

Andrew Yule & Co.Ltd.  
 (A Government of India Enterprise)  
 Electrical Division , Kolkata Oper  
 14 , Mayurbhanj Road Kolkata 700 023

**Tender No. ED/SWG/2010-11/1/ System Designer**

Sealed Quotations are invited from bonafide Electrical System Designer, who can design and provide the following drawings in accordance to the scope of work as below:

Complete Design and BOM for setting up construction of 33/11KV , 5MVA Power Substation associated with 3 x 150MVA Coal based Captive Power Plant comprising of:

- a) 33/11KV/5MVA Transformer with 33KV Outdoor VCB Control Room for 33KV Control Relay Panel , 11KV Switchgear, ACDB , DCDB, Switchyard, Support Structure, Yard Lighting and internal wiring of Control Room etc. A tentative Single Line Diagram for the Substation is being enclosed.
- b) Extension of Bay for 33/11KV 7.5MVA Transformer with 33KV VCB with CT /PT and Indoor Control Panel Structural designing etc.

System Designers should have :

- Minimum 10-12 years experience of designing of 33/11KV Substations with Switchyard, Control room including structural design, or above ratings of works.
- He should have PAN, VAT registration
- System designer should have his own infrastructure and human resources to prepare the complete drawing along with BOM

Scope of work shall includes furnishing of complete design drawings and Bill of Materials, obtaining approval from ultimate customers, participating in technical negotiation with customers/their consultant at their office or site at different locations of West Bengal. Supervision of erections and commissioning in accordance with Drawings /BOM as prepared. Checking of drawings of following supplied items in accordance with prepared system design :

1. 33 KV Isolator (with E/S)
2. 33KV Isolator (With out E/S)
3. 33KV /110V PT
4. 33KV (100/1 – 1A) CT
5. 33KV Station Class lighting Arrestor
6. 11KV Station Class lighting Arrestor
7. 11KV Gang Operated Single Break Vertical Mounted Isolator with drop out fuse

8. DC System with battery charger
9. ACDB
10. DCDB

### **SUBMISSION OF DRAWINGS**

System designer are required to consider following drawings and complete BOMS as a part of their offer in A3/A4 size as per requirement as hard copies followed by soft copy in AutoCad Version.

### **ELECTRICAL**

- a) Outdoor Switchyard layout plan
- b) Outdoor Switchyard sectional view
- c) Outdoor switchyard earthing plan with details
- d) Outdoor Switchyard lightning protection plan with details
- e) Outdoor Switchyard cable layout plan with details
- f) Outdoor switchyard lighting Layout plan with details
- g) Control Building equipment layout plan and sectional views
- h) Control Building trench and cable layout plan
- i) Control Building equipment earthing layout plan
- j) Control Building Lighting Layout Plan.
- k) Control Building Lightning protection layout plan
- l) Cabling and Earthing Standards
- m) Power Cable Schedule
- n) Control Cable Schedule with Interconnection diagram
- o) SLD of ACDB and complete with GA Drawings and Power Circuit Diagram and BOM
- p) SLD of DCDB and complete GA drawing and Power Circuit Diagram and BOM
- q) SLD of LDB and Complete GA and Sectionalize drawing and BOM
- r) Battery sizing calculation
- s) Earthing Calculation
- t) Lightning Protection calculation
- u) Cable and Bus bar sizing calculation and load
- v) Lighting Load calculation
- w) Identifying BOM of Hardware and clamps and Interconnection for switchyard.

**CIVIL**

Civil drawings including BOM for civil work i.e. Layout of Control Room foundation of equipment, Civil construction design and drawings.

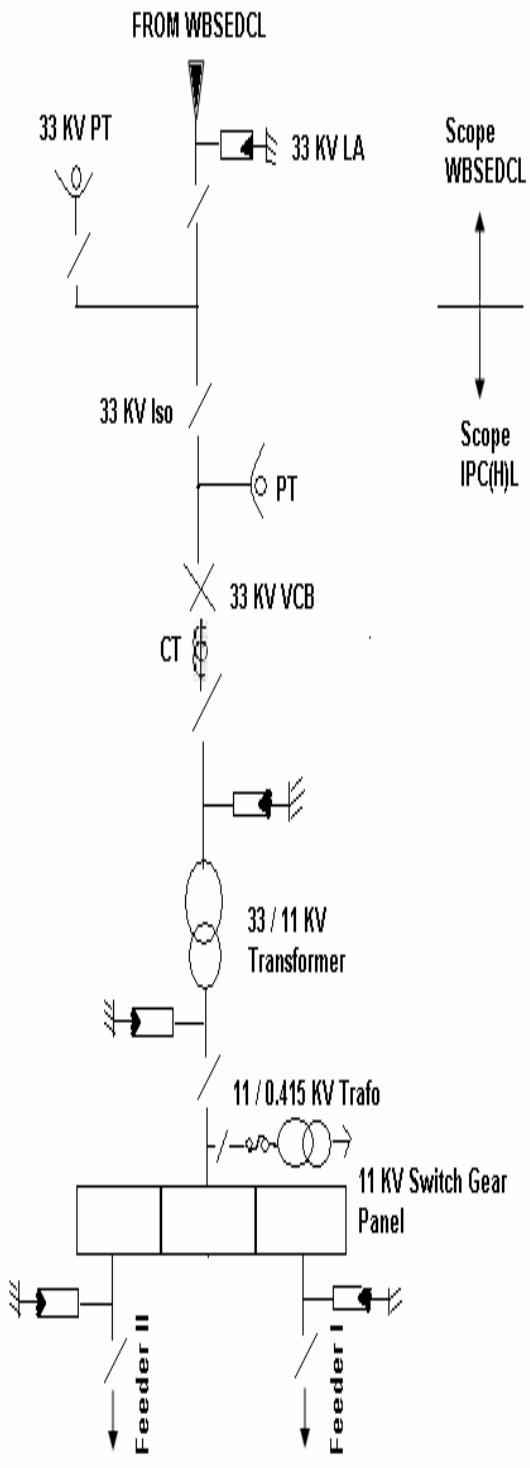
Besides above, any other drawings necessary for complete installation and commissioning of the switchyard should be included in the quotations

A tentative single line Diagram for the substation is being enclosed . Offer should be submitted in duplicate and shall be most competitive with clear terms and conditions.,

Your offer should reach us within 7 days from the date of publication of this enquiry.

**NOTE:**

Offer if downloaded from Website should accompany a Pay Order of Rs. 200/- (Two Hundred only) favouring Andrew Yule & Co.Ltd. payable at Kolkata towards the cost of Tender Document.



33 / 11 KV SWITCHYARD  
HALDIA  
SINGLE LINE DIAGRAM