NTPC Consultancy

(ISO 9001:2015 Certified)

From concept to commissioning and beyond.







Among World's Largest Generation Company



77,000+ MW and Counting...



Providing 25% of India's total power



17% share of the total installed capacity in India











# NTPC: 50 Years of Powering Infinite Possibilities for India A MEGA JOURNEY of NTPC SINCE 1975

- Founded in 1975, NTPC Ltd. initially specialized in the installation, operation and maintenance of large thermal power projects. Over the years, it has expanded its portfolio to include renewable energy solutions, consultancy, power trading, coal mining, and hydropower projects. Looking ahead, NTPC is strategically diversifying into Green Hydrogen, Green Mobility, Carbon Capture, Utilization and Storage (CCUS), Green Chemicals and Nuclear Power.
- NTPC is dedicated to delivering reliable and affordable power to every corner of India, ensuring progress and illumination even in the most remote areas. With capacity exceeding 77 GW, the company is advancing toward its vision "To be the World's Leading Power Company, accelerating India's Growth and Energy Transition"
- By 2032, NTPC plans to achieve a capacity of 130 GW, featuring a diversified fuel mix, and to generate 600 billion units (BU) of electricity. Notably, NTPC Limited secured the 372nd position on Forbes' Global 2000 list for 2024.
- NTPC operates cutting-edge research and training institutions, such as the NTPC Energy Technology and Research Alliance (NETRA) and the Power Management Institute (PMI), focused on driving innovation, technological advancements, and capacity building within the energy sector.
- NTPC has been leveraging its expertise to provide consultancy services to the Indian energy sector for over 35 years, offering specialized solutions in power generation and related domains.







### NTPC CONSULTANCY

- Established in 1989, NTPC Consultancy is a prominent player in the power industry, providing wide range of consultancy services and solutions to domestic and international clients. Its expertise encompasses all phases of power plant projects, including Engineering, Construction, Operation and Maintenance (O&M), Renovation and Modernization (R&M), and Project Management Consultancy (PMC).
- NTPC Consultancy's expertise encompasses both thermal and renewable energy projects, providing solutions backed by a highly skilled technical and managerial workforce, state-of-the-art infrastructure, and advanced knowledge management systems. With strong commitment to high-quality and cost-effective solutions that meet global standards, NTPC Consultancy plays a crucial role in the successful Development, Commissioning, and Operation and Maintenance (O&M) of power projects.

### **Services offered by NTPC Consultancy**









#### **Owners Engineer Services-(Thermal & Solar)**

- Pre-feasibility Studies and Detailed Project Reports (DPRs).
- Basic Engineering, including Project System Optimization and Scheme Development.
- Preparation of Technical Specifications and Tender Documents.
- Techno-commercial Evaluation of bids and selection of EPC contractors.
- Post-Award Review Engineering Services.



#### **Project Management Services - (Thermal & Solar)**

- Establishing Integrated Project Management And Oversee Project Execution and Development.
- Preparation, Review & Monitoring of Master Network for the Project.
- Review of Network for Procurement and Site Activities.
- Review of Resources Adequacy.
- Preparation of the Exception Report for client's Management.

#### **Contract and Material Procurement Services**

- Recommending a Cost-effective Procurement Methodology and Packaging Concept.
- Preparation of Bidding Documents including Qualifying Requirements and Bid Evaluation Criteria.
- Techno-Commercial Bid Evaluation & Selection of Vendor.
- Vendor Enlistment Services.





#### **Quality Assurance and Inspection Services**

- Finalization of the Quality Assurance Program and Categorization of Equipments in EPC contracts.
- Review of quality Plan Including Customer Hold Points (CHP).
- Witnessing Inspection and Testing of Major Equipments at Manufacturing Shops.
- Review and Approval of Test Certificates and Inspection Records of the Equipments.
- Approval of Third-party Inspection Agency/ Surveyor/ Inspector for Inspection Activities.
- Conduct Field Quality Audits for Site Quality Assurance.





#### Consultancy

### **Construction Management, Erection and Commissioning**

- Formulate a Responsive Project Organizational Structure and Regularly Review Construction Schedules.
- Supervise Construction and Equipment installation; including Monitoring and Corrective Actions.
- Monitor overall construction schedule and conduct independent assessments, powering support during the precommissioning and commissioning stage.
- Review of Commissioning, Performance Guarantee Test Procedures and O&M Manual.
- Third party witnessing of Performance Guarantee Tests.







#### **Environmental Engineering Services**

- Retrofitting of Environment friendly systems.
- FGD System related services.
- Burner Modifications for NOx Control.
- Reverse Osmosis systems.
- Designing of sewage waste water treatment systems.
- Ash handling related issues.



#### **Operation and Maintenance Services**

- Technical Audit of Thermal and Gas Power Plants.
- Overhauling Supervision Support Services.
- O&M Support Services.
- Root Cause Analysis of Boiler Tube Leakages.
- Study of Power Plant Chemistry.
- Performance Testing of Boiler, Turbine, Heaters, Condensers, ESP, Cooling Tower etc.
- Performance Testing of Gas Turbine Compressors.
- Performance Testing of Pumps and Compressors.
- Audits of Chemistry, Auxiliary Power Consumption , Water Balance, environmental compliance, safety, electrical and C&I protection.











#### **Information Technology Services**

- Drawing Reviews Engineering and Management System (DREAMS) Application.
- Paperless Routing and Information Management in Electronic Mode (PRIME) Application.
- PI System Application.

#### **Renovation and Modernization**

- Association in Life Extension/ Health Assessment Studies.
- Preparation of Detail Project Report for R&M of Thermal Power Plant.
- Pre & Post Award Engineering Services for R&M of Thermal Power Plant.
- Services related to C&I Renovation and Modernization.





#### **NETRA Services**

• Advance diagnostics laboratory services (NABL Accredited) for boiler tube failures, turbine deposits, corrosion, coal, ash, water, and oil analysis. Non-Destructive Testing and Investigation.

#### **Hydro Power Services**

- Hydro Power Plants Related Services.
- Pump Storage Power Plant Related Services.





#### **Coal Mine Development Services**

- Preparation of Mining Plan.
- Preparation of Feasibility and Detail Project Report
- Bid Process Management for the Appointment of Mine Development Operator (MDO).







## **CONSULTANCY**Key Thermal Engineering Assignments



#### PMC SERVICES

• SJVN - Buxar - 2X660 MW • THDC - Khurja - 2X660 MW

#### OWNER'S ENGINEERING / POST AWARD SERVICES

• MPPGCL- Amarkantak- 1X660 MW. • MPPGCL- Sarni - 1X660 MW. • MUNPL- Meja II - 3X800 MW. • CSPGCL -Korba West - 2X660 MW. • UPRVUNL - Jawaharpur - 2X660 MW • UPRVUNL- OBRA C - 2X660 MW • UPRVUNL - Panki Extn -1X660 MW. • PVUNL- Patratu - 3X800 MW • CSPGCL- Korba West - Wet Lime FGD 1X500 MW • NSPCL Durgapur - Semi Dry FGD 2X20 MW

#### PRE-AWARD SERVICES

SCCL- Adilabad - 1X800 MW.
 OPGC - Stage 3 - 2X660 MW.
 DVC - Koderma - 2X800 MW.
 DVC - Raghunathpur II - 2X660 MW • MPPGCL - 1X660 MW - Amarkantak • MPPGCL - 1X660 MW - Sareni • MUPNL - MEJA -II 3X800 MW • CSPGCL Korba West - 2X660 MW

#### PRE-FEASIBILITY REPORT / DPR

• CSPGCL- Marwa - 1X660 MW • MPPGCL- Sarni -1X660 MW • MUNPL - Obra - 2X800 MW • THDC - Khurja - 3rd Unit-1x660MW • Jhabua Power - 1X800 MW New TPP • DVC R&M Work - 3X210 MW





## Key SOLAR ENGINEERING Assignments

#### ▲ FLOATING SOLAR

- NSPCL Pre/Post Award Services 15 MW
- NSPCL-DPR-30 MW

#### ▲ GROUND MOUNT SOLAR

- CCL-PMC Services -20 MW
- NCL -PMC Services -50 MW
- PGCIL-Pre Award -105 MW
- NSPCL-DPR-40 MW



### Key Operation & Maintenance Assignments

- O&M Support Services to (2x300 MW) SKS Power, Binjkote, Chhatisgarh.
- PG Test Services Third Party Witnessing at 1X660MW Harduaganj Auditing of Coal and Biomass Handling Units in Reliance Industries.
- Limited at Hazira and Dahej Manufacturing Divisions.
- Performance Testing of Boiler, Turbine & Cooling Tower at various HPGCL stations (Panipat, Yamuna Nagar and Hisar).
- Electrical Protection Audit at DVC Mejia.
- Environment Audit at all DVC Stations.
- DPR for R&M and Performance Testing of (3x210 MW) DVC MejiaTPS.
- Boiler tube leakage reduction and heat rate improvement at TANGEDCO Stations (MTPS-II and NCTPS-II).
- Technical Audit at RVUNL Suratgarh (6X250 MW).

### **Our Esteemed Domestic Clients**































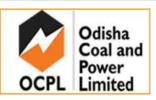






























### **NTPC Limited**

(A Govt. of India Enterprise)

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