पावरग्रिड
POWERGRID

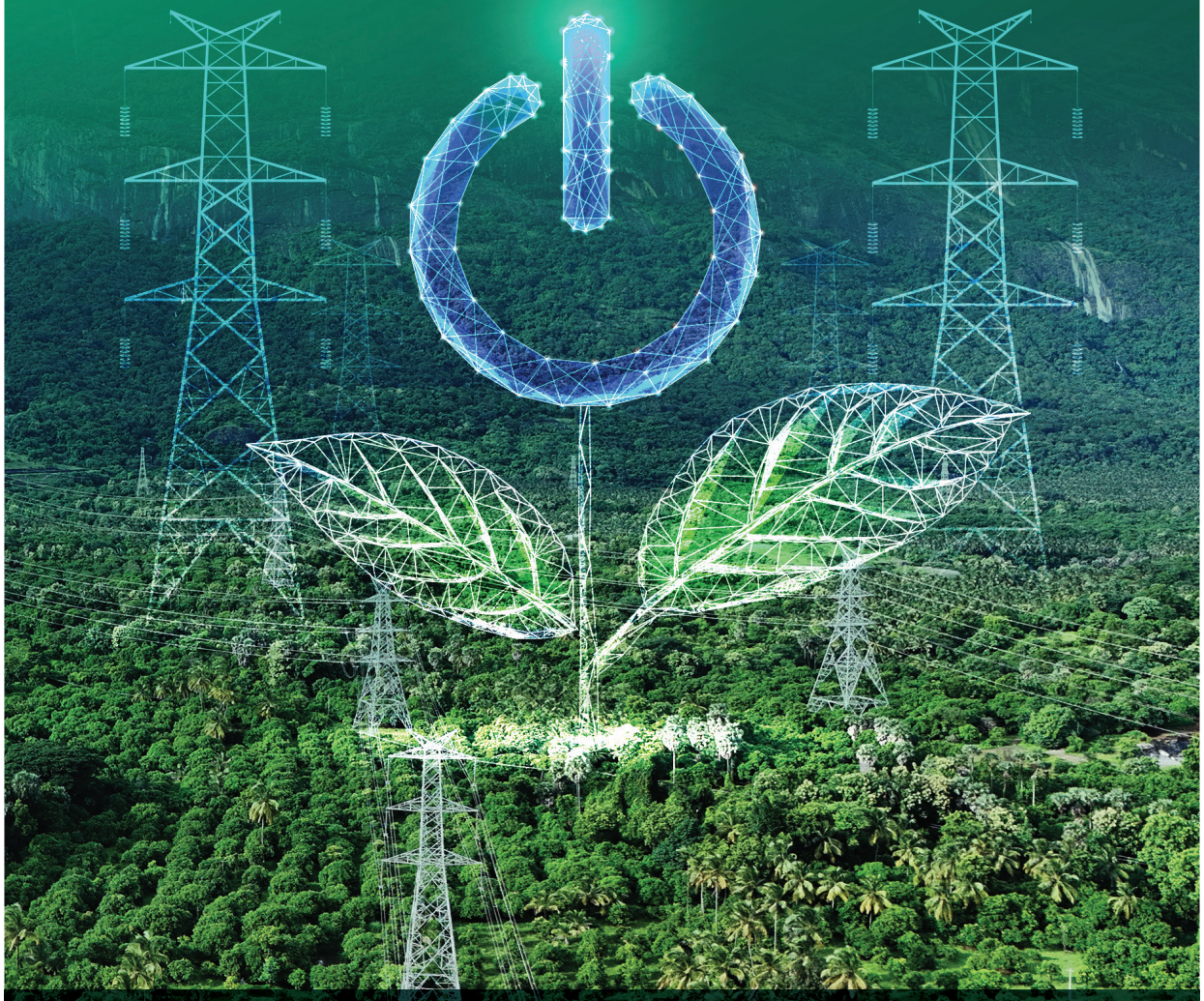
GRIDCON 2025
INTERNATIONAL CONFERENCE-CUM-EXHIBITION
In Association with: cigre India

Under Patronage of
विद्युत मंत्रालय
MINISTRY OF POWER
सत्यमेव जयते

POWERGRID

Global Transmission Utility cum Consultant

emPOWERing green GRID



Transmitting Power, Transforming Lives...

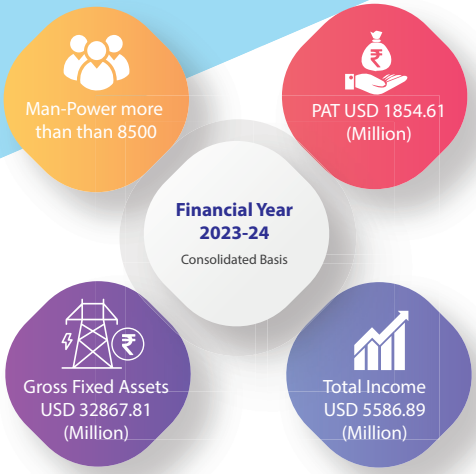
www.powergrid.in

Vision

"World Class, Integrated, Global Transmission Company with Dominant Leadership in Emerging Power Markets Ensuring Reliability, Safety & Economy"

An Overview

- A 'Maharatna' Public Sector Enterprise
- Incorporated in 1989 for inter-state transmission of bulk power in India
- A listed Company with majority shares owned by Government of India and rest by public and Institutional Investors
- One of the Largest Electric Power Transmission Utilities in the World
- Credit Rating:
  International: At par with Sovereign rating i.e. 'BBB-' (Outlook : Stable) by Fitch and S&P, Baa3 by Moody's
  Domestic: Stable/Highest safety rating 'AAA' by CARE, CRISIL & ICRA



KEY STATISTICS

(As on 28/02/2025)
include TBCB elements; exclude PG InvIT

TRANSMISSION	CONSULTANCY	CONSULTANCY
1,79,594 ckm Transmission Lines	**150+** Domestic Clients	**≍100,000 km** of Telecom Network Owns & Operates
281 Sub-Stations	**23+ Countries** Global Footprints	**3000+Points** Points of Presence
99.82 % System Availability	**25+** Global clients	**500 Cities** Infra City Network Across India
5,48,461 MVA Transformation Capacity		**> 99.9%** Backbone Telecom Network Availability

Global Presence

Footprints in 23 + countries



- **Extensive experience in Design, Procurement, Construction, Supervision, Managing and Operating Power Transmission Projects**
- **Providing Comprehensive services and solutions from Concept to Commissioning and Operations Capability to deliver from Off-site as well as On-Site Locations**
- **Experience of catering to all types of Project Finance categories viz. Multilateral & Bi-lateral, Buyer Credit etc.**
- **Performance lauded by all stakeholders**
- **Strong foothold in SAARC Nations, Africa & CIS**
- **550 plus Consultancy assignment for Clients in India and Abroad**

Leadership Driven by Technology

Deployment of 1200 kV UHVAC, Flexible AC Transmission System (FACTS), Gas Insulated Switchgear (GIS) Sub-station and ERS Technologies .

Development of Leading edge Condition Monitoring and Maintenance Techniques

Development of Multi-Circuit, Compact and High Surge Impedance Loading transmission lines .

Working on application of Superconductor technologies in T&D systems .

Introduced Process Bus Technology with optical Current Transformers-A next level of Sub-station Automation System for improved diagnostics and reduction in copperwires between high voltage equipment and relays/IEDS.



Sectoral Presence



Renewable Integration



Implemented 13 (thirteen) Renewable Energy Management Centres (REMC) at locations in various RE(Renewable Energy) resource rich states such as Rajasthan, Madhya Pradesh, Gujarat, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Telangana etc, for forecasting and scheduling of renewable resources and efficient management of intermittent & variable renewable generation. This will facilitate India's transition to clean energy sources through accelerated RE penetration.

Telecom

Our Telecom arm POWERTEL provides Telecom Solutions Network Details:

- Total Existing Telecom Network: 1,00,000 km including connectivity to Bangladesh, Bhutan & Nepal
- Point of Presence:>3000
- Backbone Telecom Network Availability >99%
- Intra City Network in 500 Cities



Marquee Project

Transmission line length enough to circle the earth more than 4 times

No Terrain Too Tough, No Season Too Rough

01 Srinagar-Leh Transmission System - World's highest altitude S/S and second coldest inhabited place in the world

02 World's longest multi-terminal HVDC 6000 MW - Agra Biswanath Chariali HVDC system

03 1765 km long HVDC Raigarh-Pugalur-Thrissur (RPT) – 1st VSC based HVDC in the region

04 World's Highest Voltage System 1200 kV Transmission Line, Bina

05 Transforming the World's oldest city - Varanasi

Capacity Building

POWERGRID Academy of Leadership (PAL) is a state-of-the-art institute for learning and development established by POWERGRID at Manesar near Delhi which offers best in class learning experience in technical and management domains. POWERGRID Academy of Leadership has been providing its wide range of learning solutions ranging from specialized technical training in various facets of Transmission & Distribution technology, Smart Grid, Renewable Energy, Telecommunication, Finance, Environmental & Social Management, Leadership & Behavioural Skills, Procurement & Legal Aspects etc. not only to the employees but also to the external stakeholders and clientele both, domestic and international.

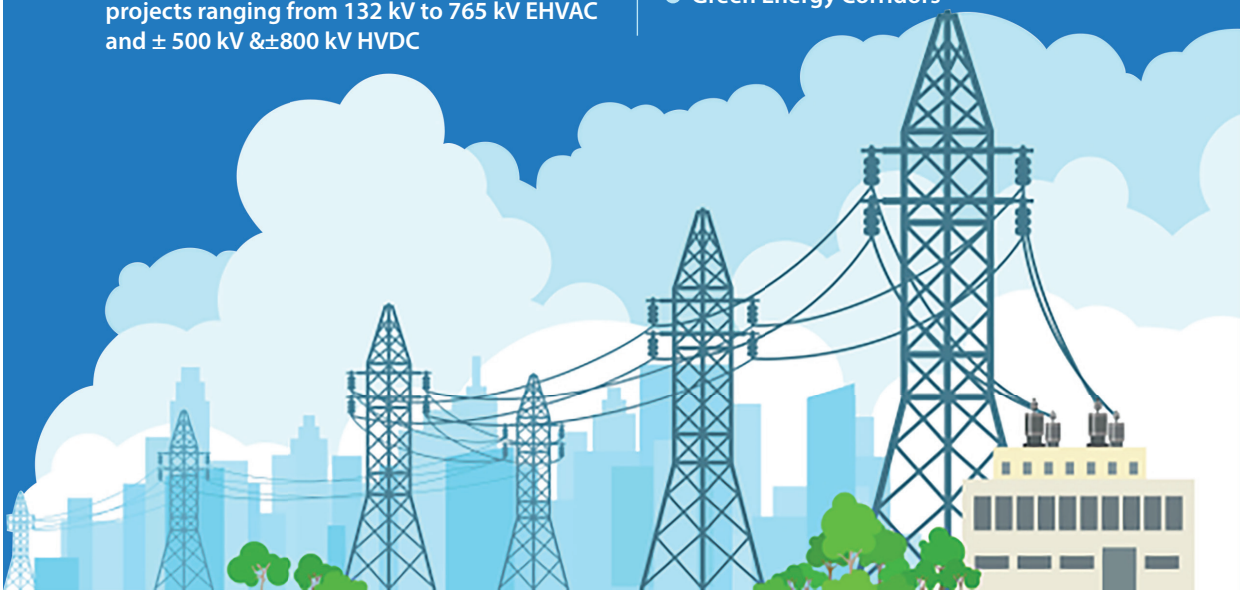
- **Conducts both physical and virtual training programs**
- **Its own e-learning management system which hosts technical & functional courses accessible 24/7 from anywhere**
- **Provides capacity building consultancy services for organizational need assessment, competency & skill gap analysis, training need assessment, training design and training delivery**
- **5 Regional Employee Development Centers across India apart from PAL, Manesar where world-class lab facilities are available for hands-on & demonstration**
- **Training Model has been lauded by various organizations like the World Bank, DFID and OECF as progressive and recommended to be followed by all developing nations**



Transmission

One of the World's largest Power Transmission Utilities & technology leader with unparalleled experience in Design, Execution, Contracting of Transmission projects. Our Engineers have made the impossible possible by providing transmission solutions in vastly diverse geographical regions from the World's Highest mountains to the coastal areas, from deserts to deep river beds; Right of Way constrained ecologically sensitive forests to dense urban agglomerations. Our dedicated team meets challenges 24x7 to ensure reliable quality service to all stakeholders.

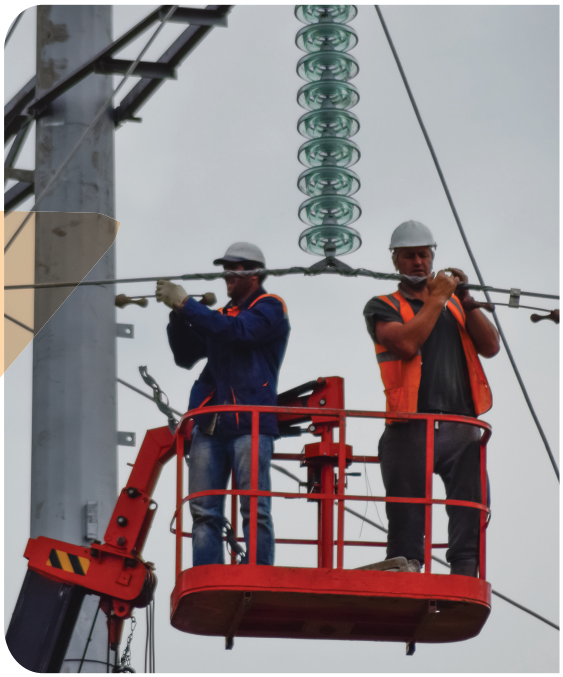
- **Transmission System for CGS, IPPS, UMPPs and Renewable Energy Integration**
- **Execution & Operation of Power Transmission projects ranging from 132 kV to 765 kV EHVAC and ± 500 kV &±800 kV HVDC**
- **1200 kV UHV System, Developed & Synchronized with Grid which is first in the world**
- **Green Energy Corridors**



Operation & Maintenance

POWERGRID operates & maintains the gigantic Transmission network. Our Engineers are well versed with latest operation and maintenance techniques such as:

- **Hot Line maintenance**
- **Live Line detection of Insulator failure**
- **Emergency Restoration System for quick restoration of lines**
- **Thermovision scanning for Sub-station equipment**
- **Live Line washing of insulator using helicopters**
- **Focus on preventive maintenance and online monitoring**
- **Aerial line inspection through deployment of helicopter**
- **Unmanned Aerial Vehicles (UAVs) deployment for Tower top patrolling**
- **State-of-the-Art Transformer Oil testing laboratory**
- **Online monitoring and Controlled switching of Transformers and Reactor**
- **Third harmonic resistance current measurement for Surge Arresters**



Awards and Accolades

Earning Laurels Worldwide

SHRM India Excellence in Learning & Development

Global Gold Award at Green Org Green World Awards

ATD Global Best

Platts Global Energy Award

International CSR Excellence

Brandon Hall HCM Excellence



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

Regd. Office: B-9 Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016 • **Corp. Office:** Saudamini, Plot No. 2, Sector-29, Gurugram - 122 001 (Haryana), India

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