



- 2.22.2 The distribution licensees are still carrying out Proof of Concepts and Pilot trials on different communication technologies in order to evaluate and select the most suitable communication technology and back-end software applications with respect to capability towards interoperability, scalability and meeting the future needs of the licensees. All the components of the smart metering ecosystem need to be selected and implemented judiciously, ensuring cost optimization in different sub-systems, so that value added services can be extended without impacting electricity tariff adversely.
- 2.22.3 Deployment of smart metering, therefore, must be planned for a distribution licensee based on its pain and gain areas. Priorities and drivers will be different from one distribution licensee to another.
- 2.23 The Government of India, through its various policies, rules and regulations have been focusing on improving consumer services, power quality to the end consumers and reduction in distribution losses. Monitoring of parameters like SAIDI, SAIFI and CAIDI, energy audit of various feeders, DTRs, etc. have been given importance in order to meet the above. These are some of the use cases of Advanced Metering Infrastructure (AMI) that would be reaped from smart meters, once deployed. However, these parameters can be obtained from smart meter data, only if blanket deployment is considered for which RF-Mesh is definitely better suited than cellular based smart meters. Furthermore, since the Distribution Utilities would either own this RF-Mesh network or pay for it in Network-as-a-Service (NaaS) mode, communication inadequacy mitigation would be fast and the distribution licensees would be in full control over the process.
- 2.24 It is imperative that, should the distribution licensees decide to deploy RF-Mesh communication for smart metering for all new consumers, which will essentially be at scattered locations, spread all over the licensed area, a pan-license area "rich" RF-Mesh communication canopy has to be erected and invested in, upfront, so that, any smart meter installed for any new consumer is able to talk and listen to this communication infrastructure, irrespective of its own location / reachability, with ease, in "hang & run" mode.
- 2.25 Deployment of all the above components will result in substantial costs to be incurred by the distribution licensee, mix of both one-time capital expenditure and monthly recurring operating cost which would ultimately be passed on to consumers and would mean additional burden on





the consumers through an increase in electricity tariff, without any commensurate benefits for them.

- 2.26 It may be relevant to mention here that the Petitioner has successfully commissioned RF-Mesh based smart meters in two pockets of the Petitioner's licensed area, namely, Jodhpur Park and Howrah Pilkhana, the reports on which are already in the records of the Commission. The Petitioner has also deployed cellular based point-to-point smart meters in a scattered manner throughout its licensed area.
- 2.27 In view of the foregoing considerations, the Petitioner is seeking to deploy smart meters, based on specific requirements and benefits, for existing and new connections, from time to time. Some of the use cases, which the Petitioner foresees for smart metering, going ahead are for consumers with distributed generation sources, metering upcoming condominiums provided the consumers are willing to pay for smart meters, blanket deployment in selected pilfer-prone areas based on suitability and cost benefit analyses, deployment in areas where RF-Mesh is already in place. Further, the Petitioner seeks this Commission's approval to continue with installation of normal static meters also in order to avoid unnecessary burden on the end-consumers.
- 2.28 In light of the foregoing submissions the Petitioner humbly beseech the Commission to –
- a) Approve the Scheme for smart metering as set out at paragraph 2.27 above in accordance with Regulation 3.12 of the West Bengal Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2013;
  - b) Allow the Petitioner to install smart pre-payment meter as per the Scheme for smart metering and to that extent exempt the Petitioner from installation of smart pre-payment meter / pre-payment meter while giving new electricity connections in accordance with Rule 5 (1) of the Electricity (Rights of Consumers) Rules, 2020;
  - c) Allow the Petitioner to install normal static meters apart from smart meters and deploy smart pre-payment meters in relevant cases and on specific requirements and pre-payment meters at the option of the consumer, where optional tariff for pre-payment meters are allowed through the applicable tariff order;



- d) Exempt the Petitioner from mandatory installation of smart pre-payment meter / pre-payment meter while giving new electricity connections pending the disposal of the present petition, in accordance with Rule 5 (1) of the Electricity (Rights of Consumers) Rules, 2020;
- e) Grant ad-interim ex-parte relief in terms of prayer (d) above;
- f) Dispose of the Petition expeditiously as the business of the Commission would permit; and
- g) Such further order or orders as the Commission may deem fit and proper.

#### **OBSERVATIONS OF THE COMMISSION:**

- 3.1 The Commission has noted that CESC has commissioned RF-Mesh based smart meters in two pockets within its licensed area and it has also deployed cellular based point-to-point smart meters in a scattered manner throughout its licensed area.
- 3.2 CESC has hailed the RF-Mesh technology as most suitable for carpet deployment of smart metering for last mile communication but flagged that it requires high upfront capital expenditure with consequent tariff shock to consumers without any commensurate benefit to them.
- 3.3 Instead of smart metering for entire meter population, CESC has prayed to deploy smart meters, based on specific requirements and benefits, for existing and new connections, from time to time, such as (i) for consumers with distributed generation sources, (ii) metering upcoming condominiums provided the consumers are willing to pay for smart meters, (iii) blanket deployment in selected pilfer-prone areas based on suitability and cost benefit analyses, and (v) deployment in areas where RF-Mesh is already in place.
- 3.4 In this regard, CESC has requested this Commission to exempt the Petitioner from mandatory installation of smart pre-payment meter / pre-payment meter while giving new electricity connections pending the disposal of the present petition, referring Rule 5 (1) of the Electricity (Rights of Consumers) Rules, 2020. Rule 5 (1) of the Electricity (Rights of Consumers) Rules, 2020 is reproduced below:





**5. Metering – (1)** *No connection shall be given without a meter and such meter shall be the smart prepayment meter or pre-payment meter. Any exception to the smart meter or prepayment meter shall have to be duly approved by the Commission. The Commission, while doing so, shall record proper justification for allowing the deviation from installation of the smart pre-payment meter or prepayment meter.*

- 3.5 The Commission observes that CESC in its petition is seeking almost a waiver from installation of smart metering and proposing the implementation based on its choice and convenience whereas the Rule 5 (1) of the Electricity (Rights of Consumers) Rules, 2020, directs the Commission to allow any exception to the smart meter or prepayment meter after recording proper justification for allowing the deviation from installation of the smart pre-payment meter or prepayment meter. However, the Commission does not find any justification in allowing CESC an overall exemption and leaving the licensee to implement smart metering on selective basis.

**ORDER OF THE COMMISSION:**

- 4.1 The Commission, after considering the submissions made by CESC in their application dated 02.07.2021 and based on the observations made hereinabove, does not find any merit to approve the proposal of CESC to implement the installation of smart pre-payment meters or pre-payment meters on selective basis for consumers situated in its licensed area.
- 4.2 The petition is thus disposed of.
- 4.3 A copy of the order shall be posted in the website of the Commission.
- 4.4 CESC shall download the copy of the order from the website of the Commission and act on it. Certified copy of the order, if applied for, be given to the parties on completion of formalities laid down in the West Bengal Electricity Regulatory Commission (Conduct of Business) Regulations, 2013, as amended and on submission of necessary fees.

Sd/-  
(PULAK KUMAR TEWARI)  
MEMBER

Sd/-  
(MALLELA VENKATESWARA RAO)  
CHAIRPERSON

Dated: 29.05.2023

Sd/-  
SECRETARY