



ORGANISED BY
In Association with:  CIGRE
India



GRIDCON 2025

9-11 March 2025

India International Convention Centre,
Yashobhoomi, Dwarka, Delhi, India

Contact us at : gridcon@powergrid.in

EVENT BROCHURE

**INNOVATIONS IN GRID RESILIENCE:
STRATEGIES FOR ENHANCING RELIABILITY,
SUSTAINABILITY, AND ADAPTABILITY OF
POWER TRANSMISSION SYSTEM**

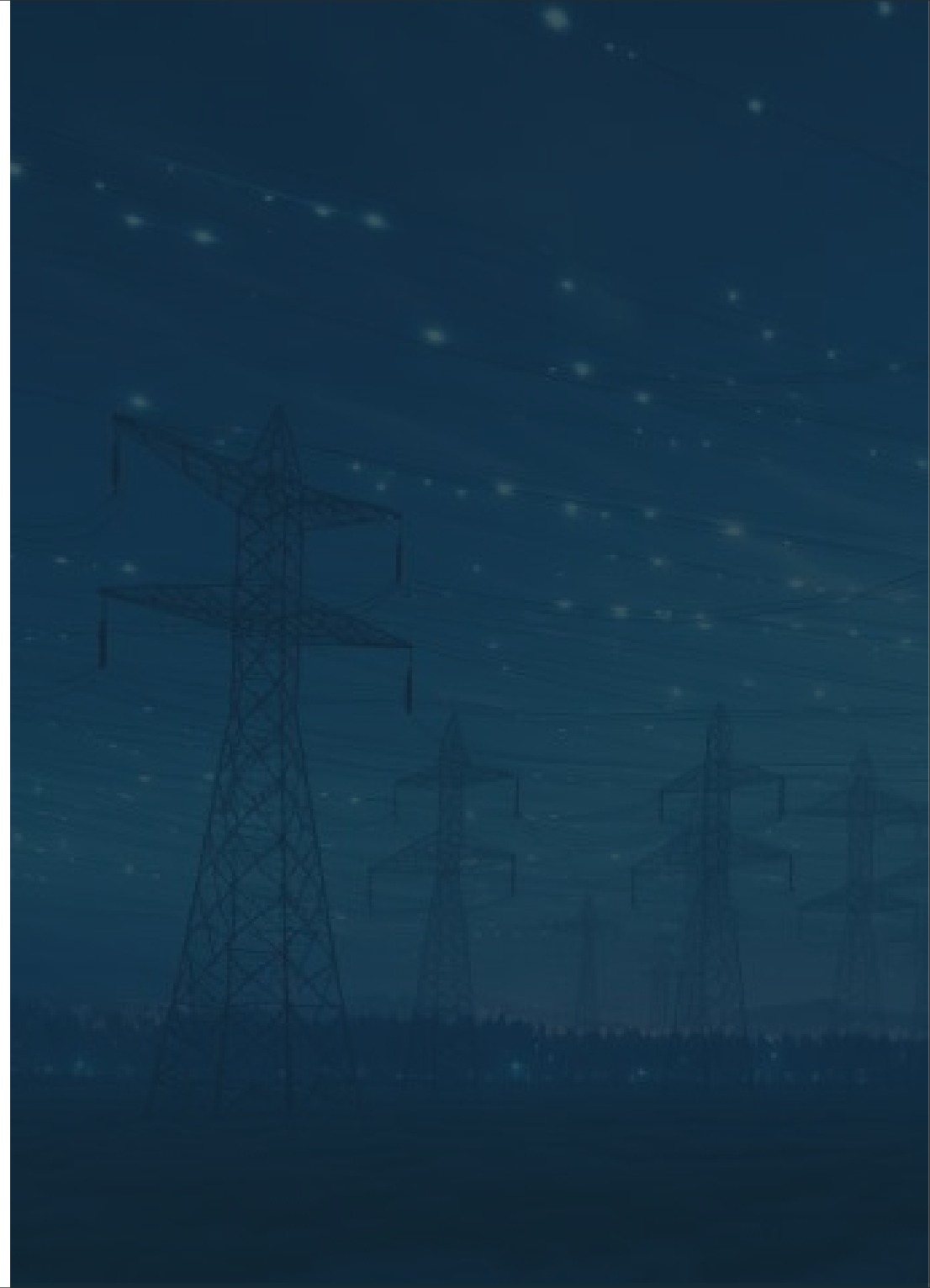
SCAN TO KNOW MORE!



Transmitting Power, Transforming Lives...

Key Attractions Awaiting You at GRIDCON-25

- Plenary Sessions
- Panel Discussion
- Tutorials
- Poster Presentations
- International Exhibition
- Startup & Student Pavilions
- Women in Energy Event
- Next Generation Event
- CEO meets
- Gala Dinner
- Technical Visits



CONFERENCE IN NUMBERS-

2,000+

Conference Delegates

150+

Exhibiting Companies

150+

Papers/ Poster Presentations

30+

Country Representatives

Indian Power Transmission Sector

India's power transmission sector is the backbone of the nation's energy transition and economic growth, enabling reliable and efficient power delivery. With increasing energy demand, the sector is expanding to ensure reliability. As India plays a significant role in global energy initiatives, its transmission network aims to set a global benchmark by integrating advanced technologies, scaling renewable energy evacuation, and ensuring grid stability. Modernization efforts, driven by digitalization, advanced grid management, and AI, position India as a leader in future-ready grid infrastructure. Hon'ble Prime Minister Narendra Modi's vision of "One Sun, One World, One Grid" highlights India's commitment to a globally interconnected renewable energy grid.

India's strategy balances capacity expansion, resilience, and affordability. Initiatives like the Green Energy Corridor, One Nation One Grid, and HVDC systems address these priorities. The sector focuses on localizing supply chains, developing renewable energy corridors, and deploying advanced monitoring technologies to enhance asset performance and reduce outages. Collaborations with global platforms like CIGRE, IEC, IEEE and utilities boost India's expertise in managing large-scale transmission networks.

India's diverse geography and renewable energy targets create opportunities and challenges for the power transmission sector. By 2030, India aims to evacuate 500 GW of non-fossil fuel capacity and achieve carbon neutrality by 2070. Leveraging technological prowess, innovative financing, and a skilled workforce, India is building a resilient transmission network, supporting its energy transition, and positioning itself as a global leader in sustainable grid management.

INDIAN POWER TRANSMISSION SECTOR

1st

World's largest synchronous transmission grid

3rd

Largest Global Transmission Infrastructure

- **>450,000 circuit kilometers (ckm)** of transmission lines at voltage levels of 220 kV and above.
 - **> 1,200 GVA (Gigavolt-Amperes)**, making it one of the highest globally.
-

Upto

765 kV AC
and **±800 kV HVDC** systems

About

119GW

Interregional Capacity,

enabling seamless power flow across all regions.

Planned RE Integration

>500GW by 2030

Green Energy Corridor

Over 9,700 ckm of transmission lines and 22,600 MVA of substations under the Green Energy Corridor have been established to evacuate renewable energy.

Investments

The power transmission sector shall attract cumulative investments about ₹9.6 lakh crore (approx. \$115 billion) by 2032

POWERGRID

Pioneering India's Power Transmission

POWERGRID, a leader in India's power transmission sector, owns and operates over 1,79,000 circuit kilometres of Extra High Voltage (EHV) Transmission Lines and boasts a transformation capacity exceeding 5,46,000 MVA. Carrying nearly 50% of the nation's power, POWERGRID's network is managed through 280 state-of-the-art EHV substations, ensuring an impressive operational availability of over 99.8%.

Major Innovations at POWERGRID

- Trial Operation of UHVAC (1200kV) Transmission System
- +/- 800kV HVDC network
- India's first VSC based HVDC system
- World's first 420 kV Natural Ester Based Shunt Reactor
- 20 Nos. STATCOM / SVC at 400 kV level
- Establishment of Centralised Remote Operation Centre (NTAMC)
- India's largest Digital Substation at 400kV level
- World's largest power transmission utility with ISO 55001 certification

KEY THEMES FOR PLENARY SESSIONS

Disaster-Resilient Design:

Transmission Infrastructure for extreme conditions.

Advances in HVDC Systems:

Exploring hybrid HVDC/MVDC/LVDC configurations.

Offshore Transmission Networks:

Design and operational insights.

UHVAC Systems:

Lessons from operational excellence.

Virtual Protection and Automation:

Innovations in grid control.

Battery Energy Storage Systems:

Enhancing grid stability.

Cybersecurity:

Safeguarding digitalized transmission networks.

Digital Transformation:

Modernizing utility operations.

Digital Twins for Transformers:

Enhancing reliability and lifecycle management.

CONNECT WITH INDUSTRY PIONEERS

GOVERNMENT & POLICY MAKERS:

Minister/ Secretaries/ Regulators/ Statutory Bodies

INTERNATIONAL SPEAKERS:

Eminent global experts from the international utilities/
agencies/ academic bodies.

BUSINESS LEADERS:

Chairpersons / Directors/ Regional Heads of CPSEs/
State Transmission Utilities/ Global utilities/ forums

TECHNICAL EXPERTS:

Asset Managers/ Design Teams/ Engineers/ Project
Managers/ Procurement Teams/ Operations Team.

PROGRAM SCHEDULE

9th March (AN Session)

Opening Ceremony, Keynotes, Exhibition

10th March

Plenary Sessions, Poster Sessions, CEO Meets/ VIP Meets, Tutorials, Exhibition, Gala Dinner

11th March

Plenary Sessions, Poster Sessions, Women in Energy, Next Generation Network, Exhibition

12th March

(Optional – Limited Seats)

Technical Visit to HVDC Station at Agra,
Technical Visit to NTAMC, Manesar

Why Attend GRIDCON 2025?

EXCLUSIVE NETWORKING:

Join a distinguished gathering of global leaders, innovators, and decision-makers from the power transmission sector. GRIDCON 2025 offers unparalleled opportunities to connect with top experts and industry influencers, fostering valuable relationships and collaborations.

CUTTING-EDGE INSIGHTS:

Stay at the forefront of industry advancements with exclusive access to the latest trends in grid resilience, digital transformation, and sustainability. Benefit from POWERGRID's pioneering experience and insights, ensuring you gain a comprehensive understanding of emerging technologies and practices.

COLLABORATIVE OPPORTUNITIES:

Engage in dynamic discussions and workshops facilitated by POWERGRID's experts and international thought leaders. This is your chance to contribute to shaping the future of power transmission, explore innovative solutions, and forge strategic partnerships that drive industry progress.

Don't miss this opportunity to be part of GRIDCON 2025 and shape the future of power transmission with POWERGRID.

WHY EXHIBIT

SHOWCASE CUTTING-EDGE INNOVATIONS:

Present your latest products, services, and technological advancements to an international audience of over 2,000 industry professionals, positioning your company at the forefront of innovation.

BROADEN YOUR NETWORK:

Engage with 500+ key decision-makers, including policymakers and influential stakeholders, creating valuable opportunities for collaboration and expanding your reach within the global market.

BOOST BRAND VISIBILITY:

Increase your brand's visibility by connecting with potential clients and partners, positioning your organization as a leader in the energy sector.

CULTIVATE STRATEGIC PARTNERSHIPS:

Build lasting relationships with global utilities, investors, and technology providers, unlocking new business opportunities and enhancing your industry influence.

CLIMATE CONDITION



New Delhi - In March, New Delhi experiences a transition from mild winter to early summer, with daytime temperatures ranging from 15°C to 30°C (59°F to 86°F). The mornings and evenings are pleasant, while afternoons can start to feel warm, especially towards the latter half of the month. Fog is rare, and the weather remains mostly clear, making it an ideal time for outdoor activities. Overall, the climate is comfortable, providing a welcoming environment for both locals and visitors.

OTHER ACTIVITIES AROUND NEW DELHI



For participants looking to explore beyond the conference, New Delhi offers a gateway to numerous enriching experiences. Just a few hours away, you can visit the iconic Taj Mahal in Agra or immerse yourself in the vibrant culture of Jaipur, the Pink City. For those seeking spiritual rejuvenation, the serene towns of Rishikesh and Haridwar along the Ganges offer yoga, meditation, and tranquility. Additionally, you can explore the majestic Neemrana Fort or embark on a thrilling wildlife safari at Sariska or Ranthambore.

