

Smart Meter Technical FAQs:

1. **Hardware Design:** - Smart meter manufacturer, Distributor and specifications need to publish for ensuring credibility of Smart Meter Hardware.

Response: Smart meters are procured from reputable and experienced manufacturers in India, all of which comply with the Indian standard IS 16444 and other mandatory certifications that ensure the credibility and reliability of the smart meters. Presently AEW and Schneider make meters are procured by PESL. In addition to these certifications, all meters meet the specifications outlined in the standard bidding document released by the Rural Electrification Corporation, a public sector enterprise, as well as DISCOM specifications.

2. **Communication Protocol:** -On which protocol smart meter is working need to publish i.e. Wi-Fi, Bluetooth, Zigbee and RS485 as Wi-Fi device is using more power than Bluetooth device.

Response: All the smart meters utilize cellular/RF communications, complying with Indian standard IS 15959, as outlined in the specifications published in the standard bidding document released by the Rural Electrification Corporation. They also meet the requirements set forth by the Ministry of Telecom, Government of India.

3. **Meter Authorization/Testing:** - To ensure working of smart meter, same as normal static, third-party agency certification and certificate with Smart Meter needs to be provided

Response: All smart meters come with certification after testing in NABL-accredited laboratories. The meters are qualified against IS 16444 and BIS standards.

4. **Calibration:** *What is the time duration for calibration of meter? How can consumer verify the calibration after 1 year?*

Response: The meters come with a 10-year warranty. All meters are electronically calibrated and checked during the manufacturing process, and according to the standard bidding documents. However, they can be tested at any time during their operational life.

5. **Communication Security:** As smart meter is transmitting sensitive revenue data, which standard is used in meter firmware needs to be published.

Response: The meter communicates in accordance with Indian standard IS 15959:2016 which provides security mechanisms in terms of data encryption and authentication, ensuring maximum data security.

6. **Meter Data:** Is data segregated or not as per various segment company, industry and residential? Because tariff calculation is different for all.

Response: The smart meter tariff plan is same as present meter i.e. as per GERC tariff order.

7. **Communication port for upgradability:** Clarification require on design upgradability. Recording, Record duration and other parameters may need to be included.

Response: To upgrade the firmware of a meter, we use a secure and efficient process with DLMS/COSEM-compliant smart meters (IS 16444 and IS 15959). This process ensures the security and integrity of the meter during upgrades, including recording duration and other important parameters using the DLMS/COSEM protocol. Approval as per requirement may be conveyed.

8. **User Interface:** It should be standardized otherwise it will be additional cost of DISCOM and burden on consumers.

Response: The user interface, data availability, configurability, and data recording are approved according to specifications. This is in addition to compliance with IS 16444 and IS 15959.

9. **Time Synchronization:** Need to publish which method is used for time synchronization of data like RTC, GPS. Proper firmware must be written.

Response: The smart meter firmware is designed to maintain accuracy within the specified range according to IS 16444 and comes with a 10-year warranty. Additionally, have provisions for time synchronization as needed to keep the clock aligned with the standard time server.

10. **Special Features:** - Language support, an upgrade with E-mail must be include in initial phase.

Response: All data, such as email, phone, address, etc., are mapped as per database. If any upgrades are needed, it will be carried out with the permission of Consumer.