



# POWERING TELECOM



# POWERGRID's Overview

- **A Maharatna Company**
- **Incorporated in 1989 for transmitting bulk power across the country**
- **One of the largest Power Transmission utilities of the world & operates upto 1200kV AC & 800kV HVDC**
- **A listed company in India with majority shares owned by Government of India and rest by the public/institutions**
- **AAA Credit ratings in domestic domain**
- **Fastest Growing Electric Utility in Asia**





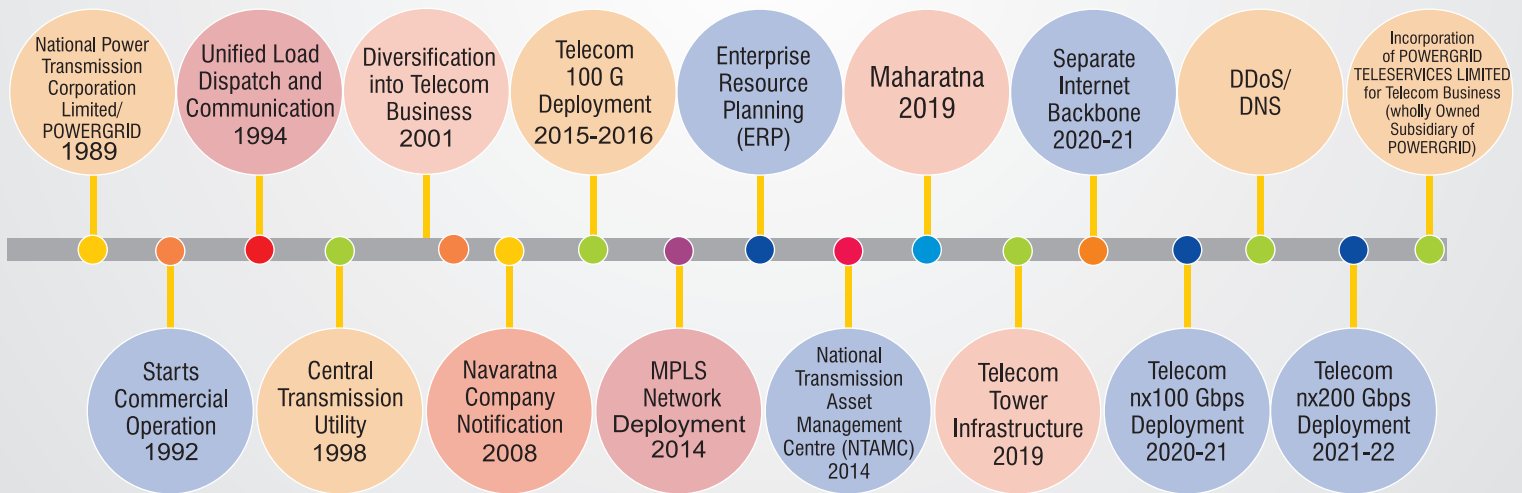


# Building Infoways Bridging Distances!

Reach Across all Telecom Circles of India including  
remote areas of J&K, Ladakh and NER

# POWERGRID

## Telecom Journey so far



PLCC/VSAT

ADSS/OPGW/Microwave

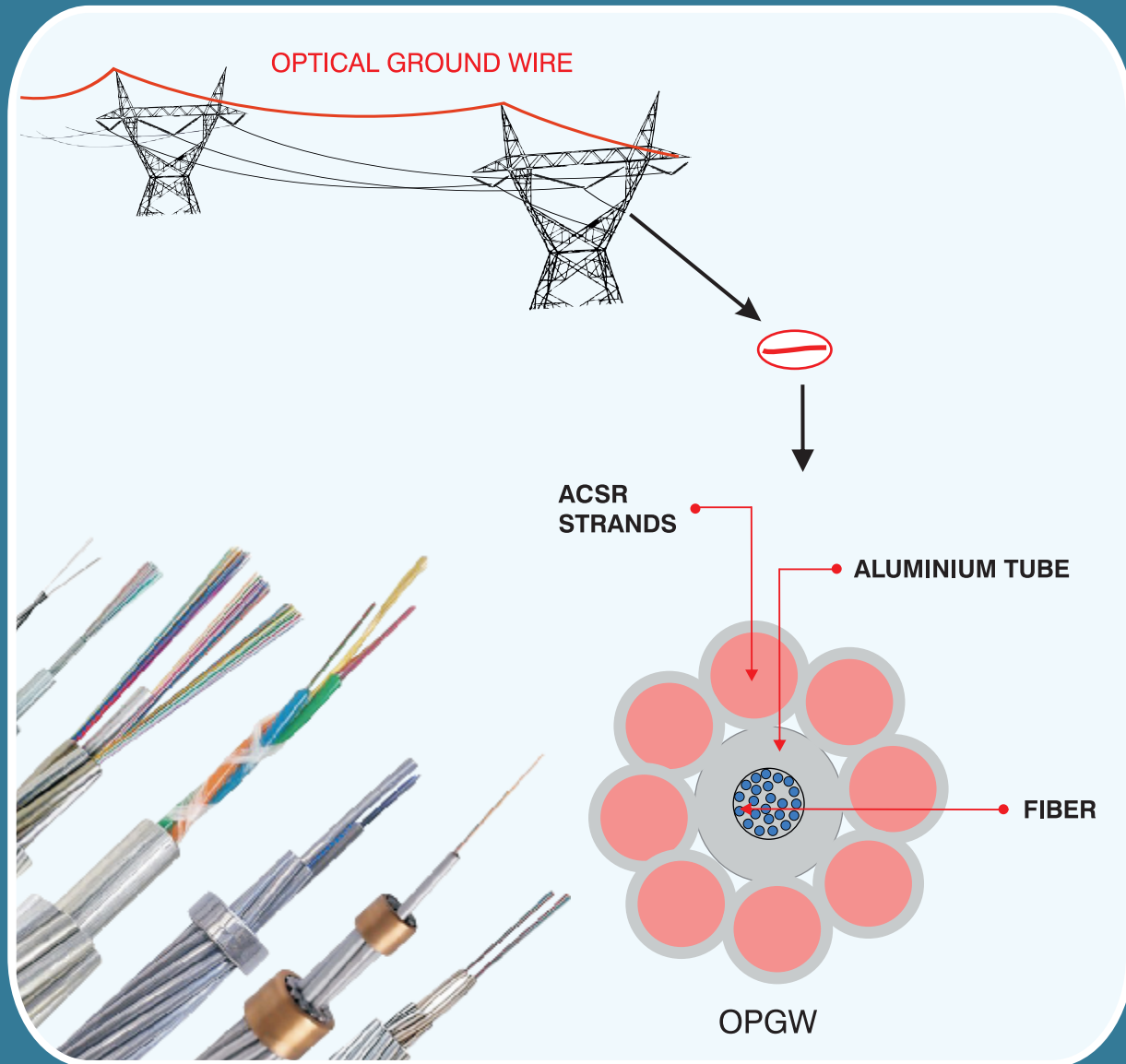
SDH/DWDM

MPLS

SDWAN /DDoS/DNS



# True Path Redundancy using OPGW



## Network Details

- Total existing Network: 75,636 km
- No. of PoPs: 458
- No. of POIs: 780
- Cities with Intra-City Network: 256

## Telecom Unified License with

- National Long Distance Operator (NLD)
- Internet Service Provider 'A' (ISP)
- Infrastructure Provider – I (IP-I) Registration

# POWERGRID

## Telecom Network

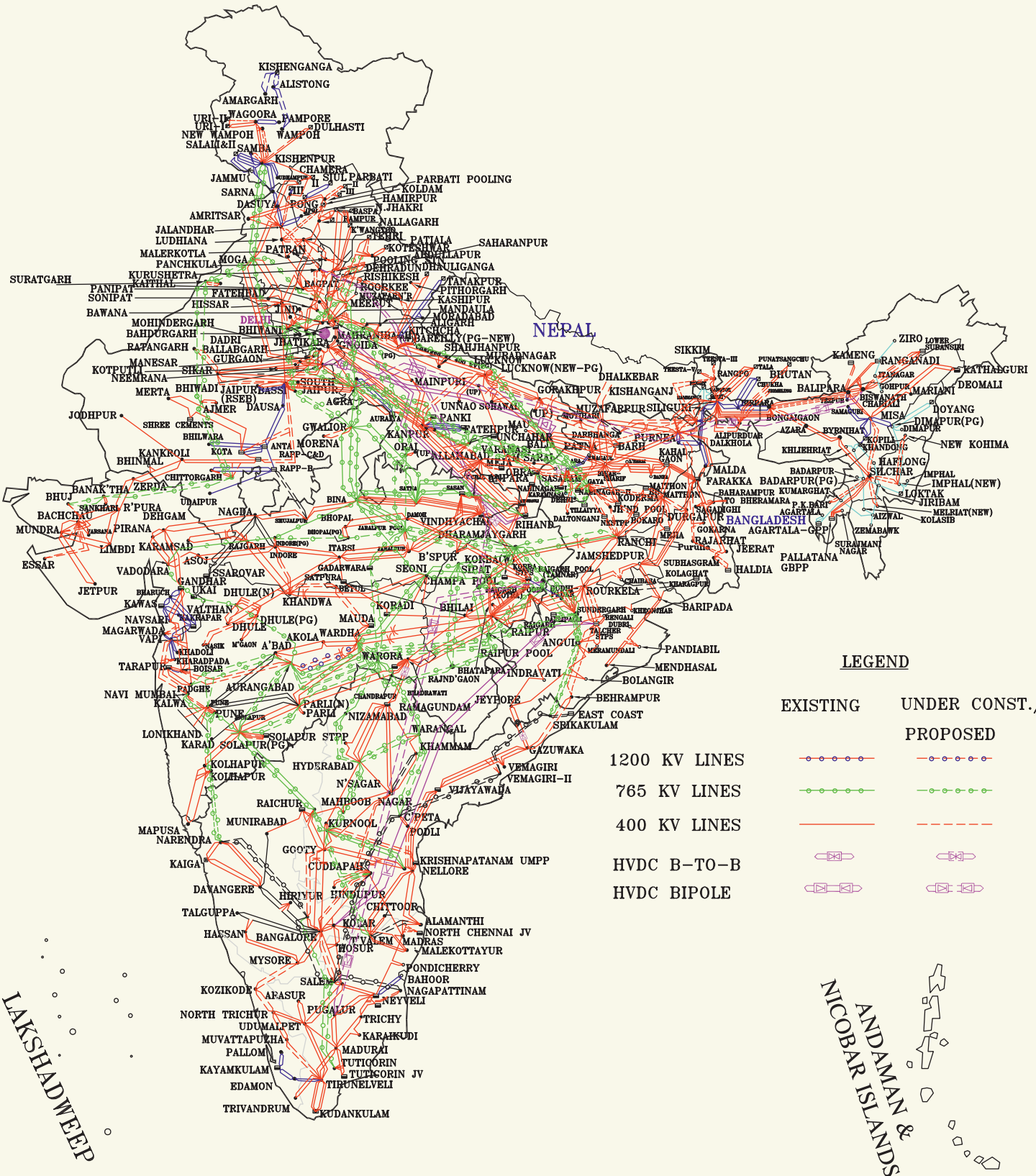


- Only Telecom Service provider in the country having Pan India overhead optic fiber network on its Extra High Voltage transmission lines
- Only Provider with OPGW connectivity to Bangladesh, Bhutan, Nepal & Myanmar
- One of the few to have an excellent reach in J&K, Ladakh and NE states
- Free from cuts, rodent menace and vandalism
- One of the implementing agencies for major Telecom Projects of Govt. of India viz. National Knowledge Network (NKN) envisaging gigantic 3 layer high speed (10 GBPS) Telecom Network connecting major Knowledge centers such as IITs, IISc, NITs, DHQ etc.
- One of the implementing agencies for Bharat Net
- National Transmission Asset Management Centre (NTAMC): POWERGRID has started state of the art computerized control centres NTAMC & RTAMC with associated telecommunication system and adapted substations for enabling remote centralized operation, monitoring and control of POWERGRID Transmission system. The substations and various control centres are being connected by redundant broadband communication network through POWERGRID (Telecom) communication links.
- POWERGRID's Telecom also provides for the connectivity for its own Enterprise Resource Planning (ERP) & e-office.
- Only Telecom Tower Infrastructure Provider allowing to install BTS on Transmission Tower along with completely Green Renewable Power & Fiber connectivity.





# Power Map of India



## LEGEND

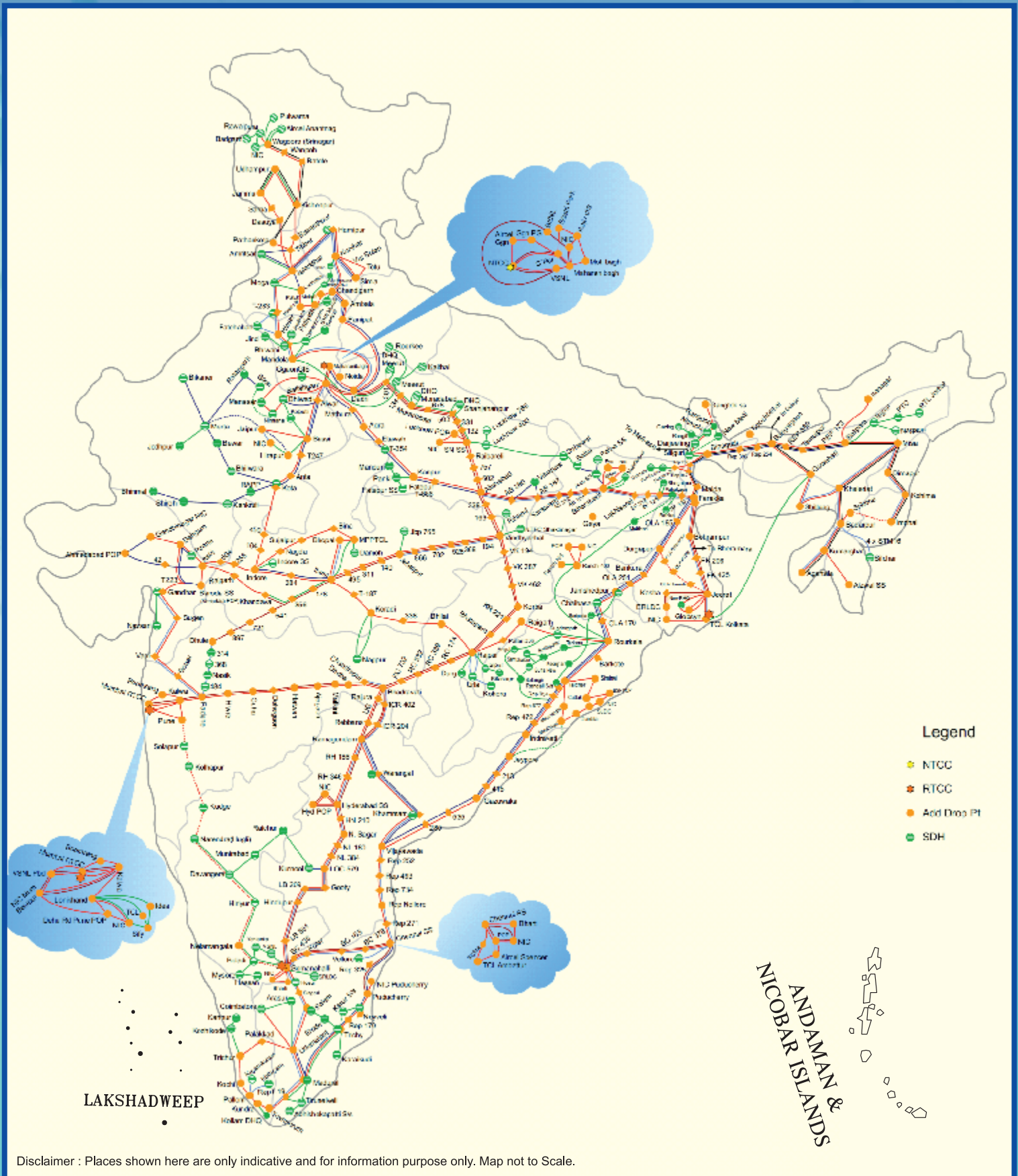
EXISTING	UNDER CONST./ PROPOSED

- 1200 KV LINES
- 765 KV LINES
- 400 KV LINES
- HVDC B-TO-B
- HVDC BIPOLE

Disclaimer : Places shown here are only indicative and for information purpose only. Map not to Scale.



# POWERGRID Telecom Backbone

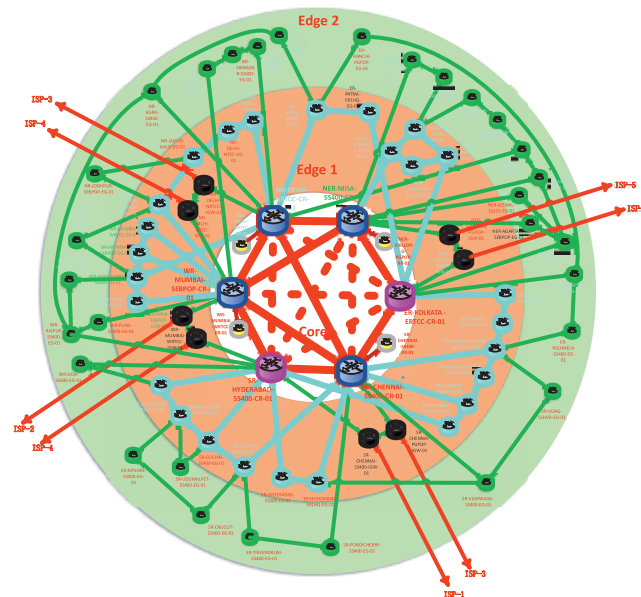


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# Highly Satisfied Customers



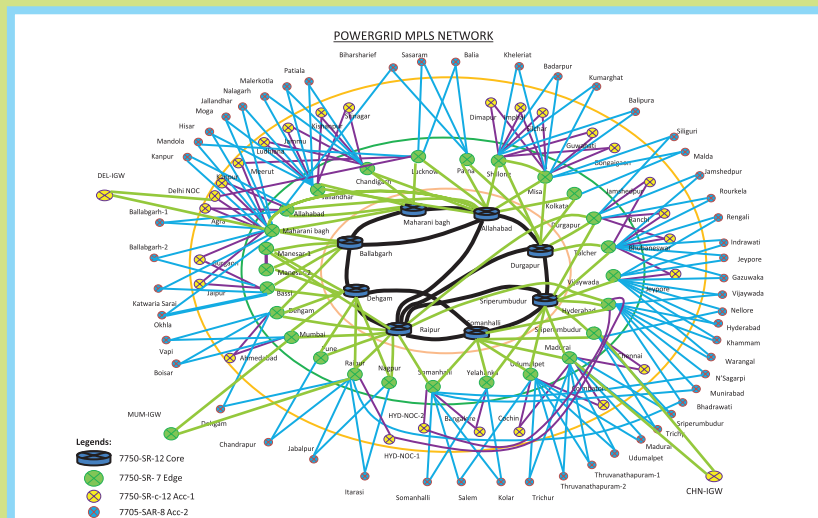
## POWERGRID IP Core Network Topology



**Legends**

- Core Router NE40E-X8A
- Core Router NE40E-X16A
- Edge T2 NE40E-X8A
- Edge T1 NE40E-X8A
- IGW NE40E-X8A
- Route Reflector NE20E-S4
- 100G
- Proposed 100G
- 4\*10G
- 2\*10G
- 10G

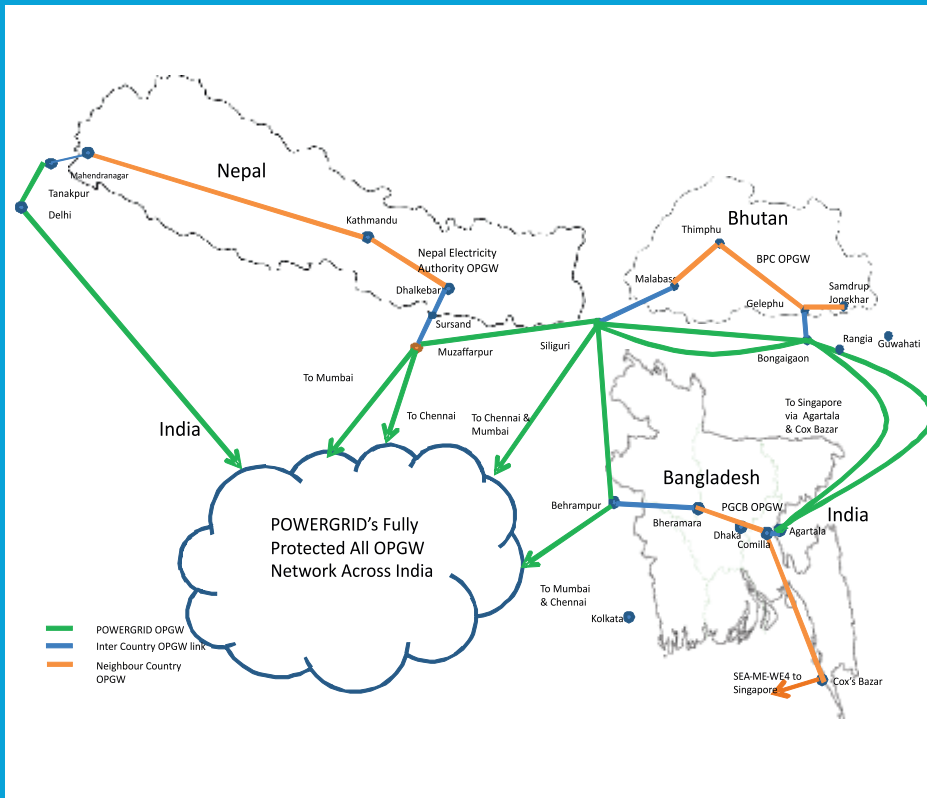
## POWERGRID MPLS Network



- Three tier architecture with Core, Edge and Access layers
- Dual home connectivity to avoid Single point of failure in Backbone
- Physically Segregated network for Internet & VPN resulting in Best-in-Class security



# International Connectivity



- POWERGRID is offering domestic leg for International connectivity to neighbouring countries for ILD operators
- Redundant connectivity established to Nepal, Bhutan and Bangladesh over OPGW.
- Exploring Telecom consultancy opportunities in International Market





# Network Management System

Main NOC at New Delhi.

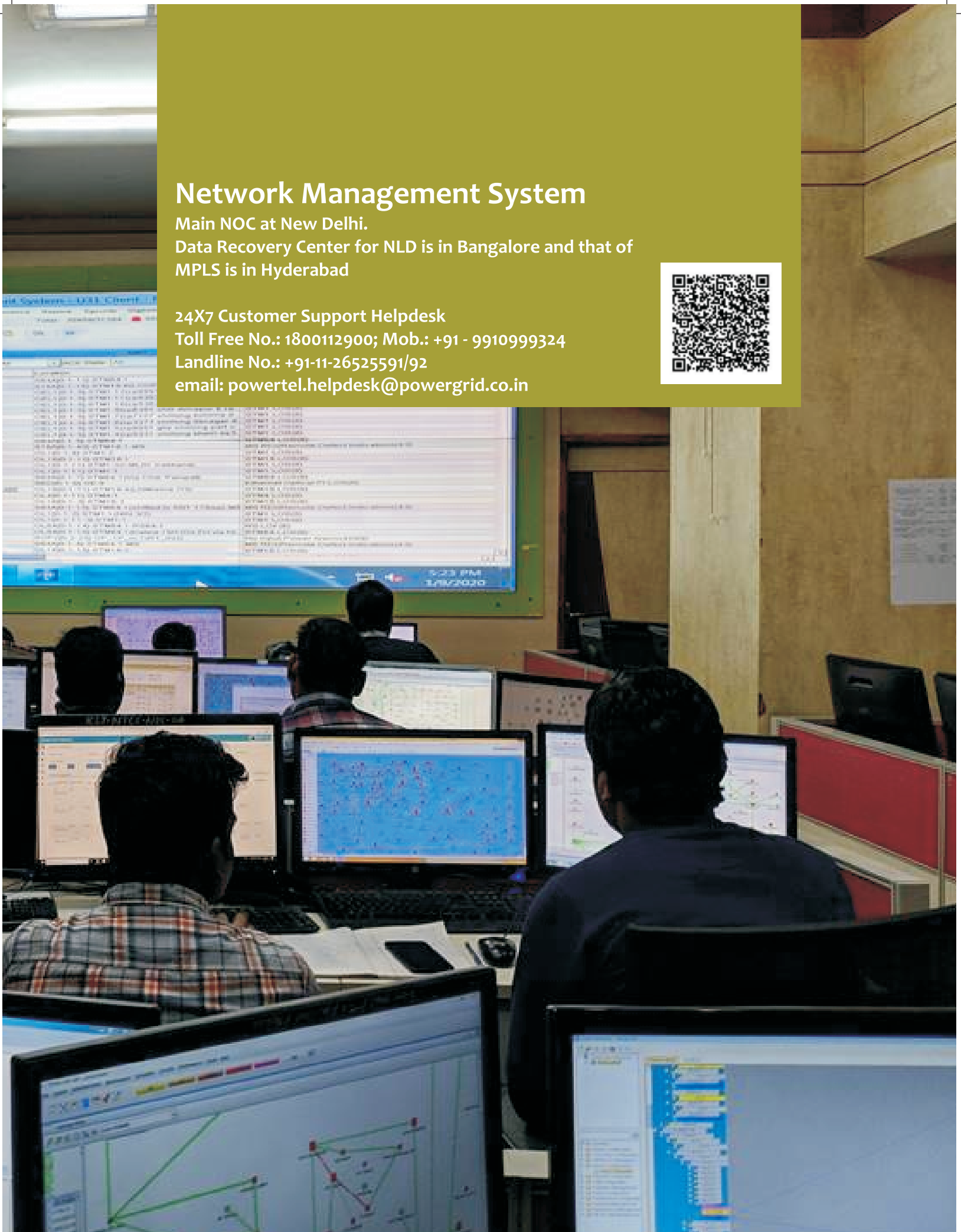
Data Recovery Center for NLD is in Bangalore and that of MPLS is in Hyderabad

24X7 Customer Support Helpdesk

Toll Free No.: 1800112900; Mob.: +91 - 9910999324

Landline No.: +91-11-26525591/92

email: [powertel.helpdesk@powergrid.co.in](mailto:powertel.helpdesk@powergrid.co.in)



# Contact Details

## Corporate Center (New Delhi)

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www.powergrid.in  
email: telecom-marketing@dl.powergrid.co.in

Doman Yadav  
Chief General Manager(Marketing)  
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## Northern Region

(Haryana, Rajasthan, U.P (West), Uttarakhand,  
Punjab, Himachal Pradesh, Jammu & Kashmir,  
Ladakh, Chandigarh)

Northern Region Head Office (New Delhi)  
Power Grid Corporation of India Ltd.,  
Maharani Bagh 400/220 kV GIS Substation  
Behlulpur,  
Khadar, Opp. ISBT, Sarai Kale Khan, New  
Delhi-110013

M.K Pandey  
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## Eastern Region & North Eastern Region

(U.P (East), Bihar, Odisha, Jharkhand,  
West Bengal, Assam, Sikkim and North East)

Eastern & North Eastern Region Head  
Office (Kolkata)  
Power Grid Corporation of India Ltd., 1st  
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CF-17, Action Area-1C, New Town-Rajarhat,  
Kolkata-700156

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## Western Region

(Madhya Pradesh, Chhattisgarh, Gujarat,  
Daman & Diu, Dadra & Nagar Haveli,  
Maharashtra and Goa)

Western Region Head Office (Mumbai)  
Power Grid Corporation of India Ltd.,  
Samruddhi Venture Park Building,  
1st Floor, M.I.D.C. Industrial Area; Near  
SEEPZ Bus Stand, Marol, Andheri (East),  
Mumbai-400093

S.M. Parate  
Sr. General Manager (WR)  
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Email: smparate@powergrid.in

## Southern Region

(Andhra Pradesh, Telangana, Tamil Nadu,  
Kerala, Karnataka, Puducherry)

Southern Region Head Office (Bangalore)  
Power Grid Corporation of India Ltd., Near  
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e-mail: ngsarkar@powergrid.in



# Platform for Power & BTS



Antennae

Platforms for Power Equipments and BTS



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[enquiry.telecom@powergrid.co.in](mailto:enquiry.telecom@powergrid.co.in)



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(A Government of India Enterprise)

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