

18<sup>th</sup> Annual Conference on

# IT & OT IN POWER

Steps Towards a Digital Transformation

September 16-17, 2019, ITC Maurya, New Delhi

Highlights of 2018

**150 + PARTICIPANTS**  
**50 + POWER UTILITIES**

Sponsorship opportunities  
open for 2019

"Early Bird" discount ends on August 10, 2017

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NEW SESSIONS ADDED THIS YEAR

DIGITALISATION FOCUS

BIG DATA, ANALYTICS AND CLOUD

AI, ML AND IoT OPPORTUNITIES

BLOCKCHAIN FOR UTILITIES

Organisers:

POWERLINE

Smart Utilities

RenewableWatch

Sponsor:

**TOSHIBA**

Utility partner:



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# IT & OT IN POWER

## Mission

- Over the years, several technology solutions have been deployed to improve the business processes and operations of utilities including mobile apps, automated SCADA, DMS, remote monitoring, ERP and sensor technologies.
- However, the Indian power sector is changing much faster than expected. Decentralised generation, prosumerism, the rapid influx of renewables, the proliferation of intelligent devices and the launch of EVs are driving utilities to look at new ways of engaging with their customers. Traditional T&D networks are evolving towards smarter grids, while greater choice in energy supply and use is expected to create new marketplaces.
- To address the new challenges and opportunities, utilities have begun to consider digital solutions that can help deliver better services, increase productivity, and improve fleet management and load optimisation.
- At the core of the industry's technology transformation are smart metering systems. Two-way data communication systems established through smart meters can be leveraged for providing load forecasts, optimising consumption and improving customer engagement, among other things.
- Internet of things (IoT) and big data are the other major technology trends set to impact the sector. As costs for IoT decline, utilities are keen to adopt such solutions for asset life cycle management in order to reduce O&M costs. IoT also connects devices and consumers to smart meters and subsequently to the grid, which helps monitor consumption patterns. With an increasing volume of data being generated from smart meters and sensors, big data is expected to play a key role in helping businesses extract value from it.
- Cloud is being adopted for flexibility, lower sunk investments and big data analytics. Future digital tools such as blockchain, AI and machine learning are being explored as utilities look to transition to the digital paradigm.
- The policy landscape has become favourable, supporting utilities in the implementation of smart grid technologies. From IPDS (which subsumed the earlier R-APDRP), which targeted urban power system strengthening, UDAY and Saubhagya, which lay significant emphasis on mandatory smart metering, to the National Smart Grid Mission and the more recently launched smart metering national programme, these policy initiatives have created a number of opportunities for utilities, equipment manufacturers and technology solution providers for adopting and implementing new solutions.
- However, digital technologies are also posing a new challenge to data security and privacy. To effectively meet the cybersecurity imperative, utilities need to ensure compliance with security standards and develop security as a core business capability.
- **The mission of this two-day conference is to highlight the most promising IT-OT solutions, examine their potential and relevance in the Indian power sector, and discuss the key issues and challenges in their deployment and convergence. The conference will also showcase noteworthy applications, innovative projects and best practices across the generation, transmission and distribution segments. It will provide an excellent forum for all stakeholders - power utilities, technology providers, system integrators and equipment manufacturers - to share their experience so far and exchange views.**

## 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 (rooftop solar 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

### KEY TRENDS AND OUTLOOK

- ❖ What have been the key IT and OT-related trends in the power sector?
- ❖ What are some of the recent developments in this regard?
- ❖ What is the outlook for the sector? What are the key issues and concerns?

### UTILITY PERSPECTIVE

- ❖ What are some of the key IT-OT initiatives taken by utilities so far?
- ❖ What are the new and emerging requirements?
- ❖ What are the future plans? What are the IT-OT related issues and concerns?

### UPDATE ON GOVERNMENT PROGRAMMES

- ❖ What has been the progress under government programmes (IPDS, R-APDRP, NSGM, Smart Meter Programme, etc.)?
- ❖ What has been the implementation experience and key learnings?
- ❖ What are the next steps? What are the key areas of concern?

### REGULATORY PERSPECTIVE

- ❖ What is the regulator's perspective on the adoption of IT-OT solutions by utilities so far?
- ❖ What are the regulatory measures being taken to encourage greater technology adoption?
- ❖ What are the biggest issues and concerns from a regulatory standpoint?

### UPDATE ON SMART GRID PROJECTS

- ❖ What has been the progress and implementation experience of pilots?
- ❖ What have been the results of smart grid technology trials at the operationalised projects?
- ❖ What have been the issues and concerns? What are the next steps?

### SMART METERING

- ❖ What has been the progress in smart meter deployments so far?
- ❖ What has been the utility experience and learnings?
- ❖ What are the challenges being faced by utilities?

### DIGITALISATION FOCUS

- ❖ What are the new and emerging digital trends in the power sector?
- ❖ What are the relevant digital solutions for utilities in India?
- ❖ What are the next steps to move towards complete digital transformation?

### BLOCKCHAIN FOR UTILITIES

- ❖ What are the potential areas of blockchain application for Indian utilities?
- ❖ What are its international use cases?
- ❖ What are the key issues and concerns? What is the utility readiness?

### ASSET MANAGEMENT

- ❖ What are the changing utility requirements with regard to asset management?
- ❖ What are the digital tools and solutions that can help utilities meet the new requirements?
- ❖ What is the experience of utilities using digital asset management platforms?

### AI, ML AND IoT OPPORTUNITIES

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

### COMMUNICATION REQUIREMENTS

- ❖ What are the various smart grid communication technology options for utilities?
- ❖ What are the potential advantages?
- ❖ What has been the progress with regard to the development of interoperable standards and protocols?

### CYBERSECURITY AND DATA PRIVACY

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

### IT-OT FOR RENEWABLES

- ❖ How can IT-OT solutions be leveraged to meet the renewable energy segment's requirements?
- ❖ What are the new and emerging technologies in this regard?
- ❖ What has been the experience so far in the adoption of these solutions?

### 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?

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:

### PARALLEL TRACKS ON DISTRIBUTION AND GENERATION

#### TRACK I - TRANSMISSION

- ❖ What have been the key IT-OT initiatives taken so far?
- ❖ What has been the utility experience? What are the lessons learnt?
- ❖ What are the new and emerging requirements?
- ❖ What are some of the most relevant and promising IT-OT technologies for transcos?

#### Topics Covered

- Network Planning
- Forecasting Software
- Grid Scheduling
- Asset Survey and GIS
- WAMS
- PMU
- Systems Operation and Management
- SCADA
- Digital Substations
- Renewable Energy Integration
- OPGW
- Power Quality Monitoring
- Structural Analysis and Design Software
- Etc.

#### TRACK II - DISTRIBUTION

- ❖ What have been the key IT-OT initiatives taken so far?
- ❖ What has been the utility experience? What are the lessons learnt?
- ❖ What are the new and emerging requirements?
- ❖ What are some of the most relevant and promising IT-OT technologies for discoms?

#### Topics Covered

- AMR and AMI
- Smart Metering
- Distribution Automation
- Energy Management System
- Customer Relationship Management
- Outage Management System
- Consumer Connection Management
- Enterprise Resource Planning
- Load Management System
- Field Workforce Management
- Communication Technologies
- SCADA
- E-procurement
- MDMS
- Smart Grid
- Digital Substation
- Asset Management
- RMUS
- Load Management
- MDMS & Energy Audit
- Net Metering
- IoT, Cloud & Big Data
- Etc.

#### TRACK III - GENERATION

- ❖ What have been the key IT-OT initiatives taken so far?
- ❖ What has been the utility experience? What are the lessons learnt?
- ❖ What are the new and emerging requirements?
- ❖ What are some of the most relevant and promising IT-OT technologies for gencos?

#### Topics Covered

- PADO
- Digital Power Plant
- Flexibilisation
- Asset and Inventory Management
- Operations Technology
- Enterprise Asset Management
- Asset Monitoring and Control
- Renewable Energy Forecasting
- Fuel management
- Data Centres
- MIS
- Predictive Maintenance
- Remote Performance Monitoring
- Condition-based Monitoring
- Fleet Monitoring
- AI and IoT, Etc.

**Participating organisations:**

*This conference elicits strong participation from major organisations including: ABB, Accenture, ACE Control Tech, Actaris, Adani Power, AES, ALSTOM, Analog Devices, Ashok Leyland, A2Z, Avantha Power, Aveva, Avineon India, Autogrid, Bahwan Cybertek, Barco, BBMB, Bentley Systems India, BHEL, Blue Star, BPL Telecom, BYPL, CA Technologies, Canada Trade Office, Cag Gemini, Central Electricity Authority, CPRI, CMC Limited, CMS Computers, CES, Consus Consulting, CPCL, Creative Microsystems, CRISIL, CTR Manufacturing, Cyient, Datagen Power, Deloitte, Descon, Diamond Power, DPSC, DSCL, DVC, Dynalog, EY, Easun Reyrolle, ECIL, EESL, Efftronics, Enercon, Energy Infratech, Eplan, ESDS, ESRI, ETAP Automation, Fedders Lloyd, Fluentgrid, Fox Solutions, GE, Genus, GIFT, GIZ, GMR, GTL, Greenko Group, Grove Limited, HCL, HP, Hindustan Controls, Hitachi, Honeywell, Hughes, IBM India, ICRA, ICSA, IFS, Indo Rama Petrochemicals, India Power, 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, Merino, M.N. Dastur & Company, Maruti Udyog, METSO, MOXA, Nascent Infotech, NDMC, NEDO, NEEPCO, NELCO, NESCO, NewGen Software, Nexant, Nish Automation, NI, NPTI, NPCL, NSOFT (INDIA), Opower, OMNI AGATE Systems, Oracle, Orange Renewable, 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, 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 Power, 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, Zyxel Technologies etc.*

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



**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 Transmission in India**, **Power Distribution in India**, **Captive Power in India**, **T&D Equipment Market Projections in India** and **Hydro Power Market in India**. The company also publishes **Power News** (a weekly newsletter) and the **Power Line Directory and Yearbook**.



# SNAPSHOTS FROM THE PREVIOUS YEAR



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## Registration Form

I would like to register for the conference. I am enclosing Rs \_\_\_\_\_ vide cheque/demand draft no. \_\_\_\_\_ drawn on \_\_\_\_\_ dated \_\_\_\_\_ Company GST No. \_\_\_\_\_ in favour of India Infrastructure Publishing Pvt. Ltd. payable at New Delhi.

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## Registration Fee

Delegates	Fee			
	INR	GST @ 18%	Total INR	Total USD
One delegate	22,500	4,050	26,550	418
Two delegates	37,500	6,750	44,250	732
Three delegates	52,500	9,450	61,950	1,045
Four delegates	67,500	12,150	79,650	1,359

- Registration will be confirmed on receipt of the payment.
- To register online, please log on to <http://indiainfrastructure.com/conf.html>

Payment Policy:

- Full payment must be received prior to the conference.
- Conference fee includes lunch, tea/coffee and conference material.
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