter: At consumer premises on a separate CT and VT or at Licensee's substation as mutually agreed.

14.0 Issue of reading open access meters:

a) The meters of HT services are being read on 20th to 23rd of every month. The inter-state open access billing settlement is done as per the calendar month i.e., from 1st to end of the month. As the billing dates for open access consumers and Distribution Licensee consumers are different, the energy settlement is becoming more cumbersome.

b) To avoid difficulties in energy settlement and related billing issues, it will be better if interface meters (open access meters) are read in line with the meter reading dates of inter-state meters i.e., 1st of every month.

14.1 Directive:

On the aspect of reading meters it has to be stated that the HT service meters are being read on 20th to 23rd of every month, whereas inter-state open access billing settlement is done based on calendar month. To avoid difficulties in implementing the energy settlement, the Distribution Licensees / Transmission Licensees, shall read all interface meters of HT services on 1st of every month.

15.0 Installation of Special Energy Meters (SEM) for 1 MW and above services:

15.1 Directive:

On the aspect of Installation of Special Energy Meters (SEM) for 1 MW and above services, the Distribution and Transmission Licensees may install Special Energy Meters for 1 MW and above HT services, for both existing and

prospective consumers subject to willingness of such consumers for cost bearing mechanism as mentioned in Para 8 supra.

16.0 Installation of standby meters is mandatory for all new HT services seeking open access on or after 01-04-2015.

17.0 If any field difficulties arise in implementing the above directive, they can be referred to the Commission

18.0 This order will come into force with effect from 01-04-2015.

This Order is signed by the Telangana State Electricity Regulatory Commission on 2nd February, 2015

Sd/-	Sd/-	Sd/-
L. MANOHAR REDDY	H.SRINIVASULU	ISMAIL ALI KHAN
MEMBER	MEMBER	CHAIRMAN