TECHNOSYS

Aspiring For Inspiration

COMPANY PROFILE



Cabling



Electrical Substation & Instrumentation



Electrical Maintenance

Contents

ELECTRICAL MAINTENANCE

Scope of services offered

Site organization chart for typical project

List of tools and equipment

List of contracts executed

COMMISSIONING SERVICES

INTRODUCTION

Technosys Engineers and Consultants (Chennai) Pvt. Ltd is an Engineering organization extending Engineering services in the field of Power and Energy, Power System studies, Erection, Supervision, Testing& Commissioning of Electrics and Management services etc.

We are also having setup at Dubai in the name of De Technosys Electromechanical LLC which is involved in the same kind of services.

Technosys Engineers And Consultants (Chennai) Pvt. Ltd business unit was established in 2000 in India with the objective of addressing the various market segments of the power sector. According to the needs of the market, TECHNOSYS comprises of the following divisions, which function as independent business entities.

Engineering & Contracting:

| Technosys Engineers and Consultants | (Chennai) Pvt.Ltd | India |
|-------------------------------------|-------------------|-------|
|-------------------------------------|-------------------|-------|

De Technosys Electromechanical LLC UAE

Manufacturing:

Techno products India

Overseas Recruitment:

Technosys Engineers and Consultants (Chennai) Pvt.Ltd India

Commissioning Services:

Technosys India & UAE

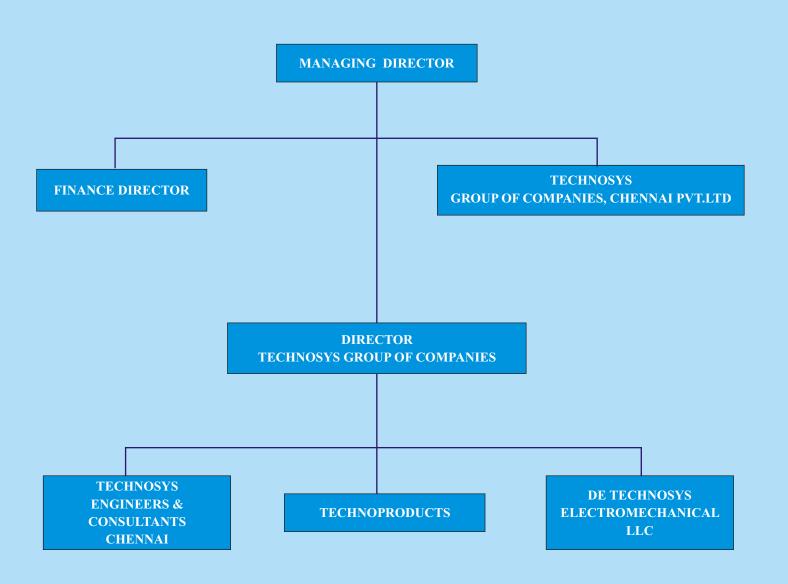
Though the presentation of this brochure shall primarily be confined to business pertaining to the engineering and contract division, a brief outlook of our commissioning services has been included at the end of the document.

The engineering & contracting division addresses power projects of various scopes right up to EPCC (Engineering, Procurement, Construction and Commissioning) contracts of up to 400 kV. Our Team has vast experience in Erection, HV substations up to 400 kV, HV cabling up to 132 kV, tunnel lighting works, Instrumentation works and industrial electrification projects.

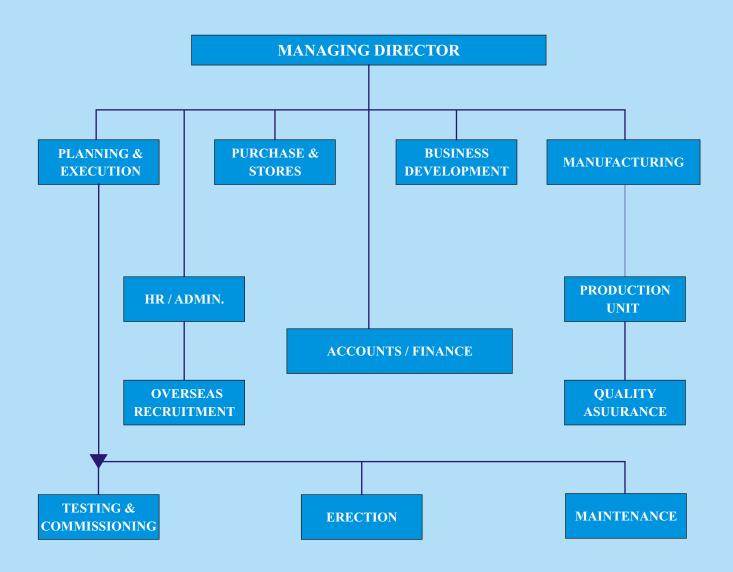
All TECHNOSYS companies have an association agreement between themselves on the joint utilization of all resources and financial assets. Hence, Technosys Engineers and Consultants (Chennai) Pvt.Ltd's capital assets and business skills are combined with specific electric power engineering know-how concentrated within the Technosys companies.

Such organization has proved effective and reliable, being partner to major authorities, consultants and first class International companies within INDIA and other Middle East Markets.

CORPORATE CHART



COMPANY ORGANISATION CHART



SCOPE OF SERVICES OFFERED

We can offer the following services on high voltage / medium voltage / low voltage cabling installation work all in accordance to Tender Technical Specifications , International / Local Authority Standards and Clients / Consultants requirements:

- Collection of maps in required scale form Client / Authority with help and support of Main Contractor. Drafting of cable route in approved corridors on maps as initial preliminary design. Submittal of preliminary design of approved corridors for collection of No Objection Certificates (NOC) to various departments of Authorities.
- Survey of cable corridor and its marking. Preparation and submittal of cable route workshop drawings for approval. Taking of soil samples for TR testing in approved laboratory and submission of test results.
- Co ordination in between Manufacturer and client in all stages of approval procedure of cable circuits ampacity calculations, manufacturer's drawings submission as well as all required technical clarifications.
- Cable route pegging, identifying of crossing or parallel services, excavation of trial pits, marking of trench excavation lines and installing of traffic warning tapes, signs, lights etc., in accordance to traffic police or other authorities requirement.
- Excavation of cable trench, construction of road crossings (open cut, thrust or directional boring). Compaction of cable trench bed, taking of samples for testing of compaction degree in approved laboratory. Collection and submission of test results.
- Optionally if applied: design, supervision of casting at works, supply to site of RCC troughs with covers and their installation in prepared cable trench in accordance to client standards.
- Selection of backfill sand (available locally) having as sufficient as possible thermal characteristics, delivery to site (from approved municipality location within concern district), backfilling and compacting it.
- Cables transportation from main contractors store to site, including loading at store and offloading at site, laying of 132kV,33kV,pilot/FO cables, dressing, trefoiling, delivery and installation of warning tape or concrete protection tiles (where required.



Fabrication of Cable Trays



SCOPE OF SERVICES OFFERED

We offer a comprehensive range of Maintenance services relevant to all stages of HV substations projects including Construction power supply Maintenance, Plant Operation and Maintenance, Preventive Maintenance of Protective Relays & Meters and Routine maintenance of Substations.

Our services are based on international standards and good engineering practices.

Our Maintenance Department currently employs over 10 permanent HV substation specialists including experienced engineers, supervisors and technicians.

Our maintenance Activities are carried out pertaining to SOP of ISO 9001: 2000

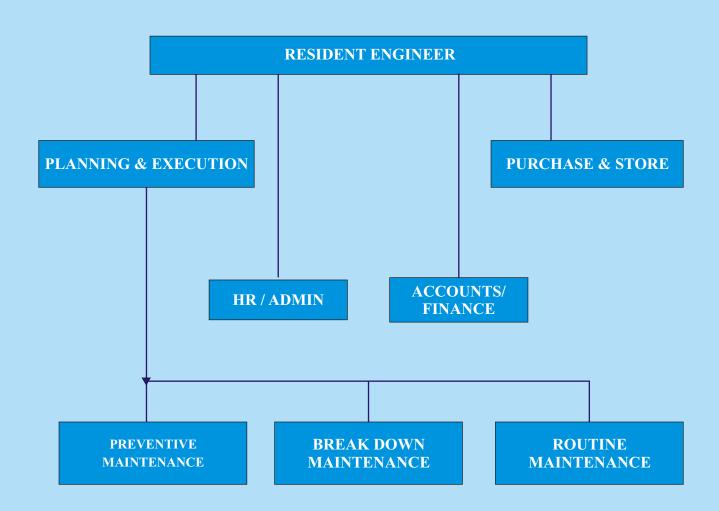
Our quality Standards and Manuals are relevant to safe operation of Plant and Machineries.

In addition to our Maintenance wing, our Commissioning wing also support the client requirements during special routine test likeMeasurementTransformer Tan- delta etc,



Preventive Maintenance

SITE ORGANIZATION CHART FOR MAINTANENCE



LIST OF TOOLS AND EQUIPMENT

| SI .No | Description A. Tools List | Qty |
|-----------|------------------------------------------------------|-----|
| 1 | Clamp meter - Digital | 10 |
| 2 | Insulation Tester - Analo | 10 |
| 3 | Energy Meter Calibration kit | 10 |
| 4 | Insulation Tester - Digital (Battery Operated) | 10 |
| 5 | Tacho meter | 10 |
| 6 | Multi meter - Digital | 10 |
| 7 | Earth Tester - Analog | 10 |
| 8 | Clamp meter - Digital | 10 |
| 9 | Galvano Meter | 5 |
| 10 | Motorised gear arrangement for hand megger | 5 |
| 11 | Drilling Machine | 8 |
| 12 | Hand Grimming Tools | 15 |
| 13 | Tool Box | 20 |
| 14 | Tool Box | 20 |
| 15 | Screw driver set | 25 |
| 16 | Crimping tool | 25 |
| 17 | 500V line testers | 30 |
| 18 | Gas cutting set | 20 |
| 19 | Hand trolley for Transportation of materials | 5 |
| 20 | DE& Ring Spanner set | 10 |
| 21 | Cutting plier & Wire stripper | 25 |
| 22 | Spray painting set | 15 |
| 23 | Welding set | 20 |
| 24 | Aluminum ladder for maintenance of OH light fittings | 10 |
| 25 | Box spanner set | 25 |
| 26 | Mechanical jacks | 25 |
| 27 | Allen key set | 25 |
| 28 | Battery Hydrometer | 15 |
| 29 | Extention Boards | 25 |
| 30 | Vacuum cleaner | 10 |
| 31 | Safety belts | 25 |
| 32 | Filter Machine | 5 |
| 33 | Ferrule Printing Machine | 5 |
| 34 | Cable Fault Locator | 5 |
| 35 | Noise Level Meter | 5 |
| 36 | Vibration Meter | 5 |
| 37 | Lux Meter | 5 |

LIST OF CONTRACTS EXECUTED

| SL. No | CLIENT NAME | SCOPE OF WORK | ROLE IN PROJECT | YEAR OF COMPLETION |
|-----------|-------------------------------|---------------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| 1 | Jindal Power Ltd., | Maintenance of Construction Power Supply System and Other Electrical services at 4x250MW RTPP Projects. | Sub Contractor | 2005-2007 |
| 2 | NALCO | Preventive Maintenance of Relays & Calibration of Energy Meter | Sub Contractor | 2005-2006 |
| 3 | Jindal Steel & Power Ltd., | | | 2008-2009 |

C O M M I S S I O N I N G S E R V I C E S

We, Technosys Engineers and Consultants (Chennai) Pvt Ltd are a group of experienced Commissioning engineers with collective expertise in core sectors such as Oil & Gas, Steel, Aluminum and Cement.

After partnering with great Corporate like L&T, Siemens etc, we also started expanding our business in the Middle East recently.

Some of the Prestigious Projects Handled by our Commissioning Team is detailed below.

| SI.No | Scope Of Work | Client | Monetary Value in US \$ | Period |
|-------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|-------------|
| 1 | Commissioning of (132KV & 33KV) GIS, (11KV & 66KV) Substation in RAS Laffan Industrial City, Doha, Qatar at Qatar Gas Expansion-II. | CEGELEC | 32,676 | 2007 - 2008 |
| 2 | Commissioning of Electrics at H-Blast Furnace (H-BF) & Sinter Plant#4(SP-4) at Tisco, Jamshedpur | L & T, ECC Division | 25,000 | 2006 - 2007 |
| 3 | Commissioning of 220KV Substation at JSPL, Raigarh | Jindal Steel & Power Ltd., | 5,000 | 2006- 2007 |
| 4 | Commissioning of Electrical Systems in Abu Dhabi, United Arab Emirates (UAE). | CEGELEC | 175,000 | 2005- 2007 |
| 5 | Commissioning of Electrical Systems In Dubai, United Arab Emirates (UAE). | Duland Technical Services | 75,000 | 2005- 2006 |
| 6 | Commissioning of 400/220KV Substation at PGCIL Gorakhpur, Uttar Pradesh. | Siemens | 25,000 | 2006-2007 |



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