## **ANNEXURE -B**

## BID SHEET FOR ERECTION OF TOWERS BETWEEN LOCATION NO 11-12 of 132KV SUMER POWER STATION-KYRDEMKULAI POWER STATION D/C LINE FOR IMPROVEMENT OF GROUND CLEARANCE OF THE LINE AT UMTREW VILLAGE

Survey including preparation of material schedule, profiling and marking of location(route kms) including preparation of forest case in prescribed government as applicable  2 Check Survey and final peg marking of locations (ruote km) Earthwork in excavation in the foundation pits, bench cutting, including necessary dewatering manually or mechanically, refilling the pits after completion of the foundation works from the excavation earth or from borrow pits, ramming, watering etc., and removal of the surplus earth as directed, upto the full satisfication of the size flagineer  (i) Normal Soil (ii) Soft Rock (iii) Hard Rock P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  R.C.C works in the foundation in proportion 1:2:4, with maximum size of supplements, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  B.C.C works in the foundation in proportion 1:2:4, with maximum size of supplements of the supplement		UMTREW VILLAGE						
amarking of location(route kms) including preparation of forest case in prescribed government as applicable  Check Survey and final peg marking of locations (ruote km)  Earthwork in excavation in the foundation pits, bench cutting, including necessary dewatering manually or mechanically, refilling the pits after completion of the foundation works from the excavation earth or from borrow pits, ramming, watering etc., and removal of the surplus earth as directed, upto the full satisfication of the site Engineer  (i) Normal Soil  (ii) Soft Rock  (iii) Hard Rock  P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	SI No	Description of Work	Unit	Quantity	Rate in INR.			
Earthwork in excavation in the foundation pits, bench cutting, including necessary dewatering manually or mechanically, refilling the pits after completion of the foundation works from the excavation earth or from borrow pits, ramming, watering etc., and removal of the surplus earth as directed, upto the full satisfication of the site Engineer  (i) Normal Soil (ii) Soft Rock (iii) Hard Rock  P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering evc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  32KV D/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I. bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	1	marking of location(route kms) including preparation of forest	Km	0.366				
including necessary dewatering manually or mechanically, refilling the pits after completion of the foundation works from the excavation earth or from borrow pits, ramming, watering etc., and removal of the surplus earth as directed, upto the full satisfication of the site Engineer  (i) Normal Soil (ii) Soft Rock (iii) Hard Rock (iv) 16  Cum (iv) 16  P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 28mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV O/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I. Dolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	2	Check Survey and final peg marking of locations (ruote km)	Km	0.366				
(iii) Soft Rock (iii) Hard Rock P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	3	including necessary dewatering manually or mechanically, refilling the pits after completion of the foundation works from the excavation earth or from borrow pits, ramming, watering etc., and removal of the surplus earth as directed, upto the full satisfication						
(iii) Soft Rock (iii) Hard Rock P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any		(i) Normal Soil	Cum					
P.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any				15				
size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.  R.C.C works in the foundation in proportion 1:2:4, with maximum size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  No  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any		(iii) Hard Rock	Cum	16				
size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting, batching, mixing, placing, levelling, curring etc.,  Setting of stub (sets of four) including transportation and distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  No  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Cum  40  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	4	size of aggregate 38mm, including all labour, material, equipments, shuttering etc., complete for handling, transporting,	Cum	0.512				
distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.  132KV D/C (A Type)  Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Cum 40  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	5	size of aggregate 20mm, including all labour, material, equipments, shuttering eyc., complete for handling, transporting,	Cum	4.9525				
Grounding of towers including transportation of the grounding materials to the site and the cost of coke and material i.e., 3  7 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  8 Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Cum  40  Superstructure erection including transportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	6	distrubution of stubs and accessories from store to site, excluding cost of excavation, concreting and backfilling.						
materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised iron flat, 5 meters long G.I.bolts, nuts and washers. (Towers 4 Nos.)  Boulder Soiling if required with maximum size of boulder of 150m, including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including trasnportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any		132KV D/C (A Type)	No	1				
8 including mortar, in the proportion 1:6 including all materials equipments etc., complete. (excluding cement)  Superstructure erection including trasnportation and distrubution of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	7	materials to the site and the cost of coke and material i.e., 3 meters long 25mm diameter, G.I. Pipe, 45mm x 6mm galvanised	Nos	1				
of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of insulators and paintings, if any	8	including mortar, in the proportion 1:6 including all materials	Cum	40				
(i) A+ 0 D/C (ie.Wt. 1x2.47683) = 2.47683 MT MT 2.47683	9	of structure from store to the site, excluding fixing of danger, number and phase plates and anti climbing devices, hoisting of						
		(i) A+ 0 D/C (ie.Wt. 1x2.47683) = 2.47683 MT	MT	2.47683				

10	Stringing of Power Conductor including trasnportation and distribution of conductors and accessories, to the site and laying, jointing, stringing, tensioning, clamping, jointing, jumpering and hoisting of the insulators complete with all the fitting andacessories. (DC 0.366x2 = 0.732 ckt km)	Ckt Km	0.732	
11	Fitting & Fitting of Danger Plate	No	1	
12	Fitting & Fitting of Phase Plate	Set	1	
13	Fitting & Fitting of Number Plate	No	1	
14	Fitting & Fitting of anti-climbing devices Plate	Tower	1	
15	Punching of Bolts & Nuts per tower	Tower	1	
16	Dismantling of tower's conductors, insulators & releasing of conductor: Releasing & recoiling of ACSR Panther conductor from the existing tower locations  Loc 11 to 12 = 366.00 m  Total = 366.00 m, i.e. = 0.366 Km (ie. 0.366 x2 = 0.732 ckt km)	Ckt Km	0.732	
17	Releasing of OPGW from the Existing T/loc No. 9 to 12	Ckt Km	0.612	
19	Add GST @ 18% on			
20	Total			

Signature of the Contractor



## **ANNEXURE -A**

ANNEXURE -A BID SHEET FOR ERECTION OF TOWERS BETWEEN LOCATION NO 11XB-12XB of 132KV SUMER						
	ER STATION-KYRDEMKULAI POWER STATION D/C					
	CLEARANCE OF THE LINE AT UM	Remarks				
Item						
No	Particulars	Unit	Qnty	Rate	Amount	
1	Tower materials for DC (SAE design) :-					The materials will be supplied
	(i) 1 no A+0 = 2.47683 MT	MT	2.47683			by the Department.
2	Stubs & Cleats :-	MT	0.12108			To be quoted by the bidder
3	Nuts & Bolts, Spring Washer etc.	MT	0.12849			To be quoted by the bidder
4	Templates for SAE design :-					]
	(i) 1 no A type = 0.404 MT	MT	0.40400			
	Tower Accessories :-					
	i) Earthing Materials	L.S	L.S			]
	ii) Danger Plates	No	1			
5	iii) Phase Plates	Set	1			]
	iv) Number Plates	No	1			]
	v) Bird Guards	Set				]
	vi) Anti Climbing Device (Barbed Wire)	МТ	0.05			The meterials will be supplied
6	ACSR Panther Conductor :-	km	2.3			The materials will be supplied
	Conductor Accessories :-					by the Department.
	i) Single suspension HW Fittings for Panther Conductor	Set	6			
7	ii) Vibration Damper for ACSR Panther Conductor	No	12			
	iii) Repairing Sleeve for ACSR Panther conductor	No	2			
	iv) Mid span compression joint for ACSR Panther Conductor	Set	2			
	v) 90kN disc insulator	No	60			
	OPGW & accessories					
	(i)OPGW Cable	Km	0			
	(ii)Tension Assembly Pass Type	Set	1			To be quoted by the bidder
	(iii) Vibration Damper	Nos	2			To be quoted by the bidder
8	(a) Sub-total for Sl. No. 8					
	(b) ED, CST @ 14.36% from (a) (18000/114.36)					
	(c ) Sub Total (a-b)					
	(d) GST @ 18% on (c)					
	Total of Sl. No. 8 (c + d)					
		Say	Rs			

Signature of the Contractor

## **ABSTRACT**

SI. No.	Particulars	Amount (INR)
1	Estimate for erection of Towers between location No. 11XB-12XB of 132KV Sumer Power Station-Kyrdemkulai Power Station as in ANNEXURE - A	
2	Estimate for erection of Towers between location No. 11XB-12XB of 132KV Sumer Power Station-Kyrdemkulai Power Station as in ANNEXURE - B	
	Total	

Signature of the Contractor