

**PACKAGE: 49-B2(a)&(b)/2014-15- RTSS BISAMCUTTACK & RAYAGADA**

**ODISHA POWER TRANSMISSION CORPORATION LIMITED**

NAME OF THE WORK:- (a) Construction of 132KV SC line (Approximate 132 KV Two phase line, 13.554Kms.) from 132/33KV Muniguda Grid substation to proposed Railway Traction sub-station (RTSS) at Bisamcuttack with one no. 132KV feeder bay extension at 132/33KV Muniguda substation.  
 (b) Construction of 132KV SC line (Approximate 132 KV Two phase line, 2.646 Kms.) from 132/33KV Rayagada Grid substation to Railway Traction sub-station (RTSS) at Rayagada with one no. 132KV feeder bay extension at 132/33KV Rayagada Grid substation.

NOTICE INVITING TENDER-NIT NO. 49/2014-15 & BID DOCUMENT No.-Sr. G.M- CPC-TENDER- PACKAGE- 49/2014-15

**SCHEDULE-2A-SUPPLY (Equipment/Materials Price Break-up of Ex-works Prices against Package-49-B2(a)&(b)/2014-15- RTSS BISAMCUTTACK & RAYAGADA**

SUPPLY SUBSTATION EQUIPMENT & MATERIALS			NAME OF THE BIDDER																	
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2A-SS) SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS (As per Technical Specification)	UNITS	QUANTITY for Construction of 1 No. 132KV Feeder Bay extension at 132/33KV Muniguda substation for RTSS BISAMCUTTACK	QUANTITY for Construction of 1 No. 132KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	TOTAL QUANTITY	Unit Ex-Works Price IN INR	Total Ex-Works Price IN INR	Unit F&I Charges IN INR	Total F&I Charges IN INR	Mode of Transaction (Direct or Bought-out item)	Unit Excise duty IN INR	Unit VAT IN INR	Unit CST in INR	Any other tax IN INR	Total Taxes and duties/in IN INR	Unit FORD Price except Entry Tax IN INR	TOTAL FORD Price except Entry Tax ( RTSS) at Bisamcuttack IN INR	TOTAL FORD Price except Entry Tax ( RTSS) at RAYAGADA IN INR	TOTAL FORD Price except Entry Tax IN INR	
1	2	3	4	5	6=4+5	7	8=6X7	9	10= 6X9	11	12	13	14	15	16 = 12+13+14+15	17=7+9+12+13+14+15	18=17x4	19=17x6	20=17x6	
1	145 KV 800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER (3 NOS PS CLASS & 1 NO. 0.2s CLASS)	NOS	2	2	4	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
2	145 KV 1200A 31.5KA ISOLATORS	NOS	1	1	2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
2.1	SI WITH OUT EARTH SWITCH	NOS	1	1	2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
2.2	DI WITH SINGLE EARTH SWITCH	NOS	1	0	1	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
2.3	DI WITH OUT EARTH SWITCH	NOS	0	0	0	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
2.4	SI WITH OUT EARTH SWITCH	NOS	0	0	0	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
3	145 KV 6600pF 3CORE SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	2	2	4	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
4	120 KV METAL OXIDE SURGE ARRESTOR 10 KA Class III	NOS	2	2	4	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
5	145 KV 2 CORE SINGLE PHASE IVT	NOS	0	0	0	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
6	132 KV Bus Post Insulators	NOS	1	1	2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
7	145KV 3150A 40KA SPS CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	1	1	2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8	BUS BAR & CIRCUIT MATERIALS																			
8.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING																			
8.1.1	120 kN ANTI FOG INSULATOR STRING for Twin Moose cond (TENSION)-132 KV	SET	0	0	0	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.1.2	120 kN ANTI FOG INSULATOR STRING for Single Moose/ Zebra cond (TENSION)-132 KV	SET	18	18	36	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.1.3	90 kN ANTI FOG INSULATOR STRINGS for Double/ Single Moose/ Zebra cond (SUSPENSION)-132 KV	SET	6	10	16	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.2	ACSR Moose/ Zebra CONDUCTOR	KM	0.5	0.1	0.6	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.3	ACSR Panther CONDUCTOR	KM	0.5	0.25	0.75	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.4	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT	1	1	2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.5	EARTH SPIKES & ITS HARDWARES & FITTING	SET	3	3	6	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.6	SUBSTATION EARTHING SYSTEMS																			
8.6.1	EARTHING CONDUCTOR FOR BURIAL: 75X10 mm GI Flat for laying (spacing maximum 5m both way)	MT	5	5	10	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.6.2	EARTHING CONDUCTOR: 50x6 mm GI Flat for Raiser from the burial earth mat to equipment structure #63	MT	1	2	3	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.6.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit)	NOS	22	26	48	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.6.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	NOS	0	0	0	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.6.5	GI Cable Trays including support GI angle suitable for different sections i.e. Section:1-1.2-2-3-3 & 4-4 along with its accessories as per TS.	LOTMT	1.6	1.6	3.2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.7	CT, PT & CVT Out Door Console Boxes (132 KV CT 1 NO + 1 No. 132 KV CVT-1 No. + 1 No.)	NOS	2	2	4	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
8.7.1	BAY MARSHALLING KIOSK(01 No + 01 No. 132 kv bay)	NOS	1	1	2	0.00	0.00	0.00	0.00						0.00	0.00			0.00	
9	SWITCH YARD STRUCTURES (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS																			
9.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS																			
9.1.1	T8S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS	2	4	6															
9.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS	1	1	2															
9.1.3	T8S - 33KV(NOMINAL UNIT WT- 0.8 MT)	NOS	0	0	0															
9.1.4	T8S - 33KV(NOMINAL UNIT WT- 0.6 MT)	NOS	0	0	0															
9.2	DIFFERENT TYPE OF BEAMS WITH DETAILS																			
9.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.92 MT)	NOS	2	2	4															
9.2.2	G1X - 132 KV(NOMINAL UNIT WT- 1.4 MT)	NOS	0	0	0															
9.2.3	G2 - 132 KV(NOMINAL UNIT WT- 0.91 MT)	NOS	0	0	0															
9.2.4	G1.2 - 132 KV(Each two beams of G1 type) (NOMINAL UNIT WT- 1.25 MT)	NOS	0	0	0															
9.2.5	G6 - 33KV (NOMINAL UNIT WT- 0.53 MT)	NOS	0	0	0															
9.2.6	G4 - 33KV(NOMINAL UNIT WT- 0.4 MT)	NOS	0	0	0															
9.2.7	G4X - 33KV(NOMINAL UNIT WT- 0.4 MT)	NOS	0	0	0															
9.3	TOTAL WEIGHT OF COLUMN & BEAM	MT	6.41	9.25	15.66			0.00	0.00						0.00	0.00			0.00	
9.4	SUPPORT STRUCTURES (LATTICE/PIPE TYPE) FOR ALL 132 KV & 33KV EQUIPMENTS																			
9.4.1	ISOLATORS-132KV	NOS	2	3	5															
9.4.2	ISOLATORS-33KV	NOS	0	0	0															
9.4.3	CTS-132 KV	NOS	2	2	4															

SUPPLY SUBSTATION EQUIPMENT & MATERIALS		NAME OF THE BIDDER																		
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2A-SS) SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS (As per Technical Specification)	UNITS	QUANTITY: for Construction of 1 No. 132 KV Feeder Box extension at 132/33KV Bhargada substation for RFS& BISAMUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder box extension at 132/33KV RAYAGADA substation for RFS& RAYAGADA	TOTAL QUANTITY	Unit Ex-Works Price IN INR	Total Ex-Works Price IN INR	Unit F&I Charges IN INR	Total F&I Charges IN INR	Mode of Transaction (Direct or Bought out item)	Unit Excise duty IN INR	Unit VAT IN INR	Unit GST IN INR	Any other tax IN INR	Total Taxes and duties/unit IN INR	Unit FORD Price except Entry Tax IN INR	TOTAL FORD Price except Entry Tax (RTSS) at Bismacuttack IN INR	TOTAL FORD Price except Entry Tax (RTSS) at RAYAGADA IN INR	TOTAL FORD Price except Entry Tax IN INR	
1	2	3	4	5	6=4+5	7	8=6X7	9	10= 6X9	11	12	13	14	15	16 = 12+13+14+15	17=7*9+12+13+14+15	18=17X4	19=17X5	20=17X6	
9.4.4	CTS-33 KV	NOS	0	0	0															
9.4.5	CVTS-132 KV	NOS	0	0	0															
9.4.6	IVTS-132 KV	NOS	0	0	0															
9.4.7	IVTS-33 KV	NOS	0	0	0															
9.4.8	Surge Arrester-132 KV	NOS	3	3	6															
9.4.9	Wave Trap-132 KV	NOS	3	3	6															
9.4.10	BPH-132 KV	NOS	3	3	6															
9.4.11	BPH-33 KV	NOS	0	0	0															
9.4.12	NCTS	NOS	0	0	0															
9.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT	3.391	2.596	5.987		0.00		0.00						0.00	0.00			0.00	
9.6	Total weight of GI Nuts and bolts for the above structures	MT	0.482	0.68	1.162		0.00		0.00						0.00	0.00			0.00	
9.7	Total weight of Foundation Nuts and bolts for the above structures	MT	0.501	0.713	1.214		0.00		0.00						0.00	0.00			0.00	
10	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES																			
10.1	POWER CABLES,1.1KV,XLPE,ARMORED, ALUMINIUM CONDUCTOR (As per Specification)																			
10.1.1	3.5 CX300mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.1.2	3.5 CX185mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.1.3	3.5 CX120mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.1.4	3.5 CX70mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.1.5	3.5 CX25mm <sup>2</sup>	MTR	500	200	700		0.00		0.00						0.00	0.00			0.00	
10.1.6	4 CX 16mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.1.7	4 CX 6mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.1.8	2CX 6mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.2	CONTROL CABLES,1.1 KV, PVC STRANDED COPPER(As per specification)																			
10.2.1	2 CX 2.5mm <sup>2</sup>	MTR	1000	2000	3000		0.00		0.00						0.00	0.00			0.00	
10.2.2	4 CX 2.5mm <sup>2</sup>	MTR	4000	4000	8000		0.00		0.00						0.00	0.00			0.00	
10.2.3	6 CX 2.5mm <sup>2</sup>	MTR	1000	1000	2000		0.00		0.00						0.00	0.00			0.00	
10.2.4	7CX 2.5mm <sup>2</sup>	MTR	1000	1000	2000		0.00		0.00						0.00	0.00			0.00	
10.2.5	10 CX 2.5mm <sup>2</sup>	MTR	1000	1000	2000		0.00		0.00						0.00	0.00			0.00	
10.2.6	12 CX 2.5mm <sup>2</sup>	MTR	1000	1000	2000		0.00		0.00						0.00	0.00			0.00	
10.2.7	16 CX 2.5mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.2.8	18 CX 2.5mm <sup>2</sup>	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
10.2.9	1CX 120mm <sup>2</sup> BAT TO BAT CHARGER & CHARGER TO DCDB	MTR	0	0	0		0.00		0.00						0.00	0.00			0.00	
11	ACCESSORIES FOR PLC SYSTEM AS PER TECHNICAL SPECIFICATION																			
11.1	132 KV Line Trap for Pedestal mounting with complete accessories 300A, 0.5 MH, (90-500kHz) Isp=31.5kA compatible to IEC 353 specifications	NOS	0	0	0		0.00		0.00						0.00	0.00			0.00	
11.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	0	0	0		0.00		0.00						0.00	0.00			0.00	
11.3	12.5 mm OD armoured Co-axial Cable; impedance: 75 ohms, Insulation Resistance: 100 Meg Ohms Dielectric strength: 5 KV, Signal attenuation: 6 dB/KM (Max) at 500 kHz	MTRS	0	0	0		0.00		0.00						0.00	0.00			0.00	
11.4	2 PAIR NON ARMORED TELEPHONE CABLES	MTRS	0	0	0		0.00		0.00						0.00	0.00			0.00	
11.5	2 WIRE TELEPHONE SET	NO	0	0	0		0.00		0.00						0.00	0.00			0.00	
12	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS) (Switch yard and other street area)																			
12.1	SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES & LAMPS (LED) of reputed make (Phillips/CGL/Bajaj) with switch gear,GI Conduit etc.(Lighting fixtures are to be fixed rigidly on the Column at a suitable height so that the required lux can be maintained)	NOS	6	6	12		0.00		0.00						0.00	0.00			0.00	
13	PROTECTION CONTROL, METERING, EVENT LOGGER,BUS BAR PROT N PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC																			
13.1	132 KV SIDE																			
13.1.1	FEEDER CONTROL PANEL	NOS	1	1	2		0.00		0.00						0.00	0.00			0.00	
13.1.2	FEEDER RELAY PANEL	SET	1	1	2		0.00		0.00						0.00	0.00			0.00	
14	BEST QUALITY & APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC,(2000X1000X10)mm Size	NOS	2	2	4		0.00		0.00						0.00	0.00			0.00	
TOTAL OF SUPPLY FOR SUBSTATION								0.00		0.00					0.00	0.00			0.00	
SUPPLY_TRANSMISSION LINE EQUIPMENTS AND MATERIALS																				

SUPPLY SUBSTATION EQUIPMENT & MATERIALS		NAME OF THE BIDDER																	
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2A-SS) SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS (As per Technical Specification)	UNITS	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Mangalga Substation for RTSS BISAMUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA Substation for RTSS RAYAGADA	TOTAL QUANTITY	Unit Ex-Works Price IN INR	Total Ex-Works Price IN INR	Unit F&I Charges IN INR	Total F&I Charges IN INR	Mode of Transaction (Direct or Bought out item)	Unit Excise duty IN INR	Unit VAT IN INR	Unit GST IN INR	Any other tax IN INR	Total Taxes and duties/unit IN INR	Unit FORD Price except Entry Tax IN INR	TOTAL FORD Price except Entry Tax ( RTSS) at Bisamcutack IN INR	TOTAL FORD Price except Entry Tax ( RTSS) at RAYAGADA IN INR	TOTAL FORD Price except Entry Tax IN INR
1	2	3	4	5	6=4+5	7	8=6X7	9	10= 6X9	11	12	13	14	15	16 = 12+13+14+15	17=7+9+12+13+14+15	18=17x4	19=17x5	20=17x6
1	SUPPLY OF Following type tested Lattice type Galvanized steel tangent / Angle tower with stubs and cleats , different type of G.I HT Nuts & Bolts, washer, spring washer for the towers ,hanger and all accessories, tower super structure complete including step bolts. Supply of black bituminous paint for three coats up to a height of 500mm above the coping(legs & bracing members). All Supply should confirm to the Technical Specification.																		
1.1	PA TYPE (SUSPENSION ) TOWERS (Nominal unit weight 3.430 MT)	Nos.	36	3	38														
1.1.1	-3 EXTENSION (Nominal unit weight 0.537 MT)	Nos.	8	0	8														
1.1.2	-6 EXTENSION (Nominal unit weight 1.349 MT)	Nos.	11	1	12														
1.2	PC TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 4.973 MT)	Nos.	2	1	3														
1.2.1	-3 EXTENSION (Nominal unit weight 1.038 MT)	Nos.	2	1	3														
1.2.2	-6 EXTENSION (Nominal unit weight 2.104 MT)	Nos.	2	0	2														
1.3	DC TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 6.214 MT)	Nos.	9	3	12														
1.3.1	-3 EXTENSION (Nominal unit weight 1.119 MT)	Nos.	4	0	4														
1.3.2	-6 EXTENSION (Nominal unit weight 2.342 MT)	Nos.	2	1	3														
1.4	OC TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 9.513 MT)	Nos.	0	0	0														
1.4.1	-3 EXTENSION (Nominal unit weight 2.537 MT)	Nos.	0	0	0														
1.4.2	-6 EXTENSION (Nominal unit weight 6.007 MT)	Nos.	0	0	0														
1.5	UR TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 9.472 MT)	Nos.	0	0	0														
1.5.1	-6 EXTENSION (Nominal unit weight 3.457 MT)	Nos.	0	0	0														
1.5.2	DD TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 34.809 MT)	Nos.	0	0	0														
1.5.3	-6 EXTENSION (Nominal unit weight 34.339 MT)	Nos.	0	0	0														
1.6	TEMPLATES																		
1.6.1	PA (Nominal unit weight 0.665 MT)	Nos.	3	1	4														
1.6.2	PB (Nominal unit weight 0.602 MT)	Nos.	1	1	2														
1.6.3	PC (Nominal unit weight 0.904 MT)	Nos.	1	1	2														
1.6.4	OC (Nominal unit weight 0.985 MT)	Nos.	0	0	0														
1.6.5	DD (Nominal unit weight 2.03 MT)	Nos.	0	0	0														
1.6	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	249.728	41.497	291.225		0.00		0.00						0.00	0.00			0.00
1.6	WEIGHT OF TEMPLATES FOR PA , PB , PC , OC & DD	MT	3.501	2.06	5.561		0.00		0.00						0.00	0.00			0.00
1.6	Weight of different type G.I Nuts and Bolts	MT	13.6	2.427	16.027		0.00		0.00						0.00	0.00			0.00
2.0	Supply of the following tower accessories as per technical specification and as directed by the engineer in charge.																		
2.1	ANYTHING DEVICE	Nos.	55	8	63		0.00		0.00						0.00	0.00			0.00
2.2	DANGER BOARD	Nos.	55	8	63		0.00		0.00						0.00	0.00			0.00
2.3	NUMBER PLATE	Nos.	55	8	63		0.00		0.00						0.00	0.00			0.00
2.4	PHASE PLATE	Nos.	110	16	126		0.00		0.00						0.00	0.00			0.00
2.5	BIRD GUARD	Nos.	73	7	80		0.00		0.00						0.00	0.00			0.00
2.6	ANTI CLIMBING DEVICE	Nos.	55	8	63		0.00		0.00						0.00	0.00			0.00
2.7	SECURITY RING	Nos.	55	8	63		0.00		0.00						0.00	0.00			0.00
2.8	PREFORMED ARMOUR ROD	Nos.	73	7	80		0.00		0.00						0.00	0.00			0.00
2.9	COUNTERPOISE EARTHING	Nos.	0	0	0		0.00		0.00						0.00	0.00			0.00
3.0	Supply of following POWER CONDUCTORS in the proposed 132 kv lines with 1.5% provision for sag and wastage as per the technical specification and as per the instruction of the engineer in charge.																		
3.1	ACSR Panther (10/7/7) (mm)	Kms.	27.515	5.37	32.885		0.00		0.00						0.00	0.00			0.00
4.0	POWER CONDUCTOR ACCESSORIES																		
4.1	For ACSR PANTHER																		
4.1.1	VIBRATION DAMPER	Nos.	224	36	260		0.00		0.00						0.00	0.00			0.00
4.1.2	MID SPAN JOINT	Nos.	28	6	34		0.00		0.00						0.00	0.00			0.00
4.1.3	Repair Sleeve	Nos.	6	2	8		0.00		0.00						0.00	0.00			0.00
4.1.5	INS CLAMP	Nos.	0	0	0		0.00		0.00						0.00	0.00			0.00

SUPPLY SUBSTATION EQUIPMENT & MATERIALS			NAME OF THE BIDDER																	
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2A-SS) SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS (As per Technical Specification)	UNITS	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Bhargida substation for RFS& BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RFS& RAYAGADA	TOTAL QUANTITY	Unit Ex-Works Price IN INR	Total Ex-Works Price IN INR	Unit F&I Charges IN INR	Total F&I Charges IN INR	Mode of Transaction (Direct or Bought out item)	Unit Excise duty IN INR	Unit VAT IN INR	Unit GST IN INR	Any other tax IN INR	Total Taxes and duties/unit IN INR	Unit FORD Price except Entry Tax IN INR	TOTAL FORD Price except Entry Tax (RTSS) at Bisamcuttack IN INR	TOTAL FORD Price except Entry Tax (RTSS) at RAYAGADA IN INR	TOTAL FORD Price except Entry Tax IN INR	
1	2	3	4	5	6=4+5	7	8=6X7	9	10= 6X9	11	12	13	14	15	16 = 12*13+14+15	17=7*9+12*13+14+15	18=17x4	19=17x5	20=17x6	
5.0	Supply of the GI earth wire of size 7/3.15 mm as per the technical specification, with 1.5% provision for Sag & Wastage and as per the direction of Engineer in charge.	Kms.	13.96	2.888	16.848		0.00		0.00						0.00	0.00			0.00	
6.0	EARTH CONDUCTOR ACCESSORIES																			
6.1	VIBRATION DAMPER	Nos.	116	22	138		0.00		0.00						0.00	0.00			0.00	
6.2	FLEXIBLE EARTH BOND	Nos.	90	11	101		0.00		0.00						0.00	0.00			0.00	
6.3	SUSPENSION CLAMP	Nos.	35	3	38		0.00		0.00						0.00	0.00			0.00	
6.4	TENSION CLAMP	Nos.	45	16	62		0.00		0.00						0.00	0.00			0.00	
6.5	MID SPAN JOINT	Nos.	14	3	17		0.00		0.00						0.00	0.00			0.00	
6.6	ROBBER SHEET	Nos.	14	0	14		0.00		0.00						0.00	0.00			0.00	
7.0	Supply of the following Anti fog type disc insulators as per the technical specification and as per the instruction of the Engineer in charge.																			
7.1	90 KN Insulator (taking 5% extra towards wastage)	Nos.	756	86	852		0.00		0.00						0.00	0.00			0.00	
7.2	120KN Insulator (taking 2% extra towards wastage)	Nos.	966	273	1239		0.00		0.00						0.00	0.00			0.00	
8.0	Supply of the following hard ware fittings suitable for ACSR Panther conductors as per the technical specification.																			
8.1	For ACSR PANTHER																			
8.1.1	Single suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	76	5	81		0.00		0.00						0.00	0.00			0.00	
8.1.2	Double suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	8	2	10		0.00		0.00						0.00	0.00			0.00	
8.1.3	Single tension Hard wares fittings suitable for 120 KN insulator.	Nos.	73	22	95		0.00		0.00						0.00	0.00			0.00	
8.1.4	Double tension Hard wares fittings suitable for 120 KN insulator.	Nos.	8	2	10		0.00		0.00						0.00	0.00			0.00	
8.1.5	Q-Shackle	Nos.	0	0	0		0.00		0.00						0.00	0.00			0.00	
8.1.6	Hanger	Nos.	0	0	0		0.00		0.00						0.00	0.00			0.00	
8.1.7	U-Bolt.	Nos.	0	0	0		0.00		0.00						0.00	0.00			0.00	
TOTAL OF SUPPLY FOR TRANSMISSION LINE							0.00		0.00						0.00	0.00			0.00	
SUPPLY PRICE_TOTAL OF SCHEDULE 2A (SS & LINE)																				0.00

Note:

- 1 Before filling up rate/amount etc. in the schedules bidders are requested to read carefully the instruction given in Vol-I of Bidding Document.
- 2 Bidders are required to fill up only blue shaded cells.
- 3 Bidders are requested not to leave any column blank. If any column is left blank it shall be considered that amount against those items are included in any other item and the total amount for that item shall be calculated as free of cost (Zero value).
- 4 In mode of transaction column please indicate Direct/Bought-Out. For Taxes & Duties on Direct/Bought-out items refer clause 6.0 of SCC (Vol-1A)

<p style="text-align: center;"><b>PACKAGE: 49-B2(a)&amp;(b)/2014-15- RTSS BISAMCUTTACK &amp; RAYAGADA</b></p>						ODISHA POWER TRANSMISSION CORPORATION LIMITED			
						NAME OF THE WORK:-(a) Construction of 132KV SC line (Approximate 132 KV Two phase line, 13.554Kms.) from 132/33KV Muniguda Grid substation to proposed Railway Traction sub-station ( RTSS) at Bisamacuttack with one no. 132KV feeder bay extension at 132/33KV Muniguda substation. (b) Construction of 132KV SC line (Approximate 132 KV Two phase line, 2.646 Kms.) from 132/33KV Rayagada Grid substation to Railway Traction sub-station ( RTSS) at Rayagada with one no. 132KV feeder bay extension at 132/33KV Rayagada Grid substation.			
						NOTICE INVITING TENDER-NIT NO. 49/2014-15 & BID DOCUMENT No.:Sr. G.M- CPC-TENDER- PACKAGE- 49/2014-15			
						SCHEDULE-2C-ERECTION & CIVILWORKS(Equipment/Materials Price Break-up of Ex-works Prices against Package-Package-49-B2(a)&(b)/2014-15- RTSS BISAMCUTTACK & RAYAGADA			
			NAME OF THE BIDDER						
ERECTION SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Muniguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Muniguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
<b>A ELECTRICAL WORKS</b>									
1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER	NOS	2	2	4				0.00
2	145 KV,1200A,31.5KA,ISOLATORS								
2.1	S/I WITH OUT EARTH SWITCH	NOS	1	1	2				0.00
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	1	0	1				0.00
2.3	D/I WITHOUT EARTH SWITCH	NOS	0	0	0				0.00
2.4	S/I WITHOUT EARTH SWITCH		0	2					
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	2	2	4				0.00
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	2	2	4				0.00
5	145 KV ,2 CORE,SINGLE PHASE,IVT	NOS	0	0	0				0.00
6	132 KV Bus Post Insulators	NOS	3	6	9				0.00
7	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	1	1	2				0.00
<b>BUS BAR &amp; CIRCUIT MATERIALS</b>									
8.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING								
8.1.1	120 kN ANTIFOG INSULATOR STRINGS for twin Zebra cond (TENSION)-132 KV	SET	0	0	0				
8.1.2	120 kN ANTIFOG INSULATOR STRINGS for Single Zebra/ Moose cond ( TENSION)-132 KV	SET	18	18	36				
8.1.3	90 kN ANTIFOG INSULATOR STRINGS forDouble/ Single Zebra cond (SUSPENSION)-132 KV	SET	6	10	16				
9	ACSR MOOSE/ ZEBRA CONDUCTOR	KMS	0.5	0.1	0.6				0.00
9.1	ACSR Panther CONDUCTOR	LOT	0.5	0.25	0.75				0.00
10	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT		1	2				0.00
11	EARTHING SPIKE & ITS ACCESSORIES(7 MTRS LENGTH EACH) :	SET	3	3	6				0.00
12	<b>SUBSTATION EARTHING SYSTEMS</b>								

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
12.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Flat for laying (spacing maximum 5m both way)	MT	5	5	10				0.00
12.2	EARTHING CONDUCTOR: 50X6 mm GI Flat for Raiser from the burial earth mat to equipment,structure etc)	MT	1	2	3				0.00
12.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit)	NOS	22	26	48				0.00
12.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	NOS	0	0	0				0.00
12.5	G.I Cable Trays including G.I. support Angle suitable for different sections i.e. Section:1,1,2-2,3-3 & 4-4 along with its accessories as per TS.	MTRS	1.6	1.6	3.2				0.00
13	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES								
13.1	BAY MARSHALLING KIOSK (01 No + 01 No. 132 kv bay)	NOS	1	1	2				0.00
13.2	SWITCH YARD AC CONSOLE FOR LIGHTING (0 no)	NOS			0				
13.3	SWITCH YARD RECEPACLE BOARD FOR TFR OIL FILTRATION (0 No)	NOS			0				
13.4	SWITCH YARD RECEPACLE BOARD FOR WELDING & OTHER EMERGENCY (0 Nos)	NOS			0				
13.5	CT, PT & CVT Out Door Console Boxes (132 KV CT 1 NO.+ 1 No., 132 KV CVT-1 No. + 1 No.)	NOS	2	2	4				
14	SWITCH YARD STRUCTURES (LATTICE TYPE) FOR 220/132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.								
14.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS								
*14.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS	2	4	6				0.00
*14.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS	1	1	2				0.00
*14.1.3	T8S - 33KV(NOMINAL UNIT WT- 0.8 MT)	NOS	0	0	0				0.00
*14.1.4	T9S - 33KV(NOMINAL UNIT WT- 0.6 MT)	NOS	0	0	0				0.00
14.2	DIFFERENT TYPE OF BEAMS WITH DETAILS								
*14.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS	2	2	4				
*14.2.2	G1X - 132 KV (NOMINAL UNIT WT- 1.4 MT)	NOS	0	0	0				
*14.2.3	G2 - 132 KV(NOMINAL UNIT WT- 0.91 MT)	NOS	2	2	4				
*14.2.4	G1.2 - 132 KV(Each two beams of G1 type) (NOMINAL UNIT WT- 1.25 MT)	NOS	0	0	0				
*14.2.5	G6 - 33KV (NOMINAL UNIT WT- 0.53 MT)	NOS	0	0	0				
*14.2.6	G4 - 33KV(NOMINAL UNIT WT- 0.4 MT)	NOS	0	0	0				
*14.2.7	G4X - 33KV (NOMINAL UNIT WT- 0.4 MT)	NOS	0	0	0				
14.3	TOTAL WEIGHT OF COLUMN & BEAM	MT	6.41	9.25	15.66				0.00
14.4	SUPPORT STRUCTURES (LATTICE/PIPE TYPE) FOR ALL 132 KV & 33KV EQUIPMENTS								
*14.4.1	ISOLATORS-132KV	NOS	2	3	5				
*14.4.2	CTS-132 KV	NOS	2	2	4				
*14.4.3	CVTS-132 KV	NOS	2	2	4				
*14.4.4	Surge Arrester-132 kv	NOS	2	2	4				
*14.4.5	Wave Trap-132 KV	NOS	2	2	4				
*14.4.6	BPI-132 KV	NOS	3	6	9				
14.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT	3.391	2.596	5.99				0.00
14.6	Total weight of GI Nuts and bolts for the above structures	MT	0.482	0.68	1.162				0.00
15	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES								
15.1	POWER CABLES,1.1KV,XLPE,ARMOURED, ALUMINIUM CONDUCTOR (As per Specification)								
15.1.1	3.5 CX300 mm <sup>2</sup>	MTR	0	0	0				0.00
15.1.2	3.5 CX185 mm <sup>2</sup>	MTR	0	0	0				0.00
15.1.3	3.5 CX120 mm <sup>2</sup>	MTR	0	0	0				0.00
15.1.4	3.5 CX70 mm <sup>2</sup>	MTR	0	0	0				0.00

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Muniguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Muniguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
15.1.5	3.5 CX25 mm <sup>2</sup>	MTR	500	200	700				0.00
15.1.6	4 CX 16 mm <sup>2</sup>	MTR	0	0	0				0.00
15.1.7	4 CX 6 mm <sup>2</sup>	MTR	0	0	0				0.00
15.1.8	2CX 6 mm <sup>2</sup>	MTR	0	0	0				0.00
15.2	<b>CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)</b>								
'15.2.1	2CX 2.5 mm <sup>2</sup>	MTR	1000	2000	3000				0.00
'15.2.2	4 CX 2.5 mm <sup>2</sup>	MTR	4000	4000	8000				0.00
'15.2.3	5 CX 2.5 mm <sup>2</sup>	MTR	1000	1000	2000				0.00
'15.2.4	7CX 2.5 mm <sup>2</sup>	MTR	1000	1000	2000				0.00
'15.2.5	10 CX 2.5 mm <sup>2</sup>	MTR	1000	1000	2000				0.00
'15.2.6	12 CX 2.5 mm <sup>2</sup>	MTR	1000	1000	2000				0.00
'15.2.7	16 CX 2.5 mm <sup>2</sup>	MTR	0	0	0				0.00
'15.2.8	19 CX 2.5 mm <sup>2</sup>	MTR	0	0	0				0.00
'15.2.9	1CX 120 mm <sup>2</sup> BAT TO BAT CHARGER & CHARGER TO DCDB	MTR	0	0	0				0.00
16	<b>PLCC System</b>								
16.1	132 kV Line Trap for Pedestal mounting with complete accessories :800A, 0.5 mH, (90-500kHz),Isc=31.5kA compatible to IEC 353 specifications	NOS	0	0	0				0.00
16.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	0	0	0				0.00
16.3	12.5 mm OD armoured Co-axial Cable; impedance: 75 ohms, Insulation Resistance: 100 Meg Ohms Dielectric strength: 5 kV, Signal attenuation: 6 dB/KM (Max) at 500 kHz	MTRS	0	0	0				0.00
16.4	4 PAIR NON ARMoured TELEPHONE CABLES	MTRS	0	0	0				
16.5	2 WIRE TELEPHONE SET	NO	0	0	0				
17	<b>SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS )(Switch yard and other street area)</b>								
'17.1	<i>SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES &amp; LAMPS (LED) of reputed make (Philips/CGL/Bajaj) with switch gear,GI Conduit etc.(Lighting fixtures are to be fixed rigidly on the Column at a suitable height so that the required lux can be maintained).</i>	NOS	6	6	12				0.00
18	<b>PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROT N PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC</b>								
18.1	<b>132 KV SIDE</b>								
'18.1.1	FEEDER CONTROL PANEL	NOS	1	1	2				0.00
18.1.2	FEEDER RELAY PANEL	SET	1	1	2				
19	BEST QUALITY &APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.(2000X1000X10)mm Size	NOS	2	2	4				0.00
20	ERECTION OF PLCC EQUIPMENT SUPPLIED BY OWNER INCLUDING DISMANTLING FROM EXISTING SUBSTATION ( AS PER THE DETAILS SLD GIVEN IN TS) AND TRANSPORTATION AS REQUIRED	LOT	0		0				0.00
<b>A</b>	<b>TOTAL OF (Electrical Work) (PART-A)_SUBSTATION</b>								
<b>B</b>	<b>CIVIL WORKS</b>								

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
1	<b>Foundations : Design, engineering, supply of all labour, material (Cement-OPC-43 Grade,MS Rod, coarse and fine aggregates(Sand and Metal Chips) etc) for construction of RCC ( 1:1.5:3) &amp; PCC (1:3:6), RCC footings of any depth, pedestal and piling as per requirement including soil investigation, excavation,concreting, shuttering, grouting, underpinning and back filling of foundations etc complete for the following switch yard gantry/ portal structures and equipment support &amp; others as per the technical specification and approved drawings.(RCC RATIO 1:1.5:3). This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge.</b>								
1.1	Switch yard gantry/portal structure foundations								
1.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS	2	4	6				0.00
1.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS	1	1	2				0.00
1.2	Equipment foundations :								
1.2.1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER	NOS	2	2	4				0.00
1.3	145 KV,1200A,31.5KA,ISOLATORS								
1.3.1	S/I WITH OUT EARTH SWITCH	NOS	1	1	2				0.00
1.3.2	D/I WITH SINGLE EARTH SWITCH	NOS	1	0	1				0.00
1.3.3	D/I WITHOUT EARTH SWITCH	NOS	0	0	0				0.00
1.3.4	S/I WITHOUT EARTH SWITCH	NOS	0	2	2				0.00
1.4	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	2	2	4				0.00
1.5	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	2	2	4				0.00
1.6	145 KV ,2 CORE,SINGLE PHASE,IVT	NOS			0				0.00
1.7	132 KV Bus Post Insulators	NOS	3	6	9				0.00
1.8	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	1	1	2				0.00
1.9	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES								
1.9.1	BAY MARSHALLING KIOSK (03 Nos 132 kv bay & 04 Nos 33 KV bay)	NOS	1	1	2				0.00
1.9.2	CT, PT & CVT Out Door Console Boxes (132 KV CT 1 NO.+ 1 No., 132 KV CVT-1 No. + 1 No.)	NOS	2	2	4				
1.1	EXCAVATION:This also includes excavation in all types of soil or rocks,backfilling,and disposal of excess earth as per the direction of Engineer In charge.								
*1.10.1	Normal Soil(SOFT/LOOSE)	Cum	410	160	570				0.00
*1.10.2	Hard Soil	Cum	100	150	250				0.00
*1.10.3	Soft Rock	Cum	160	0	160				0.00
*1.10.4	Hard Rock(Requiring Blasting/Using breaker machinery)	Cum	150	80	230				0.00
1.10.5	Design, Engineering, Providing and laying of plain cement concrete (PCC 1:3:6) of grade M10 with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in column and equipment foundation as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge.	Cum	15	18	33				0.00



			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of I No. 132 KV Feeder Bay extension at 132/33KV Munniguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of I No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of I No. 132 KV Feeder Bay extension at 132/33KV Munniguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of I No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
1.10.6	Open cast foundation for the above column/equipment/marshalling box foundations { Sl No. 1.1 & 1.2} with RCC: 1:1.5:3 (Grade M-20),including supply of Labour all materials like Steel (Supply,Cutting,Bending,Binding (including supply of binding wire) and placing in position of steel rods of different size as per design in the foundation pit as required for the above foundations),Cement, coarse and fine aggregates,shuttering,proper curing of the foundations/concrete and T&P in line with the Specification and as per direction of Engineer in Charge.	Cum	70	95	165				0.00
2	<b>Cable Trenches:</b> Design, engineering, and construction of RCC cable trenches and all associated works for cable trench and cable trench crossings as per technical specifications and approved drawings and as per direction of the Engineer in Charge. (1) This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge. (2) Design, Engineering, Providing and laying of plain cement concrete (PCC 1:3:6) of grade M10 with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in column and equipment foundation as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge. (3) Open cast foundation for the cable trench with RCC: 1:1.5:3 (Grade M-20 Nominal mixing),including supplyofLabourallmaterialslikeMSRod,Cement,coarseand fine aggregates,shuttering,cutting,bending,binding of M.S.Rod including supply of binding wire proper curing of the foundations/concrete and T&P in line with the Specification and as per direction of Engineer in Charge. (4) Brickwork with KB brick ,plastering (1:6 Ratio) & curing, wherever required including the supply of labour,material, cement, etc. (5)Supply,fabrication & Fixing of MS Angle(G.I) for cable tray support (as per specification). The cable tray support frame shall be pre fabricated GI angle as per requirement and to be welded with the plate fixed on the trench wall for better rigidity. The plate (6mm) fixed on the wall are also to be welded with the MS rods provided for the trench wall before concreting. (6) Precast of RCC covers (1:1.5:3) and its fixing on the cable trench as per spec and instruction of Engg. In Charge. (7) CABLE TRENCHES INSIDE THE CONTROL ROOM SHALL BE COVERED WITH M.S CHEQUERED PLATE(Duly painted as per instruction of Engg in charge) INCLUDING STANDARD SUPPORT STAND (HD Galvanised (M.S JOIST CHANNEL,ANGLE)).								
2.1	Section 1-1	Mtrs	15	20	35				0.00
2.2	Section 2-2	Mtrs	25	25	50				0.00
2.3	Section 3-3	Mtrs	22	22	44				0.00
2.4	Section 4-4	Mtrs	0	0	0				0.00
3	Rain water harvesting system as per Technical specification and approval of drawing and as per the direction of the Engineer in charge.	Lot	0	0	0				0.00
4	Cable trench crossing:Design,engineering,construction including supply of labour,materials,cement,reinforcement steel,formwork etc.and all associated works for construction of trench crossing as per technical specification and approved drawing.(Road crossing )								
4.1	Section 1-1	Lot			0				0.00
4.2	Section 2- 2	Lot			0				0.00
4.3	Section 3-3	Lot			0				0.00

ERECTION_SUBSTATION EQUIPMENT & MATERIALS			NAME OF THE BIDDER						
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
5	Contour Survey & Leveling of sub-station and other area and stone pitching works to protect from soil erosion. LEVELLING OF S/S AREA:Providing, neatly dressing up and leveling of switch yard area to a required level as decided by the Engineer in Charge, the work includes removal, clearing of the entire area from vegetation, trees, bushes, uprooting of plants and disposal of surplus earth and unusable material from the site by means of any mechanical transport, with all labours, tools, tackles and plants complete as per approved drawing and specification. This also includes excavation in all type of soils or rocks, and disposal of excess earth or rocks and filling of areas of switch yard by borrowed earth/sand to make the area to a level for construction as per scope.								
5.1	Contour survey of the entire sub-station area including Supply of all labour & T&P by contractor.	SQM	0	0	0				0.00
5.2	Cutting of sub-station area of the as per the direction of Engineer in Charge.								
5.2.1	Cutting of sub-station area of the as per the direction of Engineer in Charge including supply of all labour, T&P (Hard & Compact Soil) .	Cum	0	0	0				0.00
5.2.2	Cutting of sub-station area of the as per the direction of Engineer in Charge including supply of all labour, T&P (Normal Soil).	Cum	0	0	0				0.00
5.3	Filling with borrowed earth beyond 100 mtrs lead as per the direction of Engineer in Charge.	Cum	1000	0	1000				0.00
6	PCC before site surfacing :Providing and supplying all labour, material, equipments etc. required for proper leveling of earth after erection of structures and equipments and proper compaction by using roller of adequate capacity(minimum 3 Ton capacity) with water sprinkling of switch yard area. After proper leveling of the switch yard area (after anti-weed treatment), spreading of plain cement concrete with mixing ratio 1:4:8 (M10) and maintaining proper sloping for easy discharge of storm water having concrete thickness of 75 mm. including rolling , dressing, compacting,the area. As per technical specification and approved drawing, and as per the instruction of the Engg-in-Charge. This also includes excavation in all types of soil or rocks,back-filling,and disposal of excess earth as per the direction of Engineer in charge and approved drawing. (Switch yard area)	CUM	30	30	60				0.00
7	Metal Spreading: Providing supplying and laying two layers of machine crushed metals (gravel) fill, the first layer after compaction shall make minimum 50 mm thickness coarse/ layer of 20 mm nominal size consolidated/ compacted and (by using roller as specified in the specification).A final layer of 50 mm thickness of machine crushed 20 mm nominal size of metals(gravel) above the first layer of 50 mm thickness and as per the technical specification and instruction of Engineer in charge above the PCC(1:4:8). The total compacted thickness of the metals(20 mm Nominal) 100mm above the PCC.	CUM	75	75	150				0.00

		NAME OF THE BIDDER							
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
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1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
8	Switch yard fencing: Providing and fixing of G.I Goat mesh (2.5 mm dia) fencing( the posts and links shall be of HD Galvanized ) in switch yard and other areas of the substation with a total fence height complete as per specification and approved drawings, and as required under the safety regulation of local, state and central government bodies and as per instruction of the Engineer-in-Charge.(The PCC work for grouting the post shall be 1:2:4 and a continuous Brick masonry work with ratio 1:5 and cement pointing of the joints, for the fencing up to a height from the finished ground level) .This also includes excavation in all types of soil or rocks, back filling,and disposal of excess earth as per the direction of Engineer In charge. The earthing of the fencing as per specification.	MTR-RUN	500	500	1000				0.00
9	COLOUR CODING, BAY MARKING Etc:Design, engineering, procurement of labour, material including all associated works for the followings. This should be as per direction of site In charge. a)Color coding (red,Yellow & Blue) for equipments, Bus gantry & column of entire switch yard. Good quality weather proof sticker may be used for identification. b)Each bay should be identified with the help of bay marker sign board, suitably grouted. MS sign board with stand to be installed. Proper painting and lettering to be done of the entire switch yard area.	Lot			1				0.00
10	Substation earth mat Design, engineering, supply((except the GI Flats,GI Pipe,M.S Rod)(only erection)) inclusive of corrosion protection measures if any,laying of earth mat conductors of Hot dip galvanised flats of size 75X10mm to the approval of Project Manager, excavation, welding/jointing of ground conductors along with risers (a) upto Finished level from the mat size 75X10 mm GI flats & b) from the finished ground level to the top of the structure and equipment shall be with 50X6 mm GI Flats, with back filling and good compaction,grounding driven rods(40 mm MS solid rod for untreated earth pit ,perforated 50 mm Mid GI pipes for treated earth pits(with details of treatment as per IS). The spacing between the earth conductor not more than 5 mtrs (both way) and to be buried at depth of 700mm from the finished ground level. For provision of treated earth pit and untreated earth pit, refer the specification for designing. Provision of water taps inside the switch yard areas and peripheral treated and nu-treated earth pit are required to be provided for watering the treated earth pits. The no. of treated and un-treated earth pits are to be done as per the practice and as indicated in the drawing for different equipments. This is as per approved drawing and specification.								
21.1	Excavation for laying of EARTHING CONDUCTOR (75x10mm for laying (spacing maximum 5m) (GI FLAT)	Lot	1	1	2				0.00
21.2	Excavation for putting the EARTHING DEVICE INCLUDING ITS ASSOCI-ATED ACCESSORIES(60 mm heavy duty GI PIPE 3.0 mtrs long for treated earth pit)	Lot/NOS	26	26	52				0.00
21.2	Excavation for putting the EARTHING DEVICE INCLUDING ITS ASSOCI-ATED ACCESSORIES(60 mm heavy duty GI PIPE 3.0 mtrs long for treated earth pit)	Lot	0	0	0				0.00
21.3	Excavation for putting the EARTHING DEVICE INCLUDING ITS ASSOCI-ATED ACCESSORIES(40 mm M.S. Rod 3.0 mtrs long for un-treated earth pit)	Lot	0	0	0				0.00

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
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1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
22	STORE SHED:Design, engineering, procurement of labour, material including all associated works for construction of store shed as per specification and approved drawing. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the specification,approved drawing and direction of Engineer In charge. One no store shed of floor size 10X10 mtr having brick walls and plastering with RCC roof. The flooring shall be of 75 mm thickness PCC (mix ratio1:2:4) over RR masonry works (as per standard practice of flooring). Provision of adequate nos of MS racks (proper paintings also to be done as per the direction of site in charge) for keeping the spare materials. The height of the shed shall be 4mtrs above the plinth.	Sqmt	0	0	0				0.00
23	<b>Roads:</b> Design, construction of roads and walkways/ shoulders within sub-station( <b>switch yard area,approach road, control room area, main gate to the switch yard gate etc</b> ) as per specification, layout and approved drawings complete. This also includes excavation in all types of soil or rocks, back filling,and disposal of excess earth as per the direction of Engineer In charge. Provision of drains on both the side of the roads for easy discharge of rain water.(Refer the indicative drawing of s/s layout)								<b>0.00</b>
23.1	3.75 mtrs Bituminous road with shoulder at both the side as per technical specification indicated in the civil section & shall have drain on both side of the road.	MTRS	0	0	0				0.00
23.2	7 mtrs wide Concrete roads with shoulder as per specification indicated in the civil section. & shall have drain on both side of the road. 7 Mtrs wide road inside the switchyard to be connected to switch yard main gate.	MTRS	0	0	0				0.00
23.3	7 mtrs wide Bituminous roads with shoulder as per specification indicated in the civil section.( for main and approach roads).Shall have drain on both side of the road.	MTRS	0	0	0				0.00
<b>B</b>	<b>TOTAL of CIVIL WORKS Part-I (B) -SUBSTATION</b>								<b>0.00</b>
	<b>TOTAL OF ERECTION PRICE _SUBSTATION (A+B)</b>								<b>0.00</b>
ERECTION_TRANSMISSION LINE EQUIPMENT AND MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENT/MATERIALS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 132KV SC line (Approximate 132 KV Two phase line, 13.554Kms) from 132/33KV Munniguda Grid substation to proposed Railway Traction sub-station ( RTSS) at Bisamcuttack	QUANTITY: for Construction of 132KV SC line (Approximate 132 KV Two phase line, 2.646 Kms) from 132/33KV Rayagada Grid substation to Railway Traction sub- station ( RTSS) at Rayagada	TOTAL QUANTITY	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 132KV SC line (Approximate 132 KV Two phase line, 13.554Kms) from 132/33KV Munniguda Grid substation to proposed Railway Traction sub-station ( RTSS) at Bisamcuttack IN INR	Total Erection Price excluding service tax for Construction of 132KV SC line (Approximate 132 KV Two phase line, 2.646 Kms.) from 132/33KV Rayagada Grid substation to Railway Traction sub-station ( RTSS) at Rayagada IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7x6
<b>A</b>	<b>ELECTRICAL WORKS</b>								
1.1.1	ELECTRICAL WORKS								

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
1	ERECTION,TESTING & COMMISSIONING of Following tested Lattice type Galvanized steel tangent / Angle tower with stubs and cleats , different type of G.I HT Nuts & Bolts, washer, spring washer for the above type towers ,hanger and all accessories, tower super structure complete with tightening, punching of bolts including step bolts. All other left out portion of the bolts above bottom cross arm shall be riveted by using suitable hammer. Painting of black bituminous paints three coats shall be provided up to a height of 500mm above the cooping(legs & bracing members. All Erection should confirm to the Technical Specification laid there in the Tender Specification.								
1.1	PA TYPE (SUSPENSION ) TOWERS (Nominal unit weight 3.430 MT)	Nos.	35	3	38				
1.1.1	+3 EXTENSION (Nominal unit weight 0.537 MT)	Nos.	8	0	8				
1.1.2	+6 EXTENSION (Nominal unit weight 1.349 MT)	Nos.	1	1	2				
1.2	PBTYPE (30 deg ANGLE ) TOWERS (Nominal unit weight 4.973 MT)	Nos.	11	2	13				
1.2.1	+3 EXTENSION (Nominal unit weight 1.018 MT)	Nos.	2	1	3				
1.2.2	+6 EXTENSION (Nominal unit weight 2.104 MT)	Nos.	2	0	2				
1.3	PC TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 6.214 MT)	Nos.	9	3	12				
1.3.1	+3 EXTENSION (Nominal unit weight 1.119 MT)	Nos.	4	0	4				
1.3.2	+6 EXTENSION (Nominal unit weight 2.342 MT)	Nos.	2	1	3				
1.4	OC TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 9.513 MT)	Nos.	0	0	0				
1.4.1	+3 EXTENSION (Nominal unit weight 0.0 MT)	Nos.	0	0	0				
1.4.2	+6 EXTENSION (Nominal unit weight 2.537 MT)	Nos.	0	0	0				
1.5	UR TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 9.472 MT)	Nos.	0	0	0				
1.5.1	+6 EXTENSION (Nominal unit weight 3.457 MT)	Nos.	0	0	0				
1.6	DD TYPE (60 deg ANGLE ) TOWERS (Nominal unit weight 34.809 MT)	Nos.	0	0	0				
1.6.1	+25 EXTENSION (Nominal unit weight 34.339 MT)	Nos.	0	0	0				
1.7	TEMPLATES								
1.7.1	PA (Nominal unit weight 0.665 MT)	Nos.	3	1	4				
1.8	PB (Nominal unit weight 0.602 MT)	Nos.	1	1	2				
1.9	PC (Nominal unit weight 0.904 MT)	Nos.	1	1	2				
2.0	OC (Nominal unit weight 0.985 MT)	Nos.	0	0	0				
2.1	DD (Nominal unit weight 2.03 MT)	Nos.	0	0	0				
2.2	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	253.229	43.557	296.786				0.00
2.3	Weight of different type G.I Nuts and Bolts	MT	13.6	2.427	16.027				0.00
2.4	Erection of the following tower accessories as per technical specification and as directed by the engineer in charge.								
2.5	EARTHING DEVICE	Nos.	55	8	63				0.00
2.6	DANGER BOARD	Nos.	55	8	63				0.00
2.7	NUMBER PLATE	Nos.	55	8	63				0.00
2.8	PHASE PLATE	Nos.	110	16	126				0.00
2.9	BIRD GUARD	Nos.	73	7	80				0.00
3.0	ANTICLIMBING DEVICE	Nos.	55	8	63				0.00
3.1	CIRCUIT PLATE	Nos.	55	8	63				0.00

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
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1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
3.2	PREFORMED ARMOUR ROD	Nos.	0	0	0				0.00
4.0	COUNTERPOISE EARTHING	Nos.	6	0	6				0.00
4.1	Hoisting and fixing of insulators with required accessories, paying out of conductor, jointing, stringing, sagging & jumpering etc. of power conductor and earth wire with all required accessories including scaffolding for 33KV, 11KV, LT, P& T lines, roads and railway lines and using own required T&P and compressing jointing machines etc. in the proposed 132 kV lines with 1.5% provision for sag and wastage as per the technical specification and as per the instruction of the engineer in charge.(including power conductor accessories,earth conductor accessories, Insulators)								
'4.1.1	SINGLE CIRCUIT (ACSR/AAAC,THREE POWER CONDUCTOR & 1 EARTH WIRE)	Route Kms.	13.554	2.646	16.2				0.00
'4.1.3	Erection of the following hard ware fittings suitable for ACSR Panther conductors as per the technical specification.								
'4.1.4	For ACSR PANTHER								
'4.1.5	Single suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	0	0	0				0.00
'4.1.6	Double suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	0	0	0				0.00
5	Single tension Hard wares fittings suitable for 120 KN insulator.	Nos.	0	0	0				0.00
6	Double tension Hard wares fittings suitable for 120 KN insulator.	Nos.	0	0	0				0.00
7	Shackle	Nos.	0	0	0				0.00
8	Hanger	Nos.	0	0	0				0.00
9	U"-Bolt.	Nos.	0	0	0				0.00
1.1.1	<b>TOTAL of ELECTRICAL WORKS TRANSMISSION LINE</b>								<b>0.00</b>
<b>B</b>	<b>CIVIL WORKS</b>								
	FOUNDATION MATERIALS: Supply of all materials like cement, steel, all coarse aggregates, fine aggregates and making foundations of the required above mentioned type towers as per the direction laid down in the technical specification and the direction of the site- in charge								
1.1.3	Excavation in all type soil and rocks and back filling (back filling shall be done in layers of 500mm sprinkling of water and compaction thereafter and disposed of excess quantity of excavated soil at suitable place after back filling). & if required for filling the foundation, borrowed earth/murrum/sand shall be brought for filling and compaction, including supply of sand, all T&P, labour as required.								
1.1.4	Dry soil	CUM	1391	268	1659				0.00
1.1.5	Wet soil	CUM	1552	370	1922				0.00
1.1.6	Hard soil	CUM	335	46	381				0.00
1.1.7	Partial Submerged soil	CUM	0	0	0				0.00
2	Fully submerged soil	CUM	0	0	0				0.00
3	Soft/Disintegrated rock(Not requiring Blasting)	CUM	12	0	12				0.00
4	Hard Rock(Requiring Blasting/Using breaker machinery)	CUM	85	0	85				0.00
4	Soil Investigation as per specification	LOC	10	2	12				0.00

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1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
5	Design, Engineering, Providing and laying of plain cement concrete (PCC 1:3:6) of grade M10 with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in tower foundation as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge.	Cum	50	9	59				0.00
5.1	Design, Engineering and laying of reinforced cement concrete (RCC 1:1.5:3) of grade M20 for open cast foundation with supply of approved quality coarse aggregates(Nominal size 12mm to 20mm) ,fine aggregates, cement and steel of different size(as per design) with <b>cutting,bending,binding of M.S.Rod including supply of binding wire</b> in tower foundation and inclusive of labour charges for concrete mixing, supply and fixing of form boxes, curing,shoring, shuttering, testing of sample cement concrete cubes as per IS. The height of the coping shall be 350mm above the finished concrete level. The surrounding area shall be clear from materials. Damage of land if any by the contractor shall be repaired before measurement. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge.	Cum	502	94	596				0.00
5.1.1	Supply of all materials like cement, steel, all coarse aggregates, fine aggregates and making <b>pile foundations with boring of piles (pile bore as per required depth, basing on design) ,preparation of cage,lowering and positioning(cutting,bending,binding of M.S.Rod including supply of binding wire)</b> of the required above mentioned Tower foundation as indicated above and as per requirement, including supply of all materials,labours, de-watering,proper curing of the foundations and T&P as per specification in the RCC :1:1.5:3 (Grade M-20.) including stabilization of bore :- Pile diameter ( <b>500 MM</b> ) and approximate length of the bore is 15 Mtrs.	Cum	0	0	0				0.00
5.1.2	Pile riser, cap, tie-beam with RCC: 1:1.5:3 (Grade M-20) , including supply of all materials like MS Rod of different size(as per design) with <b>cutting,bending,binding of M.S.Rod including supply of binding wire</b> in,Cement, coarse and fine aggregates,shuttering and supply of labours, de-watering,proper curing of the foundations/concrete and T&P in line with the Specification and as per direction of Engineer in Charge.	Cum	0	0	0				0.00
	<b>REVTMENT:(including Benching)Supply of all materials like cement,Late-rite stone ( stone masonry) all type aggregates, labours, &amp; T&amp;P for construction of revetment walls as per requirement to protect the towers, where felt unsafe and as per approved drawing and the direction of Engineer in charge .</b>								0.00
5.1.3	Excavation in all type of soil including rock & back filling including supply of sand with back filling.	CUM	600	630	1230				0.00
5.2	Lean Concrete in the ratio1:3:6(Grade M-10) including supply of sand chips etc.	CUM	43	45	88				0.00
5.3	PCC in the ratio 1:2:4(Grade M-15) as above.	CUM	11	12	23				0.00
5.4	RR Massonary work in the ratio 1:5.	CUM	610	285	895				0.00
6	<b>Supply of borrowed earth/morrum for back filling for foundation/ revertment works</b>								
7	(i) Up to 30 mtr lead	CUM	250	834	1084				0.00
8.0	(ii) Beyond 30 mtr lead	CUM	0	0	0				

			NAME OF THE BIDDER						
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Munguda substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7X6
	(ii) Beyond 100 mtr lead	CUM	300	372	672				
8.2	Supply & painting of black bituminous paints three coats shall be provided up to a height of 500mm above the cooping(both leg & bracing members).	LOC	55	8	63				0.00
8.3	Supply of all materials for continuous welding of bolts & nuts (around the bolts) up to top of tower without cross arm, including welding rods, welding generator machine (diesel engine optd.), application of required zinc rich paints around the welding portion (two coats),fuel,lubricants,T&P and labours.	Nos.	35541	5902	41443				0.00
8.4	<b>SURVEY OF LINE &amp; PREPARATION LAND SCHEDULE: Supply of required T&amp;P's, Technical personnel's, labours for conducting</b>								0.00
9	Preliminary survey, Detail survey and resurvey (required for avoiding ROW problem) including but not limited to taking of levels, profile plotting, tower spotting ,marking of towers locations at site including showing P&T line, power line, Railway line, river crossing, roads and submission of route map and survey report etc. The P&T lines and railway lines for a minimum distance of 8 kms on either side of alignment shall be clearly indicated.	Kms.	13.554	2.646	16.2				0.00
10	Check survey including supply of all labour, T&P as per instruction of Engineer in Charge and as per the approved profile.	Kms.	13.554	2.646	16.2				0.00
11	Preparation of land schedule on revenue (if required)maps indicating alignment therein duly authenticated by Revenue Inspector & Tahasildar, enumeration of trees with the help of Forest officer and other prominent features required for alignment of the proposed 132 KV line. Final route to be plotted on 1:50000 topo sheet for approval.	Rkm	13.554	2.646	16.2				0.00
12	PTCC approval has to be obtained by submitting the required documents to the concerned department through OPTCL & any other charges are to be borne by the bidders. The documents for PTCC clearance including required drawings etc has to be submitted by the contractor within 5 months of award of contract. Beyond the above period L.D as applicable & the amount shall be deducted as specified in the specification.	LS	0	0	0				0.00
13	SHORING & SHUTTERING-Required in wet/submerged or special locations of open cast/shallow type foundations with supply of all materials,T&P and Labour.	SQ.MTR.	3000	654	3654				0.00
14	Head-Loading of all types of foundation-materials,towers,structures, conductors,Insulators,Hard-wares & Emergency Restoration System towers required for special	Per MT/Per Mtr	0	0	0				0.00
15	Benching for Tower	CUM	0	0	0				0.00
16	Dewatering	HP Hr	1000	200	1200				0.00
<b>B</b>	<b>TOTAL OF (Civil Work) TRANSMISSION LINE</b>								
	TOTAL OF ERECTION PRICE_ TRANSMISSION LINE (A+B)								
	<b>ERECTION PRICE_TOTAL OF SCHEDULE 2C(SS &amp; LINE)</b>								

**NOTE:**

1 Before filling up rate/amount etc. in the schedules bidders are requested to read carefully the instruction given in Vol-I of Bidding Document.



		NAME OF THE BIDDER							
ERECTION_SUBSTATION EQUIPMENT & MATERIALS									
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2C) ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNIT	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Mungida substation for RTSS BISAMCUTTACK	QUANTITY: for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA	Total Quantity	Unit Erection Rate excluding service tax IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV Mungida substation for RTSS BISAMCUTTACK IN INR	Total Erection Price excluding service tax for Construction of 1 No. 132 KV Feeder Bay extension at 132/33KV RAYAGADA substation for RTSS RAYAGADA IN INR	Total Erection Price excluding service tax IN INR
1	2	3	4	5	6=4+5	7	8=7x4	9=7x5	10=7x6

2 Bidders are required to fill up only blue shaded cells.

3 Bidders are requested not to leave any column blank. If any column is left blank it shall be considered that amount against those items are included in any other

4 Bidder has to quote rates excluding service tax (if any), service tax shall be paid/reimbursed as per conditions of Bid Document.