

ETC/ SERVICES PART (ANNEXURE-III)

Project: 220kV DC Transmission Line at Rayalseema, TPP Unit-6 (1x600MW)					
Customer: APGENCO					
Notes The scope in brief is as follows :					
A	The scope involves storage, unloading & erection of 220kV D/C (Double Circuit) line consisting one Twin Moose circuit & one Single Moose circuit from 220kV Switchyard to 400kV Switchyard inside Plant boundary of Rayalseema Thermal Power Plant Stage-IV, Unit-6 (1x600MW) complete in all respects. The approximate distance between two substions is 730 m (approx.). i.e. total route length of the double circuit line to be constructed by the bidder.				
B	The quantities mentioned in the BOQ are tentative and may vary to any extent for individual items.				
	Any material/services required for successful completion of the project but not covered in the BOQ shall be deemed to be included in the scope of contractor without any cost implications to BHEL. <u>The bidder is advised to visit Rayalseema site before submission of bid.</u>				
C	Make of items to be supplied/used under this contract shall be subject to acceptance by customer/BHEL at contract stage.				
D	Unloading, Storage and watch & ward of all items is in the scope of bidder.				
E	Handling, shifting to & from stores at Rayalseema TPP proper storage are also included in the scope of the bidder.				
F	Bidder may note that any damage of material at site during erection work shall be avoided. Further, owner (APGENCO/BHEL) shall not pay any compensation for any loss or damage to the properties during work of execution of transmission line job or for tree cutting due to bidder's work.				
S. No.	Item / Work description	Unit	Quantity	Unit Rate	Amount (Rs.)
A	Survey				
1.1	Check survey of 220 kV D/C transmission line	m	730		
B	ETC (Erection , Testing and Commissioning) of 220 kV lines				
1.1	Erection of various type of tower angles , tower parts and tower body / leg (equal & unequal) extensions (complete) including bolts and nuts, step bolts, hangers, D-Shackles, tower accessories etc., including tack welding and supply and application of zinc rich paint for both Tension and Suspension type towers for 220 kV Double Circuit Transmission Line	MT	71.40		
1.2	ACSR Moose Conductor complete with rigid/bundle spaces, preformed armour rod, Mid span compression joint, Repair sleeves , vibration dampers , etc. to complete (for entire route length of lines of approximate 750 m)	kM	7		
1.3	Shield Wires(7/3.66) with Tension Clamps, Down lead clamp, PG clamp, flexible copper bond etc),Mid span compression joint,Repair sleeves, vibration dampers , etc to complete (for entire route length of lines of approximate 750 m)	m	730		
1.4	Double tension string hardware with 2x15 nos. 120 kN disc insulators in each string, etc. to complete suitable for twin moose conductor.	Nos	30		
1.5	Double tension string hardware with 2x15 nos. 120 kN disc insulators in each string, etc. to complete suitable for single moose conductor.	Nos	30		
1.6	Single suspension string hardware for Pilot string with 1x 15 nos. 120 kN disc insulators in each string suitable for single/ twin moose conductor	Nos	6		
1.7	Complete earthing of all towers as per approved drawings (Scope includes complete work includes testing to show that the tower resistance meets the acceptable limits.)				
1.7.1	3 m long , 40 NB pipe electrode	Nos.	8		
1.7.2	Counterpoise type (120 m long)	Nos.	2		
	Total Amount (Rs.)				
Notes :					
1	MS welding - apply red lead paint then aluminium paint then bitumen after welding.				
2	GI welding - apply 2 coats of cold galvanising anti corrosive paint after welding.				
3	10% welding joints in earthing shall be tested for dye penetration test.				
4	Equipment labels to be painted as per requirement.				
5	Quoted rates are deemed to be inclusive of miscellaneous works, viz.. erection of clamps and connectors, phase colour discs etc.				
6	Right of way is not in scope but tree cutting (if any) is in the scope of bidder.				
7	Supply of transmission line stringing hardware & disc insulators is in BHEL scope. However, shifting of material from BHEL stores to tower & erection of same is in bidder's scope.				