

20<sup>TH</sup> EDITION

Organisers:

POWERLINE

Smart Utilities

RenewableWatch

# IT & OT IN POWER

## A VIRTUAL CONFERENCE

Progress and Experience, Emerging Technologies and Outlook  
August 10-11, 2021

### Key Highlights:

- ❖ *Power Line's* longest running conference
- ❖ Excellent participation from central, state and private power utilities
- ❖ Must-attend for power sector and IT professionals
- ❖ Platform to share latest technology developments
- ❖ Showcase by global technology leaders
- ❖ Views of policy-makers and government agencies
- ❖ All key stakeholders represented

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\*Lead and co-sponsorship slots available

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## Mission

- Power utilities are adopting digital technologies in a big way to reduce cost, improve operational efficiency and enhance customer experience. The shift in energy demand loads and supply chain disruptions caused by the Covid-19 pandemic has further triggered the uptake of advance IT and OT solutions across utilities.
- Power discoms are embracing new technologies, driven by the need to lower aggregate technical and commercial (AT&C) losses, enable data-driven decision-making and deliver better services to end-consumers. A host of government schemes such as the Integrated Power Development Scheme (IPDS), National Smart Grid Mission (NSGM) and Smart Meter National Programme (SMNP) are promoting digitalisation of the power distribution segment. Under IPDS, utilities are adopting automation and digital solutions such as AMI and prepaid smart metering, GIS-based asset mapping and real-time data acquisition systems. Smart metering is one of the key focus areas of the utilities and so far, around 2.3 million smart meters have been installed. The smart meters made it possible for discoms to achieve around 95 per cent billing efficiency during the lockdown, besides increasing monthly revenue per consumer by 15-20 per cent.
- In the power transmission segment, there is an increasing uptake of advanced forecasting and real-time monitoring tools to manage the influx of renewable energy sources into the grid. Wide area measurement (WAM) technologies and Phasor Measurement Units (PMUs) are being used for better grid diagnostics while other technologies such as energy management systems, and modernised Supervisory Control and Data Acquisition (SCADA) systems are also being deployed. Powergrid has commissioned over 1,370 PMUs across substations and 31 Phasor Data Concentrators, which facilitate synchronous measurement of real-time grid parameters. Another technology trend has been the adoption of digital substations, which are equipped with smart transformers and are capable of independently regulating voltage and allowing remote operations.
- The digitalisation of operations is also an integral part of the power generation segment. Using digital solutions, coal-based power plants can reduce emissions through better combustion performance, as well as undertake the flexibilisation of operations. Digital asset management, remote control centres, advanced stockyard monitoring software and digital twins are some of the key areas in which digital transformation projects are being taken up.
- Overall, power utilities are also exploring a broad array of new and disruptive technologies including artificial intelligence, IoT, machine learning, blockchain, sensors and analysers, and robotics in their transition to the digital paradigm.
- That said, the increasing penetration of digital technologies and the growing interconnectedness of utilities requires greater focus on cybersecurity and data privacy. Identifying the best-suited technology and ensuring seamless integration of new technology with the legacy system are of paramount importance. Management and analytics of large volumes of data being generated is essential to generate actionable insights.
- **The mission of the two-day virtual conference is to highlight key trends and developments in IT and OT space for the power generation, distribution and transmission segments; deliberate upon new and emerging requirements of power utilities; and discuss the utility experience and challenges in their digitalisation journey. The conference will also showcase best practices, and the most promising technologies and solutions.**

## Target Audience

- The conference is targeted at:
  - IT officials/managers in generation, transmission and distribution
  - Top- and middle-level operations managers involved in OT
  - Managers of power plants (public/private/captive)
  - Consultancy organisations engaged by utilities
  - Providers of basic power technology, equipment, products and services
  - Marketers of IT-based products and services such as SCADA, GIS and metering
  - Marketers of enterprise software solutions such as ERP, CRM and billing systems
  - Communication/Connectivity solution providers
  - Renewable energy developers (solar rooftop and wind)
  - Data centre solution providers
  - IT hardware manufacturers
  - Outsourcing firms
  - Sector regulators and policymakers
  - HR and training consultants
  - Energy managers and auditors
  - Energy traders
  - Other power sector professionals
  - Etc.

## AGENDA/STRUCTURE

### Plenary Session

#### KEY TRENDS AND OUTLOOK

- ❖ What have been the key IT and OT-related trends in the power sector?
- ❖ What are the new and emerging utility requirements?
- ❖ What are the issues and challenges?
- ❖ What are the key focus areas? What is the outlook?

#### UTILITY PERSPECTIVE

- ❖ What has been the utility experience in the adoption of IT and OT solutions?
- ❖ What are the new and emerging requirements, pre and post Covid?
- ❖ What are the key focus areas? What are the future plans?
- ❖ What are the IT-OT related issues and concerns?

#### UPDATE ON GOVERNMENT PROGRAMMES

- ❖ What has been the progress under various government programmes (IPDS, NSGM, R-APDRP, SMNP, etc.)?
- ❖ What has been the experience and key learnings? What are the issues and challenges?
- ❖ What are the key priority areas?

#### FOCUS ON SMART GRID PROJECTS AND NSGM

- ❖ What has been the progress on smart grid projects under NSGM? What are the upcoming projects?
- ❖ What has been the implementation experience and key learnings?
- ❖ What are the issues and challenges?

#### ASSET MANAGEMENT AND REMOTE MONITORING SOLUTIONS

- ❖ What are the changing utility requirements with regards to asset management, pre and post Covid?
- ❖ What are the digital tools and solutions for asset management and remote monitoring?
- ❖ What has been the experience so far? What are the key issues and challenges?

#### FOCUS ON COMMUNICATION TECHNOLOGY

- ❖ What are the communication technologies most relevant for Indian utilities?
- ❖ What are the key considerations in the selection of a communication technology?
- ❖ What are the issues and challenges being faced?

#### FOCUS ON AI, ML AND ROBOTICS

- ❖ How can AI, ML and robotics support the new requirements for utilities?
- ❖ What are the areas where these technologies can be leveraged?
- ❖ What are the required strategies and roadmap for technology adoption?

#### IoT AND DIGITALLY CONNECTED UTILITIES

- ❖ What is the potential/scope for digitally connected utilities in the Indian power sector?
- ❖ What are the key IoT solutions suitable for Indian utilities?
- ❖ What is the future outlook for IoT-enabled platforms? What are the key issues and challenges?

#### BIG DATA, ANALYTICS AND CLOUD

- ❖ What are the opportunities that utilities can tap into by moving to big data and cloud-based platforms?
- ❖ What has been the trend in the uptake of such solutions by utilities?
- ❖ What are the issues and concerns?

#### FOCUS ON ELECTRIC MOBILITY & CHARGING INFRASTRUCTURE

- ❖ What are the most suited EV charging technologies for the Indian power sector?
- ❖ What has been the international experience?
- ❖ What is the outlook? What are the key issues and concerns?

#### BLOCKCHAIN FOR UTILITIES

- ❖ What are the potential areas for blockchain applications by Indian?
- ❖ What has been the international use cases?
- ❖ What are the key issues and concerns? What is the utility readiness?

#### CYBER SECURITY AND DATA PRIVACY

- ❖ What are the issues associated with data security and protection?
- ❖ What are the new and emerging solutions for managing cybersecurity?
- ❖ What has been the utility experience so far and lessons learnt?

#### WORKFORCE MANAGEMENT

- ❖ What has been the utility experience in workforce management, in light of the Covid pandemic?
- ❖ What are the promising digital tools and solutions for effective WFH management? What are the strategies being adopted?
- ❖ What are the issues and challenges?

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There will be dedicated segment-specific tracks on generation, transmission and distribution. These will cover areas such as communications, data analytics, real-time monitoring, asset management, regulatory compliance, management information systems and smart grid. The dedicated tracks will also cover focused areas, including:

## SEGMENT-SPECIFIC TRACKS - GENERATION, TRANSMISSION, DISTRIBUTION

### TRACK I - TRANSMISSION

- ❖ What has been the experience of transcos in the adoption of IT-OT technologies and solutions?
- ❖ What are some of the most relevant and promising technologies?
- ❖ What are the new and emerging requirements, especially in light of the Covid pandemic?
- ❖ What are the key issues and challenges? What are the key priority areas going forward?

### TRACK II - DISTRIBUTION

- ❖ What has been the experience of discoms in the adoption of IT-OT technologies and solutions?
- ❖ What are some of the most relevant and promising technologies?
- ❖ What are the new and emerging requirements, especially in light of the Covid pandemic?
- ❖ What are the key issues and challenges? What are the key priority areas going forward?

### TRACK III - GENERATION

- ❖ What has been the experience of gencos in the adoption of IT-OT technologies and solutions?
- ❖ What are some of the most relevant and promising technologies?
- ❖ What are the new and emerging requirements, especially in light of the Covid pandemic?
- ❖ What are the key issues and challenges? What are the key priority areas going forward?

## Utilities speakers in previous editions (alphabetical order company-wise):

- Vishal Kapoor, Director, Ministry of Power
- Ashok Kumar Reddy, GM-ERP, APGENCO
- N. Damodar, ADE, APSPDCL
- Abhinab Saikia, AGM, APDCL
- S.H. Rasheed, GM-IT, APSPDCL
- Rajesh Bansal, SVP, BSES Rajdhani Power
- Sanghamitra Pyne, Head-IT, CESC Generation
- Nimesh Mehta, GM- IT, CLP India
- Saumitra Mazumdar, Director-IT, CEA  
Manowar Ismail, Dy. Chief Engineer-IT, DVC
- Dr Rajesh Arora, Manager-Technical, Delhi Transco
- Ajay Sharma, DGM, EESL
- Rajendrasinh M. Parmar, CISO, GECL
- M.G. Gadhvi, SE- SLDC, GETCO
- Rohit Patel, Dy. Engineer, R&D, GUVNL
- A.K. Tyagi, SE-IT, JVVNL
- S.B. Chandrashekharaiyah, EE-SCADA, KPTCL
- Seenath Beevi, Joint Director-MIS, KSEB
- Manoj Kumar Jhawar, Director Commercial, MPPKWVCL
- Amod Agarawal, Executive Director, NHPC
- P.K. Pattanaik, Deputy General Manager, OPTCL
- Yogesh Gadkari, CGM-IT MSEDCL
- Shylesh Srinivasan, GM- IT, NTPC
- Rajesh Kumar, Head Operations, Nabha Power
- B.B. Mehta, Director-SLDC, OPTCL
- Debasis De, GM, POSOCO
- R.K. Tyagi, CGM PowerGrid
- Sanjay Banga, CEO and MD, TPDDL
- A.Ramesh, CGM(IS&ERP), TSGENCO
- Krishan Murari Mittal, Director,-Distribution, UPCL

A key highlight of the conference is the major participation from public/private utilities. Some of these include:



### Previous Participants:

ABB, Accenture, ACE Control Tech, Actaris, Adani Power, AES, ALSTOM, Analog Devices, Ashok Leyland, A2Z, Avantha Power, Aveva, Avineon India, Bahwan Cybertek, Barco, BHEL, Blue Star, BPL Telecom, CA Technologies, Canada Trade Office, Capgemini, CPRI, CMC Limited, CMS Computers, CES, Consus Consulting, CPCL, Creative Microsystems, CRISIL, Cyient, Datagen Power, Deloitte, Descon, Diamond Power, DPSC, DSCL, Dynalog, Earthmetry, EY, Easun Reyrolle, ECIL, Efftronics, Enercon, Energy Infratech., ESDS, ESRI, ETAP Automation, Fedders Lloyd, Fluentgrid, Fox Solutions, GE, Genus, GIFT, GMR, GTL, Greenko Group, Grove Limited, HCL, HP, Hindustan Controls, Hitachi, Honeywell, Hughes, IBM India, ICRA, ICSA, Idam Infrastructure, IFS, Indo Rama Petrochemicals, Infosys, Infotech, Infozech, Invensys, Infor, Itron India Smart Grid Forum, Jaiprakash Associates, Jal India, JUSCO, Jaypee Ventures, JSPL, KPCL, Kaveri Communications, KLG Systel, KPMG, KPIT, Krohm Solutions, KSK Energy, L&T, L&T-Sargent & Lundy, Lahmeyer, LANCO, Lapp Holding, Leena PowerTech, MagikMinds Software, MCT India, Merchem Limited, M.N. Dastur & Company, Maruti Udyog, METSO, MOXA, Nascent Infotech, NI, NPCL, NPTI, NDMC, NEEPCO, NELCO, NESCO, Nexant, Nish Automation, NSOFT (INDIA), Opower, OMNI AGATE Systems, Oracle, OSI, Parbati-Koldam Transmission Co., PCI Limited, Perfect Controls, PFC Consulting, Phoenix IT, Prasanna Technologies, PMAS, PMI Associates, PTC, PowerOne Data, Powertec, PwC, ProArch Solutions, Quadrant Consultants, Ramco, Rare Enterprise, REC, Reconnect Energy, Red Hat, Regency Infotech, Reliance, Reli-e-Marg Software, Riken Instrumentation, RMSI, Rockwell Automation, Rolta, RS Consultant, RuggedCom, Sai Computers, SAS, SAI Electricals, SAP, SBI Caps, Schneider Electric, SCOPE, Secure Matrix, Secure Meters, Sensus, Siemens, Softspin Services, SPANCO, SPML, SSM Infotech, ST Microelectronics, State Grid Corporation of China, Steag, Stelmec, Sterlite, Sun Microsystems, Suntech Group, Tata Automated Systems, TCS, TERI, Technobridge Software Solutions, THDC, The New India Assurance Co., Tirumala, Torrent Power, TVA Star Engineering Solutions, Unique Structures and Towers, Va Tech Ventures, Vizag Steel, Wipro, Yathva Energy, Zyxel Technologies, etc.

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## SNAPSHOTS OF OUR PREVIOUS EDITION



Vishal Kapoor, Director, Ministry of Power



R.K. Tyagi, Executive Director, Powergrid



BB Mehta, Director (SLDC), Odisha Power Transmission



Ashok Kumar Reddy, GM ERP, APGENCO



Sanghamitra Pyne, Head IT, CESC



Shylesh Srinivasan, GM-IT, NTPC



Abhishek Ranjan, VP- System Operation, BSES Rajdhani Power



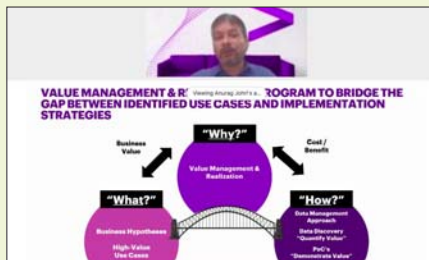
Rajendrasinh Parmar, Executive Engineer, Gujarat State Electricity



SB Chandrashekhariah, Executive Engineer (SCADA) Karnataka Power Transmission



Akilur Rehman, CTO, ABB



Anurag Johri, Senior Principal (Utilities), Accenture



Nimish Mehta, GM, IT, CLP India

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## Registration Fee

	INR	GST@18%	Total INR	Total USD
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

Special low fee for power utilities (wholly state-owned GENCOs, DISCOMs and TRANSCOs)

- INR 1,500 plus 18% GST per login
- INR 10,000 plus 18% GST for Bulk logins (10-20)
- There is a 25 per cent discount before July 22, 2021
- GST @18 per cent is applicable on the registration fee.
- Registration will be confirmed on receipt of the payment.

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- Payments for "early bird" registrations should come in before the last date of discount. Discount offers cannot be combined with any other offer.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.

## Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure and power sectors. It publishes **Power Line**, **Renewable Watch**, **Smart Utilities** and **tele.net** magazines. It also publishes a series of reports on the energy sector including **Power Distribution in India**, **Coal Based Power Generation**, **Power Transmission in India**, **Hydro Power in India**, **Solar Power in India**, **Power Market In Asia**, **Captive Power in India**, **Cost of Power for Discoms and Industrial Users**. The company also publishes **Power News** (a weekly newsletter) and the **Power Line Directory and Yearbook**.

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