

Organiser:

POWERLINE

Presenting Sponsor:



16th Annual Conference on

IT & OT IN POWER

Towards Digital Utility: Opportunities and Challenges

August 31-September 1, 2017, Hyatt Regency, New Delhi

Highlights of 2016

160 + PARTICIPANTS
45 + POWER UTILITIES

Sponsorship opportunities
open for 2017

“Excellent, well planned and crafted content.” **Somit Kumar**,
General Manager-SCADA, Reliance Infra

“Very good conference organised by India Infrastructure Publishing. Power professionals get a good insight into IT and OT trends and the future roadmap, which will help them strategise their IT implementation plans.”
Tushar Kanta Mahakul, *Additional General Manager (SAP), Odisha Power Generation Corporation Limited*

“It has been a good experience with sessions on various topics that cover the present scenario in the power sector and the future course of action for affordable power for all.” **Niraj Kumar**, *Deputy General Manager (Fuel Management), NTPC*

“Good experience to hear about IT involvement and acceptance in the power industry.” **Jayant Kamra**, *Product Portfolio Manager, Secure Meters*

“I attended this conference on IT&OT in Power for the first time and it was very beneficial for me and my organisation.” **Mukesh Kumar**,
Assistant Executive Engineer, BSPTCL

“The IT & OT in Power conference is my first and it was very good for me to see various utilities share their experiences within the sector.”
Govind V. Kodyatar, *JE, GETCO*

“Great to hear from the best in the business. The quality of presentations and speakers is really appreciable.” **Bharat Bhushan**, *Assistant Executive Engineer, PSPCL*

Organisers:

Smart Utilities **RenewableWatch**

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IT & OT IN POWER

Mission

- With new complexities and a changing energy landscape, the traditional business model of power utilities is experiencing disruptive changes.
- From ensuring reliable power supply under programmes such as 24x7 Power for All and Smart Cities, handling unprecedented renewable capacity additions, meeting customer expectations and managing a large interconnected grid, utilities are preparing for a significant transformation. Tackling these challenges demands that utilities adopt the best-in-class IT-OT solutions.
- A number of policy interventions are enabling utilities to achieve this transformation. Key amongst them is the government's flagship urban distribution strengthening programme, the Integrated Power Development Scheme (IPDS), etc. More than 95 per cent of the towns that were covered under the R-APDRP (now subsumed under the IPDS) are now IT-enabled. The objective under the IPDS is to achieve IT enablement across the entire urban area in the country.
- This is expected to lead to improvements in power supply reliability, monitoring of all 11 kV feeders through a national power portal (in the works) and proper energy accounting and auditing.
- The National Smart Grid Mission (NSGM) is another key policy initiative. Smart grid functionalities such as AMI, PLM and OMS are being deployed by state-owned discoms in pilot project areas so as to undertake technology trials and evaluate them for scalability.
- AMI and smart metering are integral components of these initiatives. Nearly 800,000 smart meters are being deployed under the NSGM, while smart meters are a mandatory commitment required from all states participating under the UDAY scheme. Under the IPDS too, all SCADA towns will be equipped with smart meters. With AMI, a range of capabilities such as load management, outage handling, remote connect and disconnect, and self-diagnosis will be available to utilities.
- Driven by cost and performance efficiencies, the concept of cloud computing is also fast drawing the attention of Indian utilities. Big data, predictive analytics and IoT are also being deployed by discoms to forecast, optimise and control energy usage.
- Increasing automation has also led to an enhanced focus on addressing cyber security threats in communications infrastructure. Steps are being taken at both the utility and policy levels to improve telecom infrastructure, cyber audits and the mitigation of physical attacks, among other concerns.
- On the transmission side, new solutions are being deployed to enable enhanced grid management such as WAMS based on PMUs. After successfully executing pilot projects, a pan-Indian PMU deployment project is currently under way with the Unified Real Time Dynamic State Measurement project.
- In the generation segment too, advanced automation and control technologies such as PADO (performance analysis, diagnostics and optimisation) and distributed control are being considered.
- **The mission of this two-day conference is to highlight the most promising IT and OT solutions, examine their potential and relevance in the 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 all segments – generation, transmission and distribution. 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 with 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 like SCADA, GIS and metering
 - Marketers of enterprise software solutions like 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.

Towards Digital Utility: Opportunities and Challenges

AGENDA/STRUCTURE

KEY TRENDS AND OUTLOOK

- ❖ What have been the key drivers for IT and OT in the power sector?
- ❖ What are the new and emerging requirements of utilities?
- ❖ What are the challenges that need to be addressed through IT & OT convergence?

UPDATE ON GOVERNMENT INITIATIVES (R-APDRP, IPDS AND NSGM)

- ❖ What are the targets and the achievements so far under the R-APDRP, IPDS and NSGM?
- ❖ What have been the key challenges in the implementation of the scheme so far?
- ❖ What are the proposed next steps and main focus areas going forward?

UTILITY PERSPECTIVE

- ❖ What have been the key areas of IT and OT deployment by utilities so far?
- ❖ What are the new and emerging requirements?
- ❖ What are some of the key IT and OT initiatives planned going forward?

CONVERGENCE OF IT AND OT

- ❖ What are the key costs and benefits associated with IT and OT convergence?
- ❖ What are the technologies and solutions for managing IT & OT convergence?
- ❖ What are the implications of IT and OT convergence on security and reliability? What are the strategies that can help utilities manage these risks?

AMI UPDATE

- ❖ What has been the trend in the uptake of AMR and AMI by Indian utilities?
- ❖ What are the advantages of these solutions? What are some of the successful case studies?
- ❖ What are some of the major barriers in the uptake of smart meters? What are the strategies needed to fast-track the roll-out of AMI?

FOCUS ON SMART GRIDS

- ❖ What has been the progress so far under the smart grid pilot projects?
- ❖ What have been the key outcomes and learnings?
- ❖ What is the status of projects under the National Smart Grid Mission?

STANDARDS AND INTEROPERABILITY

- ❖ What are the key advantages of open standards in the Indian smart grid context?
- ❖ What have been the key initiatives taken for developing common interoperability specifications?
- ❖ What are the key issues and concerns? What has been the global experience?

CYBERSECURITY AND CLOUD COMPUTING

- ❖ What are the drivers for cloud computing by utilities? What are the benefits?
- ❖ What are the strategies that utilities need to adopt for mitigating cyberattacks?
- ❖ What are the technologies and solutions for managing security risks?

ASSET MANAGEMENT

- ❖ What are the needs and requirements for asset management by utilities?
- ❖ What are the solutions and tools available for asset management?
- ❖ How are these technologies and tools helping to pre-empt equipment failure, condition monitoring, etc.?

ROLE OF COMMUNICATIONS

- ❖ What are the new & emerging communication requirements of the power sector?
- ❖ What are the most promising technologies with regard to Indian utilities?
- ❖ What has been the utility experience and learning in this regard?

DIGITISATION FOCUS

- ❖ What are some of the key goals that utilities can achieve through digitisation?
- ❖ What are the key areas that can be prioritised for digital transformation?
- ❖ What are the technology choices available for implementing digitisation?

BIG DATA

- ❖ What are some of the opportunities that can be leveraged through the deployment of big data analytics?
- ❖ What are the key risks involved? How can these be resolved?
- ❖ What has been the utility experience so far?

IOT

- ❖ What are some of the ways that IoT can assist utility operations?
- ❖ What are the most promising solutions in this regard?
- ❖ What are the major barriers in the uptake of IoT by utilities? What is the outlook?

- The presentations will include a mix of case histories, new initiatives/plans and new products/services/technologies.
- The conference will feature the points of view of all key stakeholders – utilities, technology providers, equipment manufacturers, government agencies and facilitating organisations.

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:

TRACK I - TRANSMISSION

- ❖ What have been the key areas for IT and OT adoption by transcos?
- ❖ What are some of the most relevant and promising IT-OT technologies for transcos?
- ❖ What has been the utility experience and learning?

Topics Covered

- ❖ WAMS
- ❖ PMU
- ❖ Systems Operation and Management
- ❖ SCADA
- ❖ System Planning
- ❖ Scheduling and Energy Accounting
- ❖ Substation Automation
- ❖ GIS and RTUs
- ❖ Renewable Energy Integration
- ❖ Unmanned Substations
- ❖ Structural Analysis and Design Software, Etc.

TRACK II - DISTRIBUTION

- ❖ What have been the key areas for IT and OT adoption by discoms?
- ❖ What are some of the most relevant and promising IT-OT technologies for discoms?
- ❖ What has been the utility experience and learning?

Topics Covered

- ❖ AMR and AMI
- ❖ Smart Metering
- ❖ SCADA
- ❖ ERP
- ❖ CRM
- ❖ Outage Management System
- ❖ Field Workforce Management
- ❖ Energy Management System
- ❖ Communication Technologies
- ❖ Field Area Network Automation
- ❖ Smart Grid
- ❖ Substation Automation
- ❖ GIS
- ❖ Asset Management
- ❖ RMUs
- ❖ Load Management
- ❖ RTU
- ❖ Data Analytics
- ❖ Net Metering
- ❖ ADMS, Etc.

TRACK III - GENERATION

- ❖ What have been the key areas for IT and OT adoption by gencos?
- ❖ What are some of the most relevant and promising IT-OT technologies for gencos?
- ❖ What has been the utility experience and learning?

Topics Covered

- ❖ PADO
- ❖ Flexibilisation
- ❖ Asset and Inventory Management
- ❖ Operations Technology
- ❖ Enterprise Asset Management
- ❖ Asset Monitoring and Control
- ❖ Fuel Management
- ❖ Data Centres
- ❖ Predictive Maintenance
- ❖ Control and Instrumentation, 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, 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, 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, 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, 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, TCS, TERI, Tecknobridge 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.

Previous participants:

Our previous conference on "IT and OT in Power" in 2016 included the participation of over 45 utilities.

- Andhra Pradesh Power Generation Corporation
- Bhakra Beas Management Board
- BSES Yamuna Power Limited
- Bihar State Power Transmission Co. Ltd.
- BSES Rajdhani Power Limited
- Central Electricity Authority
- Central Electricity Supply Utility of Odisha
- CESC
- Chhattisgarh State Power Distribution Co. Ltd.
- CLP India
- Damodar Valley Corporation
- Delhi Transco Limited
- Dakshin Haryana Bijli Vitran Nigam
- Eastern Power Distribution Company of AP
- Essar Power
- Gujarat Energy Transmission Corporation Ltd.
- Gujarat State Electricity Corporation Limited
- Gujarat Urja Vikas Nigam Limited
- Haryana Power Generation Corporation Limited
- Himachal Pradesh Power Corporation Limited
- Himachal Pradesh State Electricity Board
- India Power
- Indraprastha Power Generation Co. Ltd
- Jindal Power
- Jammu and Kashmir State Power Development
- Karnataka Power Transmission Corporation
- Kerala State Electricity Board
- MSETCL
- MSEDCL
- Mashya Pradesh Madhya Kshetra Vidyut Vitran
- Madhya Pradesh Poorv Kshetra Vidyut Vitaran
- NHDC
- NHPC
- Noida Power
- NTPC
- Odisha Hydro Power Corporation Limited
- Odisha Power Transmission Corp. Ltd
- Paschimanchal Vidyut Vitran Nigam Limited
- POSOCO
- Power Transmission Corporation of Uttarakhand
- Punjab State Power Corporation
- Raichur Power Corporation Limited
- Southern Power Distribution Co. of AP
- SJVN Limited
- Tata Power
- Transmission Corporation of AP Limited
- Uttarakhand Jal Vidyut Nigam Limited
- Uttar Pradesh Power Corporation Limited
- West Bengal State Electricity Transmission
- The West Bengal Power Development Co. Ltd
- WBSEDCL, etc.

Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure 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 **Electricity Market in India**, **Power Equipment Market in India**, **Power Transmission in India**, **Distribution Network Growth & Capital Expenditure**, **Discom Finances**, **Power Purchase Costs and Tariffs**, **Solar Power in India** and **Wind Power in India**. The company also publishes **Power News** (a weekly newsletter) and the **Power Line Directory and Yearbook**.

SNAPSHOTS FROM PREVIOUS YEAR



Previous Sponsors



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Registration Fee

- The delegate fee is Rs 22,500 for one participant, Rs 37,500 for two, Rs 52,500 for three and Rs 67,500 for four. GST @ 18 per cent is applicable on the registration fee.
- There is a special low fee of Rs 6,000 per participant for the state electricity boards and their successor units (state-owned gencos, transcos and discoms), regulatory authorities, research organisations and academic institutions. GST @ 18 per cent is applicable on the registration fee.
- The conference is a non-residential programme.
- 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 materials.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.

For delegate registrations and sponsorship opportunities, contact:

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