

We touch your electricity everyday!



Turnkey Project Division

- Thermal Power projects
- Infrastructure projects
- Hydro Electric Power projects
- Oil & Gas projects
- Mines & Metal projects

C&S Electric Ltd. is amongst the leading suppliers of electrical equipment in India and is India's largest exporter of industrial switchgear. It's wide range of electrical and electronic products find application in power generation, distribution, control, protection and final consumption.

C&S employs over 3000 people including 400 engineers, and has 16 state-of-the art manufacturing plants. It has 22 sales office across India and its products are exported to 73 countries.

C&S BUSINESS OVERVIEW



C&S JOINT VENTURES



Controls & Switchgear Himoinsa (P) Ltd.
 DG set for power generation
 LPG / CNG sets for power generation
 Control Panel including AMF units



C&S Efacec MV India Pvt. Ltd.
 3.6kV to 36kV Medium Voltage Metal Clad Indoor Switchgear
 12kV Ring Main Units



RS Components & Controls (India) Ltd.
 World's largest supermarket for electrical, electronic, pneumatic, mechanical, health, safety and information technology products



Wago & Controls (India) Ltd.
 Screwless Cage Clamp Connectors - Fit & Forget Series
 Rail or PCB Mounted Terminals

Consultant & Customers Approvals

- EIL
- RITES
- MOTT- MCDONALD
- UHDE
- CET
- AVANT-GARDE
- CPWD
- NTPC
- GAIL
- IOCL
- HPCL
- BPCL



Strengths

- More than 50 engineers.
- Pan India presence
- Experience of successful completion & execution of over 100 projects
- More than 400 man years of experience
- End to end solution from designing & engineering to project execution & maintenance
- On time execution.
- Original equipment manufacturer
- In house design capability for Sub-station & E-BOP projects
- Financial stability & balance sheet strength
- Management stability & continuity
- Approved with all major consultants
- Dedicated site staff



Areas of Competence

- Thermal power Plant
- Hydel Power Plant
- Solar Power Plant
- Bio-Mass based power plant
- Oil & Gas Sector
- Steel Plant
- Infrastructure projects
- Substations
- Other Industrial Projects



Hydro Electric Project

SATLUJ JAL VIDYUT NIGAM LTD.

Scope

Supply, Installation, Testing & Commissioning of 22KV panels, 22KV/433V Transformer, 415V LT Panels, 22KV Cables, 415V Cables, Cable Trays and Accessories.

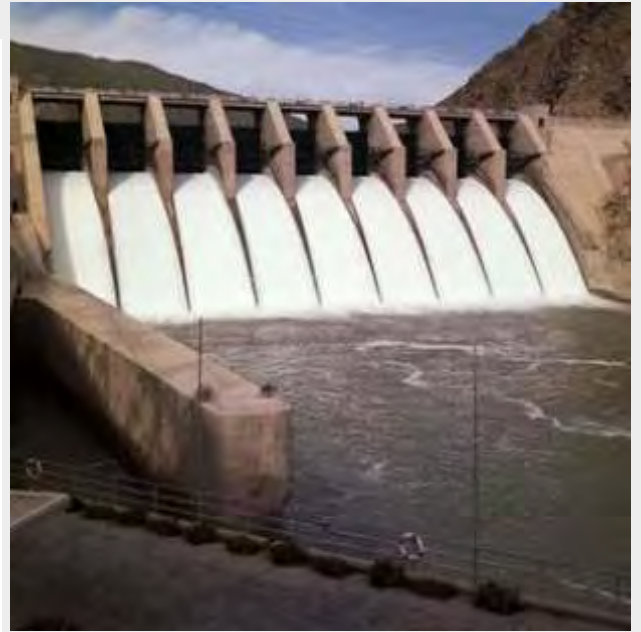
Challenges

It was almost impossible to take outgoing cables to the various boards and as such a structure had to be build in the running power sub-station to take the cables to the required locations.

Highlights

One of the unique solution used in this project due to paucity of space was that the 22KV/433V dry type transformer were mounted at the two ends of the panels keeping the provision of IE rules and thus resulting in compact layout.

Further as it was a running Hydro-Electric project , the clearances were not available in tunnel for bringing the transformer from outside power house to the sub-station site and as such the transformer was disassembled, transported and assembled at site.



UTTARANCHAL JAL VIDYUT NIGAM LTD.

Scope

11KV Panels including Numerical bus transfer and equipped with SCADA, LT Panels, LT & HT Cables, Battery & Battery Charger.

Challenges

Since the civil work was completed before Electrical order was placed , the accommodation of 11KV panels and LT Panels faced a major challenge as the bottom entry panels had to be accomodated in the available foundation space .

Highlights

The complete protection scheme and layouts was developed , taking care of the available space , for this complicated and state-of-the art Electricals for this Hydro-Electric Power Project . All the changes in the LT Panel were incorporated as per the changes received from the customer from time to time considering the space constraint for adding additional modules and the existing floor cut outs .



SOME CASE STUDIES

Infrastructure Projects

NORTH BLOCK & SOUTH BLOCK

Scope

Retro-fitting of HT panels (Only in case of South Block), Transformer, LT Panels, Sandwich Bustrunking, HT & LT Cables, Earthing and other miscellaneous equipments.

Challenges

The work had to be carried out only from Friday night to Monday morning and that at certain times arrangements had to be made for power supply to certain blocks because of the extreme exigencies of the situation. Further the quality associated with the work also had to be kept in view. The entry of materials to this high security site was another major challenge as the entry was only in restricted hours and required formalities to avoid any unwanted materials reaching the sensitive location.

Highlights

The sub-station feeds Prime Minister Office, Defence Ministry, External Affairs Ministry, Home Ministry, Finance Ministry and Human Resource Development Ministry which forms heart of Indian Government. It must be mentioned that the sub-stations were constructed using state of art methods to ensure quality work, reliability, long life and minimum break down in the power supply to the consumers.



SIR GANGARAM HOSPITAL

Scope

Supply, Installation, Testing & Commissioning of 11KV Panels, 11KV/433V Transformer, 415V LT Panels, 11KV Cables, 415V Cables, Cable Trays and accessories.

Challenges

Being an operational hospital the transportation of equipments from outside to the sub-station and then to the basement posed number of problems which were successfully overcome. The transformer was of dry type and arrangement was there for ensuring constant secondary voltage irrespective of variation in primary 11KV Voltage.

Highlights

Sub-station was meant for super speciality Block of the Hospital and continuity of power supply was of prime importance.

Sub-station was located in the basement and thus entry of cables to the sub-station and taking out 415V cable had to be very meticulous to avoid any water seepage.



SOME CASE STUDIES

Infrastructure Projects

SIRIFORT INDOOR STADIUM

Scope

Sub-station for the indoor stadium for Badminton & Squash Court for Commonwealth Games-2010 including Supply, Installation, Testing & Commissioning of 11KV HT Panels, 2500KVA Dry Type Transformer, 415V LT & ATS Panels, HT & LT Cabling works, Sandwich Bustrunking & Rising Main, Earthing & Safety Equipments etc.



Challenges

The civil works and electrical works had to be done simultaneously and it had to be ensured that the dusty atmosphere do not damage the equipments.

Highlights

The work was of very exacting nature as it had to meet all the international standards for continuity of power supply and the precautions thereof.

Oil & Gas Sector

PUNE-SOLAPUR PIPELINE PROJECT OF HPCL

Scope

Includes Supply, Installation, Testing & Commissioning of 22/6.9KVA Power Transformers, 6.6KV/433V Distribution Transformers, Neutral Grounding Resistor, LT Panels including capacitor panel.



Challenges

Locations being in far-flung areas and to ensure the good quality of work posed a major challenges.

Highlights

Work had to be done at various sites which required a very close liaison.

OUR CREDENTIALS

BHARAT PETROLEUM CORPORATION LTD.

भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड (GOVT. OF INDIA) | **BHARAT PETROLEUM CORPORATION LTD.** (GOVT. OF INDIA)
EBP:BDT:24 dated **12.04.2010**

Completion Certificate
TO WHOMSOEVER IT MAY CONCERN

It is certified that M/s Control & Switch Gear Co. Ltd., 222, Okhla Industrial Estate, Phase-II, New Delhi-110020 (Now known C&S Electric Ltd) was awarded the Electrical Works for Bina Despatch Terminal of M/s Bharat Petroleum Corporation Limited (Bidding Document No.: 6893/T-156/07-06/586/06) vide FOA No. EBP:BDT:01 dated 28.08.2008 and the detailed letter of acceptance no. BDT.15.01 dated 16.10.2008. The brief details of work is given below :-

1. Name of Work	Electrical Works for Bina Despatch Terminal.
2. Purchase Order No.	: EBP:BDT:01 dated 28.08.2008.
3. Purchase order value	: 7.70 Cr
4. Date of Completion as per PO	: 27.05.2009
5. Date of actual completion	: 31.01.2010

Party has completed the said works at Bina & now handing over / taking over of the equipments and finalization of final bill is under progress at site.

The performance of the contractor is found to be Good.

For
 M/s Bharat Petroleum Corp. Ltd.
 M/s. Gaysukh
 Project leader - Bina dispatch terminal.

HINDUSTAN PETROLEUM LIMITED

हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
 PUNE-SOLAPUR PIPELINE PROJECT
COMPLETION CERTIFICATE
TO WHOMSOEVER IT MAY CONCERN

It is certified that the work of MAP PACKAGE SYSTEM IN PUNE STAGE BPSR 807. 222 Industrial Estate, New Delhi awarded by M/s Hindustan Petroleum Corporation Ltd vide PO No. HPL/2008 dated 12.08.2008 to C&S Electric Ltd. The work was completed satisfactorily at the following sites:-

(01) MAP PACKAGE SYSTEM	
(02) MAIN STATION	
(03) STATION AT SOLAPUR	
(04) BUSTOPPING STATION AT PUNE	

The brief details pertaining to the above work are given below:-

(01) Name of work	M/S. C&S. 105114
(02) Project	MAP PACKAGE SYSTEM
(03) Purchase order No.	HPL/2008 dated 12.08.2008
(04) Date of completion of work	12.08.2008
(05) Actual date of completion	31.01.2010
(06) A specified storage of any	
(07) Total value of awarded work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(08) Total value of awarded work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(09) Total value of completed work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(10) Total value of completed work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(11) Total value of awarded work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(12) Total value of completed work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(13) Total value of awarded work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00
(14) Total value of completed work (including Taxes & Freight Charges)	Rs. 775.41 Cr.00

The following major equipments were supplied, installed, tested & commissioned by M/s C&S Electric Ltd at various sites:-

(01) 11KV VCB	1 Nos
(02) 11KV Switch Board	2 Nos
(03) 11KV Switch Board	1 Nos
(04) 11KV Switch Board	1 Nos
(05) 11KV Switch Board	1 Nos
(06) 11KV Switch Board	1 Nos
(07) 11KV Switch Board	1 Nos
(08) 11KV Switch Board	1 Nos

For & the behalf of
 Hindustan Petroleum Corporation Ltd.

07/01/2007
 Manager Project/HR/105114

SATLUJ JAL VIDYUT NIGAM LTD.

SATLUJ JAL VIDYUT NIGAM LTD.
 (FORMERLY NATHPA JHAKRI POWER CORPORATION)
 Operation & Maintenance Department, Jhakra, Distt. Shimla. H.P. 172201.
 Phone: 00 91 1782 278227 Fax No. 00 91 1782 258809

Taking Over Certificate

Name of Package: 2x2.5MVA, 22.433 KV sub-station in Transformer Hall Circuit at 6x250 MW Nathpa Jhakra Hydro Power Station.

Ref. L/OA No.: SJVNL/CD/NOIPS/2x2.5MVA-sub-stn. First Contract/08-32-35 dated 02.04.08 & SJVNL/CD/NOIPS/2x2.5MVA-sub-stn. Second Contract/08-36-39 dated 02.04.08.

Name of Items	Sl. No	Description	Date of completion of erection
	01.	24.4V Switch Gear	23.09.08
	02.	Sub-Station Transformers	23.10.08
	03.	415 V ACDB & DG Set Panels	23.10.08
	04.	Cables, Cable Trays & Earthing	16.12.08
	05.	Fay lighting Arrangement	09.11.08
	06.	Testing Commissioning & Taking Over	31.12.08

Date of Final Taking over: 31.12.08

Any other Particulars:

- This is to certify that, above mentioned equipments after its successful completion of Erection, testing & Commissioning to the extent possible, has been put to use by SJVNL, w.e.f. 01.01.09 and finally taking over on 31.12.08.
- The supplier M/s C&S Electric has also agreed to supply as built drawings as per contract provisions.

Date: 10.02.09 Place: Jhakra
 Authorized Signature: _____
 Mr. Manoj Kumar Sr. Manager, PE. Mr. (T) Cum E.O., For and behalf of SJVNL.

Date: 10.02.09 Place: Jhakra
 Authorized signature: _____
 Mr. Gyanesh Singh Assistant Manager, C&S For & behalf of M/s C&S.

BITES LIMITED

राइट्स लिमिटेड
RITES Limited
 (A Govt. of India Enterprise)

विद्युत विभाग
BITES BHARUWAL
 No. 1, Sector-29, Gurgaon-122 001 (Haryana)
 टूरफोन (Toll free): 01210 2571888
 फोन (Phone): 01210 2571888

Date: 28.12.2007

Completion Certificate

To whomsoever it may concern

It is certified that M/s controls & Switchgear Co. Ltd., 222, Okhla Industrial Estate, New Delhi - 110020 was awarded the work of 33/11 KV Sub-station equipments at MAP Project vide Bareilly vide work order No. BEEN/HEEM/MA/PS/07/2006 dated 27.12.2007 at a cost Rs. 1,92,00,234.00.

The work has been completed by the company satisfactorily on 03.10.2007 however provision of extra items and some rectification work is in progress. The major equipments supplied, installed, tested and commissioned at site are given as under:-

(01)	33/11 KV Gantry Structure
(02)	33/11 KV 5 MVA Transformer
(03)	36 KV VCB with CE/PI
(04)	11 KV 630-Amps VCB HT Breakers at 4 locations
(05)	2 Pole/4 Pole structure works with air break switches
(06)	Sound proof DG Sets of rating 62.5 KVA and 100 KVA with AMF Panel
(07)	Approx. quantities of Cables of following sizes
A)	3C x 240 sq mm - 250 Meters
B)	3C x 150 sq mm - 4000 Meters
C)	3C x 95 sq mm - 5000 Meters
(08)	Earth mat and Earthing at various sites.
(09)	Augmentation of 11 KV OHL line with steel Conductor after replacement of existing OHL line conductor, insulators and cross arms etc. complete in all respect.

Joint General Manager (Electricals), MAP Projects, Rites Limited, Gurgaon.

07/12/2007

विद्युत विभाग - नई दिल्ली प्रभाग, प्र. विभाग, वि. नई दिल्ली (Haryana)
 Regional Office: New Delhi House, 27, Barakhamba Road, New Delhi 110 001 (INDIA)
 E-Mail ID: sales@rites.com, HR@rites.com, www.rites.com

OUR ESTEEMED CLIENTS

**C&S Electric Ltd.**

(Turnkey Project Division)

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