

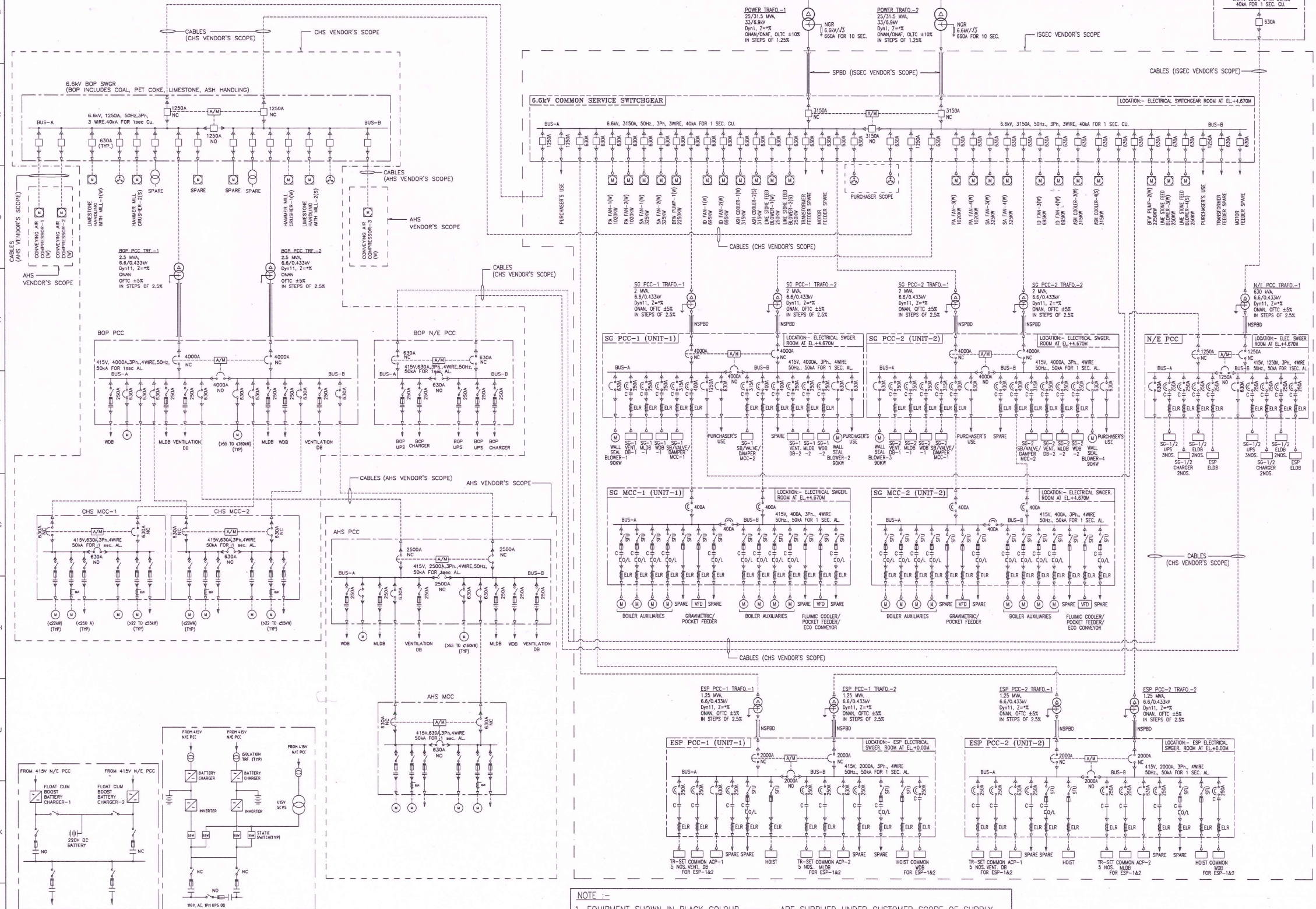
DOCUMENT ID: JB0940-50810000-SLD-001  
PROJECT ID: JB0940

Please make a chart for motor & transformer list for 6.6kV Common Swgr section wise.

6.6kV, 415V etc Swgr single diagram to be submitted

Following to be added in Note:  
(1) Spare Motor & Transformer feeders shall be provided as per contract.  
(2) HT Transformer & LT Aux Transformer/Equipment ratings & Nos. are subject to finalization based on actual load data.

6.6kV N/E SWITCHGEAR  
10-HV-204 (EXISTING)  
(REF.-DWG. NO. 0-381-2100-549, R4)



NOTE :-  
1. EQUIPMENT SHOWN IN BLACK COLOUR — ARE SUPPLIED UNDER CUSTOMER SCOPE OF SUPPLY.  
2. EQUIPMENT SHOWN IN RED COLOUR - - - ARE SUPPLIED UNDER ISGEC SCOPE OF SUPPLY.

Not found in color.

SPECIAL NOTE:-  
1. THE SWITCHGEAR RATING I.E. AMPERE, MVA, KW ETC. ARE TENTATIVELY INDICATED.

| LEGEND |                                    |  |                        |
|--------|------------------------------------|--|------------------------|
|        | 33kV / 6.6kV VCB                   |  | CBCT + ELR             |
|        | ACB                                |  | SPBD                   |
|        | SFU                                |  | NSPBD                  |
|        | DRAW-OUT FEATURE                   |  | CAPACITOR BANK         |
|        | TWO WINDING, 3PHASE TRANSFORMER    |  | CABLE                  |
|        | HT MOTOR LOAD                      |  | MCCB                   |
|        | LT MOTOR LOAD                      |  | CONTACTOR              |
|        | AUTO / MANUAL CHANGE OVER WITH U/V |  | THERMAL OVERLOAD RELAY |
|        | INTERLOCK                          |  |                        |

| ABBREVIATION |                                  |
|--------------|----------------------------------|
| SG           | STEAM GENERATOR                  |
| BOP          | BALANCE OF PLANT                 |
| ESP          | ELECTRO STATIC PRECIPITATOR      |
| WDB          | WELDING DISTRIBUTION BOARD       |
| AHS          | ASH HANDLING SYSTEM              |
| M            | MOTOR                            |
| W            | WORKING                          |
| S            | STANDBY                          |
| PCC          | POWER CONTROL CENTER             |
| MCC          | MOTOR CONTROL CENTER             |
| GIS          | GAS INSULATED SWITCHGEAR         |
| N/E          | NORMAL EMERGENCY                 |
| NGR          | NEUTRAL GROUNDING RESISTOR       |
| UPS          | UNINTERRUPTIBLE POWER SUPPLY     |
| VCB          | VACUUM CIRCUIT BREAKER           |
| ACB          | AIR CIRCUIT BREAKER              |
| SFU          | SWITCH FUSE UNIT                 |
| MCCB         | MOULDED CASE CIRCUIT BREAKER     |
| MCPB         | MOTOR PROTECTION CIRCUIT BREAKER |
| CBCT         | CORE BALANCE CURRENT TRANSFORMER |
| ELR          | EARTH LEAKAGE RELAY              |
| SPBD         | SEGREGATED PHASE BUS DUCT        |
| NSPBD        | NON SEGREGATED PHASE BUS DUCT    |

#### NOTES

- ALL 6.6kV(VE) CABLES ARE OF ALUMINIUM CONDUCTOR, XLPE INSULATED, ARMOURD CABLES, FRLS PVC OUTER SHEATHED.
- ALL LV CABLES SHALL BE 1100V GRADE, SINGLE / MULTICORE, ALUMINIUM CONDUCTOR, XLPE INSULATED, ARMOURD CABLES, FRLS PVC OUTER SHEATHED.
- THE N/E SWGR SHALL BE FED FROM EXISTING DG SYSTEM.
- MOTORS RATED >160KW ARE CONNECTED TO 6.6kV SYSTEM. MOTORS RATED ≤160KW ARE CONNECTED TO 415V SYSTEM.
- 6.6kV SYSTEM IS 3Ph, 3 WIRE 50Hz & 415V SYSTEM IS 3Ph, 4 WIRE 50Hz.
- BALANCE OF PLANT SYSTEMS CONSISTS OF COAL, PET COKE, ASH, LIMESTONE HANDLING AND OTHER MECHANICAL SYSTEM LOADS.
- ALL THE RATINGS INDICATED ARE TENTATIVE ONLY.
- SEPARATE UPS AND DC SYSTEM ENVISAGED FOR UNIT 1 AND UNIT 2 AND BOP AREA.

DO NOT SCALE

ISSUED FOR INFORMATION

|                     |                                                                                   |                        |
|---------------------|-----------------------------------------------------------------------------------|------------------------|
| CLIENT              | HPCL-MITTAL ENERGY LIMITED<br>GURU GOBIND SINGH REFINERY<br>BATHINDA-PUNJAB-INDIA |                        |
|                     | TATA CONSULTING ENGINEERS LIMITED<br>NOIDA                                        |                        |
| CONSULTANT          | PROJECT:<br>2x300 TPH COAL / PETCOKE FIRED STEAM GENERATORS                       |                        |
| PROJECT:            | HREL REFERENCE NO.: 9112-575-PRJ-306-00001                                        |                        |
|                     | DO NOT SCALE IF IN DOUBT PLEASE ASK                                               |                        |
| FOR APPROVAL        | NO                                                                                | FOR INFORMATION        |
| FOR INFORMATION     | YES                                                                               | FOR PRODUCTION         |
| FOR PRODUCTION      | NO                                                                                | FOR ERECTION           |
| FOR ERECTION        | NO                                                                                |                        |
| RESPONSIBLE DEPT.   | CHECKED BY                                                                        | APPROVED BY            |
| ELECTRICAL          | KIRAN                                                                             | S.N.TIWARI/VIKAS ARORA |
|                     | PROJECT ID                                                                        | DATE                   |
|                     | JB0940 & JB0941                                                                   | 30.12.2014             |
|                     | ELEMENT ID                                                                        | LWT. NO.               |
|                     | 50810000                                                                          | 6433                   |
|                     | YEAR : 2014                                                                       | SHEET SIZE : A1        |
|                     |                                                                                   | SCALE : N.T.S          |
| SERVICE             | 2 x 300 TPH, SINGLE DRUM, WATER TUBE, COMPACT CFBC BOILER                         |                        |
| TITLE               | KEY SINGLE LINE DIAGRAM OF SG SYSTEM                                              |                        |
| DRAWING DOCUMENT ID | JB0940-50810000-SLD-001                                                           |                        |
| REVISION            | 00                                                                                |                        |



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