



TECHNO ELECTRIC & ENGINEERING CO. LTD.

Corporate Office & Electrical Division :

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ENGINEERS &
CONSTRUCTORS

CIN : L40108WB2005PLC139595



Date :

16/03/2016

Ref. no :

COMPLETION CERTIFICATE FOR CONSULTANCY WORK

This is to certify that M/S SATCON was appointed to provide electrical basic engineering, detail design drawings and design calculations for 400/220/132/33kV outdoor switchyard substation at Jammalamadugu of APTRANSCO under our P.O.no. **0687JM/13-14/842 dt 11.09.13.**

The job included the following work in brief:

1. Single line diagrams for 400/220/132/33kV Switchyard.
2. SLD of LV Switchgear, ACDB, DCDB and LDB.
3. Site layout plan.
4. Layout plan & elevation drawings of Switchyard, Control building and Switchyard panel rooms.
5. Cable trench and tray layout drawings of Switchyard and Control building.
6. Erection key diagrams, Clearance diagrams, bill of materials for clamps, connectors, insulators, ACSR conductors, Al. tube bus and hardwares.
7. Earthing layout drawings and BOM for Switchyard, Control building and Switchyard panel rooms.
8. Lighting layout drawings, SLD and BOM of Switchyard, Control building and Switchyard panel rooms.
9. Lightning protection/DSLIP layout drawings and BOM of Switchyard and Control building.
10. Earthing and DSLIP calculations, Lighting calculations, Battery and battery charger sizing calculations, short circuit force calculations, sag & tension calculations.
11. Power and control cable schedule and interconnection diagrams, cable estimates for 400kV, 220kV, 132kV and 33kV switchyards and LV auxiliary AC/DC system.
12. Overall foundation layout of the Switchyard.
13. Overall structural layout of the Switchyard.
14. Site visit to provide assistance to getting approval of drawings from APTRANSCO.

This is to certify that M/S SATCON has completed the work in stipulated time and to the satisfaction of all concerned.

Yours truly,

For TECHNO ELECTRIC & ENGINEERING CO. LTD.

A.K. MITRA
Executive Director (Elec.)