Session: Smart Metering – India Experience

Smart metering rollout – Challenges & Way Forward

Presented By

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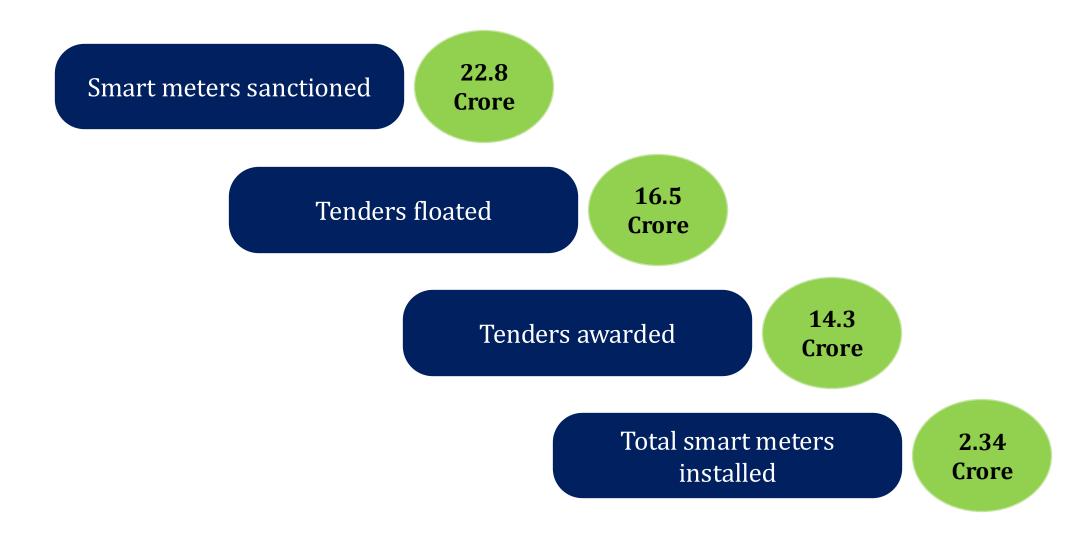
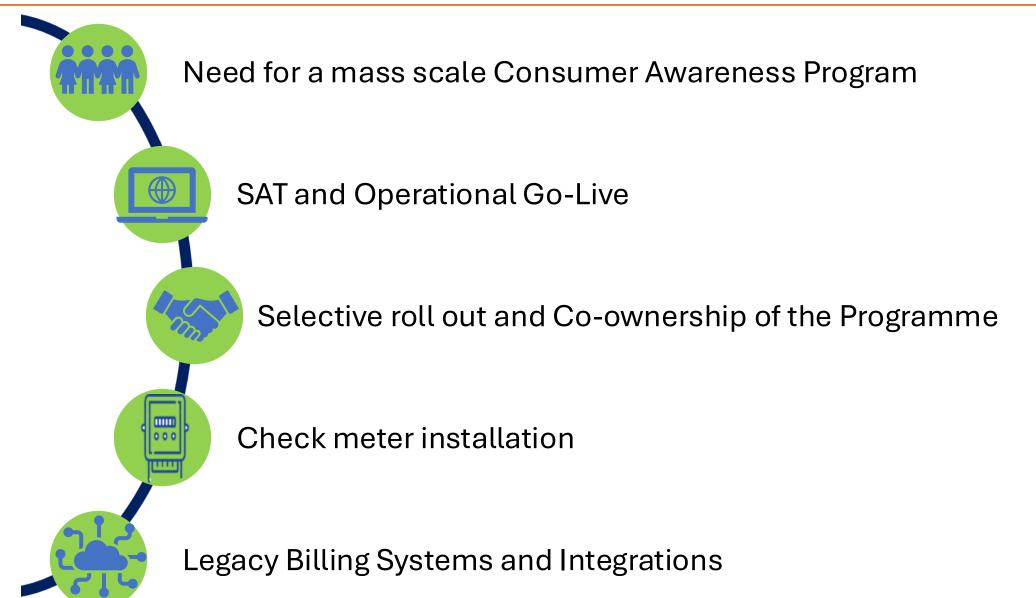# Challenges in scaling up AMI rollout

Need for a mass scale Consumer Awareness Program

SAT and Operational Go-Live

Selective roll out and Co-ownership of the Programme

Check meter installation

Legacy Billing Systems and Integrations

- **What's missing**: The RDSS AMI initiative is a programme of national importance. The ongoing AMI rollout has not received the mass scale awareness unlike other government schemes and is acting as a hindrance to the mass scale rollout of the programme.

- An absence of active consumer engagement leads to passive acceptance without fully utilizing the benefits of smart metering.

- It is essential for both Government of India and State government along with AMISPs to launch a nation-wide consumer awareness campaign to **foster positive sentiment, instill trust, and build confidence, thereby, ensuring smoother project implementation.**

- **Probably leaving the consumer awareness only on AMISP is neither in spirit of this program nor envisaged in the SBD.**

  AMISP SBD states that with respect to implementation/ execution of the consumer engagement plan, the responsibility shall remain with the Utility, however, necessary support shall be sought from the AMISP for the same."

A wider consumer awareness campaign is a must for the success of the programme

SAT and Operational Go-Live

- Operational Go-Live is a major milestone for the project implementation and for AMISPs to ensure the cash flow and smooth functioning of delivery of project milestone.

- SAT is to be achieved within 7 months from date of contract as per SBD.

  - 5% rollout of meters to be done for SAT (in 7 months) and balance rollout to be done after acceptance of SAT and Go-Live.

  - Balance 95% rollout to be achieved in next 20 months

- As of current state of projects, majority of the projects have lapsed more than 1 year and Go-Live is still pending which implies that balance 95% installation to be done in next 12-15 months.

- Installation of mass scale without achieving SAT can potentially create security and operational concerns.

- The delayed Go-Live is damaging viability of the project as all the meters installed before Go-Live would never get any revenue and hence there is net loss to the AMISP.

- Ramp up of meter installation can't be continued in this situation as it is making the project financially unsustainable and unviable.

- The delay in Go-Live is impacting the overall timeline of the project and timeline revision needs to be considered on a case-to-case basis for such projects.

Concept of Deemed SAT is required as without SAT, no revenue or financial disbursal happening, hence no Ramp Up can happen

Selective Roll out and Co-ownership

- Selective Roll out of the Meter installation in scattered areas for New Service Connections, Solar Installation, Government connections and DT installation without adequate infrastructure and without mass roll-out is resulting in slow ramp-up of meter installation. In many projects the mass work front has been made available as late as recent and in few cases it is still to start, leading to slow or delayed ramp-up.

- Discom exclusive micro-specifications, Delayed GTP approvals, vendor registration requirements, change in specs post RFP, lack of TAT for approvals, requirements of 100% testing of meters etc, have impacted program roll out.

- Co-ownership is extremely critical, availability of relevant Discom manpower on ground for shutdown (specifically for DT meter installation) and support in installation is critical as this helps in ramp-up of meter installation in projects.

- Old meters are required to be taken back regularly by Discoms for ensuring completion of MI process and regular disposal form AMISP warehouses.

- Discom specific requirements (over & above SBD) impacting approvals & implementation.

- Changes in meter specifications after GTP approval is impacting cost and speed of implementation.

Discoms need to co-own these projects more

Check meter installation

- Accuracy of check meters being installed needs to be ensured as they are old meters (5-6 Years)

- Smart meters and check meters are of Class 1 and may cause a total of 2-3% variation in measurement

- Normal variations due to accuracy class of meters is also ground for **consumer contention**. Accuracy class of check meters should be of higher class than the installed smart meters.

- Installation of two meters at select **consumers raises psychological resistance** in consumers due to differential treatment as compared to other consumers

- Additional scope and its associated activities (like meter installation, its un-installation, arranging the accessories, getting the monthly reading) have major commercial impact on AMISPs which is unaccounted for and impacts the overall pace of the roll out.

Check meter strategy needs to be re-evaluated for consumer satisfaction and commercial impact.

Legacy Billing Systems and Integrations

- Readiness of Discom billing system and timely availability of APIs for integration is a concern causing delay in SAT readiness

- Issues in legacy billing system of Discom, 1912 portal, multiple iterations of billing logics from Discom, leading to frequent changes in the IT solution causing delay.

- Lack of prepaid billing logic in existing Discom systems in Discom's legacy system

- Need to relook definition & acceptance criteria of SAT test cases considering practical scenario & mass scale deployment.

  - Ambiguity in the definition of "installed meters," as it varies based on the understanding of different DISCOMs.

  - Test Cases like ping response, firmware upgrade with acknowledgement, remote alteration of meter settings, DR capability demonstration, etc. must be granularly defined.

Discom Legacy System needs to be updated on priority to accommodate the AMI system

THANK YOU

For discussions/suggestions/queries email: isuw@isuw.in

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Links/References (If any)