



ARTIFICIAL INTELLIGENCE

Conference on

AI IN ELECTRICITY GRIDS

Plans, Challenges and Outlook for Grid Modernisation and Reliability

July 25, 2025, Le Meridien, New Delhi

Organiser:

POWERLINE

Lead Sponsor:



GIS Partner:



MISSION

- As India works towards its ambitious renewable energy targets – 500 GW by 2030 and 600 GW by 2032 – the country's grid will require significant expansion and upgradation to support the integration.
- AI offers immense opportunities for T&D utilities to build and optimise grid operations, enhance resilience, and improve planning, operation and control of power systems and consumer-related services.
- Transmission developers and utilities have taken the lead in adopting AI technologies across a range of areas, from site selection and route planning to real-time asset inspections. Drones and robotics are being used for managing the entire project lifecycle, thereby improving efficiency and safety. These technologies are helping transcos reduce delays and mitigate risks projects related to labour shortages.
- At the discom level, as utilities scale to the 250 million smart metering target, AI is being used to modernise grids and optimise planning and scheduling. Initial applications of the technology include AI-driven fault detection, demand response, DT asset management, predictive maintenance and theft detection.
- While these applications are still in the early stages, AI is beginning to reshape the T&D industry by enhancing automation and reliability. However, its success depends on a clear strategy, responsible governance and strong partnerships.
- The mission of this conference is to understand the new and emerging grid requirements for transcos and discoms, highlight the opportunities and capabilities offered by AI solutions, as well as discuss the plans of utilities and developers in AI adoption going forward. The conference will also provide a platform to showcase new and promising AI solutions and use cases for utilities.

Previous Participants:

Power Line has set benchmarks by delivering successful B2B events. The conferences have provided an excellent platform for organisations to share their points-of-view, transform networking into relationship-building, conversations into opportunities, and gain insights into sector developments transforming to actionable growth.

The annual events include: Power Transmission in India, Power Distribution in India and IT & OT in Power. We also recently organised our first edition of AI in Renewables, which received a tremendous response.

Our conferences have attracted participation from leading organisations including Accenture, Adani Transmission, Autogrid, Adani Electricity, APDCL, APSPDCL, APTRANSCO, Bihar State Power Transmission, BSES Rajdhani Power, BYPL, CESC, Delhi Transco, DGVCL, DHBVN, Fitcher Consulting, GE Vernova, GETCO, HVPN, Hitachi Energy, IBM, Infosys, Jaipur Vidyut Vitran Nigam, Indigrid, JSW Energy, KPTCL, KEC International, MP Madhya Kshetra Vitaran, MP Poorv Kshetra Vidyut Vitaran, Madhya Pradesh Power Transmission Company, MSETCL, MSEDCL, Noida Power, Oracle, Paschim Gujarat Vij Company, Paschimanchal Vidyut Vitran Nigam, Power Grid Corporation of India, Powerlinks Transmission, PWC, SAP, Schneider Electric, Siemens, Sterlite Power Transmission, TanTransco, Tata Power DDL, TCS, Torrent Power, Wipro, etc.

KEY TRENDS AND OUTLOOK

- What have been the key drivers of AI adoption by utilities?
- What are the new and emerging needs and requirements of utilities?
- What are the key challenges? What is the future outlook?

UTILITY PERSPECTIVE

- What are the new and emerging challenges being faced by utilities?
- What has been their experience in the adoption of AI-driven technologies and solutions?
- What are some of the solutions being adopted for construction, design, O&M and predictive analysis, etc.?
- What are the future plans and key priority areas? What are the key issues and challenges?

AI FOR O&M

- What are the key challenges faced in the O&M of assets by utilities?
- What are the promising AI solutions for enabling predictive maintenance?
- What has been the experience in implementing these solutions? What are the future plans?

AI FOR FLEXIBLE GRID OPERATIONS

- What role can AI play in enhancing grid flexibility to integrate greater levels of renewable energy?
- What are some of the most relevant and promising technologies being used for grid management?
- What are the future plans and key priority areas?

AI FOR FAULT DETECTION, PREDICTIVE MAINTENANCE AND POWER QUALITY

- What are the reliability and safety-related challenges faced by utilities?
- What are tools and solutions being used by utilities?
- What are some of the promising AI solutions being considered for deployment?

AI IN RENEWABLE ENERGY

- How is AI improving accuracy of renewable energy forecasting?
- What are the key gaps in this space? What innovations are being done to address these gaps?
- What role can AI in managing the intermittency of renewables? How can AI help in managing power demand and supply?

FOCUS ON CYBERSECURITY

- What are the key cybersecurity-related risks and concerns associated with increasing AI adoption?
- What are the solutions for managing cybersecurity risks, and ensuring data privacy and security?
- What has been the experience in strengthening cybersecurity management and audits?

AI FOR PROJECT DESIGN AND CONSTRUCTION

- How can AI help in improving project design and construction? What are the key benefits?
- What are the major tools currently in use?
- What are the key innovation areas?

TARGET AUDIENCE

The conference is targeted at top and middle-level managers from:

- ❖ Transmission utilities
- ❖ Grid operators
- ❖ Distribution utilities
- ❖ Technology providers
- ❖ Advanced software platform providers
- ❖ Investors
- ❖ R&D agencies
- ❖ Transmission developers
- ❖ AI solution providers
- ❖ System integrators
- ❖ Data centre owners and operators
- ❖ Cybersecurity experts
- ❖ Consultants
- ❖ Etc.

DELEGATE FEE

Delegates	Fee			
	INR	GST@18%	Total INR	Total USD
One delegate	16,000	2,880	18,880	228
Two delegates	28,000	5,040	33,040	399
Three delegates	40,000	7,200	47,200	569
Four delegates	52,000	9,360	61,360	739

- There is a special low fee of Rs 5,000 per participant for state electricity boards and their successor units (state-owned transcos and discoms), regulatory authorities and research/academic institutions.
- Registration will be confirmed on receipt of the payment.
- To register online, please log on to <http://indiainfrastructure.com/conf.html>

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TERMS AND CONDITIONS

Payment Policy

- ❖ Full payment must be received prior to the conference.
- ❖ 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.

Sponsorship opportunities are available

ORGANISER

The event is being organised by *Power Line*, the leading magazine for the Indian power sector. The magazine covers all segments of the sector – generation, transmission and distribution. It tracks key developments, analyses major trends, profiles noteworthy organisations, interviews top managers, features opinions of industry experts, tracks financings, covers technology developments, profiles people of interest, and provides key data and statistics. It is a “must read” for any professional involved with the Indian power sector, be it a power producer or distributor, technology provider or contractor, policymaker or regulator, management consultant or financier.

Power Line is published by *India Infrastructure Publishing*, the leading provider of information on the infrastructure sectors in India. The company also publishes *Indian Infrastructure*, *Renewable Watch*, *Smart Utilities*, *Power News*, *India Power Regulation* and the *Power Line Directory and Yearbook*. It organises over 50 conferences and conducts almost two dozen research studies every year in energy, transportation, urban infrastructure and communications. It produces quarterly reports on generation, transmission, distribution and renewable energy in India and also operates *India Power Monitor*.

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DELEGATE FEE

Delegates	20 per cent discount (before July 4, 2025)				Fee without discount (after July 4, 2025)			
	INR	GST@18%	Total INR	Total USD	INR	GST@18%	Total INR	Total USD
One delegate	12,800	2,304	15,104	182	16,000	2,880	18,880	228
Two delegates	22,400	4,032	26,432	318	28,000	5,040	33,040	399
Three delegates	32,000	5,760	37,760	455	40,000	7,200	47,200	569
Four delegates	41,600	7,488	49,088	623	52,000	9,360	61,360	739

- There is a 20 per cent “early bird” discount for those registering before July 4, 2025.
- There is a special low fee of Rs 5,000 per participant for state electricity boards and their successor units (state-owned transcos and discoms), regulatory authorities and research/academic institutions.
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