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SPECIAL PLENARY SESSION

INNOVATIVE POLICIES AND REGULATORY INTERVENTIONS FOR SUSTAINABILITY OF DISCOMS

Smart Meter Rollout in India

Presented By

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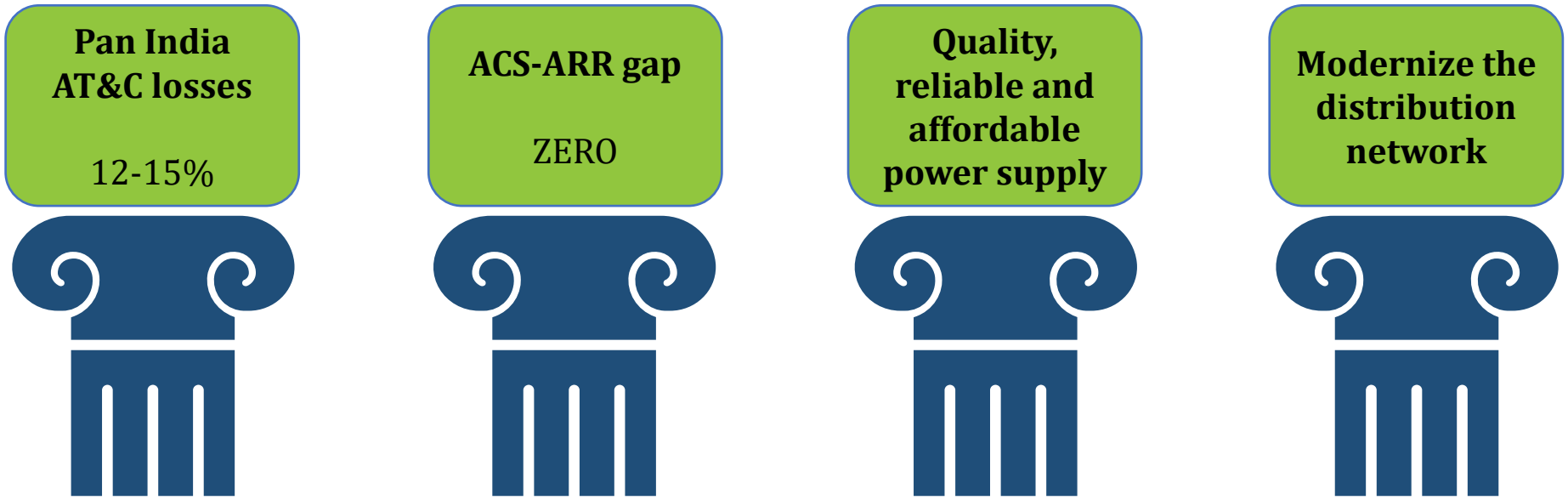
Distribution Utility Meet | 04 - 05 November 2025 | www.dumindia.in

RDSS - the Vision

Pillars of the Program



- The **largest digitalization program** of the world touching more than a billion people at the grassroot level
- Would **save about USD 1.34 Trillion of losses** to the utilities in next 10 years
- Potential to **generate 25 Mn jobs in skilled and semi-skilled categories over program lifecycle** and trigger an investment cycle of **more than USD 38.5 Billion**
- Revitalize industry and '**Make in India**' in manufacturing and high-end IT solutions, along with Semiconductors.
- Integration of **Renewables to grid** and critical for **EV rollout** mission, critical for achieving Green Energy Goals.

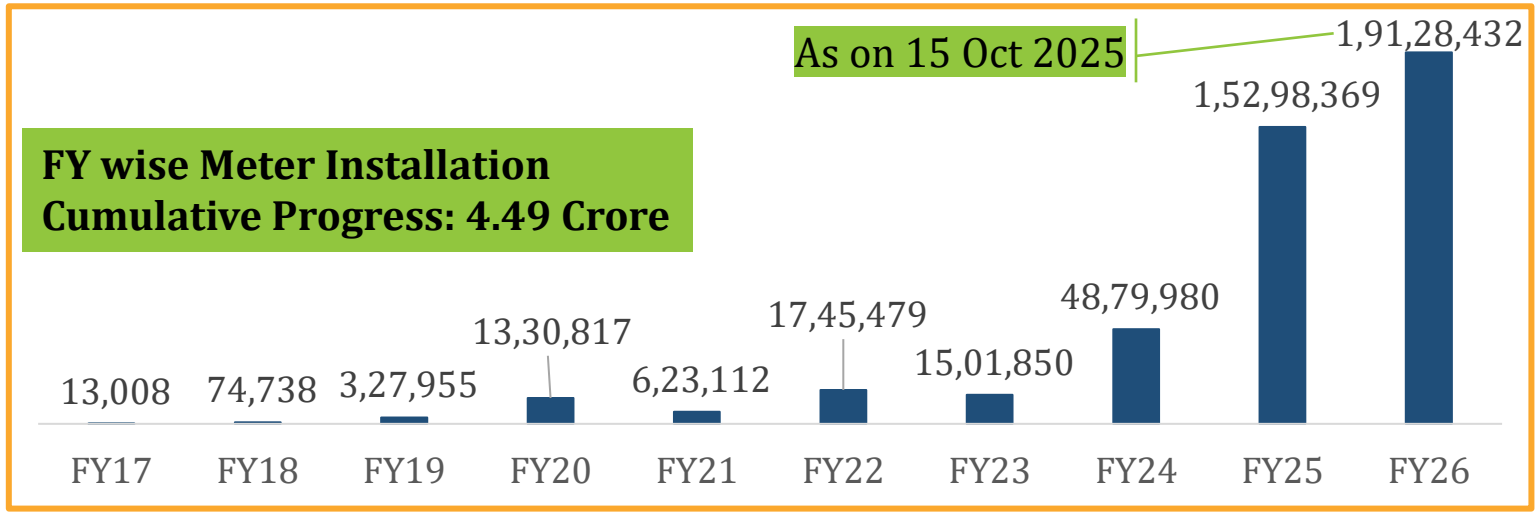
Where we stand today?

Smart Meters Sanctioned	22.98 Crore
Tenders Floated	~20 Crore
Tenders Awarded	15.01 Crore
Total Smart Meters Installed	4.49 Crore

Roll out of the program has happened, Most of the projects have achieved Go-Live and are running stable, transition at solution level has been largely smooth.

Co-ownership is being recognised as the key to speed, early green shoots are visible, dispute over relevance and credibility of the program is over.

User acceptance is improving, 'Meter Tez Chalta Hai' noise is reducing, Consumers are asking for better value for money and not zero charges

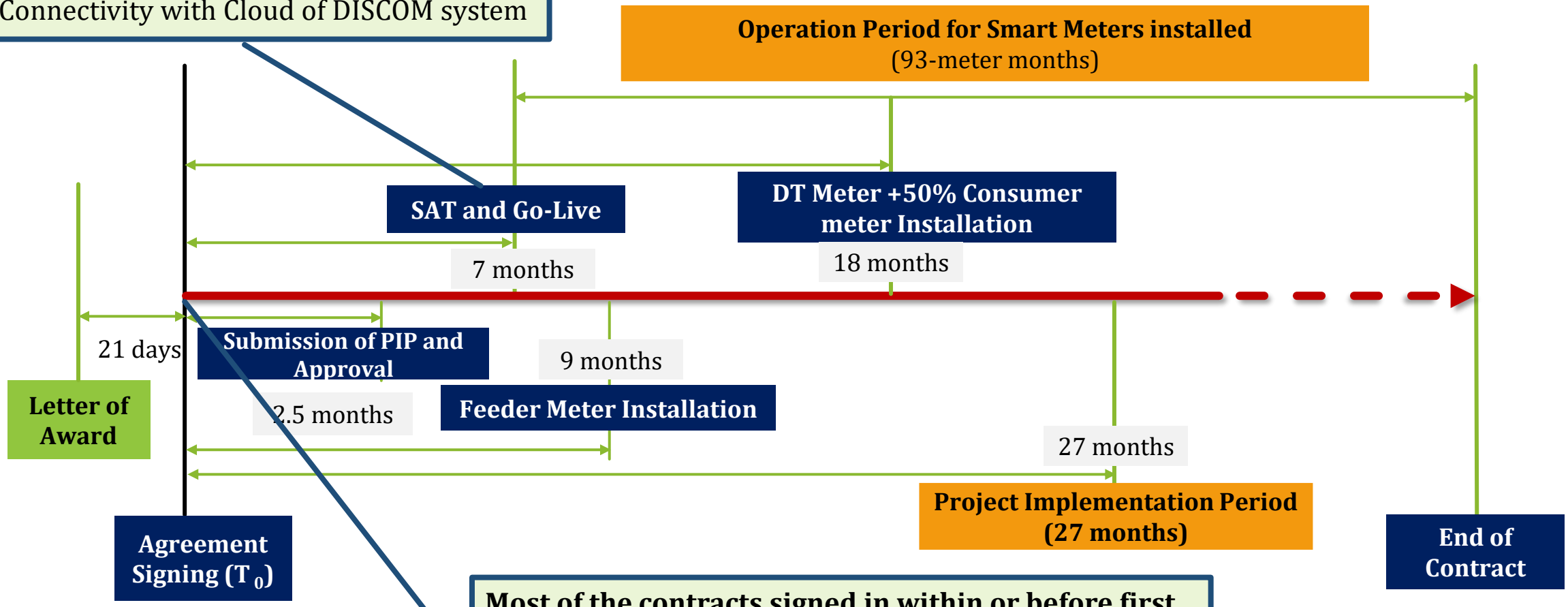


Data Source – NSGM Smart Metering Dashboard

Advanced Metering Infrastructure – Key contours of SBD

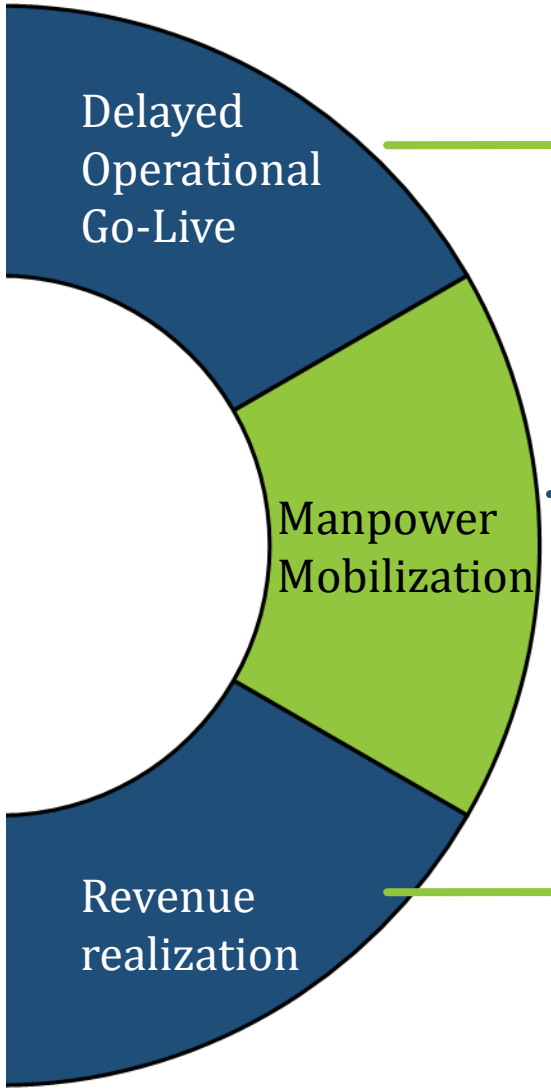
DISCOM inputs for Go-Live

- Business Process Sign-off with DISCOM
- API from DISCOM for Integration
- DISCOM Testing Environment setup
- Connectivity with Cloud of DISCOM system



Most of the contracts signed in within or before first half of Calendar year 2024, supposed to be implemented before Second half of calendar 2026

What didn’t go as planned?



- SBD envisaged mass installation (95% of BOQ) in 20 months after successfully achieving Go-Live in 7 months with 25k or 5% of meter BOQ
- Due to delayed Go-Live (~15 months) the mass installation phase became squeezed, putting unviable pressure in terms of timeline on AMISPs

- Due to unavailability of contiguous work front, **manpower mobilization and retention** has become a challenge
- Installers are daily wage earners and without ample opportunity which happens in scattered locations, retention and mobilization and demobilization is a major challenge

- Adherence to contract is not there
- Non-standard SAT process varying from DISCOM to DISCOM
- OPEX program being treated like CAPEX program.

This is causing strained financials thereby making the Financial Institutions & Lenders concerned, creating shadows around the viability of the AMISP program.

Where AMISPs have been not able to stand to the need of the time?

Accelerate Meter Installation and Commissioning	Ensure 100% billing of consumers	Strengthen data communication and System Integration	Improve the Project O&M, reduce non-never communicating cases
Create Center of Excellence (CoEs) to mobilize additional skilled field teams and streamline deployment logistics to address slow rollout rates.	DISCOM revenue loss due to unbilled consumers to be made zero. AMISPs should ensure 100% billing in cases where smart meters are installed and ensure SLAs.	Not just consumer meters but ensuring System meter data communication in HES, MDM, NFMS and DISCOM billing/RMS platforms.	Strengthen maintenance and outage response teams to ensure installed smart meters are kept in working conditions.

Advanced Metering Infrastructure – Envisaged vs Achieved

Operational Go-Live in **7 months** from date of signing of contract	The average duration in achieving Operational Go-Live is ~15 months.
DT meter installation – **18 months** from date of signing of contract	Finalization of specifications, delayed supply of auxiliary items, availability of shutdowns and shortage of skilled manpower – DT meter installation is less than desired.
Installation Approach 20% Contiguous area to be made available at any point of time and opening of all areas by 18th month of the project duration. (***Section 6, Clause 1.12 (u)***)	Scattered installation process, changing priorities of DISCOMs, contiguous work front not available
Project Financing and Steady revenue flow for AMISPs	SAT process is not standardized and DDF adherence remains an issue, Funding is facing reluctance, and Financial Institutions are concerned.
Adherence to payment process – The corner stone of the AMISP Program and source of credibility of the program	Direct Debit Account Agent shall pay approved amount starting from 11th working day of the month and shall ensure full payment within 45 days (due date) of receipt of invoice Utility shall pay interest on delayed payments from due date.

How do we course correct ourselves?

Project Timeline revisit	Significant delay in achieving Operational Go-Live and other factors beyond the control of AMISPs, it is pertinent that the project timelines be revisited to maintain financial viability of the projects. We should worry less, as international experience – World Bank Study- 6 years or more.
Opening of as many work fronts as possible	100% work front availability will help AMISPs to ramp-up teams, team mobilization before work front availability is like putting the cart before the horse. Mobilization is an outcome more than being input.
DDF implementation & SAT standardization	Emergent need of reinforcing the Direct Debit Facility (DDF) and adherence to the strict payment timelines outlined in agreements. Both are critical to cash flows to the AMISPs. There are large receivables, impacting the pace up of the program.
Training & Capacity building	With such large-scale system metering, the availability of skilled manpower is a challenge, we need to build up resources collectively through Capacity Building program to meet the ramp-up challenges
Consumer awareness	The projects have achieved critical mass and to ensure further ramp-up, a full-fledged consumer awareness campaign is the need of the hour
Steering Committee	State wise steering committees to be formed along with Nodal agencies to quickly and correctly resolve issues being faced in the projects

What Program needs from Stakeholders?

Constitution of a **Conciliation Committee for AMISP projects** under **Section 7 Clause 13, sub clause 13.3** of the SBD, to which project-specific timeline revision cases may be referred, heard, and resolved promptly through an agreed resolution process.

Defining the SAT cadence and settled parameters of testing as a **standard operating procedure for all RDSS AMI tenders**

Nodal agencies and Utilities to treat both **DDF compliance** and **SAT disciplines** as **non-negotiable deliverables, as stated in SBD – Events of Default**

Launch a **Nationwide campaign** and **DISCOMs to engage reputed NGOs** to take lead on the consumer awareness. As per SBD Section 6, Clause 1.12 (k)

The RFP/SBD envisaged basic **Data Analytics and report generation (Energy Accounting and MDM generated reports).** Shape up the contours of roles of all stakeholders in achieving the desired outcome under Clause 6.2.1 of MDM reporting, ***sub-point 7 of point xii***, it is mentioned that "***Data-driven Analytics reports by leveraging AI/ML based technologies***"

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THANK YOU

For discussions/suggestions/queries email: ***dum@indiasmartgrid.org***

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Links/References (If any)

Advanced Data Analytics

As per SBD **Section 6** – *Project Requirements*, **Clause 6**, *Analytics and Reports*, AMISP shall provide –

- **Analytics including Energy Audit reports** to help calculate Five reliability indices – SAIDI, SAIFI, CAIDI, CAIFI, MAIFI

- **MDM generated reports** including MIS reports and analytical reports

- Under Clause 6.2.1 of MDM reporting, ***sub-point 7 of point xii***, it is mentioned that "***Data-driven Analytics reports by leveraging AI/ML based technologies***"
  - This is a point of contention between DISCOMs and AMISPs, as it is a very open-ended statement and does not define the boundary and purview of the reports.
  - Contours of the reports and the extent of analytics needs to be defined and standardized across projects. Clear definition and goals of the deliverable needs to be established.