

15th Edition

A VIRTUAL CONFERENCE

# POWER DISTRIBUTION IN INDIA

Privatisation, Structural Reforms  
and Outlook

September 17, 2020



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# METERING IN INDIA

Emerging Requirements,  
New Technologies and Future Outlook

September 18, 2020

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# POWER DISTRIBUTION IN INDIA

## Mission

- With privatisation efforts gathering pace, the power distribution segment could see some structural changes going forward.
- The government has recently announced plans to privatise discoms in the union territories (UTs) as a part of the economic stimulus reform measures. Drawing examples from Delhi, Mumbai, Kolkata and Ahmedabad, where private players have been operating for many years, the announcement has been lauded by the industry. Besides bringing in fresh capital and efficiency gains, the move is expected to give confidence to larger states to undertake privatisation.
- Meanwhile, another reform-linked distribution scheme is in the works post UDAY, wherein funding would be linked to reforms and would incentivise states to involve the private sector in improving the efficiency of state discoms. These developments are also aligned with fundamental reforms such as the Electricity Act (Amendment) Bill and the revision to the Tariff Policy that are planned to be implemented to restore the creditworthiness of the power sector.
- The measures are expected to help in the much-needed course correction for the distribution segment, which continues to lag behind. The latest audited results show that the aggregate losses of discoms have more than doubled in 2018-19 to Rs 449 billion. The gap between the ACS and the ARR has widened from 22 paise in 2017-18 to 49 paise per unit in 2018-19. Also, AT&C losses at the pan-Indian level stood at 23.06 per cent in 2018-19 compared to 22.6 per cent a year ago.
- The financial stress of the discoms has been further aggravated in the past few months with the Covid pandemic. Load reduction from industrial consumers, under-recoveries in cash collections and delayed payments have had a significant impact on discom cash flows. Discoms have further delayed payments to gencos and transcos that are already struggling due to large outstanding payments. The recent Rs 900 billion liquidity package to write off these dues has, however, brought some relief.
- Net, net, as more states explore the possibilities of privatisation of distribution areas, there could be broader changes in the distribution segment's landscape and market structure in the coming years. While the private sector's involvement could help bring in multiple benefits, the risks and rewards would need to be adequately balanced.
- **The mission of this one-day virtual conference is to analyse the key trends and developments in the power distribution segment with a spotlight on privatisation initiatives, experiences, challenges and outlook. The conference will also focus on discom initiatives, best practices and future plans. The conference will also provide a platform to showcase new and promising technology trends and solutions.**

## Target Audience

- The conference is targeted at officials and managers from:
  - State discoms
  - Private discoms
  - Distribution franchises
  - Equipment manufacturers
  - Technology providers
  - Regulatory institutions
  - IT-based product and service providers
  - Marketers of enterprise software solutions
  - Communication/Connectivity solution providers
  - Funding agencies
  - Government agencies (central/state)
  - Contractors
  - Research organisations
  - Consultancy organisations, etc.

## AGENDA/STRUCTURE

### KEY TRENDS AND POST-COVID-19 OUTLOOK

- ❖ What have been the key trends and developments in the power distribution segment?
- ❖ What has been the impact of Covid-19 on the segment?
- ❖ What are the issues and challenges? What is the post-Covid-19 outlook for the segment?

### GOVERNMENT PERSPECTIVE

- ❖ What is the government's perspective on the power distribution segment?
- ❖ What has been the progress under various government initiatives (IPDS, DDUGJY, NSGM, etc.)?
- ❖ What are the next steps planned for privatising discoms in the UTs?
- ❖ What are the key issues and concerns? What is the government's outlook?

### PUBLIC DISCOM PERSPECTIVE

- ❖ What is the perspective of public discoms on the power distribution segment?
- ❖ What has been the impact of Covid-19? What have been the recent initiatives to cushion the impact?
- ❖ What are the future plans? What are the issues and concerns?

### PRIVATE DISCOM PERSPECTIVE: EXPERIENCE AND CHALLENGES

- ❖ What is the perspective of private discoms on the power distribution segment?
- ❖ What has been the business impact of Covid-19?
- ❖ What are their future plans and outlook for the segment?

### OPPORTUNITIES FOR PRIVATE SECTOR PARTICIPATION

- ❖ What are the opportunities and challenges under the proposed discom privatisation for UTs?
- ❖ What lessons can it offer to states to implement the privatisation model?
- ❖ What are the privatisation models that can be considered?
- ❖ What is the outlook for private sector participation in the segment going forward?

### STATE OF DISCOM FINANCES PRE- AND POST-COVID

- ❖ What has been the impact of Covid-19 on the financial performance of discoms?
- ❖ What has been the performance of discoms vis-à-vis the targets under UDAY? Which have been some of the better performing states?
- ❖ What are the key issues and concerns? What is the way forward?

### COSTS, TARIFFS AND POWER PROCUREMENT OUTLOOK

- ❖ What have been the trends in the power purchase costs of discoms?
- ❖ What has been the trend in their tariff revisions?
- ❖ What is the outlook for short, medium and long-term power procurement by discoms over the next one to two years?

### LOSS REDUCTION AND REVENUE MANAGEMENT

- ❖ What are the loss reduction and revenue management-related challenges for utilities?
- ❖ What are the discom best practices?
- ❖ What are the most promising technologies and solutions in this regard?

### Previous participants

The participating organisations in our previous conferences on "Power Distribution in India" include ABB India, Adani MPSEZ Utilities, Adani Transmission, Ajmer Vidyut Vitran Nigam, Anchor Electricals, APEPDCL, APSPDCL, Apar Industries, Applied Materials, Arfin India, Arunachal Pradesh State Electricity Regulatory Commission, Assam Power Distribution Company, AutoGrid India, Bihar Electricity Regulatory Commission, BSES Rajdhani, BSES Yamuna, C&S Electric, Cargill, CEA, CESC (RP-Sanjiv Goenka Group), CESU, Crompton Greaves, Cyient, DWNL, Deloitte, Eaton Power, EESL, Efficienergi Consulting, Essel Utilities, FEDCO, Feedback Infra, Fortum India, GE T&D, India, GESCO, Godrej & Boyce, Gujarat Electricity Regulatory Commission, Gupta Power, H.P. State Electricity Board, Haryana Electricity Regulatory Commission, Holoflex, ICRA, IEX, India Power Corporation, India Smart Grid Task Force, Infosys, International Copper Association India, JVVNL, JSW Power Trading Company, JUSCO, KEI, KFW, KPIT, Lara Global, Larsen & Toubro, M&I Materials, M.P. Paschim Kshetra Vidyut Vitaran Company, Madhya Kshetra Vitaran, Mahindra Susten, Magnatech Smart Grid Solutions, Ministry of Power, Motilal Oswal Securities, MPPKVVCL Indore, MSEDCL, Naina Power, North Bihar Distribution, Northern Power Distribution Company of Telangana, Nortex Marketing, Norwegian Embassy, NTPC, NTPC Vidyut Vyapar Nigam, Odisha Electricity Regulatory Commission, Oracle, Orange Renewables, Paschimanchal Vidyut Vitran Nigam, Phoenix Contact, Power Grid Corporation of India, Rajasthan Electricity Regulatory Commission, Raychem RPG, REC Power Distribution Company, Reliance Infrastructure, ReNew Power, Research Triangle Institute Global India Private, Resonant Electronics, Sai Electricals, Schneider Electric, Secure Meters, Shyam Indus Power Solutions, Siemens, Smart Power India, South Bihar Power Distribution Company, Sterlite Power, Tata Consultancy Services, Tata Power Delhi Distribution, Tata Projects, Telangana State Southern Power Distribution Company, Tristar Technocrates India, Uttar Gujarat Vij Company, Uttar Pradesh Electricity Regulatory Commission, Uttarakhand Power Corporation, WBSSEDCL, etc.

# METERING IN INDIA

## Mission

- The Covid-19 pandemic has created the need for revamping the metering infrastructure. Smart meters, offering remote monitoring and reading facilities, have come as a major relief for discoms during the lockdown following the pandemic.
- Smart meters have made it possible for discoms to achieve around 95 per cent billing efficiency amidst the lockdown, besides increasing their monthly revenue per consumer by almost 15-20 per cent.
- Smart meters are undoubtedly a vital component of advanced metering infrastructure, helping discoms reduce aggregate technical and commercial losses, enhance billing efficiency and ensure accurate billing, thereby improving their cash flows and creating a positive domino impact on the financial health of the power sector. Smart meters also enhance consumer satisfaction and allow the implementation of demand-side management and time-of-day metering, among other things.
- Under the Smart Meter National Programme, the flagship programme for smart metering being implemented by EESL, over 1.2 million smart meters have been installed so far. The programme envisages the installation of 250 million smart meters on the model of bulk procurement, demand aggregation and monetisation of savings.
- Apart from this, the Ujwal Discom Assurance Yojana (UDAY) aims to install smart meters for all consumers with a monthly consumption of over 200 units, and around 6 per cent of the target has been achieved. Further, smart meters are also being installed under the National Smart Grid Mission's pilot projects and the Integrated Power Development Scheme.
- Overall, the union government's 2020-21 budget announcement to replace all conventional electricity meters with smart prepaid meters is expected to create a demand for close to 300 million smart meters.
- One of the key requirements for successful operation of smart metering infrastructure is robust and efficient meter communication. Power line communication, general packet radio service and radio frequency mesh communication are being deployed for remote monitoring of utility infrastructure and the bidirectional communication system.
- Smart meters generate a huge quantum of data, which requires a robust meter data management system for data acquisition and storage. Through data analytics algorithms, meaningful insights can be derived into electricity consumption patterns. It can also help detect meter tampering, manage outages and ensure theft protection, among other things.
- That said, the growing smart meter deployment poses interoperability issues as well as challenges in integrating systems with legacy billing software. Utilities will need to address these issues as they scale deployment.

## The mission of this virtual conference is to focus on:

- Metering needs and requirements pre- and post-Covid
- Progress in smart metering under various government programmes (IPDS, UDAY, SMNP)
- Showcase promising technologies and solutions (prepaid metering, net metering, etc.)
- Highlight the key issues and challenges facing the segment, and the solutions thereof.

## Target Audience

- The conference is targeted at officials and managers from:
  - Power distribution companies (public and private)
  - Other utilities
  - Meter manufacturers
  - Research and development organisations
  - Technology providers
  - System integrators
  - Consultants
  - Financial institutions
  - Government agencies
  - Regulatory agencies
  - Telecommunication providers
  - Solution providers, etc.

## AGENDA/STRUCTURE

### KEY TRENDS AND OUTLOOK

- ❖ What are the key trends in the power distribution segment?
- ❖ What have been the recent trends and developments with respect to metering?
- ❖ What are the key issues and challenges? What is the outlook?

### GOVERNMENT PERSPECTIVE

- ❖ What has been the metering progress under various government schemes?
- ❖ What are the targets for the roll-out of smart meters? What has been the impact of Covid on roll-out plans and timelines?
- ❖ What are the key issues and challenges facing the segment?

### UTILITY VIEWPOINT

- ❖ What has been the utility experience with regard to metering so far?
- ❖ What are the key metering technologies being adopted?
- ❖ What are the utility's new & emerging metering requirements? What are the future plans?
- ❖ What are the key challenges facing the utilities pre- and post-Covid?

### MDMS AND DATA ANALYTICS

- ❖ What are the technology solutions adopted by utilities for MDMS? What are the key benefits derived from MDMS?
- ❖ What are the key use cases of smart meter data analytics for utilities? What has been the trend in the uptake of meter data analytics by utilities so far?
- ❖ What are the issues and concerns? What is the outlook?

### METER MANUFACTURERS' OUTLOOK

- ❖ What are the new and emerging metering technologies most suited for Indian utilities?
- ❖ What is the industry preparedness for the roll-out of 300 million smart meters?
- ❖ What are the key challenges facing meter manufacturers pre- and post-Covid?

### UPDATE ON SMNP

- ❖ What has been EESL's experience in smart metering so far? What has been the progress under the SMNP?
- ❖ What are EESL's future smart metering targets? What has been the impact of Covid on roll-out plans and timelines?
- ❖ What are the key issues and challenges?

### FOCUS ON COMMUNICATION TECHNOLOGY

- ❖ What are the most relevant meter communication technologies for Indian utilities?
- ❖ What are the key considerations in the selection of these technologies?
- ❖ What are the issues and challenges faced by utilities in meter communications?

### EMERGING REQUIREMENTS: PREPAID AND NET METERING

- ❖ How has been the utility experience in the adoption of prepaid meters?
- ❖ What are the net metering models being adopted by utilities?
- ❖ What are the benefits derived by utilities from prepaid metering?
- ❖ What are the challenges faced by utilities in the adoption of prepaid meters and net meters? What is the outlook?

### Previous participants

*Adani (MPSEZ) Utilities, Amplus Energy Solutions, Anchor Electricals, APSPDCL, AVNL, Bihar Electricity Regulatory Commission, Brookings India, BSES Yamuna Power, Central Power Research Institute, GESC, Ceinsys, Chemtrols, CMS Computers Limited, CyanConnode, Cyient, Dakshin Haryana Bijli Vitran Nigam, Delhi Transco, Department of Telecommunications, Ministry of Communications and IT, Government of India, Essel Utilities, ERDA, Fluentgrid, Genus Power Infrastructures, GESCO, GIZ, Gujarat Electricity Regulatory Commission, Gujarat Energy Training & Research Institute, GUVNL, HESCOM, Honeywell, ICICI Venture Funds Management Company, IEEMA, Infosys, JERC (H2M), JVVNL, KSEB, Landis + Gyr, Larsen & Toubro, Lucky Investment Managers, Mahindra & Mahindra, MPPKV, Lara Global, MESCOM, Ministry of Power, Motilal Oswal Securities, MSEDCL, Narnix Technolabs, Nortex Marketing, POSOCO, PSPCL, Radius Synergies International, Reliance Infrastructure, Sai Computers, Saft Batteries, Schneider Electric India, Secure Meters, State Electricity Regulatory Commission, Supermax Components, Syratron Technologies, Tata Power DDL, Tata Projects, The BEST Undertaking, Tata Power Company, UGVCL, UHBVN, UJVN, UP Power Corporation, Uttar Pradesh Electricity Regulatory Commission, Voyants Solutions, Wave Infratech, WBSSEDCL, Xylem, etc.*

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- I would like to register for the “METERING IN INDIA” conference (September 17, 2020)
- I would like to register for the “POWER DISTRIBUTION IN INDIA” conference (September 18, 2020)
- I would like to register for **both the conferences**

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### Both conferences

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1 Login	9,000	1,620	10,620	150
2 - 3 Logins	15,000	2,700	17,700	250
4 - 5 Logins	21,000	3,780	24,780	350
6 - 9 Logins	27,000	4,860	31,860	450
10 - 20 Logins	33,000	5,940	38,940	550

### Any one conference

	INR	GST@18%	Total INR	Total USD
1 Login	6,000	1,080	7,080	100
2 - 3 Logins	12,000	2,160	14,160	200
4 - 5 Logins	18,000	3,240	21,240	300
6 - 9 Logins	24,000	4,320	28,320	400
10 - 20 Logins	30,000	5,400	35,400	500

- There is a 25 per cent discount before August 27, 2020
- GST @18 per cent is applicable on the registration fee.
- Registration will be confirmed on receipt of the payment.

#### Payment Policy:

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## Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors. The company publishes **Power Line** (India’s premier power magazine), **Indian Infrastructure** (a magazine on infrastructure policy and finance) and **Renewable Watch** (covers the entire spectrum of renewable energy). It also publishes a series of reports on the energy sector including **Power Distribution in India**, **Charging Infrastructure for Electric Vehicles**, **Operational and Financial Performance of Discoms**, **Electricity Tariff Trends and T&D Equipment Market**. The company also publishes **Power News** (a weekly newsletter) and the **Power Line Directory and Yearbook**.

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