Smart meter installation yet to gather pace, less than 10% completed

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New technology, data validation and testing problems have stalled the pace of installation of smart meters, with less than 10 per cent of the work being completed. However, sanctioning and awarding of smart meters are on track.

Around 2.18 crore smart meters have been installed across the country against 22.24 crore sanctioned and 13.80 crore awarded as of February 18, 2025. The process of installing 25 crore meters has to be completed by March 2026.

A top State government official said that States understand smart meters are critical for financial viability of discoms and the sector's growth. However, legacy issues and cross-subsidisation have led to an outdated billing and IT infrastructure that is dragging the project.

INSTALLATION DELAYS

Last month, Minister of State (MoS) for Power Shripad Naik, in a written response in the Rajya Sabha, said the Ministry is regularly monitoring smart meter installations by discoms and is taking action to resolve implementation issues between Advanced Metering Infrastructure Service Providers (AMISPs) and discoms. He attributed the delays in installation to smart meters being a new concept and establishment of a direct debit facility.

Collection and validation of data for consumer indexing and delays in testing and approvals, such as field installation and integration test and factory acceptance test, are other reasons for the delay, he added.

Arindam Ghosh, Partner for Power Sector Advisory at Nangia & Co, said there are several challenges, including slow tendering and contract awarding, issues with new technology, data validation and testing problems, high costs, inadequate communication infrastructure and interoperability issues.

For instance, Ghosh pointed out that interoperability challenges had hindered automatic data acquisition and complicated system integration, slowing deployment across the States.

CHALLENGES FACED

Shivam Bajaj, CEO of investment banking firm Avener Capital, pointed to the resistance from end customers as bills in certain cases were higher. Smart meters record the quantum of electricity consumed while the reading from old meters is not as accurate.

Ghosh emphasised that simply installing smart meters is not enough to reduce AT&C losses. It must be accompanied by process and system improvements.

Offering both postpaid and prepaid options provides flexibility, catering to cultural payment preferences, with regulators and utilities determining the best approach, he noted.

"In Assam, for instance, the pre-RDSS scheme is enabling consumers to monitor electricity usage, resulting in reduced consumption, accurate billing and lower distribution losses. Reports show that 44 per cent of consumers in Assam saved about 50 units per month, benefiting both consumers and discoms by improving efficiency and reducing financial losses," he added.

This had also contributed to Assam's improved ranking in the latest Integrated Annual Discoms ranking.

Bajaj stressed that despite teething problems faced in installation, the future prospects were bright due to the value that such devices would unlock for the sector.