

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Conversion 132 KV existing S/C line to D/C line from JAYANAGAR S/S to SUNABEDA S/S & Construction of 132 KV Feeder Bay extensions at both the end of the Sub-Station & Associated System.

BID DOCUMENT No.: Sr. G.M-CPC- Tender-JAYANAGAR-SUNABEDA LINE -Package – 33/2012-13

NOTICE INVITING TENDER-NIT NO. 32 /2012-13

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

S. No.	PART-I SCHEDULE-2A (FOR SUBSTATION) DESCRIPTION OF ITEMS SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNITS	SUBSTATION		TOTAL QUANTITY	TO BE QUOTED IN INR		Mode of Transaction (Direct or Bought-out item)	TO BE QUOTED IN INR		
			Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.		Unit Ex-Works Price	Total Ex-Works Price		Total Taxes & Duties applicable for transaction between bidder and OPTCL and not included in the price at Column(9) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(9)]		
									Excise Duty	VAT/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	3	3	6						
2	145 KV,1200A,31.5KA,ISOLATORS										
2.1	S/I WITH OUT EARTH SWITCH	NOS	1	1	2						
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	1	1	2						
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	3	3	6						
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	3	3	6						
5	132 KV Bus Post Insulators	NOS	4	4	8						
6	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	1	1	2						
7	BUS BAR & CIRCUIT MATERIALS										
7.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING										
7.2	120 kN ANTIFOG INSULATOR STRINGS for Double Moose cond (TENSION)-132 KV	SET	6	6	12						
7.3	120 kN ANTIFOG INSULATOR STRINGS for Single Moose cond (TENSION)-132 KV	SET	9	9	18						
7.4	90 kN ANTIFOG INSULATOR STRINGS for Double/ Single Moose cond (SUSPENSION)-132 KV	SET	3	3	6						
7.5	90 kN ANTIFOG INSULATOR STRINGS for Double/ Single Moose cond (SUSPENSION)-33 KV	SET	3	3	6						
7.2	ACSR MOOSE CONDUCTOR	LOT			1						
7.3	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT			1						
7.4	EARTH WIRES & IT'S HARDWARES & FITTING	LOT			1						
7.5	SUBSTATION EARTHING SYSTEMS										

PART-I SCHEDULE-2A (FOR SUBSTATION)		SUBSTATION									
S. No.	DESCRIPTION OF ITEMS SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	TO BE QUOTED IN INR			TO BE QUOTED IN INR		
						Unit Ex-Works Price	Total Ex-Works Price	Mode of Transaction (Direct or Bought-out item)	Excise Duty	VAT/Sales Tax	Other Levies (if any)
1	2	3	4	5	6	7	8=6X7	9	10	11	12
7.5.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Flat for laying (spacing maximum 5m both way)	LOT			1						
7.5.2	EARTHING CONDUCTOR: 50X6 mm GI Flat for Raiser from the burial earth mat to equipment,structure etc)	LOT			1						
7.5.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit)	LOT			1						
7.5.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	LOT			1						
7.5.5	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						
7.6	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES										
7.6.1	BAY MARSHALLING KIOSK (01 No. in 132 kv bay)	NOS	1	1	2						
7.6.2	CT,PT & CVT Out Door Console Boxes	LOT			1						
8	SWITCH YARD STRUCTURES COLUMN & BEAM (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.										
8.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS										
8.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS									
8.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS									
8.2	DIFFERENT TYPE OF BEAMS WITH DETAILS										
8.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS									
8.2.2	G2 - 132 KV(NOMINAL UNIT WT- 0.91 MT)	NOS									
8.3	TOTAL WEIGHT OF COLUMN & BEAM	MT	6	6	12						
8.4	SWITCH YARD EQUIPMENT STRUCTURES (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.										
8.4.1	ISOLATORS-132KV	NOS									
8.4.2	CTS-132 KV	NOS									
8.4.3	CVTS-132 KV	NOS									

PART-I SCHEDULE-2A (FOR SUBSTATION)			SUBSTATION								
S. No.	DESCRIPTION OF ITEMS SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	TO BE QUOTED IN INR			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(9) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(9)]		
1	2	3	4	5	6	7	8=6X7	9	Excise Duty	VAT/Sales Tax	Other Levies (if any)
8.4.4	Surge Arrester-132 kV	NOS									
8.4.5	Wave Trap-132 KV	NOS									
8.4.6	BPI-132 KV	NOS									
8.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT	5	5	10						
8.6	Total weight of GI Nuts and bolts for the above structures	MT	1	1	2						
9	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES										
9.1	POWER CABLES,1.1KV,PVC,ARMOURED, ALUMINIUM CONDUCTOR (As per Specification)										
9.1.1	3.5 CX35 mm ²	LOT			1						
9.1.2	4 CX 16 mm ²	LOT			1						
9.1.3	4 CX 6 mm ²	LOT			1						
9.1.4	2CX 6 mm ²	LOT			1						
9.2	CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)										
9.2.1	4 CX 2.5 mm ²	LOT			1						
9.2.2	5 CX 2.5 mm ²	LOT			1						
9.2.3	7CX 2.5 mm ²	LOT			1						
9.2.4	10 CX 2.5 mm ²	LOT			1						
9.2.5	12 CX 2.5 mm ²	LOT			1						
9.2.6	16 CX 2.5 mm ²	LOT			1						
9.2.7	19 CX 2.5 mm ²	LOT			1						
10	ACCESSORIES FOR PLCC SYSTEM AS PER TECHNICAL SPECIFICATION										
10.1	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	2	2	4						
10.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	1	1	2						
10.3	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						
10.4	4 PAIR NON ARMOURED TELEPHONE CABLES	MTRS	100	100	200						
10.5	2 WIRE TELEPHONE SET	NO	4	4	8						

PART-I SCHEDULE-2A (FOR SUBSTATION)		SUBSTATION									
S. No.	DESCRIPTION OF ITEMS SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	TO BE QUOTED IN INR			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(9) [For bought-out items, taxes & duties excluding Octroi/Entry Tax are invariably included in the price quoted at column(9)]		
1	2	3	4	5	6	7	8=6X7	9	10	11	12
11	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS)(Switch yard and other street area)										
11.1	SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES & 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).	LOT			1						
12	PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROTN PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC										
12.1	132 KV SIDE										
12.1.1	FEEDER CONTROL PANEL(CPF-1M)	NOS	1	1	2						
12.1.2	FEEDER RELAY PANEL(RPF-1M)	NOS	1	1	2						
13	BEST QUALITY & APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.	LOT			1						
TOTAL OF SUBSTATION-2A (PART-I)											

Note: 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 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

Conversion 132 KV existing S/C line to D/C line from JAYANAGAR S/S to SUNABEDA S/S & Construction of 132 KV Feeder Bay extensions at both the end of the Sub-Station & Associated System.

BID DOCUMENT No.: Sr. G.M-CPC- Tender-JAYANAGAR-SUNABEDA LINE -Package – 33/2012-13

NOTICE INVITING TENDER-NIT NO. 32 /2012-13

(F&I FOR SUPPLY OF EQUIPMENT/MATERIALS PRICE BREAK-UP AGAINST JAYANAGAR-SUNABEDA LINE PACKAGE)

PART-I, SCHEDULE-2B (FOR SUBSTATION)		SUB-STATION					
DESCRIPTION OF ITEMS					TO BE QUOTED IN INR		
S. NO.	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (AS PER TECHNICAL SPECIFICATION)	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	UNIT F&I CHARGES	TOTAL F&I CHARGES
			4	5			
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	3	3	6		
2	145 KV,1200A,31.5KA,ISOLATORS						
2.1	S/I WITH OUT EARTH SWITCH	NOS	1	1	2		
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	1	1	2		
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	3	3	6		
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	3	3	6		
5	132 KV Bus Post Insulators	NOS	4	4	8		
6	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	1	1	2		
7	BUS BAR & CIRCUIT MATERIALS						
7.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING						
7.2	120 kN ANTIFOG INSULATOR STRINGS <i>for Double Moose cond</i> (TENSION)-132 KV	SET	6	6	12		
7.3	120 kN ANTIFOG INSULATOR STRINGS <i>for Single Moose cond</i> (TENSION)-132 KV	SET	9	9	18		
7.4	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-132 KV	SET	3	3	6		
7.5	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-33 KV	SET	3	3	6		
7.2	ACSR MOOSE CONDUCTOR	LOT			1		
7.3	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT			1		
7.4	EARTH WIRES & IT'S HARDWARES & FITTING	LOT			1		
7.5	SUBSTATION EARTHING SYSTEMS						
7.5.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Flat for laying (<i>spacing maximum 5m both way</i>)	LOT			1		
7.5.2	EARTHING CONDUCTOR: 50X6 mm GI Flat for Raiser from the burial earth mat to equipment,structure	LOT			1		

PART-I, SCHEDULE-2B (FOR SUBSTATION)		SUB-STATION					
DESCRIPTION OF ITEMS					TO BE QUOTED IN INR		
S. NO.	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (AS PER TECHNICAL SPECIFICATION)	UNITS			TOTAL QUANTITY	UNIT F&I CHARGES	TOTAL F&I CHARGES
			Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.			
1	2	3	4	5	6	7	8=6X7
7.5.3	EARTHING DEVICE & ASSOCIATED ACCESSORIES (50 mm heavy duty GI PERFORATED PIPE 3 mtrs long for treated earth pit)	LOT			1		
7.5.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	LOT			1		
7.5.5	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		
7.6	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES						
7.6.1	BAY MARSHALLING KIOSK (01 No. in 132 kv bay)	NOS	1	1	2		
7.6.2	CT,PT & CVT Out Door Console Boxes	LOT			1		
8	SWITCH YARD STRUCTURES COLUMN & BEAM (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.						
8.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS						
8.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS					
8.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS					
8.2	DIFFERENT TYPE OF BEAMS WITH DETAILS						
8.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS					
8.2.2	G2 - 132 KV(NOMINAL UNIT WT- 0.91 MT)	NOS					
8.3	TOTAL WEIGHT OF COLUMN & BEAM	MT	6	6	12		
8.4	SWITCH YARD EQUIPMENT STRUCTURES (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.						
8.4.1	ISOLATORS-132KV	NOS					
8.4.2	CTS-132 KV	NOS					
8.4.3	CVTS-132 KV	NOS					
8.4.4	Surge Arrester-132 KV	NOS					
8.4.5	Wave Trap-132 KV	NOS					
8.4.6	BPI-132 KV	NOS					
8.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT	5	5	10		
8.6	Total weight of GI Nuts and bolts for the above structures	MT	1	1	2		

PART-I, SCHEDULE-2B (FOR SUBSTATION)		SUB-STATION					
DESCRIPTION OF ITEMS					TO BE QUOTED IN INR		
S. NO.	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (AS PER TECHNICAL SPECIFICATION)	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	UNIT F&I CHARGES	TOTAL F&I CHARGES
			3	4			
9	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES						
9.1	POWER CABLES,1.1KV,PVC,ARMOURED, ALUMINIUM CONDUCTOR (As per Specification)						
9.1.1	3.5 CX35 mm ²	LOT			1		
9.1.2	4 CX 16 mm ²	LOT			1		
9.1.3	4 CX 6 mm ²	LOT			1		
9.1.4	2CX 6 mm ²	LOT			1		
9.2	CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)						
9.2.1	4 CX 2.5 mm ²	LOT			1		
9.2.2	5 CX 2.5 mm ²	LOT			1		
9.2.3	7CX 2.5 mm ²	LOT			1		
9.2.4	10 CX 2.5 mm ²	LOT			1		
9.2.5	12 CX 2.5 mm ²	LOT			1		
9.2.6	16 CX 2.5 mm ²	LOT			1		
9.2.7	19 CX 2.5 mm ²	LOT			1		
10	ACCESSORIES FOR PLCC SYSTEM AS PER TECHNICAL SPECIFICATION						
10.1	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	2	2	4		
10.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	1	1	2		
10.3	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		
10.4	4 PAIR NON ARMOURED TELEPHONE CABLES	MTRS	100	100	200		
10.5	2 WIRE TELEPHONE SET	NO	4	4	8		
11	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS)(Switch yard and other street area)						
11.1	<i>SUB-STATION SWITCH YARD LIGHTING,IT INCLUDES SUPPLY OF FIXTURES & 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>	LOT			1		
12	PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROTN PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC						

PART-I, SCHEDULE-2B (FOR SUBSTATION)		SUB-STATION					
DESCRIPTION OF ITEMS					TO BE QUOTED IN INR		
S. NO.	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (AS PER TECHNICAL SPECIFICATION)	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	UNIT F&I CHARGES	TOTAL F&I CHARGES
1	2	3	4	5	6	7	8=6X7
12.1	132 KV SIDE						
12.1.1	FEEDER CONTROL PANEL(CPF-1M)	NOS	1	1	2		
12.1.2	FEEDER RELAY PANEL(RPF-1M)	NOS	1	1	2		
13	BEST QUALITY & APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.	LOT			1		
TOTAL OF SUBSTATION-2B (PART-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

Conversion 132 KV existing S/C line to D/C line from JAYANAGAR S/S to SUNABEDA S/S & Construction of 132 KV Feeder Bay extensions at both the end of the Sub-Station & Associated System.

BID DOCUMENT No.: Sr. G.M-CPC- Tender-JAYANAGAR-SUNABEDA LINE -Package – 33/2012-13

NOTICE INVITING TENDER-NIT NO. 32 /2012-13

(Erection of Equipment/Materials Price Break-up against JAYANAGAR-SUNABEDA LINE PACKAGE)

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection 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	3	3	6		
2	145 KV,1200A,31.5KA,ISOLATORS						
2.1	S/I WITH OUT EARTH SWITCH	NOS	1	1	2		
2.2	D/I WITH SINGLE EARTH SWITCH	NOS	1	1	2		
3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER	NOS	3	3	6		
4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III	NOS	3	3	6		
5	132 KV Bus Post Insulators	NOS	4	4	8		
6	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE	NOS	1	1	2		
7	BUS BAR & CIRCUIT MATERIALS						
7.1	TENSION & SUSPENSION ANTI FOG TYPE INSULATOR STRING						
7.2	120 kN ANTIFOG INSULATOR STRINGS <i>for Double Moose cond</i> (TENSION)-132 KV	SET	6	6	12		
7.3	120 kN ANTIFOG INSULATOR STRINGS <i>for Single Moose cond</i> (TENSION)-132 KV	SET	9	9	18		
7.4	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-132 KV	SET	3	3	6		
7.5	90 kN ANTIFOG INSULATOR STRINGS <i>for Double/ Single Moose cond</i> (SUSPENSION)-33 KV	SET	3	3	6		
7.2	ACSR MOOSE CONDUCTOR	LOT			1		
7.3	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS	LOT			1		
7.4	EARTH WIRES & IT'S HARDWARES & FITTING	LOT			1		
7.5	SUBSTATION EARTHING SYSTEMS						

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
7.5.1	EARTHING CONDUCTOR FOR BURRIAL : 75X10 mm GI Earth Flat for laying (<i>spacing maximum 5m</i>) (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		
7.5.2	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		
7.5.3	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 specification.	LOT			1		
7.5.4	EARTHING DEVICE & ASSOCIATED ACCESSORIES 40mm MS rod 3 mtrs long for non treated earth pit)	LOT			1		
7.5.5	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		
7.6	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES						
7.6.1	BAY MARSHALLING KIOSK (01 No. in 132 kv bay)	NOS	1	1	2		
7.6.2	CT,PT & CVT Out Door Console Boxes	LOT			1		
8	SWITCH YARD STRUCTURES COLUMN & BEAM (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.						
8.1	DIFFERENT TYPES OF COLUMNS WITH DETAILS						
8.1.1	T1S - 132 KV(NOMINAL UNIT WT- 1.2 MT)	NOS					
8.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)	NOS					
8.2	DIFFERENT TYPE OF BEAMS WITH DETAILS						
8.2.1	G1 - 132 KV(NOMINAL UNIT WT- 0.62 MT)	NOS					
8.2.2	G2 - 132 KV(NOMINAL UNIT WT- 0.91 MT)	NOS					
8.3	TOTAL WEIGHT OF COLUMN & BEAM	MT	6	6	12		
8.4	SWITCH YARD EQUIPMENT STRUCTURES (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS & NUTS.						

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
8.4.1	ISOLATORS-132KV	NOS					
8.4.2	CTS-132 KV	NOS					
8.4.3	CVTS-132 KV	NOS					
8.4.4	Surge Arrester-132 kV	NOS					
8.4.5	Wave Trap-132 KV	NOS					
8.4.6	BPI-132 KV	NOS					
8.5	TOTAL WEIGHT OF EQUIPMENT STRUCTURE	MT	5	5	10		
8.6	Total weight of GI Nuts and bolts for the above structures	MT	1	1	2		
9	GENERAL EQUIPMENT & SUBSTATION ACCESSORIES						
9.1	POWER CABLES,1.1KV,PVC,ARMoured, ALUMINIUM CONDUCTOR (As per Specification)						
9.1.1	3.5 CX35 mm ²	LOT			1		
9.1.2	4 CX 16 mm ²	LOT			1		
9.1.3	4 CX 6 mm ²	LOT			1		
9.1.4	2CX 6 mm ²	LOT			1		
9.2	CONTROL CABLES,1.1 KV, PVC,STRANDED COPPER(As per specification)						
9.2.1	4 CX 2.5 mm ²	LOT			1		
9.2.2	5 CX 2.5 mm ²	LOT			1		
9.2.3	7CX 2.5 mm ²	LOT			1		
9.2.4	10 CX 2.5 mm ²	LOT			1		
9.2.5	12 CX 2.5 mm ²	LOT			1		
9.2.6	16 CX 2.5 mm ²	LOT			1		
9.2.7	19 CX 2.5 mm ²	LOT			1		
10	ACCESSORIES FOR PLCC SYSTEM AS PER TECHNICAL SPECIFICATION						
10.1	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	2	2	4		
10.2	LINE MATCHING UNIT & LINE MATCHING DISTRIBUTION UNIT	SET	1	1	2		
10.3	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		
10.4	4 PAIR NON ARMoured TELEPHONE CABLES	MTRS	100	100	200		
10.5	2 WIRE TELEPHONE SET	NO	4	4	8		

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
11	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS)(Switch yard and other street area)						
11.1	ERECTION OF SUB-STATION SWITCH YARD LIGHTING ,SUPPLY,LAYING & FIXING OF GI CONDUIT FOR CABLES (Lighting fixtures are to be fixed rigidly on the Column at a suitable height so that the required lux can be maintained).	LOT			1		
12	PROTECTION,CONTROL METERING, EVENT LOGGER,BUS BAR PROT N PAN,COMM PAN, RELAY TOOL KITS AS PER TECH SPEC						
12.1	132 KV SIDE						
12.1.1	FEEDER CONTROL PANEL(CPF-1M)	NOS	1	1	2		
12.1.2	FEEDER RELAY PANEL(RPF-1M)	NOS	1	1	2		
13	BEST QUALITY & APPROVED MAKE RUBBER MAT TO BE KEPT INFRONT OF ALL PANELS,BOARDS ETC.	LOT			1		
14	ERECTION OF PLCC EQUIPMENT SUPPLIED BY OWNER INCLUDING DISMANTLING FROM EXISTING SUBSTATIONS (AS PER THE DETAILS SLD GIVEN IN TS) AND TRANSPORTATION AS REQUIRED	LOT			1		
TOTAL of ELECTRICAL WORKS Part-I (A)							
B	CIVIL WORKS TO BE CARRIED OUT AS PER TECHNICAL SPECIFICATION						
1	<i>Foundations : Design, engineering, supply of all labour, material (Cement-OPC-43 Grade,MS Rod(FE 500), 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(NOMINAL UNIT WT- 1.2 MT)						
1.1.2	T4S - 132KV (NOMINAL UNIT WT- 0.95 MT)						
1.2	Equipment foundations :						

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
1.2.1	145 KV,800-400-200 A,31.5 KA,4CORE SINGLE PHASE CURRENT TRANSFORMER						
1.2.2	145 KV,1200A,31.5KA,ISOLATORS						
1.2.2.1	S/I WITH OUT EARTH SWITCH						
1.2.2.2	D/I WITH SINGLE EARTH SWITCH						
1.2.3	145 KV,6600pF,3CORE,SINGLE PHASE CAPACITOR VOLTAGE TRANSFORMER						
1.2.4	120 KV METAL OXIDE SURGE ARRESTOR, 10 KA, Class III						
1.2.5	132 KV Bus Post Insulators						
1.2.6	145KV,3150A,40KA,SF6,CIRCUIT BREAKER WITH SUPPORTING STRUCTURE						
1.3	SUB STATION SWITCHYARD BMK,AC CONSOLE & OTHER MARSHALLING BOXES						
1.3.1	BAY MARSHALLING KIOSK (01 No IN 132 kv bay)						
1.4	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.						
1.4.1	Normal Soil(SOFT/LOOSE)	Cum	275	275	550		
1.4.2	Hard Soil	Cum	205	205	410		
1.4.3	Soft Rock not required blasting	Cum	50	50	100		
1.4.4	Hard Rock(Requiring Blasting/Using breaker machinery)	Cum	210	210	420		
1.17.5	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	20	20	40		
1.17.6	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 Steel (Supply of MS Rod FE-500,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	180	180	360		

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection 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 de watering 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 Fly ash 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) Pre cast 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	20	20	40		
2.2	Section 2- 2	Mtrs	30	30	60		
2.3	Section 3-3	Mtrs	10	10	20		
2.4	Section 4-4	Mtrs	20	20	40		
3	<p>Cable trench crossing:Design,engineering,construction including supply of labour,materials,cement,reinforcement steel,form work etc,and all associated works for construction of trench crossing as per technical specification and approved drawing.(Road crossing)</p>						

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
3.1	Section 1-1	Lot			1		
3.2	Section 2- 2	Lot			1		
3.3	Section 3-3	Lot			1		
4	Contour Survey & Levelling 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 levelling 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.						
4.1	Contour survey of the bay extension portion in sub-station area including Supply of all labour & T&P by contractor.	SQM	1000	1000	2000		
4.2	Cutting of sub-station area of the as per the direction of Engineer in Charge.	Cum	600	600	1200		
4.3	Filling with borrowed earth beyond 30 mtrs lead as per the direction of Engineer in Charge.	Cum	1000	1000	2000		
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 main surface drain. As per approved drawing and specification.						
5.1	Storm water drain	Lots			1		
5.2	Road-culverts, drain crossings	Lots			1		
5.3	Cable trench crossing	Lots			1		

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
6	PCC before site surfacing :Providing and supplying all labour, material, equipments etc. required for proper levelling 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 levelling of the switch yard area (after anti-weed treatment), spreading of plain cement concrete with mixing ratio 1:3:6 (M10) and maintaining proper sloping for easy discharge of storm water having concrete thickness of 75 mm. including rolling , dressing, compacting,the area. 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		
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		
8	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,back filling,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.						
8.1	Excavation in Soft & Loose Soil	Cum	320	320	640		
8.2	P.C.C (1:3:6): Lean Concrete Grade M-10	Cum	40	40	80		
8.3	RR Masonry (1:5)	Cum	200	200	400		
8.4	P.C.C (1:2:4): Lean Concrete Grade M-15	Cum	8	8	16		

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
9	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 Fly ash 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		
10	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.)						
10.1	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		
10.2	PCC: M10(1: 3 : 6)	Cu.m.			1		
10.3	RCC M 15(1:2:4)	Cu.m.			1		
10.4	RCC: M 20(1:1.5:3)	Cu.m.			1		
10.5	Brick masonry work in cement sand mortar 1 : 6 with bricks of class designation 75.	Cu.m.			1		
10.6	12 mm thick plaster in cement sand mortar (1 : 6).	Sq.m.			1		
10.7	Supply of MS Rod (FE 500),Cutting,bending and fixing of reinforcement including labour	M.T.			1		
11	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		

PART-I, SCHEDULE-2C (FOR SUBSTATION)		SUB-STATION					
S. No.	DESCRIPTION OF ITEMS	UNITS	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S JAYANAGAR for SUNABEDA.	Quantity for: 1No. Of 132KV Feeder Bay Extn. at 132/33KV Grid S/S SUNABEDA for JAYANAGAR.	TOTAL QUANTITY	Erection & Civil Works charges IN INR	
	ERECTION,TESTING & COMMISSIONING INCLUDING CIVIL WORKS OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)					Unit Erection Rate	Total Erection Price
1	2	3	4	5	6	7	8=6X7
12	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.						
12.1	Excavation for laying of EARTHING CONDUCTOR (75x10mm for laying (spacing maximum 5m) (GI FLAT)	Lot			1		
12.2	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		
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

Conversion 132 KV existing S/C line to D/C line from JAYANAGAR S/S to SUNABEDA S/S & Construction of 132 KV Feeder Bay extensions at both the end of the Sub-Station & Associated System.

BID DOCUMENT No.: Sr. G.M-CPC- Tender-JAYANAGAR-SUNABEDA LINE -Package – 33/2012-13

NOTICE INVITING TENDER-NIT NO. 32 /2012-13

(Equipment/Materials Supply Price Break-up of Ex-works Prices against JAYANAGER-SUNABEDA LINE PACKAGE)

PART-II SCHEDULE-2A (FOR LINE)										
DESCRIPTION OF ITEMS			LINE	TO BE QUOTED IN INR						
S. No.	SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)		UNITS	QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	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)]		
								Excise Duty	VAT/Sales Tax	Other Levies (if any)
1	2	3	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	PA TYPE (SUSPENSION) TOWERS (Nominal unit weight 3.430 MT)									
1.1.1	+3 MTRS EXTENSION (Nominal unit weight 0.61 MT)									
1.1.2	+6 MTRS EXTENSION (Nominal unit weight 1.349 MT)									
1.2	PBTYPE (30 deg ANGLE) TOWERS (Nominal unit weight 4.973 MT)									
1.2.1	+3 MTRS EXTENSION (Nominal unit weight 1.018 MT)									
1.2.2	+6 MTRS EXTENSION (Nominal unit weight 2.104 MT)									
1.3	PC TYPE (60 deg ANGLE) TOWERS (Nominal unit weight 6.214 MT)									
1.3.1	+3 MTRS EXTENSION (Nominal unit weight 1.119 MT)									
1.3.2	+6 MTRS EXTENSION (Nominal unit weight 2.342 MT)									
1.4	UR TYPE ANGLE TOWERS (Nominal unit weight 9.75 MT)									
1.4.1	+6 MTRS EXTENSION (Nominal unit weight 3.5 MT)									
1.5	OA TYPE TOWER									
1.5.1	OA +3 MTRS TYPE TOWER									
1.5.2	OA +6 MTRS TYPE TOWER									
1.6	OB TYPE TOWER (ANGLE TOWER)									
1.6.1	OB +6 MTRS TYPE TOWER									
1.7	OC TYPE TOWER (ANGLE TOWER)									

PART-II SCHEDULE-2A (FOR LINE)									
S. No.	DESCRIPTION OF ITEMS SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNITS	LINE QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 K.ms).	Unit Ex-Works Price	Total Ex-Works Price	Mode of Transaction (Direct or Bought-out item)	TO BE QUOTED IN INR		
							Excise Duty	VAT/Sales Tax	Other Levies (if any)
1	2	3	4	5	6=4x5	7	8	9	10
1.7.1	OC +6 MTRS TYPE TOWER								
1.7.2	OC +15 MTRS TYPE TOWER								
1.8	DD TYPE TOWER (ANGLE TOWER)								
1.8.1	DD+ 15 MTRS								
1.9	TEMPLATES								
1.9.1	PA (Nominal unit weight 0.665 MT)	Nos.	2						
1.9.2	PB (Nominal unit weight 0.602 MT)	Nos.	2						
1.9.3	PC (Nominal unit weight 0.904 MT)	Nos.	1						
1.9.4	UR (Nominal unit Weight 1.1 MT)	Nos.	1						
1.9.5	OA	Nos.	1						
1.9.6	OB	Nos.	1						
1.9.7	OC	Nos.	1						
1.9.8	OC+15	Nos.	1						
1.9.9	DD	Nos.	1						
1.10	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	880						
1.11	Weight of different type G.I Nuts and Bolts	MT	50						
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.	142						
2.2	DANGER BOARD	Nos.	142						
2.3	NUMBER PLATE	Nos.	142						
2.4	PHASE PLATE	Nos.	843						
2.5	BIRD GUARD	Nos.	399						
2.6	ANTICLIMBING DEVICE	Nos.	142						
2.7	CIRCUIT PLATE	Nos.	281						
2.8	COUNTERPOISE EARTHING	Nos.	112						
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.								

PART-II SCHEDULE-2A (FOR LINE)									
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	Unit Ex-Works Price	Total Ex-Works Price	Mode of Transaction (Direct or Bought-out item)	TO BE QUOTED IN INR		
							Excise Duty	VAT/Sales Tax	Other Levies (if any)
1	2	3	4	5	6=4x5	7	8	9	10
	SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)		QUANTITY FOR: Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 K.ms).				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)]		
3.1	ACSR Panther (30/7/3.0 mm)	Kms.	240						
4.0	POWER CONDUCTOR ACCESSORIES								
4.1	For ACSR PANTHER								
4.1.1	VIBRATION DAMPER	Nos.	1704						
4.1.2	MID SPAN JOINT	Nos.	238						
4.1.3	Repair Sleeve	Nos.	238						
4.1.4	P.A.Rod for ACSR Panther	Set	399						
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.	41						
6.0	EARTH CONDUCTOR ACCESSORIES								
6.1	VIBRATION DAMPER	Nos.	293						
6.2	FLEXIBLE EARTH BOND	Nos.	205						
6.3	SUSPENSION CLAMP	Nos.	63						
6.4	TENSION CLAMP	Nos.	161						
6.5	MID SPAN JOINT	Nos.	41						
6.6	Repair Sleeve	Nos.	10						
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.	4565						
7.2	120KN Insulator (taking 5% extra towards wastage)	Nos.	11277						
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.	315						
8.1.2	Double suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	84						
8.1.3	Single tension Hard wares fittings suitable for 120 KN insulator.	Nos.	834						
8.1.4	Double tension Hard wares fittings suitable for 120 KN insulator.	Nos.	120						
8.1.5	"D" Shackle	Nos.	50						
8.1.6	Hanger	Nos.	35						
TOTAL (Part-II)-2A-LINE									

Note:

PART-II SCHEDULE-2A (FOR LINE)									
S. No.	DESCRIPTION OF ITEMS (As per Technical Specification)	UNITS	LINE QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 K.ms).	Unit Ex-Works Price	Total Ex-Works Price	Mode of Transaction (Direct or Bought-out item)	TO BE QUOTED IN INR		
							Excise Duty	VAT/Sales Tax	Other Levies (if any)
1	2	3	4	5	6=4x5	7	8	9	10
	SUPPLY OF FOLLOWING EQUIPMENTS (As per Technical Specification)						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 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 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

Conversion 132 KV existing S/C line to D/C line from JAYANAGAR S/S to SUNABEDA S/S & Construction of 132 KV Feeder Bay extensions at both the end of the Sub-Station & Associated System.

BID DOCUMENT No.: Sr. G.M-CPC- Tender-JAYANAGAR-SUNABEDA LINE -Package – 33/2012-13

NOTICE INVITING TENDER-NIT NO. 32 /2012-13

(F&I For Supply of Equipment/Materials Price Break-up against JAYANAGAR-SUNABEDA LINE PACKAGE)

PART-II, SCHEDULE-2B (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)		QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	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	PA TYPE (SUSPENSION) TOWERS (Nominal unit weight 3.430 MT)				
1.1.1	+3 MTRS EXTENSION (Nominal unit weight 0.61 MT)				
1.1.2	+6 MTRS EXTENSION (Nominal unit weight 1.349 MT)				
1.2	PBTYPE (30 deg ANGLE) TOWERS (Nominal unit weight 4.973 MT)				
1.2.1	+3 MTRS EXTENSION (Nominal unit weight 1.018 MT)				

PART-II, SCHEDULE-2B (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	LINE		TO BE QUOTED IN INR	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)	UNITS	QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
1.2.2	+6 MTRS EXTENSION (Nominal unit weight 2.104 MT)				
1.3	PC TYPE (60 deg ANGLE) TOWERS (Nominal unit weight 6.214 MT)				
1.3.1	+3 MTRS EXTENSION (Nominal unit weight 1.119 MT)				
1.3.2	+6 MTRS EXTENSION (Nominal unit weight 2.342 MT)				
1.4	UR TYPE ANGLE TOWERS (Nominal unit weight 9.75 MT)				
1.4.1	+6 MTRS EXTENSION (Nominal unit weight 3.5 MT)				
1.5	OA TYPE TOWER				
1.5.1	OA +3 MTRS TYPE TOWER				
1.5.2	OA +6 MTRS TYPE TOWER				
1.6	OB TYPE TOWER (ANGLE TOWER)				
1.6.1	OB +6 MTRS TYPE TOWER				
1.7	OC TYPE TOWER (ANGLE TOWER)				
1.7.1	OC +6 MTRS TYPE TOWER				
1.7.2	OC +15 MTRS TYPE TOWER				
1.8	DD TYPE TOWER (ANGLE TOWER)				
1.8.1	DD+ 15 MTRS				
1.9	TEMPLATES				

PART-II, SCHEDULE-2B (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	LINE		TO BE QUOTED IN INR	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)	UNITS	QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
1.9.1	PA (Nominal unit weight 0.665 MT)	Nos.	2		
1.9.2	PB (Nominal unit weight 0.602 MT)	Nos.	2		
1.9.3	PC (Nominal unit weight 0.904 MT)	Nos.	1		
1.9.4	UR (Nominal unit Weight 1.1 MT)	Nos.	1		
1.9.5	OA	Nos.	1		
1.9.6	OB	Nos.	1		
1.9.7	OC	Nos.	1		
1.9.8	OC+15	Nos.	1		
1.9.9	DD	Nos.	1		
1.10	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	880		
1.11	Weight of different type G.I Nuts and Bolts	MT	50		
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.	142		
2.2	DANGER BOARD	Nos.	142		
2.3	NUMBER PLATE	Nos.	142		

PART-II, SCHEDULE-2B (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	LINE		TO BE QUOTED IN INR	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)	UNITS	QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
2.4	PHASE PLATE	Nos.	843		
2.5	BIRD GUARD	Nos.	399		
2.6	ANTICLIMBING DEVICE	Nos.	142		
2.7	CIRCUIT PLATE	Nos.	281		
2.8	COUNTERPOISE EARTHING	Nos.	112		
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.	240		
4.0	POWER CONDUCTOR ACESSORIES				
4.1	For ACSR PANTHER				
4.1.1	VIBRATION DAMPER	Nos.	1704		
4.1.2	MID SPAN JOINT	Nos.	238		
4.1.3	Repair Sleeve	Nos.	238		
4.1.4	P.A.Rod for ACSR Panther	Set	399		
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.	41		
6.0	EARTH CONDUCTOR ACESSORIES				

PART-II, SCHEDULE-2B (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	LINE		TO BE QUOTED IN INR	
	F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)	UNITS	QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
6.1	VIBRATION DAMPER	Nos.	293		
6.2	FLEXIBLE EARTH BOND	Nos.	205		
6.3	SUSPENSION CLAMP	Nos.	63		
6.4	TENSION CLAMP	Nos.	161		
6.5	MID SPAN JOINT	Nos.	41		
6.6	Repair Sleeve	Nos.	10		
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.	4565		
7.2	120KN Insulator (taking 5% extra towards wastage)	Nos.	11277		
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.	315		
8.1.2	Double suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	84		
8.1.3	Single tension Hard wares fittings suitable for 120 KN insulator.	Nos.	834		
8.1.4	Double tension Hard wares fittings suitable for 120 KN insulator.	Nos.	120		
8.1.5	"D" Shackle	Nos.	50		
8.1.6	Hanger	Nos.	35		

PART-II, SCHEDULE-2B (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS F&I TOWARDS SUPPLY OF FOLLOWING EQUIPMENT (As per Technical Specification)	UNITS	LINE QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	TO BE QUOTED IN INR	
				Unit F&I Charges	Total F&I Charges
1	2	3	4	5	6=4X5
TOTAL (Part-II)-2B-LINE					

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.

Note:-

Date :

Place :

(Signature)

(Name)

(Designation)

(Common Seal)

ODISHA POWER TRANSMISSION CORPORATION LIMITED

Conversion 132 KV existing S/C line to D/C line from JAYANAGAR S/S to SUNABEDA S/S & Construction of 132 KV Feeder Bay extensions at both the end of the Sub-Station & Associated System.

BID DOCUMENT No.: Sr. G.M-CPC- Tender-JAYANAGAR-SUNABEDA LINE -Package – 33/2012-13

NOTICE INVITING TENDER-NIT NO. 32 /2012-13

(Erection of Equipment/Materials Price Break-up against JAYANAGAR-SUNABEDA LINE PACKAGE)

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Unit Erection Rate	Total Erection Price
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.		QUANTITY FOR:Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).		
1.1	PA TYPE (SUSPENSION) TOWERS (Nominal unit weight 3.430 MT)				
1.1.1	+3 MTRS EXTENSION (Nominal unit weight 0.61 MT)				
1.1.2	+6 MTRS EXTENSION (Nominal unit weight 1.349 MT)				
1.2	PBTYPE (30 deg ANGLE) TOWERS (Nominal unit weight 4.973 MT)				
1.2.1	+3 MTRS EXTENSION (Nominal unit weight 1.018 MT)				
1.2.2	+6 MTRS EXTENSION (Nominal unit weight 2.104 MT)				
1.3	PC TYPE (60 deg ANGLE) TOWERS (Nominal unit weight 6.214 MT)				

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	
				Unit Erection Rate	Total Erection Price
1	2	3	4	5	6=4X5
1.3.1	+3 MTRS EXTENSION (Nominal unit weight 1.119 MT)				
1.3.2	+6 MTRS EXTENSION (Nominal unit weight 2.342 MT)				
1.4	UR TYPE ANGLE TOWERS (Nominal unit weight 9.75 MT)				
1.4.1	+6 MTRS EXTENSION (Nominal unit weight 3.5 MT)				
1.5	OA TYPE TOWER				
1.5.1	OA +3 MTRS TYPE TOWER				
1.5.2	OA +6 MTRS TYPE TOWER				
1.6	OB TYPE TOWER (ANGLE TOWER)				
1.6.1	OB +6 MTRS TYPE TOWER				
1.7	OC TYPE TOWER (ANGLE TOWER)				
1.7.1	OC +6 MTRS TYPE TOWER				
1.7.2	OC +15 MTRS TYPE TOWER				
1.8	DD TYPE TOWER (ANGLE TOWER)				
1.8.1	DD+ 15 MTRS				
1.9	TEMPLATES				
1.9.1	PA (Nominal unit weight 0.665 MT)				
1.9.2	PB (Nominal unit weight 0.602 MT)				
1.9.3	PC (Nominal unit weight 0.904 MT)				
1.9.4	UR (Nominal unit Weight 1.1 MT)				
1.9.5	OA				
1.9.6	OB				
1.9.7	OC				
1.9.8	OC+15				

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Erection Charges	
1	2	3	4	5	6=4X5
	ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)		QUANTITY FOR: Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	Unit Erection Rate	Total Erection Price
1.9.9	DD				
1.10	WEIGHT OF THE STRUCTURES (including Tower stubs, Templates & Foundation Nut and Bolts)	MT	880		
1.11	Weight of different type G.I Nuts and Bolts	MT	50		
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.	142		
2.2	DANGER BOARD	Nos.	142		
2.3	NUMBER PLATE	Nos.	142		
2.4	PHASE PLATE	Nos.	843		
2.5	BIRD GUARD	Nos.	399		
2.6	ANTICLIMBING DEVICE	Nos.	142		
2.7	CIRCUIT PLATE	Nos.	281		
2.8	COUNTERPOISE EARTHING	Nos.	112		
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.	240		
4.0	POWER CONDUCTOR ACCESSORIES				
4.1	For ACSR PANTHER				
4.1.1	VIBRATION DAMPER	Nos.	1704		
4.1.2	MID SPAN JOINT	Nos.	238		
4.1.3	Repair Sleeve	Nos.	238		
4.1.4	P.A.Rod for ACSR Panther	Set	399		

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Erection Charges	
1	2	3	4	5	6=4X5
	ERECTION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS ALONG WITH CIVIL WORKS (As per Technical Specification)		QUANTITY FOR: Construction of 132 KV DC Line on D.C Tower from the existing 220/132/33 KV S/S at JAYANAGAR to the existing 132/33 KV S/S at SUNABEDA (approximate length is 39.4 Kms).	Unit Erection Rate	Total Erection Price
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.	41		
6.0	EARTH CONDUCTOR ACESSORIES				
6.1	VIBRATION DAMPER	Nos.	293		
6.2	FLEXIBLE EARTH BOND	Nos.	205		
6.3	SUSPENSION CLAMP	Nos.	63		
6.4	TENSION CLAMP	Nos.	161		
6.5	MID SPAN JOINT	Nos.	41		
6.6	Repair Sleeve	Nos.	10		
7.0	Erection 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.	4565		
7.2	120KN Insulator (taking 5% extra towards wastage)	Nos.	11277		
8.0	Erection 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.	315		
8.1.2	Double suspension Hard wares fittings.(AGS type) suitable for 90 KN insulator.	Nos.	84		
8.1.3	Single tension Hard wares fittings suitable for 120 KN insulator.	Nos.	834		
8.1.4	Double tension Hard wares fittings suitable for 120 KN insulator.	Nos.	120		
8.1.5	"D" Shackle	Nos.	50		
8.1.6	Hanger	Nos.	35		
	TOTAL OF ELECTRICAL WORKS (A)				
B	CIVIL WORKS AS PER TECHNICAL SPECIFICATION				

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Unit Erection Rate	Total Erection Price
1	2	3	4	5	6=4X5
1.0	FOUNDATION MATERIALS: Supply of all materials like cement, steel(MS ROD FE-500), 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.				
1.1.1	Normal soil	CUM	950		
1.1.2	Wet soil	CUM	1400		
1.1.3	Partial Submerged soil	CUM	200		
1.1.4	Fully submerged soil	CUM	100		
1.1.5	Soft/Disintegrated rock(Not requiring Blasting)	CUM	4500		
1.1.6	Hard Rock(Requiring Blasting/Using breaker machinery)	CUM	6500		
1.1.7	Soil Investigation as per specification	LOC	20		
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	275		

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Erection Charges	
1	2	3	4	5	6=4X5
3	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(FE-500) 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	2400		
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 .				
4.1	Excavation in all type of soil including rock & back filling (including supply of sand for back filling).	CUM	500		
4.2	PCC in the ratio1:3:6 .	CUM	30		
4.3	PCC in the ratio 1:2:4 .	CUM	20		
4.4	Laterite Stone Masonary work in the ratio 1:5.	CUM	500		
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	144		

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Unit Erection Rate	Total Erection Price
1	2	3	4	5	6=4X5
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.	120000		
7.0	SURVEY OF LINE & PREPARATION LAND SCHEDULE: Supply of required T&P's, Technical personnel's, labours for conducting				
7.1	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.	40		
7.2	Check survey including supply of all labour, T&P as per instruction of Engineer in Charge and as per the approved profile.	Kms.	40		
7.3	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.	Lot	1		
7.4	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	1		

PART-II, SCHEDULE-2C (FOR LINE)					
S. No.	DESCRIPTION OF ITEMS	UNITS	LINE	TO BE QUOTED IN INR	
				Unit Erection Rate	Total Erection Price
1	2	3	4	5	6=4X5
8	DISMANTLING OF EXISTING TOWER STRUCTURE,TRANSMISSION LINE CONDUCTORS & OTHER ACCESSORIES. RETURNING TO THE STORE, PROPER STACKING OF THE MATERIALS, INCLUDING LOADING,UNLOADING & TRANSPORTATION AS PER THE INSTRUCTION OF ENGINEER IN CHARGE				
8.1	TOWER STRUCTUER	MT	800		
8.2	TRANSMISSION LINE CONDUCTOR & ACCESSORIES.	Kms.	120		
	Total CIVIL Works (Part-B)-LINE-2C				
	TOTAL OF LINE-2C (PART-II)(Part A + Part B)				

NOTE

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 : (Signature)

Place : (Name)

(Designation)

(Common Seal)