

# Spanning Power Globally Since 1953





# Our Vision

Setting the standard of excellence in modern power systems globally.

# Our Mission

To be a global provider of outstanding, end-to-end integrated solutions in transmission lines, sub-stations, industrial power distribution projects and railway infrastructure projects through best in class technology, supported by experienced professionals, thereby enhancing scalability, providing clean energy, expanding business and empowering lives.

# **Our Values**

- Integrity
- Teamwork
- Outstanding value to customers
- Commitment to all stakeholders
- Willingness to learn
- Good Corporate Citizenship

## Synonymous With Power

 EMC Limited (Formerly known as Electrical Manufacturing Company Limited), established in 1953, is the leading modern power system company in India

www.emcpower.com

Now expanding its foot print globally

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- In North America through acquisition of US based company Advanced Steel and Crane Inc. having manufacturing of transmission, sub-station & other structures at Tulsa, Oklahoma
- In Europe through acquisition of Italy based company Tecnolines S.R.L specialised in executing EHV Transmission Line projects on turnkey basis
- Offers complete turnkey solutions in the field of power transmission systems (transmission lines, EHV sub-stations & associated sub-systems) & railway infrastructure
- Covers the entire voltage range in industrial sector from 11 kV to 765 kV, HT & LT distribution systems including rural electrification (up to consumer metering)
- Manufacturing facilities located at Kolkata & Naini in India and Tulsa, Oklahoma in USA have best in class plant and technology that includes CNC machines and a galvanizing plant



# One-stop Shop For Turnkey Solutions

EMC offers total turnkey solutions complete with design, engineering, erection, testing & commissioning including auxiliary subsystems such as lighting & illumination, fire protection systems for:

## Transmission

- Transmission line projects of up to and including 765 kV
- EHV sub-stations (both GIS & AIS) of up to and including 765 kV

## Distribution

- Rural Electrification
- Distribution projects up to and including 66 kV substations

## **Balance of Plant (BOP)**

- Industrial power distribution systems
- Both EHV sub-station and plant electrification for integrated steel & power plants
- Illumination packages for plant and production units

## Railways

- Electrification
- Signalling & Telecommunication
- SCADA
- Civil & Track works

## **Our Sectors**

- Power Transmission Services
- Railways
- Industrial Sectors
- Defence
- Automobiles

# **Product Lines**

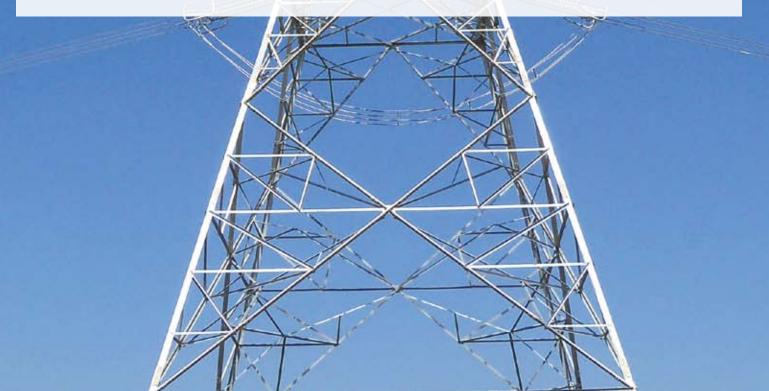
- Transmission Line Towers
- Conductors
- Line Accessories and Hardware Fittings
- Substation Structures
- Aluminium Alloy Extrusion, Aluminium Alloy Forging and Steel Forging

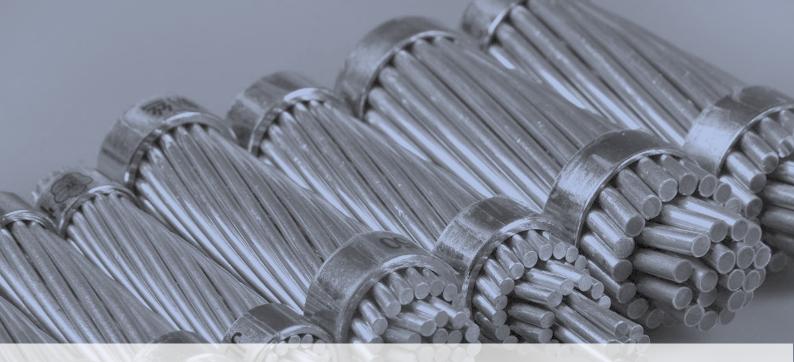
## **Transmission Line Towers**

In India, the Company's tower manufacturing facilities (upto 765 kV) are located in – Beliaghata Kolkata, West Bengal and Naini Allahabad – Uttar Pradesh. In addition to this, the Company also has close associations with various Value Added Partners facilities who provide exclusive capacity to the Company.

# **Tower Testing Station**

Tower testing station is located at Naini, Allahabad and capable to handle tower testing up to 500 kV including destruction tests.





# SERVING POWER

The overhead bare conductors manufactured by EMC meets the specification requirements of various international standards like ASTM, IEC, BS, AS, SS, DIN and many others.

The wires are drawn and stranded within very close tolerances of diameter, lay and wire tension by wellexperienced personnel using modern state-of-the-art plant and machineries. As on date, EMC has the capability to manufacture conductor ranging from 25 to 1000 mm<sup>2</sup> and with upto 127 strands.

## Types of conductor

- AAC (All Aluminium Conductors)
- ACSR (Aluminium Conductor Steel Reinforced)
- ACSR/AW (Aluminium Conductor Aluminium Clad Steel Reinforced)
- AACSR (Aluminium Alloy Conductor Steel Reinforced)
- AACSR/AW (Aluminium Alloy Conductor Clad Steel Reinforced)
- AAAC (All Aluminium Alloy Conductors)
- ACAR (Aluminium Conductor Alloy Reinforced)
- Mechanical Grade Alloy Wire Bundles (T - 81 temper)

## **High Conductivity Conductors**

- AL-59 / 1120( High Conductivity Alloy conductors)
- ACSS (Aluminium conductor steel supported)

## **Dull surface finish conductors**

- Dull conductor
- Blackened conductor
- Guy Wire/ Stay Wire/ Galvanized Steel Earth Wire (GSW)



# Line Accessories and Hardware Fittings

EMC manufactures the entire range of insulator hardware for Suspension & Tension strings

## a) Suspension String

- Insulator Hardware
  - Single Suspension Assembly for Triple **Bundle Conductor**
- Single Suspension Assembly for twin bundle conductors
- Suspension Clamps

## b) Tension String

- Tension Single Assembly for Single n i Conductor
- Double Tension Assembly for Twin Bundle n i Conductor
- Quadruple Tension Assembly for Quadruple n i **Bundle Conductor**

## Conductor and Ground Wire Accessories

EMC offers the entire range of conductor accessories for single or bundle conductors.

Vibration Damper  $\square$ Spacer Damper

- Spacer
  - **Repair Sleeves**
- Tension Assembly
  - n.
- Suspension Assembly n. with U Bolt & Nut

EMC manufactures fittings for distribution.

EMC has developed and supplied special fittings for VLF Systems to Indian Navy.

- Midspan
  - **Compression Joints**



# What Is The EMC Advantage?

- Over 6 decades of professional experience
- Leading turnkey power system solutions provider
- One of few companies in India capable of undertaking and successfully executing extra high voltage projects
- Offers comprehensive turnkey solutions with design engineering, erection, testing and commissioning, including all auxiliary systems such as lighting & illumination, fire protection systems
- One of few Indian EPC players qualified and executing Gas Insulated Sub-stations (GIS) projects on turnkey basis
- In-house facilities to design and manufacture:
  - Towers
  - Conductors suitable for power transmission and distribution
  - · Insulator hardware fittings and accessories
  - Non-ferrous extrusion, forgings and die castings
- Design and Testing of Towers for Destruction Tests and having in-house Test Bed
- Constructed over 12,000 kilometers of transmission lines of up to 765 kV
- Consistently exhibited strong time-bound execution capabilities both domestically and abroad
- One of few Indian EPC players qualified in 765 kV transmission lines & now poised for 1200 kV segment
- Foray in to Railways business in the following areas:
  - Projects of Indian Railways (all zones and divisions) on turnkey basis
  - Metro Rail Projects including Mono Rail Projects
  - Dedicated Freight Corridor Railway Projects



# Quality Systems

- □ First ISO-9001 certified company in India for Transmission Line projects
- Accredited with ISO-14001 certification by kVQA





# NURTURING TALENT

# EMC Academy - A step towards its mission to provide services to society and industries' community

The EMC Academy has been set up to provide community service through technical education. The main objectives of the academy are as follows:

- To bridge the gap between education imparted in Engineering colleges and the professional requirement of electrical industries by providing theoretical as well as hands-on experience
- De To imbibe a sense of team belonging and responsibility within individuals in an organization
- To use case studies for solving problems that arise within projects
- To ensure students develop a commitment towards civic responsibility
- Students will be trained by the best minds in the electrical industry
- To establish a unique institution which deals with professional development of Engineers, Supervisors & workforce to meet growing need of International Standard Trained Manpower for execution of transmission and distribution projects both in domestic and overseas markets.

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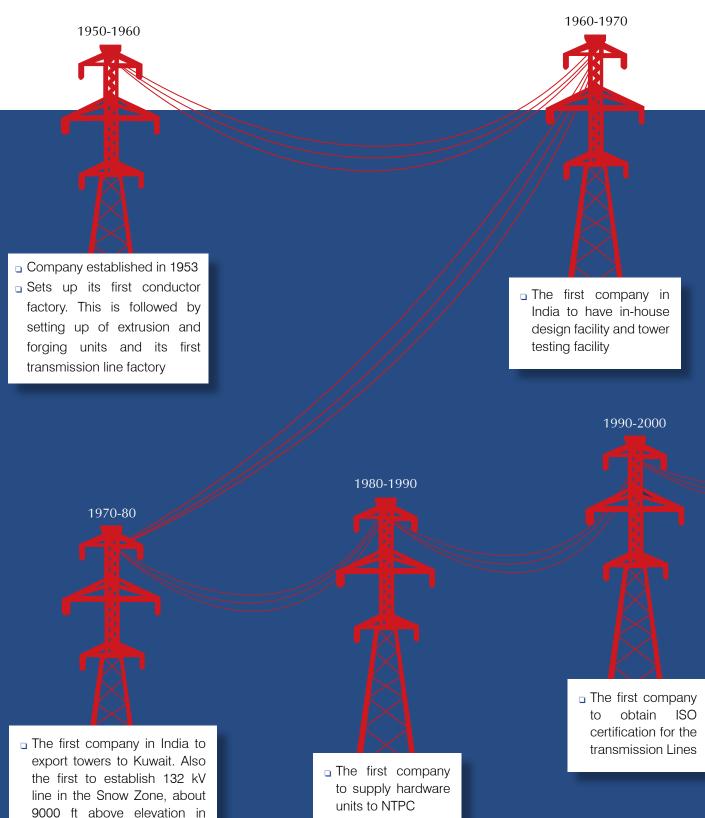
# The beginning of a Solar and Green Revolution

Commissioned 5MW solar power generation plant at Naini (near Allahabad)

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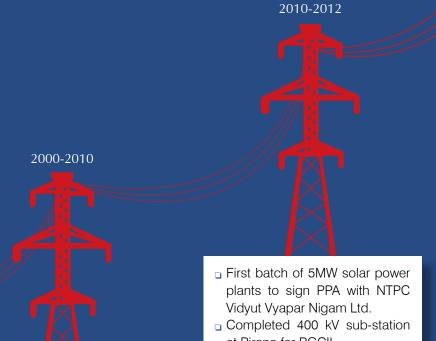
- Generation of carbon credits
- Signed Power Purchase Agreement (PPA) for 25 years

# LEGACY & MILESTONES



9000 ft above eleva Jammu & Kashmir





- Completes one of the first 765 kV Single Circuit Line projects in India
- Bags (One of the) 1<sup>st</sup> 765 kV Double Circuit Transmission Line order in India

- at Pirana for PGCIL
- Awarded one of the largest EPC contracts to execute 410 kms of 765 kV D/C line from Tuticorin to Salem with 3 associated substations

- One of the first company in India to be awarded 765 kV GIS based substation at Padge & Vadodara by PGCIL
- Awarded on Turnkey Basis 25 kV, 50 Hz, Single Phase OHE including TSS, SCADA & Electric General Works in Vizianagaram - Singapur Road Section of East Coast Railway under Railway Electrification Project Bhubaneswar for 138.84 RKM / 369 TKMs
- Acquired US based company Advanced Steel and Crane Inc. having manufacturing of transmission, sub-station & other structures at Tulsa, Oklahoma
- Acquired Italy based company Tecnolines S.R.L specialised in executing EHV Transmission Line projects on turnkey basis



# PARTNERS IN GROWTH

Dedicated team of professionals across all spheres of activities & all levels and we believe that our team's dedication is our biggest strength. We value their technical contribution and hope to move together to greater heights.

## **Top Clients**



Power Grid Corporation of India Ltd.



Steel Authority of India Ltd.



Transmission Corporation of Andhra Pradesh



Central Organisation for Railway Electrification (Indian Railways)



Indian Iron & Steel Company



NTPC Ltd.



Svenska Kraftnat, Sweden



Maharashtra State Electricity Transmission Co. Ltd.



J&K Government Electricity Department



Dubai Electricity & Water Authority (DEWA)



Ameren Corporation, USA



Fingrid Oyj, Finland

# **Overseas Projects**

Chile

Denmark

Dubai

Finland

France

Germany

Egypt

- Abu Dhabi
- Algeria
- Australia
- Bangladesh
- Canada
- Costa Rica
- Chad

- IcelandItaly
- - Jordan
  - Laos
  - Liechtenstein
  - Libya
  - Mexico

- Netherlands
- Nigeria
- Philippines
- Poland
- Spain
- Sweden
- Syria

- Thailand
- Trinidad
- Kenya
- Kuwait
  - USA



# CONTACT

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