

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Construction of 02 Nos 132 KV Feeder Bay Extension work at 132/33 KV Sub-station Jaleswar and 02 Nos 132 KV Feeder Bay Extension work at 400/220/132 KV Sub-station Kuchei (Baripada) of PGCIL & 132 KVDC Transmission line from Jaleswar S/S to Kuchei(Baripada) S/S and associated works

BID DOCUMENT No.: Sr. G.M-CPC- Tender-Kuchei-Jaleswar-12/2012-13

NOTICE INVITING TENDER-NIT NO. 12 /2012-13

(Equipment/Materials Supply Price Break-up of Ex-works Prices against KUCHEI-JALESWAR PACKAGE)

SL NO	PART-I, SCHEDULE-2A (FOR SUBSTATION SUPPLY) SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	TO BE QUOTED IN INR					
						Unit Ex-works Price	Total Ex-works Price	Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(8) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(8)]		
									Excise Duty	Sales Tax	Other Levies(if any)
1	2	3	4	5	6	7	8=6X7	9	10	11	12
1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER	NOS	6	6	12						
2	145 KV,1200A,31.5KA,ISOLATORS										
2.1	S/I WITH OUT EARTH SWITCH	NOS	2	2	4						
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	2	2	4						
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	6	6	12						
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	6	6	12						
5	CT CONSOLE & CVT CONSOLE (OUT DOOR TYPE)	NOS	4	4	8						
6	132 KV Bus Post Insulators	NOS	4	4	8						
7	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	2	2	4						
8	BUS BAR & CIRCUIT MATERIALS										
8.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING										
8.1.1	120 kN ANTIFOG INSULATOR STRINGS <i>for Double Moose cond</i> (TENSION)-132 KV	SET	6	6	12						
8.1.2	120 kN ANTIFOG INSULATOR STRINGS <i>for Single Moose cond</i> (TENSION)-132 KV	SET	24	24	48						
8.1.3	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-132 KV	SET	12	12	24						
8.2	ACSR MOOSE CONDUCTOR	LOT	1	1	2						
8.3	ACSR ZEBRA CONDUCTOR	LOT	1	1	2						
8.4	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT	1	1	2						
8.5	EARTH WIRES & IT'S HARDWARES & FITTING	LOT	1	1	2						
9	SUBSTATION EARTHING SYSTEMS										
9.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Flat for laying (<i>spacing maximum 5m both way</i>)	LOT	1	1	2						
9.2	EARTHING CONDUCTOR: 50X6 mm GI Flat for Raiser from the burial earth mat to equipment,structure etc)	LOT	1	1	2						
9.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit)	LOT	1	1	2						

PART-I, SCHEDULE-2A (FOR SUBSTATION SUPPLY)			TO BE QUOTED IN INR								
SL NO	SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Unit Ex-works Price	Total Ex-works Price	Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(8) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(8)]		
1	2	3	4	5	6	7	8=6X7	9	Excise Duty	Sales Tax	Other Levies(if any)
9.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	LOT	1	1	2						
10	G.I 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.	LOT	1	1	2						
11	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES										
11.1	BAY MARSHALLING KIOSK (1 No in each 132 kv bay Extension)	NOS	1	1	2						
11.2	SWITCH YARD AC CONSOLE FOR LIGHTING (1 NO. Each at Bay Extension)	NOS	1	1	2						
12	SWITCH YARD STRUCTURES (LATTICE TYPE) FOR 132 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.										
12.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS										
12.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS	4	4	8						
12.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS	1	1	2						
12.2	DIFFERENT TYPE OF BEAMS WITH DETAILS										
12.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS	4	4	8						
12.2.2	G1X - 132 KV (NOMINAL UNIT WT- 1.4 MT)	NOS	2	2	4						
12.3	TOTAL WEIGHT OF COLUMN & BEAM	MT			25						
12.4	SUPPORT STRUCTURES (LATTICE/PIPE TYPE) FOR 132 KV EQUIPMENT										
12.4.1	ISOLATORS-132KV	LOT	2	2	4						
12.4.2	CTS-132 KV	LOT	6	6	12						
12.4.3	CVTS-132 KV	LOT	6	6	12						
12.4.4	Surge Arrester-132 kv	LOT	6	6	12						
12.4.5	Wave Trap-132 KV	LOT	4	4	8						
12.4.6	BPI-132 KV	LOT	4	4	8						
12.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT			20						
12.6	Total weight of GI Nuts and bolts for the above structures	MT			5						
13	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES										
13.1	POWER CABLES,1.1KV,XLPE,ARMOURED, ALUMINIUM CONDUCTOR (As per Specification)										
13.1.1	3.5 CX35 mm²	LOT	1	1	2						

PART-I, SCHEDULE-2A (FOR SUBSTATION SUPPLY)			TO BE QUOTED IN INR								
SL NO	SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Unit Ex-works Price	Total Ex-works Price	Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(8) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(8)]		
1	2	3	4	5	6	7	8=6X7	9	Excise Duty	Sales Tax	Other Levies(if any)
13.1.2	4 CX 16 mm ²	LOT	1	1	2						
13.1.3	4 CX 6 mm ²	LOT	1	1	2						
13.1.4	2CX 6 mm ²	LOT	1	1	2						
13.2	CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)										
13.2.1	4 CX 2.5 mm ²	LOT	1	1	2						
13.2.2	5 CX 2.5 mm ²	LOT	1	1	2						
13.2.3	7CX 2.5 mm ²	LOT	1	1	2						
13.2.4	10 CX 2.5 mm ²	LOT	1	1	2						
13.2.5	12 CX 2.5 mm ²	LOT	1	1	2						
14	ACCESSORIES FOR PLCC SYSTEM AS PER TECHNICAL SPECIFICATION										
14.1	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	4	4	8						
14.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	2	2	4						
14.3	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	500	500	1000						
14.4	10 PAIR ARMoured TELEPHONE CABLES	MTRS	100	100	200						
14.5	4 PAIR NON ARMoured TELEPHONE CABLES	MTRS	200	200	400						
14.6	4 WIRE TELEPHONE SET	NO	1	1	2						
14.7	2 WIRE TELEPHONE SET	NO	2	2	4						
15	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS)(Switch yard and other street area)										
15.1	<i>SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES & LAMPS (as per existing lighting system adopted in the existing S/S) 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>	LOT	1	1	2						
16	FIRE FIGHTING SYSTEM(PORTABLE AND WHEEL MOUNTED SETS FOR CONTROL ROOM,EQUIPMENT LIKE TRANSFORMER AND OTHER AREAS AS PER TECH SPEC(REFER TS-INST TO BIDDER BEFORE DESIGN-SL NO 16-ANNEXURE - I)										
16.1	DRY POWDER TYPE - 5 KGS	NOS	1	1	2						
16.2	CO ₂ - 4.5 KGS	NOS	1	1	2						
16.3	CO ₂ - 9 KGS	NOS	1	1	2						

PART-I, SCHEDULE-2A (FOR SUBSTATION SUPPLY)			TO BE QUOTED IN INR								
SL NO	SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Unit Ex-works Price	Total Ex-works Price	Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(8) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(8)]		
									Excise Duty	Sales Tax	Other Levies(if any)
1	2	3	4	5	6	7	8=6X7	9	10	11	12
17	PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROTN PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC										
17.1	132 KV SIDE										
17.1.1	FEEDER CONTROL PANEL(CPF-1M)	NOS	2	2	4						
17.1.2	FEEDER RELAY PANEL(RPF-1M)	NOS	2	2	4						
18	BEST QUALITY &APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.	LOT	1	1	2						
TOTAL (Part-I):2A (SS SUPPLY)											

Note:

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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). No rate shall be furnished/obtained after bid opening (Ref clause no 33.4.1 of INB vol-I)

4 Kindly enclose soft copy of the duly filled schedule in a CD with the priced copy of Bid.

5 In mode of transaction column please indicate Direct/Bought-Out. For Taxes & Duties on Direct/Bought-out items ref clause 6.0 of SCC (Vol-IA)

Date :

Place :

(Signature)

(Name)

(Designation)

(Common Seal)

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Construction of 02 Nos 132 KV Feeder Bay Extension work at 132/33 KV Sub-station Jaleswar and 02 Nos 132 KV Feeder Bay Extension work at 400/220/132 KV Sub-station Kuchei (Baripada) of PGCIL & 132 KVDC Transmission line from Jaleswar S/S to Kuchei(Baripada) S/S and associated works

BID DOCUMENT No.: Sr. G.M-CPC- Tender-Kuchei-Jaleswar-12/2012-13

NOTICE INVITING TENDER-NIT NO. 12 /2012-13

(Equipment/Materials Supply Price Break-up of Ex-works Prices against KUCHEI-JALESWAR PACKAGE)

PART-II SCHEDULE-2A (FOR LINE)		TO BE QUOTED IN INR								
Sl. No.	DESCRIPTION OF ITEMS	UNITS	UNIT WEIGHT IN MT(FOR STRUCTURAL MATERIALS)	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB- STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit Ex-works Price	Total Ex-works Price	Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(6) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(6)]		
1	2	3	4	4	5	6=4X5	7	8	9	10
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 cooping(legs & bracing members). All Supply should confirm to the Technical Specification.									
1.1	OC TYPE (60 deg ANGLE) TOWERS (NOMINAL UNIT WEIGHT 9.8398MT)	Nos.	9.838	2						
1.1.1	+3 EXTENSION (NOMINAL UNIT WEIGHT 1.474MT)	Nos.	1.474	0						
1.1.2	+6 EXTENSION (NOMINAL UNIT WEIGHT 2.597 MT)	Nos.	2.597	2						
1.1.3	+15 EXTENSION (NOMINAL UNIT WEIGHT 8.555 MT)	Nos.	8.555	5						
1.2	UR TYPE (60 deg ANGLE) TOWERS (NOMINAL UNIT WEIGHT 13.585 MT)	Nos.	13.585	4						
1.2.1	+6 EXTENSION (NOMINAL UNIT WEIGHT 4.249 MT)	Nos.	4.249	4						
1.3	PA TYPE (SUSPENSION) TOWERS (Nominal unit weight 3.430 MT)	Nos.	3.430	205						
1.3.1	+3 EXTENSION (Nominal unit weight 0.537 MT)	Nos.	0.537	11						
1.3.2	+6 EXTENSION (Nominal unit weight 1.349 MT)	Nos.	1.349	5						
1.4	PBTYPE (30 deg ANGLE) TOWERS (Nominal unit weight 4.973 MT)	Nos.	4.973	41						
1.4.1	+3 EXTENSION (Nominal unit weight 1.018 MT)	Nos.	1.018	1						
1.4.2	+6 EXTENSION (Nominal unit weight 2.104 MT)	Nos.	2.104	0						

SI. No.	DESCRIPTION OF ITEMS (As per Technical Specification)	UNITS	UNIT WEIGHT IN MT(FOR STRUCTURAL MATERIALS)	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB- STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	TO BE QUOTED IN INR					
					Unit Ex-works Price	Total Ex-works Price	Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(6) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(6)]		
1	2	3	4	4	5	6=4X5	7	8	9	10
1.5	PC TYPE (60 deg ANGLE) TOWERS (Nominal unit weight 6.214 MT)	Nos.	6.214	41						
1.5.1	+3 EXTENSION (Nominal unit weight 1.119 MT)	Nos.	1.119	6						
1.5.2	+6 EXTENSION (Nominal unit weight 2.342 MT)	Nos.	2.342	2						
1.6	TEMPLATES									
1.6.1	OC (NOMINAL UNIT WEIGHT 0.984 MT)	Nos.	0.984	1						
1.6.2	OC +15 MTRS (NOMINAL UNIT WEIGHT2.073 MT)	Nos.	2.073	1						
1.6.3	UR (NOMINAL UNIT WEIGHT 1.507 MT)	Nos.	1.507	1						
1.6.4	PA (Nominal unit weight 0.665 MT)	Nos.	0.665	15						
1.6.5	PB (Nominal unit weight 0.602 MT)	Nos.	0.602	5						
1.6.6	PC (Nominal unit weight 0.904 MT)	Nos.	0.904	5						
1.7	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT		1400						
1.8	Weight of different type G.I Nuts and Bolts	MT		100						
2.0	Supply of the following tower accessories as per technical specification and as directed by the engineer in charge.									
2.1	EARTHING DEVICE	Nos.		302						
2.2	DANGER BOARD	Nos.		302						
2.3	NUMBER PLATE	Nos.		302						
2.4	PHASE PLATE	Nos.		1806						
2.5	BIRD GUARD	Nos.		1280						
2.6	ANTICLIMBING DEVICE	Nos.		302						
2.7	CIRCUIT PLATE	Nos.		602						

SI. No.	DESCRIPTION OF ITEMS SUPPLY OF FOLLOWING EQUIPMENT,STRUCTURES & MATERIALS (As per Technical Specification)	UNITS	UNIT WEIGHT IN MT(FOR STRUCTURAL MATERIALS)	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB- STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit Ex-works Price	Total Ex-works Price	TO BE QUOTED IN INR			
							Mode of Transaction (Direct or Bought-out item)	Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(6) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(6)]		
1	2	3	4	4	5	6=4X5	7	8	9	10
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 (30/7/3.0 mm)	Kms.		490						
4.0	POWER CONDUCTOR ACCESSORIES									
4.1	For ACSR PANTHER									
4.1.1	VIBRATION DAMPER	Nos.		4764						
4.1.2	MID SPAN JOINT	Nos.		483						
4.1.3	Repair Sleeve	Nos.		483						
4.1.4	Performed Armoured Rod	Set		1230						
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.		92						
6.0	EARTH CONDUCTOR ACCESSORIES									
6.1	VIBRATION DAMPER	Nos.		602						
6.2	FLEXIBLE COPPER EARTH BOND	Nos.		124						
6.3	SUSPENSION CLAMP	Nos.		205						
6.4	TENSION CLAMP	Nos.		192						
6.5	MID SPAN JOINT	Nos.		602						
6.6	Repair Sleeve	Nos.		50						
7.0	Supply of the following Anti Fog Disc insulators as per the technical specification and as per the instruction of the Engineer in charge.									
7.1	120KN Insulator (taking 5% extra towards wastage)	Nos.		13000						
7.2	160KN Insulator (taking 5% extra towards wastage)	Nos.		10800						
7.3	90 KN Insulator (taking 5% extra towards wastage)	Nos.		13000						

Sl. No.	DESCRIPTION OF ITEMS (As per Technical Specification)	UNITS	UNIT WEIGHT IN MT(FOR STRUCTURAL MATERIALS)	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB- STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	TO BE QUOTED IN INR					
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1	2	3	4	4	5	6=4X5	7	8	9	10
8.0	Supply of the following hard ware fittings suitable for following conductors as per the technical specification.									
8.1	For ACSR PANTHER									
8.1.1	Single suspension Hard wares fittings.(AGS type)	Set		1150						
8.1.2	Double suspension Hard wares fittings.(AGS type).	Set		110						
8.1.3	Single tension Hard wares fittings.	Set		1050						
8.1.4	Double tension Hard wares fittings.	Set		130						
TOTAL (Part-II)-2A-LINE										

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Date :

Place :

(Signature)

(Name)

(Designation)

(Common Seal)

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Construction of 02 Nos 132 KV Feeder Bay Extension work at 132/33 KV Sub-station Jaleswar and 02 Nos 132 KV Feeder Bay Extension work at 400/220/132 KV Sub-station Kuchei (Baripada) of PGCIL & 132 KVDC Transmission line from Jaleswar S/S to Kuchei(Baripada) S/S and associated works

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(F & I TOWARDS SUPPLY OF Equipment/Materials Price Break-up of Ex-works Prices against KUCHEI-JALESWAR PACKAGE)

PART-I, SCHEDULE-2B (FOR SUBSTATION- F & I)					TO BE QUOTED IN INR Freight & Insurance Charges		
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Unit Charges	Total Price
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)						
1	2	3	4	5	6	7	8=6X7
1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER	NOS	6	6	12		
2	145 KV,1200A,31.5KA,ISOLATORS						
2.1	S/I WITH OUT EARTH SWITCH	NOS	2	2	4		
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	2	2	4		
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	6	6	12		
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	6	6	12		
5	CT CONSOLE & CVT CONSOLE (OUT DOOR TYPE)	NOS	4	4	8		
6	132 KV Bus Post Insulators	NOS	4	4	8		
7	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	2	2	4		
8	BUS BAR & CIRCUIT MATERIALS						
8.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING						
8.1.1	120 kN ANTIFOG INSULATOR STRINGS <i>for Double Moose cond</i> (TENSION)-132 KV	SET	6	6	12		
8.1.2	120 kN ANTIFOG INSULATOR STRINGS <i>for Single Moose cond</i> (TENSION)-132 KV	SET	24	24	48		
8.1.3	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-132 KV	SET	12	12	24		
8.2	ACSR MOOSE CONDUCTOR	LOT	1	1	2		
8.3	ACSR ZEBRA CONDUCTOR	LOT	1	1	2		

PART-I, SCHEDULE-2B (FOR SUBSTATION- F & I)						TO BE QUOTED IN INR	
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Freight & Insurance Charges	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)					Unit Charges	Total Price
1	2	3	4	5	6	7	8=6X7
8.4	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT	1	1	2		
8.5	EARTH WIRES & IT'S HARDWARES & FITTING	LOT	1	1	2		
9	SUBSTATION EARTHING SYSTEMS						
9.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Flat for laying (spacing maximum 5m both way)	LOT	1	1	2		
9.2	EARTHING CONDUCTOR: 50X6 mm GI Flat for Raiser from the burial earth mat to equipment,structure etc)	LOT	1	1	2		
9.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit)	LOT	1	1	2		
9.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	LOT	1	1	2		
10	G.I 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.	LOT	1	1	2		
11	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES						
11.1	BAY MARSHALLING KIOSK (1 No in each 132 kv bay Extension)	NOS	1	1	2		
11.2	SWITCH YARD AC CONSOLE FOR LIGHTING (1 NO. Each at Bay Extension)	NOS	1	1	2		
12	SWITCH YARD STRUCTURES (LATTICE TYPE) FOR 132 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.						
12.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS						
12.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS	4	4	8		
12.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS	1	1	2		
12.2	DIFFERENT TYPE OF BEAMS WITH DETAILS						
12.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS	4	4	8		
12.2.2	G1X - 132 KV (NOMINAL UNIT WT- 1.4 MT)	NOS	2	2	4		
12.3	TOTAL WEIGHT OF COLUMN & BEAM	MT			25		

PART-I, SCHEDULE-2B (FOR SUBSTATION- F & I)						TO BE QUOTED IN INR	
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Freight & Insurance Charges	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)					Unit Charges	Total Price
1	2	3	4	5	6	7	8=6X7
12.4	SUPPORT STRUCTURES (LATTICE/PIPE TYPE) FOR 132 KV EQUIPMENT						
12.4.1	ISOLATORS-132KV	LOT	2	2	4		
12.4.2	CTS-132 KV	LOT	6	6	12		
12.4.3	CVTS-132 KV	LOT	6	6	12		
12.4.4	Surge Arrester-132 kV	LOT	6	6	12		
12.4.5	Wave Trap-132 KV	LOT	4	4	8		
12.4.6	BPI-132 KV	LOT	4	4	8		
12.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT			20		
12.6	Total weight of GI Nuts and bolts for the above structures	MT			5		
13	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES						
13.1	POWER CABLES,1.1KV,XLPE,ARMOURED, ALUMINIUM CONDUCTOR (As per Specification)						
13.1.1	3.5 CX35 mm ²	LOT	1	1	2		
13.1.2	4 CX 16 mm ²	LOT	1	1	2		
13.1.3	4 CX 6 mm ²	LOT	1	1	2		
13.1.4	2CX 6 mm ²	LOT	1	1	2		
13.2	CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)						
13.2.1	4 CX 2.5 mm ²	LOT	1	1	2		
13.2.2	5 CX 2.5 mm ²	LOT	1	1	2		
13.2.3	7CX 2.5 mm ²	LOT	1	1	2		
13.2.4	10 CX 2.5 mm ²	LOT	1	1	2		
13.2.5	12 CX 2.5 mm ²	LOT	1	1	2		
14	ACCESSORIES FOR PLCC SYSTEM AS PER TECHNICAL SPECIFICATION						

PART-I, SCHEDULE-2B (FOR SUBSTATION- F & I)						TO BE QUOTED IN INR	
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Freight & Insurance Charges	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)					Unit Charges	Total Price
1	2	3	4	5	6	7	8=6X7
14.1	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	4	4	8		
14.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	2	2	4		
14.3	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	500	500	1000		
14.4	10 PAIR ARMOURED TELEPHONE CABLES	MTRS	100	100	200		
14.5	4 PAIR NON ARMOURED TELEPHONE CABLES	MTRS	200	200	400		
14.6	4 WIRE TELEPHONE SET	NO	1	1	2		
14.7	2 WIRE TELEPHONE SET	NO	2	2	4		
15	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS) (Switch yard and other street area)						
15.1	SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES & LAMPS (as per existing lighting system adopted in the existing S/S) 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).	LOT	1	1	2		
16	FIRE FIGHTING SYSTEM(PORTABLE AND WHEEL MOUNTED SETS FOR CONTROL ROOM,EQUIPMENT LIKE TRANSFORMER AND OTHER AREAS AS PER TECH SPEC(REFER TS-INST TO BIDDER BEFORE DESIGN-SL NO 16-ANNEXURE - I)						
16.1	DRY POWDER TYPE - 5 KGS	NOS	1	1	2		
16.2	CO ₂ - 4.5 KGS	NOS	1	1	2		
16.3	CO ₂ - 9 KGS	NOS	1	1	2		
17	PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROTN PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC						
17.1	132 KV SIDE						
17.1.1	FEEDER CONTROL PANEL(CPF-1M)	NOS	2	2	4		
17.1.2	FEEDER RELAY PANEL(RPF-1M)	NOS	2	2	4		

PART-I, SCHEDULE-2B (FOR SUBSTATION- F & I)					TO BE QUOTED IN INR		
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Freight & Insurance Charges	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)					Unit Charges	Total Price
1	2	3	4	5	6	7	8=6X7
18	BEST QUALITY & APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.	LOT	1	1	2		
TOTAL (Part-I):2B (SS F & I)							

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 amount in all column except shaded portion.
- 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). No rate shall be furnished/obtained after bid opening (Ref clause no 33.4.1 of INB vol-I)
- 4 Kindly enclose soft copy of the duly filled schedule in a CD with the priced copy of Bid.
- 5 Bidder should be quoted **including** service tax, no service tax shall be paid/reimbursed.

Date :
Place :

(Signature)
(Name)
(Designation)
(Common Seal)

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Construction of 02 Nos 132 KV Feeder Bay Extension work at 132/33 KV Sub-station Jaleswar and 02 Nos 132 KV Feeder Bay Extension work at 400/220/132 KV Sub-station Kuchei (Baripada) of PGCIL & 132 KVDC Transmission line from Jaleswar S/S to Kuchei(Baripada) S/S and associated works

BID DOCUMENT No.: Sr. G.M-CPC- Tender-Kuchei-Jaleswar-12/2012-13

NOTICE INVITING TENDER-NIT NO. 12 /2012-13

(F & I FOR Supply Equipment/Materials Price Break-up against KUCHEI-JALESWAR PACKAGE)

PART-II, SCHEDULE-2B (FOR LINE)					
	DESCRIPTION OF ITEMS			TO BE QUOTED IN INR	
S. No.	F&I FOR SUPPLY OF FOLLOWING EQUIPMENT,STRUCTURES & MATERIALS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
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 cooping(legs & bracing members). All Supply should confirm to the Technical Specification.				
1.1	OC TYPE (60 deg ANGLE) TOWERS (NOMINAL UNIT WEIGHT 9.8398MT)	Nos.	2		
1.1.1	+3 EXTENSION (NOMINAL UNIT WEIGHT 1.474MT)	Nos.	0		
1.1.2	+6 EXTENSION (NOMINAL UNIT WEIGHT 2.597 MT)	Nos.	2		
1.1.3	+15 EXTENSION (NOMINAL UNIT WEIGHT 8.555 MT)	Nos.	5		
1.2	UR TYPE (60 deg ANGLE) TOWERS (NOMINAL UNIT WEIGHT 13.585 MT)	Nos.	4		
1.2.1	+6 EXTENSION (NOMINAL UNIT WEIGHT 4.249 MT)	Nos.	4		
1.3	PA TYPE (SUSPENSION) TOWERS (Nominal unit weight 3.430 MT)	Nos.	205		
1.3.1	+3 EXTENSION (Nominal unit weight 0.537 MT)	Nos.	11		
1.3.2	+6 EXTENSION (Nominal unit weight 1.349 MT)	Nos.	5		
1.4	PBTYPE (30 deg ANGLE) TOWERS (Nominal unit weight 4.973 MT)	Nos.	41		

PART-II, SCHEDULE-2B (FOR LINE)					
	DESCRIPTION OF ITEMS			TO BE QUOTED IN INR	
S. No.	F&I FOR SUPPLY OF FOLLOWING EQUIPMENT,STRUCTURES & MATERIALS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
1.4.1	+3 EXTENSION (Nominal unit weight 1.018 MT)	Nos.	1		
1.4.2	+6 EXTENSION (Nominal unit weight 2.104 MT)	Nos.	0		
1.5	PC TYPE (60 deg ANGLE) TOWERS (Nominal unit weight 6.214 MT)	Nos.	41		
1.5.1	+3 EXTENSION (Nominal unit weight 1.119 MT)	Nos.	6		
1.5.2	+6 EXTENSION (Nominal unit weight 2.342 MT)	Nos.	2		
1.6	TEMPLATES				
1.6.1	OC (NOMINAL UNIT WEIGHT 0.984 MT)	Nos.	1		
1.6.2	OC +15 MTRS (NOMINAL UNIT WEIGHT2.073 MT)	Nos.	1		
1.6.3	UR (NOMINAL UNIT WEIGHT 1.507 MT)	Nos.	1		
1.6.4	PA (Nominal unit weight 0.665 MT)	Nos.	15		
1.7	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	1400		
1.8	Weight of different type G.I Nuts and Bolts	MT	100		
2.0	Supply of the following tower accessories as per technical specification and as directed by the engineer in charge.				
2.1	EARTHING DEVICE	Nos.	302		
2.2	DANGER BOARD	Nos.	302		
2.3	NUMBER PLATE	Nos.	302		
2.4	PHASE PLATE	Nos.	1806		
2.5	BIRD GUARD	Nos.	1280		
2.6	ANTICLIMBING DEVICE	Nos.	302		
2.7	CIRCUIT PLATE	Nos.	602		

PART-II, SCHEDULE-2B (FOR LINE)					
	DESCRIPTION OF ITEMS			TO BE QUOTED IN INR	
S. No.	F&I FOR SUPPLY OF FOLLOWING EQUIPMENT,STRUCTURES & MATERIALS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
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 (30/7/3.0 mm)	Kms.	490		
4.0	POWER CONDUCTOR ACCESSORIES				
4.1	For ACSR PANTHER				
4.1.1	VIBRATION DAMPER	Nos.	4764		
4.1.2	MID SPAN JOINT	Nos.	483		
4.1.3	Repair Sleeve	Nos.	483		
4.1.4	Performed Armoured Rod	Set	1230		
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.	92		
6.0	EARTH CONDUCTOR ACCESSORIES				
6.1	VIBRATION DAMPER	Nos.	602		
6.2	FLEXIBLE COPPER EARTH BOND	Nos.	124		
6.3	SUSPENSION CLAMP	Nos.	205		
6.4	TENSION CLAMP	Nos.	192		
6.5	MID SPAN JOINT	Nos.	602		
6.6	Repair Sleeve	Nos.	50		
7.0	Supply of the following Anti Fog disc insulators as per the technical specification and as per the instruction of the Engineer in charge.				
7.1	120KN Insulator (taking 5% extra towards wastage)	Nos.	13000		
7.2	160KN Insulator (taking 5% extra towards wastage)	Nos.	10800		
7.3	90 KN Insulator (taking 5% extra towards wastage)	Nos.	13000		

PART-II, SCHEDULE-2B (FOR LINE)					
DESCRIPTION OF ITEMS			TO BE QUOTED IN INR		
S. No.	F&I FOR SUPPLY OF FOLLOWING EQUIPMENT,STRUCTURES & MATERIALS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
8.0	Supply of the following hard ware fittings suitable for following conductors as per the technical specification.				
8.1	For ACSR PANTHER				
8.1.1	Single suspension Hard wares fittings.(AGS type)	Set	1150		
8.1.2	Double suspension Hard wares fittings.(AGS type).	Set	110		
8.1.3	Single tension Hard wares fittings.	Set	1050		
8.1.4	Double tension Hard wares fittings.	Set	130		
TOTAL (Part-II)-2B-LINE					

Note:

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1

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4 Kindly enclose soft copy of the duly filled schedule in a CD with the priced copy of Bid.

5 Bidder should be quoted including service tax, no service tax shall be paid/reimbursed.

Date :

Place :

(Signature)

(Name)

(Designation)

ODISHA POWER TRANSMISSION CORPORATION LIMITED

**Construction of 02 Nos 132 KV Feeder Bav Extension work at 132/33 KV Sub-station Jaleswar and 02 Nos 132 KV Feeder Bav Extension work at 400/220/132 KV Sub-station Kuchei
 BID DOCUMENT No.: Sr. G.M-CPC- Tender-Kuchei-Jaleswar-12/2012-13**

NOTICE INVITING TENDER-NIT NO. 12 /2012-13

(Equipment/Materials Supply Price Break-up of ERECTION & CIVIL WORKS Prices against KUCHEI-JALESWAR PACKAGE)

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
						Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
A	ELECTRICAL WORKS						
1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER	NOS	6	6	12		
2	145 KV,1200A,31.5KA,ISOLATORS						
2.1	S/I WITH OUT EARTH SWITCH	NOS	2	2	4		
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	2	2	4		
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	6	6	12		
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	6	6	12		
5	CT CONSOLE & CVT CONSOLE (OUT DOOR TYPE)	NOS	4	4	8		
6	132 KV Bus Post Insulators	NOS	4	4	8		
7	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	2	2	4		
8	BUS BAR & CIRCUIT MATERIALS						
8.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING						
8.1.1	120 kN ANTIFOG INSULATOR STRINGS <i>for Double Moose cond</i> (TENSION)-132 KV	SET	6	6	12		
8.1.2	120 kN ANTIFOG INSULATOR STRINGS <i>for Single Moose cond</i> (TENSION)-132 KV	SET	24	24	48		
8.1.3	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-132 KV	SET	12	12	24		
8.2	ACSR MOOSE CONDUCTOR	LOT	1	1	2		
8.3	ACSR ZEBRA CONDUCTOR	LOT	1	1	2		
8.4	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT	1	1	2		
8.5	EARTH WIRES & IT'S HARDWARES & FITTING	LOT	1	1	2		
9	SUBSTATION EARTHING SYSTEMS						
9.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Earth Flat for laying (spacing maximum 5m) (Substation earth mat): Design, engineering, supply (except the MS Rods, only erection) inclusive of corrosion protection measures if any,laying of earth mat conductors of size 75X10 mm GI Flat as per the approval of Engineer in charge, excavation, welding/jointing of ground conductors along with risers (a) up to Finished level from the mat size 75X10 mm GI Flat with back filling and good compaction,The spacing between the earth conductor not more than 5 mtrs (both way) and to be buried at depth of 700 mm from the finished ground level as per the practice and as per specification.	LOT	1	1	2		

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/133 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
						Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
9.2	EARTHING CONDUCTOR: 50x6 mm GI Flat for Raiser from the burial earth mat to equipment,structure including proper welding, bending and anti corrosive painting etc from the finished ground level to the top of the structure and equipment shall be with 50X6 mm GI Flats, as per approved drawing and specification.	LOT	1	1	2		
9.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit): perforated 50 mm Heavy duty GI pipes for treated earth pits (with details of treatment as per IS) including, excavation,supply of Bentonate powder and other materials for the treated earth pit as per standard practice and as per	LOT	1	1	2		
9.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	LOT	1	1	2		
10	G.I 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.	LOT	1	1	2		
11	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES						
11.1	BAY MARSHALLING KIOSK (1 No in each 132 kv bay Extension)	NOS	1	1	2		
11.2	SWITCH YARD AC CONSOLE FOR LIGHTING (1 NO. Each at Bay Extension)	NOS	1	1	2		
12	SWITCH YARD STRUCTURES (LATTICE TYPE) FOR 132 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.						
12.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS						
12.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS	4	4	8		
12.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS	1	1	2		
12.2	DIFFERENT TYPE OF BEAMS WITH DETAILS						
12.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS	4	4	8		
12.2.2	G1X - 132 KV (NOMINAL UNIT WT- 1.4 MT)	NOS	2	2	4		
12.3	TOTAL WEIGHT OF COLUMN & BEAM	MT			25		
12.4	SUPPORT STRUCTURES (LATTICE/PIPE TYPE) FOR 132 KV EQUIPMENT						
12.4.1	ISOLATORS-132KV	LOT	2	2	4		
12.4.2	CTS-132 KV	LOT	6	6	12		
12.4.3	CVTS-132 KV	LOT	6	6	12		
12.4.4	Surge Arrester-132 kv	LOT	6	6	12		
12.4.5	Wave Trap-132 KV	LOT	4	4	8		
12.4.6	BPI-132 KV	LOT	4	4	8		
12.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT			20		
12.6	Total weight of GI Nuts and bolts for the above structures	MT			5		
13	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES						
13.1	POWER CABLES,1.1KV,XLPE,ARMOURED, ALUMINIUM CONDUCTOR (As per Specification)						
13.1.1	3.5 CX35 mm ²	LOT	1	1	2		

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/133 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
13.1.2	4 CX 16 mm ²	LOT	1	1	2		
13.1.3	4 CX 6 mm ²	LOT	1	1	2		
13.1.4	2CX 6 mm ²	LOT	1	1	2		
13.2	CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)						
13.2.1	4 CX 2.5 mm ²	LOT	1	1	2		
13.2.2	5 CX 2.5 mm ²	LOT	1	1	2		
13.2.3	7CX 2.5 mm ²	LOT	1	1	2		
13.2.4	10 CX 2.5 mm ²	LOT	1	1	2		
13.2.5	12 CX 2.5 mm ²	LOT	1	1	2		
14	ACCESSORIES FOR PLCC SYSTEM AS PER TECHNICAL SPECIFICATION						
14.1	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	4	4	8		
14.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	2	2	4		
14.3	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	500	500	1000		
14.4	10 PAIR ARMoured TELEPHONE CABLES	MTRS	100	100	200		
14.5	4 PAIR NON ARMoured TELEPHONE CABLES	MTRS	200	200	400		
14.6	4 WIRE TELEPHONE SET	NO	1	1	2		
14.7	2 WIRE TELEPHONE SET	NO	2	2	4		
15	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS)(Switch yard and other street area)						
15.1	<i>SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES & LAMPS (as per existing lighting system adopted in the existing S/S) 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>	LOT	1	1	2		
16	FIRE FIGHTING SYSTEM(PORTABLE AND WHEEL MOUNTED SETS FOR CONTROL ROOM,EQUIPMENT LIKE TRANSFORMER AND OTHER AREAS AS PER TECH SPEC(REFER TS-INST TO BIDDER BEFORE DESIGN-SL NO 16-ANNEXURE - I)						
16.1	DRY POWDER TYPE - 5 KGS	NOS	1	1	2		
16.2	CO ₂ - 4.5 KGS	NOS	1	1	2		
16.3	CO ₂ - 9 KGS	NOS	1	1	2		
17	PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROT N PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC						
17.1	132 KV SIDE						
17.1.1	FEEDER CONTROL PANEL(CPF-1M)	NOS	2	2	4		

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/133 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
						Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
17.1.2	FEEDER RELAY PANEL(RPF-1M)	NOS	2	2	4		
18	BEST QUALITY &APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.	LOT	1	1	2		
19	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	1	1	2		
TOTAL of Part-I (A)							
B	CIVIL WORKS						
1	<i>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) & 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 & 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.</i>						
1.1	Switch yard gantry/portal structure foundations						
1.1.1	T1S - 132 KV	Nos	4	4	8		
1.1.2	T4S - 132KV	Nos	1	1	2		
1.2	Equipment foundations :						
1.2.1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER	NOS	6	6	12		
1.2.2	145 KV,1200A,31.5KA,ISOLATORS						
1.2.2.1	S/I WITH OUT EARTH SWITCH	NOS	2	2	4		
1.2.2.2	D/I WITH SINGLE EARTH SWITCH	NOS	2	2	4		
1.2.3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	6	6	12		
1.2.4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	6	6	12		
1.2.5	CT CONSOLE & CVT CONSOLE (OUT DOOR TYPE)	NOS	4	4	8		
1.2.6	132 KV Bus Post Insulators	NOS	4	4	8		
1.2.7	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	2	2	4		
1.2.8	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES						
1.2.8.1	BAY MARSHALLING KIOSK (1 No in each 132 kv bay Extension)	NOS	1	1	2		
1.2.8.2	SWITCH YARD AC CONSOLE FOR LIGHTING (1 NO. Each at Bay Extension)	NOS	1	1	2		
1.2.9	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.						

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
1.2.9.1	Norma Soil(SOFT/LOOSE)	Cum	250	230	480		
1.2.9.2	Hard Soil	Cum	50	50	100		
1.2.9.3	Soft Rock	Cum	20	20	40		
1.2.9.4	Hard Rock required blasting	Cum	0	0	0		
1.2.10	<i>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.</i>	Cum	35	35	70		
1.2.11	<i>Open cast foundation for the above column/equipment/marshalling box foundations with RCC: 1:1.5:3 (Grade M-20),including supply of Labour all materials like MS Rod (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.</i>	Cum	250	250	500		

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 132/133 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
2	<p>Cable Trenches: 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.</p> <p>(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.</p> <p>(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.</p> <p>(3) Open cast foundation for the cable trench with RCC: 1:1.5:3 (Grade M-20 Nominal mixing),including supply of Labour all materials like MS Rod,Cement, coarse and 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.</p> <p>(4) Brickwork with KB brick ,plastering (1:6 Ratio) & curing, wherever required including the supply of labour,material, cement, etc.</p> <p>(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.</p> <p>(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.</p> <p>(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)).</p>						
2.1	Section 1-1	Mtrs	25	25	50		
2.2	Section 2- 2	Mtrs	30	30	60		
2.3	Section 3-3	Mtrs	50	50	100		
2.4	Section 4-4	Mtrs	50	50	100		
3	<p>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)</p>						
3.1	Section 1-1	Lot	1	1	2		
3.2	Section 2- 2	Lot	1	1	2		
3.3	Section 3-3	Lot	1	1	2		
4	<p>Roads: Design, construction of roads and walkways/ shoulders within sub-station(Switch yard area,approach road, control room area, main gate to the switch yard gate etc) 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)</p>						

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/133 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
4.1	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.	Lots	1	1	2		
5	Drainage system:Collection of rainfall data , Design, construction of storm water drainage scheme, road-culverts, and drains crossing cable trenches etc. as per specification and approved drawing.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.All the switcyard bays , roads water drainage shall be connected to the mainsurface drain.As per approved drawing and specification.						
5.1	Storm water drain	Lots	1	0	1		
5.2	Road-culverts, drain crossings	Lots	0	0	0		
5.3	Cable trench crossing	Lots	1	0	1		
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)	Lots	1	1	2		
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.	Lots	1	1	2		
8	LEVELLING OF S/S AREA :Providing, neatly dressing up and leveling of substation area including 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, if required as per direction of the Project In charge, 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, back filling and disposal of excess earth or rocks to make the area to a level for construction as per scope and as per approved drawing and specification.						
8.1	Contour survey of the entire sub-station area including Supply of all labour & T&P by contractor.	SQM	1200	1050	2250		
8.2	Cutting of sub-station area of the as per the direction of Engineer in Charge.	Cum	600	400	1000		
8.3	Filling with borrowed earth beyond 30 mtrs lead as per the direction of Engineer in Charge.	Cum	1000	150	1150		
9	STONE PITCHING & TOE WALL :Stone pitching including making of toe walls both at top and bottom, including surface drain both at top and bottom and partition wall in every 10 mtrs by using boulders and RR masonry walls respectively.This also includes excavation in all types of soil or rocks,backfilling,and disposal of excess earth and supply of materials and labour as per the direction of Engineer In charge and as per approved drawing and specification.	Lot	1	1	2		

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/33 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
10	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.	Lots	1	1	2		
11	Any other civil work to be included in the schedule by the Bidder if required essential for successful completion of project, including supply of labour, material, cement reinforcement steel, form work etc. Bidder shall also quote the unit rate for the following items of works.(Rate shall be inclusive of supply of labour, material, cement, reinforcement steel, form work etc.)						
11.1	Excavation 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.	Cu.m.	1	1	2		
11.2	PCC: M10(1: 3 : 6)	Cu.m.	1	1	2		
11.3	RCC M 15(1:2:4)	Cu.m.	1	1	2		
11.4	RCC: M 20(1:1.5:3)	Cu.m.	1	1	2		
11.5	Brick masonry work in cement sand mortar 1: 6 with bricks of class designation 75.	Cu.m.	1	1	2		
11.6	12 mm thick plaster in cement sand mortar (1: 6).	Sq.m.	1	1	2		
11.7	Cutting,bending,binding(supply of binding wires) and fixing of reinforcement(including supply of reinforcement).	M.T.	1	1	2		
12	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	1	2		

PART-I, SCHEDULE-2C (FOR SUBSTATION)							
SL NO	DESCRIPTION OF ITEMS	Unit	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 132/133 KV S/S at JALESWAR	Quantity for: Construction of 2 Nos 132 KV Feeder Bay Extension at 400/220/132 KV S/S at KUCHEI(BARIPADA) of PGCIL.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Rate	Total Price
1	2	3	4	5	6	7	8=6X7
13	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.						
13.1	Excavation for laying of EARTHING CONDUCTOR (75x10mm for laying (spacing maximum 5m) (GI FLAT)	Lot	1	1	2		
13.2	Excavation for putting the EARTHING DEVICE INCLUDING ITS ASSOCI-ATED ACCESSORIES(50 mm heavy duty GI PIPE 3.0 mtrs long for treated earth pit)	Lot	1	1	2		
TOTAL of Part-I (B) (Evaluated)							
GRAND TOTAL (ELECTRICAL WORKS + CIVIL WORKS) (A+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.
- 2 Bidders are required to fill up amount in all column except shaded portion.
- 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). No rate shall be furnished/obtained after bid opening (Ref clause no 33.4.1 of INB vol-I) .
- 4 Kindly enclose soft copy of the duly filled schedule in a CD with the priced copy of Bid.
- 5 Bidder has to quote rates **excluding** service tax (if any), service tax shall be paid/reimbursed as per conditions of Bid Document.

Date :

Place :

(Signature)

(Name)

(Designation)

(Common Seal)

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Construction of 02 Nos 132 KV Feeder Bay Extension work at 132/33 KV Sub-station Jaleswar and 02 Nos 132 KV Feeder Bay Extension work at 400/220/132 KV Sub-station Kuche (Baripada) of PGCIL & 132 KVDC Transmission line from Jaleswar S/S to Kuche (Baripada) S/S and associated works

BID DOCUMENT No.: Sr. G.M-CPC- Tender-Kuche-Jaleswar-12/2012-13

NOTICE INVITING TENDER-NIT NO. 12 /2012-13

(Equipment/Materials Supply Price Break-up of ERECTION & CIVIL WORKS Prices against KUCHEI-JALESWAR PACKAGE)

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNITS	LINE	TO BE QUOTED IN INR	
			Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
A	ELECTRICAL WORKS				
1.0	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	OC TYPE (60 deg ANGLE) TOWERS (NOMINAL UNIT WEIGHT 9.8398MT)	Nos.	2		
1.1.1	+3 EXTENSION (NOMINAL UNIT WEIGHT 1.474MT)	Nos.	0		
1.1.2	+6 EXTENSION (NOMINAL UNIT WEIGHT 2.597 MT)	Nos.	2		
1.1.3	+15 EXTENSION (NOMINAL UNIT WEIGHT 8.555 MT)	Nos.	5		
1.2	UR TYPE (60 deg ANGLE) TOWERS (NOMINAL UNIT WEIGHT 13.585 MT)	Nos.	4		
1.2.1	+6 EXTENSION (NOMINAL UNIT WEIGHT 4.249 MT)	Nos.	4		
1.3	PA TYPE (SUSPENSION) TOWERS (Nominal unit weight 3.430 MT)	Nos.	205		

PART-II, SCHEDULE-2C (FOR LINE)

PART-II, SCHEDULE-2C (FOR LINE)		LINE		TO BE QUOTED IN INR	
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
1.3.1	+3 EXTENSION (Nominal unit weight 0.537 MT)	Nos.	11		
1.3.2	+6 EXTENSION (Nominal unit weight 1.349 MT)	Nos.	5		
1.4	PBTYPE (30 deg ANGLE) TOWERS (Nominal unit weight 4.973 MT)	Nos.	41		
1.4.1	+3 EXTENSION (Nominal unit weight 1.018 MT)	Nos.	1		
1.4.2	+6 EXTENSION (Nominal unit weight 2.104 MT)	Nos.	0		
1.5	PC TYPE (60 deg ANGLE) TOWERS (Nominal unit weight 6.214 MT)	Nos.	41		
1.5.1	+3 EXTENSION (Nominal unit weight 1.119 MT)	Nos.	6		
1.5.2	+6 EXTENSION (Nominal unit weight 2.342 MT)	Nos.	2		
1.6	TEMPLATES				
1.6.1	OC (NOMINAL UNIT WEIGHT 0.984 MT)	Nos.	1		
1.6.2	OC +15 MTRS (NOMINAL UNIT WEIGHT 2.073 MT)	Nos.	1		
1.6.3	UR (NOMINAL UNIT WEIGHT 1.507 MT)	Nos.	1		
1.6.4	PA (Nominal unit weight 0.665 MT)	Nos.	15		
1.6.5	PB (Nominal unit weight 0.602 MT)	Nos.	5		
1.6.6	PC (Nominal unit weight 0.904 MT)	Nos.	5		
1.7	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	1400		
1.8	Weight of different type G.I Nuts and Bolts	MT	100		
2.0	Erection of the following tower accessories as per technical specification and as directed by the engineer in charge.				
2.1	EARTHING DEVICE	Nos.	302		
2.2	DANGER BOARD	Nos.	302		

PART-II, SCHEDULE-2C (FOR LINE)

PART-II, SCHEDULE-2C (FOR LINE)		LINE		TO BE QUOTED IN INR	
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
2.3	NUMBER PLATE	Nos.	302		
2.4	PHASE PLATE	Nos.	1806		
2.5	BIRD GUARD	Nos.	1280		
2.6	ANTICLIMBING DEVICE	Nos.	302		
2.7	CIRCUIT PLATE	Nos.	602		
3.0	Erection 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 (30/7/3.0 mm)	Kms.	490		
4.0	POWER CONDUCTOR ACESSORIES				
4.1	For ACSR PANTHER				
4.1.1	VIBRATION DAMPER	Nos.	4764		
4.1.2	MID SPAN JOINT	Nos.	483		
4.1.3	Repair Sleeve	Nos.	483		
4.1.4	Performed Armoured Rod	Set	1230		
5.0	Erection 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.	92		
6.0	EARTH CONDUCTOR ACESSORIES				
6.1	VIBRATION DAMPER	Nos.	602		
6.2	FLEXIBLE COPPER EARTH BOND	Nos.	124		
6.3	SUSPENSION CLAMP	Nos.	205		
6.4	TENSION CLAMP	Nos.	192		
6.5	MID SPAN JOINT	Nos.	602		

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	LINE		TO BE QUOTED IN INR	
		UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
6.6	Repair Sleeve	Nos.	50		
7.0	Erection of the following Anti Fog Disc insulators as per the technical specification and as per the instruction of the Engineer in charge.				
7.1	120KN Insulator (taking 5% extra towards wastage)	Nos.	13000		
7.2	160KN Insulator (taking 5% extra towards wastage)	Nos.	10800		
7.3	90 KN Insulator (taking 5% extra towards wastage)	Nos.	13000		
8.0	Erection of the following hard ware fittings suitable for following conductors as per the technical specification.				
8.0	Supply of the following hard ware fittings suitable for following conductors as per the technical specification.				
8.1	For ACSR PANTHER				
8.1.1	Single suspension Hard wares fittings.(AGS type)	Set	1150		
8.1.2	Double suspension Hard wares fittings.(AGS type).	Set	110		
8.1.3	Single tension Hard wares fittings.	Set	1050		
8.1.4	Double tension Hard wares fittings.	Set	130		
	Total Electrical Works (Part-A)-LINE-2C				
B	CIVIL WORKS				
1.0	FOUNDATION MATERIALS: Supply of all materials like cement, M.S Rod (FE500), 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	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/murum/sand shall be brought for filling and compaction, including supply of sand, all T&P, labour as required.				

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	LINE		TO BE QUOTED IN INR	
		UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
1.1.1	Normal soil	CUM	17000		
1.1.2	Semi-submerged soil	CUM	4300		
1.1.3	Soft disintegrated rock not required blasting	CUM	7000		
1.1.4	Soil Investigation	LOC	75		
1.2	CONCRETING(RCC & PCC)				
1.2.1	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 cutting,bending,binding of M.S.Rod including supply of binding wire 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	4200		
1.2.2	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 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	100		
1.3	PILING WORKS				
1.3.1	Supply of all materials like cement, steel, all coarse aggregates, fine aggregates and making 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) 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 and instruction of Engineer in charge in the RCC :1:1.5:3 (Grade M-20.) including stabilization of bore :- Pile diameter (500 MM) and approximate length of the bore is 15 Mtrs.	Mtrs	350		

PART-II, SCHEDULE-2C (FOR LINE)

PART-II, SCHEDULE-2C (FOR LINE)		LINE		TO BE QUOTED IN INR	
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
1.3.2	Pile riser,cap,tie-beam with RCC: 1:1.5:3 (Grade M-20) ,including supply of all materials like MS Rod (cutting,bending,binding of M.S.Rod including supply of binding wire),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	300		
1.4	REVTMENT:(including Benching)Supply of all materials like cement,Late-rite stone (stone masonry) all type aggregates, labours, & T&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 .				
1.4.1	Excavation in all type of soil including rock & back filling (including supply of sand for back filling).	CUM	200		
1.4.2	PCC in the ratio1:3:6 .	CUM	100		
1.4.3	PCC in the ratio 1:2:4 .	CUM	200		
1.4.4	Laterite Stone Masonary work in the ratio 1:5.	CUM	1000		
1.5	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	301		
1.6	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.	167660		
2.0	SURVEY OF LINE & PREPARATION LAND SCHEDULE: Supply of required T&P's, Technical personnel's, labours for conducting.				
2.1	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.	80		
2.2	Check survey including supply of all labour, T&P as per instruction of Engineer in Charge and as per the approved profile.	Kms.	80		

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)	LINE		TO BE QUOTED IN INR	
		UNITS	Quantity for :Construction of 132 KV DC LINE FROM existing JALESWAR 132/33 KV SUB-STATION TO existing 400/ 220/132 KV GRID SUB-STATION AT KUCHEI(BARIPADA) of PGCIL (Line length- 80.0 Kms (APPOX)	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
2.3	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.	LS	1		
2.4	PTCC approval, railway crossing has to be obtained by submitting the required documents to the concerned department through OPTCL. Way-Leave blockade charges and any other charges are to be borne by the bidders. The documents for PTCC clearance & Railway 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	1		
Total CIVIL Works (Part-B)-LINE-2C					
TOTAL OF LINE-2C (PART-II)(Part A + Part 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.
- 2 Bidders are required to fill up amount in all column except shaded portion.
- 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). No rate shall be furnished/obtained after bid opening (Ref clause no 33.4.1 of INB vol-I) .
- 4 Kindly enclose soft copy of the duly filled schedule in a CD with the priced copy of Bid.
- 5 Bidder has to quote rates excluding service tax (if any), service tax shall be paid/reimbursed as per conditions of Bid Document.

Date :

Place :

(Signature)

(Name)

(Designation)

(Common Seal)