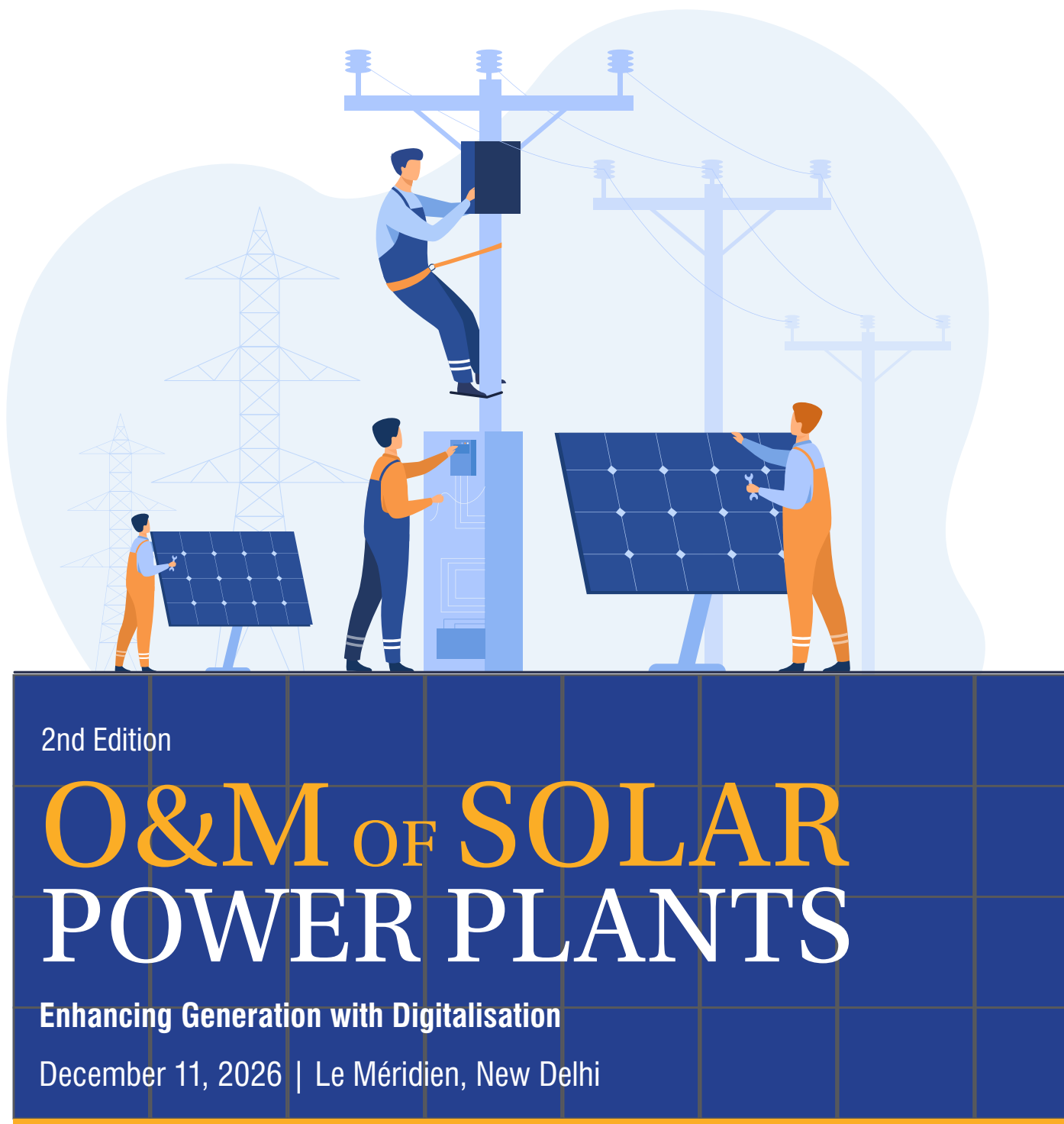




2nd Edition

O&M OF SOLAR POWER PLANTS

Enhancing Generation with Digitalisation

December 11, 2026 | Le Méridien, New Delhi

"20% Early Bird" discount ends on November 17, 2026
Register Now

Organisers:

RenewableWatch

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Analysis and perspective for CXOs

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O&M OF SOLAR POWER PLANTS

MISSION

- India's solar power capacity has grown rapidly over the past few years, with projects becoming larger, more geographically dispersed and technologically complex. As tariffs remain competitive and margins come under pressure, the focus of operations and maintenance (O&M) is increasingly shifting from ensuring asset availability to maximising energy generation and overall project performance. The solar O&M landscape is therefore evolving rapidly, with developers deploying advanced technologies and data-driven approaches to reduce downtime, optimise generation and lower lifecycle costs.
- Artificial intelligence (AI), machine learning (ML) and advanced analytics are increasingly being integrated into solar O&M for automated fault detection, predictive maintenance, performance benchmarking and generation optimisation. AI-based platforms can help analyse large volumes of data from modules, inverters, trackers, weather stations and other equipment, enabling earlier identification of performance losses and faster corrective action. Digital twins, automated diagnostics and integrated asset management platforms are also emerging as important tools for improving decision-making and asset performance.
- Automation continues to reshape routine O&M activities. Robotic cleaning is gaining traction, particularly in large-scale and water-stressed regions, while drones, thermography and other digital inspection tools are enabling faster and more accurate identification of defects. At the same time, greater attention is being paid to inverter and tracker reliability, module degradation, soiling losses and other factors that can significantly impact generation over the life of a project.
- Fragmented data systems, limited interoperability and restricted access to equipment-level data remain key challenges. Greater collaboration between developers, OEMs and O&M service providers, supported by transparent data-sharing frameworks and common performance standards, will be essential for unlocking the full potential of digital O&M.
- The growing adoption of remote monitoring and connected technologies is also increasing the importance of cybersecurity and data protection. Meanwhile, as India's early utility-scale solar projects begin to age, issues related to asset refurbishment, component replacement, life extension and repowering are likely to gain greater attention.
- **The mission of this conference is to highlight the various opportunities and technology solutions for the solar O&M market in India. The conference will bring together solar project developers, O&M service providers, technology companies and industry experts to share their insights on the key trends in the solar O&M space, the emerging technology advancements in this space, the increasing role of AI and the future outlook.**

TARGET AUDIENCE

The conference will draw participation from:

- Solar Project Developers
- Independent Power Producers (IPPs)
- EPC Contractors
- O&M Service Providers
- Equipment Manufacturers & Technology Providers
- Utilities & Discoms
- Asset Management Companies & Investors
- Financial Institutions & Lenders
- Consultants & Advisory Firms, Etc.

Previous Participating Organisations

The conference has attracted participation from leading organisations across the solar power, renewable energy, operations & maintenance (O&M), asset management, EPC, technology, AI & digital solutions, robotics, analytics, consulting, legal, and infrastructure sectors, including: Aarvi Encon, Aboitiz Power, ACME Group, Aegeus Technologies, Aeron Systems, Al Husainiyah Power Generation Co., AMEA Power, AnandeBeam, Apraava Energy, Astral Ltd., Bahwan CyberTek, Blupine Energy, Ecoppia, Energy & Meteo Systems GmbH, Enrich Energy Pvt. Ltd., Forth Partner, Future Solar, Gentari India, Hero Future Energies, HexaClimate, Honeywell, IIT Roorkee, Intello, International Management Institute, Intrawatt, Jakson Green, Juniper Green Energy, Kanoda Energy Systems, Madhav Infra, Manchanda Renewable, Medha Servo Drives Pvt. Ltd., Megger, Ministry of Electronics & Information Technology (NIC), Nexavis, Nexttracker, Neutron Solar, NTPC Renewable Energy Limited, O2 Power, Paschim Renewables, Pratap Digital Communication, PwC, RVS Land Surveyors, Sarthak Law, Serentica Renewables, Sharajman Technologies, Smart Grid Analytics, Smart Helio, Steag Energy, Sterling and Wilson Renewable Energy, Tata Power Renewables, Uges Powermax, Waaree, and many more.

AGENDA

Solar O&M Market Evolution

- How is India's solar O&M market evolving across utility-scale, rooftop and distributed solar segments, and what are the key growth drivers?
- How are O&M business and contracting models changing, including the shift towards in-house O&M, specialised third-party services and performance-linked contracts?
- How are automation, digitalisation and AI changing the O&M cost structure, and what will be the key priorities for improving cost efficiency and long-term asset performance?

Developers' Perspective: Changing Strategy and Emerging Challenges

- What are the key O&M priorities for developers in maximising generation, improving asset reliability and reducing lifecycle costs?
- What have been the key lessons from managing large and geographically dispersed solar portfolios, particularly with regard to data quality, equipment reliability and performance losses?
- How are developers integrating AI, automation and advanced analytics into their O&M strategies, and what challenges remain in scaling these solutions across portfolios?

O&M Players' Perspective: Evolving Solutions, Challenges and Opportunities

- What are the key O&M challenges and what best practices are emerging to improve long-term asset performance? Is the quality of distributed assets being maintained by stakeholders? What are the key challenges in servicing this space?
- How are the roles of specialised third-party O&M providers evolving vis-à-vis in-house teams, particularly as portfolios grow in size and complexity?
- How are O&M players leveraging AI, automation and advanced analytics to move from routine maintenance towards predictive and performance-driven asset management?

OEMs' Perspective: Design Improvements, Data Sharing and Technology Advancements

- How are solar equipment technologies evolving to improve reliability, performance and ease of maintenance over the life of a project?

- What are the most common equipment and component failures observed in the field, and how are OEMs addressing these through better design, diagnostics and service support?
- How can closer collaboration and data-sharing between OEMs, developers and O&M providers help improve predictive maintenance and maximise long-term asset performance?

Managing DSM Tightening Norms and Revenue Losses

- With tightening deviation norms, what are the key challenges for solar generators in improving forecasting and scheduling accuracy and managing DSM exposure and revenue losses?
- How are AI, advanced analytics, weather intelligence and real-time forecasting being used to reduce deviations, and what further innovations are needed to improve forecast accuracy?
- What solutions can help manage intermittency, minimise DSM penalties and optimise power demand-supply balancing?

Focus on Advanced Field Technologies

- Beyond drones and robotic cleaning, which technologies such as thermal imaging, electroluminescence, I-V curve tracing, LiDAR, automated inspection and satellite-based monitoring are gaining traction in solar O&M?
- How are automated cleaning and inspection solutions improving soiling management, fault detection, manpower efficiency and generation, and what has been the experience with their deployment at scale?
- What are the key challenges in scaling these technologies, including accuracy, reliability, integration with O&M platforms and return on investment, and how is AI making these solutions more intelligent and autonomous?

AI-enabled O&M: Hype or Not?

- How is AI being deployed across solar O&M today, from fault detection and predictive maintenance to performance optimisation and automated decision-making?
- What are the key barriers to scaling AI-based O&M, particularly around data quality, interoperability, model accuracy and integration with existing SCADA systems?
- How could emerging technologies such as digital twins, AI agents and autonomous O&M evolve the role of AI from identifying problems to recommending and executing maintenance actions?

DELEGATE FEE

Fee grid	20 per cent discount (before November 17)				Fee without discount (after November 17)			
	INR	GST@18%	Total INR	Total USD	INR	GST@18%	Total INR	Total USD
1. Delegate	12,800	2,304	15,104	200	16,000	2,880	18,880	228
2. Delegates	22,400	4,032	26,432	315	28,000	5,040	33,040	399
3. Delegates	32,000	5,760	37,760	450	40,000	7,200	47,200	569
4. Delegates	41,600	7,488	49,088	590	52,000	9,360	61,360	739

- There is a 20 per cent “early bird” discount for those registering before November 17, 2026.
- 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.
- Conference fees include 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.

Organisers

Founded in 2010, *Renewable Watch* covers the entire spectrum of renewable energy – wind, solar, bioenergy, small-hydro, storage, green hydrogen and other emerging technologies – including both grid-interactive and off-grid power solutions. It aims to provide accurate information tracking investments and projects; showcase innovations and technologies; and offer a platform for debate and discussion on policy, regulation and financing.

Renewable Watch also publishes *Renewable Watch News* (a weekly newsletter) and a series of reports on the energy sector, including *Renewable Energy in India*, *Compressed Biogas Market in India*, and *Floating Solar Projects in India*.

Other conferences organised by *Renewable Watch* include *Solar Power in India*, *Wind Power in India*, *Green Hydrogen in India*, *Pumped Hydro Storage in India*, *Compressed Biogas in India*, *Hydro Power in India* and *Hydro Power in Asia*.

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