

THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD.
JANAPATH, BHOINAGAR, BHUBANESWAR - 22
[Electrical Division]
Ph: 0674-2541545, 2542921, Fax: 0674-2541543
E-mail :- pmelectricalophwc2021@gmail.com, Website: www.ophwc.nic.in

PRICE BID FOR THE WORK UNDER SL. NO :- 15 AS PER IFB

NAME OF THE WORK :- EXECUTION OF EXTERNAL ELECTRIFICATION & AREA ILLUMINATION WORK AND INSTALLATION OF LIGHTNING PROTECTION SYSTEM AT JHIRPANI (COB) IN THE DISTRICT OF KANDHAMAL.

BID REF NO.- 04/PM/ELECT/OPHWC/2024-25

NAME & ADDRESS OF THE FIRM	
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SCHEDULE OF WORKS

Sl. No.	Description of work	Unit	Qty.	Estimated Cost in Rs.	
				RATE IN RS.	AMOUNT IN RS.
PART-I	3 phase 3W 11 KV line with 55 sq. mm Insulated covered conductor -0.220 Km				
1	11 Mtr Long (160x152)mm WPB GI Pole	No	7	34321.52	240250.64
2	Earthing support coil type(GI)	No	7	225.76	1580.32
3	No-8 GI wire (Dia 4.6mm) 0.131 KG/ Mtr.- 2 Mtr. For connecting pole with Coil earthing	Kg	1.834	102.00	187.07
4	100x50x6 mm GI channel for straight cross arm,1.2 Mtr. Each 2 nos. & 0.3 Mtr. Long 2 No. including tapping point	Kg	110.4	102.00	11260.80
5	11 KV 'V' cross arm	No.	5	1101.60	5508.00
6	Back clamp for 11 KV V Cross Arm	No.	5	108.80	544.00
7	11 KV F clamp , Pole top	No	5	326.40	1632.00
8	11KV Pin Insulator polymer	No.	21	272.00	5712.00
9	Single core 55 sq. mm 11 KV Insulated covered conductor	Km	0.6798	128000.00	87014.40
10	PG clamp for 55 sq. mm AAAC	No	15	652.80	9792.00
11	Non metallic ties for 11 KV covered conductor	No	21	251.00	5271.00
12	Disc insulator 45 KN (B & S) Polymer	No.	15	1169.60	17544.00
13	11 KV HW fitting (B& S)type 2 Bolted	No	15	353.60	5304.00
14	HT stay set complete	No.	5	1428.00	7140.00
15	11KV stay insulator	No.	5	68.00	340.00
16	7/10 SWG stay wire, Grade-2	Kg	50	102.00	5100.00
17	HT stay clamp (1.9 Kg/Pair)	pair	5	170.00	850.00
18	Earthing support coil type	No	7	225.76	1580.32
19	Danger Board	No	7	108.80	761.60
20	Back clamp for danger Board(25x3 mm) GI earth flat,0.59 Kg/mtr. & 0.51 Mtr. For each back clamp	Kg	2.1063	102.00	214.84
21	Anticlimbing Device(GI barbed wire 3 Kg per support)	Kg	21	108.80	2284.80

22	Back clamp for barbed wire anticlimbing deice 25x3 mm, flat,0.59 Kg/mtr. & 0.51 Mtr. For each back clamp	Kg	8.425	102.00	859.35
23	Guarding channel 75x40x6 mm ,6.8 Kg/Mtr, each channel Length 1.8 Mtr. ,4 Nos.channel required(with galvanisation)	Kg	97.92	102.00	9987.84
24	No-6 GI wire (0.192 kg/Mtr.) for main string	Kg	15.36	102.00	1566.72
25	No-8 GI wire (0.131 kg/Mtr.) for lacing	Kg	10.48	102.00	1068.96
26	Eye Bolt(236 mm, 16 mm dia, 1.577 Kg/mtr.)	No	8	81.60	652.80
27	GI pipe earthing 40 mm dia medium gauge(3.25 mm thickness)3 Mtr. Long	No	4	1428.00	5712.00
28	50x6mm GI Flat for earthing, 2.36kg/mtr., (2.5 mtr. For mesh formation and 2.5 mtr. For raising)= 5x2.36	Kg	47.2	102.00	4814.40
29	GI Nuts and Bolts of assorted size	Kg	20	106.08	2121.60
30	Saundries	No	1	1000.00	1000.00
					437655.46
PART-II	LINE DP WITH 400 A AB SWITCH-1 No.				
1	11 Mtr Long (160x152)mm WPB Pole(30.44 Kg/mtr)	No	2	34321.52	68643.04
2	Top Pressure Channel 100X50X6mm. GI 2.8mtr. Long 2Nos.(9.2kg/mtr.)	Kg.	51.52	102.00	5255.04
3	Bracing Channel 75x40x6mm.GI 2.8 mtr. Long 2 Nos. (6.8kg./mtr.)	Kg.	38.08	102.00	3884.16
4	50x50x6mm Cross Bracing angle,GI 4.0 mtr. Long 2 Nos. (4.5 kg./mtr.)	Kg.	36	102.00	3672.00
5	A/B switch Mounting Channel 75x40x6mm. GI 2.8 mtr. Long 2 Nos. (6.8kg./mtr.)	Kg.	38.08	102.00	3884.16
6	AB Switch side Support Channel (100x50x6 mm) Channel, 9.2 Kg/Mtr., each channel Length 0.35 Mtr. ,2 Nos. Channel required.	Kg.	6.44	102.00	656.88
7	Channel support for down pipe 75x40x6 mm)6.8 Kg/Mtr., each channel Length 0.8 Mtr. ,1 No. Channel required.	Kg.	5.44	102.00	554.88
8	Disc insulator 45 KN (B&S) Polymer	No.	6	1169.60	7017.60
9	11 KV HW fitting (B&S)45 KN, 2 Bolted	No	6	353.60	2121.60
10	PG clamp for 55 sq. mm AAAC	No	6	652.80	3916.80
11	Fish plate, 50x8 mm, 3.14 Kg/mtr.,each 0.280 mtr. Length	Kg	5.275	102.00	538.05
12	11KV AB switch 3 pole(400 Amp,50 Hz)	Set	1	16116.00	16116.00
13	9 KV,10 KA LA	No.	3	1360.00	4080.00
14	HT stay set complete	No.	4	1428.00	5712.00
15	11KV stay insulator	No.	4	68.00	272.00
16	HT stay clamp (1.9 Kg/Pair)	pair	4	170.00	680.00
17	7/10 SWG stay wire	Kg	40	102.00	4080.00
18	Earthing support coil type	No	2	225.76	451.52
19	No-8 GI wire (Dia 4.6mm) 0.131 KG/ Mtr.- 2 Mtr. For connecting pole with Coil earthing	Kg	0.524	102.00	53.45
20	40 mm Nominal bore GI Pipe Medium gauge earthing device 3 mtrs long	No	3	1428.00	4284.00
21	50x6 mm GI flat earthing ,2.36 Kg/Mtr.,2.5 Mtr. For mesh formation and 2.5 Mtr. For Raising.	Kg	35.4	102.00	3610.80

22	Danger Board	No.	2	108.80	217.60
23	Back clamp for danger Board(25x3 mm) GI earth flat,0.59 Kg/mtr. & 0.51 Mtr. For each back clamp	Kg	0.6018	102.00	61.38
24	Anticlimbing Device(GI barbed wire 3 Kg per support)	Kg	6	108.80	652.80
25	Back clamp for barbed wire anticlimbing device 25x3 mm, flat,0.59 Kg/mtr. & 0.51 Mtr. For each back clamp	Kg	2.407	102.00	245.51
26	GI Nuts and Bolts of assorted size	Kg	10	106.08	1060.80
27	Sundries (Al. binding tape, insulation tape, paint etc.)	LS	1	1000.00	1000.00
					142722.08
PART-III	Installation of 63 KVA 11/0.4KV sub station - 1 No.				
1	11 Mtr Long (160x152)mm WPB Pole	No	2	34321.52	68643.04
2	Earthing Device coil type GI	No	2	225.76	451.52
3	Top Pressure GI Channel 100x50x6mm channel each 2.8 mtr long,2 Nos(9.2K.g/mtr)	K.g	51.52	102.00	5255.04
4	Transformer mounting GI channel(100x50x6)mm,each 2.8mtr long 2 No(9.2 Kg/mtr)	K.g	51.52	102.00	5255.04
5	AB switch &HG fuse mounting GI channel(75x40x6)mm,each 2.8mtr long 4 No(6.8Kg/mtr)	K.g	76.16	102.00	7768.32
6	Cantilever GI Channel for supporting AB switch Arm 75x40x6mm. ,1 mtr. Long 2 Nos. (6.8kg./mtr.)	Kg.	13.6	102.00	1387.20
7	Cantilever angle for supporting AB switch 50x50x6mm GI Angle, 1.5 mtr. Long 2 Nos. (4.5 kg./mtr.)	Kg.	9	102.00	918.00
8	Transformer Belting GI Angle (50x50x6)mm,each 2.8mtr long 2 No(4.5 Kg/mtr)with side angle(Total 7 Mtr.)	Kg.	31.5	102.00	3213.00
9	GI angle for mounting LT Distribution Box 50x50x6 mm Angle,1.0 Mtr. Long,2 Nos. 4.5 Kg/Mtr. .	K.g	9	102.00	918.00
10	AB witch side support channel 100x50x6 mm GI channel (0.35Mtr Long)(9.2 kg/mtr,2 Nos.)	Kg	6.44	102.00	656.88
11	Channel support for down pipe 75x40x6 mm GI channel(6.8kg/mtr,1 Nos.)each channel length 0.8 Mtr., 1 Nos. channel required	Kg	5.44	102.00	554.88
12	Disc insulator 45 KN (T&C) Polymer	No.	3	1169.60	3508.80
13	11 KV HW fitting (T&C)45 KN	No	3	353.60	1060.80
14	11KV AB switch(3 pole,200 Amp,50Hz)	Set	1	9996.00	9996.00
15	11KV HG fuse (3 pole,200 Amp)with PI	Set	1	8323.20	8323.20
16	9KV 5KA LA, Station class	No.	3	1332.80	3998.40
17	HT stay set complete	No.	4	1428.00	5712.00

18	11KV stay insulator	No.	4	68.00	272.00
19	7/10 SWG stay wire, Grade-2	Kg	40	102.00	4080.00
20	HT stay clamp (1.9 Kg/Pair)	pair	4	170.00	680.00
21	40 mm Nominal bore GI Pipe Medium gauge(3.25 mm thickness) earthing device 3 mtrs long	No	7	1428.00	9996.00
22	25x6 mm GI flat(Neutral)	Kg	10	102.00	1020.00
23	25x4 mm GI flat(for LA)	Kg	60	102.00	6120.00
24	55 sq. mm AAAC	Km	0.05	40800.00	2040.00
25	PG clamp for 55 sq. mm AAAC	No	3	652.80	1958.40
26	GI Nuts and Bolts of assorted size	Kg	25	106.08	2652.00
27	63 KVA 11/0.4 KV (AL) Transformer with BIS Energy Level-II	No	1	117640.00	117640.00
28	LT Distribution Box with MCCB, Aluminium Bus Bar for single bay with Kitkat fuse for 63 KVA S/S .	No	1	24917.92	24917.92
29	1 core 95 sq. mm LT XLPE cable(un armoured)4 Nos., 10 Mtr. Each	Mtr.	40	199.92	7996.80
30	Danger Board	No.	2	108.80	217.60
31	Back clamp for danger Board(25x3 mm) GI earth flat,0.59 Kg/mtr. & 0.51 Mtr. For each back clamp	Kg	0.6018	102.00	61.38
32	Anticlimbing Device(GI barbed wire 3 Kg per support)	Kg	6	108.80	652.80
33	Back clamp for barbed wire anticlimbing deice 25x3 mm, flat,0.59 Kg/mtr. & 0.51 Mtr. For ech back clamp	Kg	2.407	102.00	245.51
34	Sundries (Al. binding tape, insulation tape, paint etc.)	LS	1	1000.00	1000.00
					309170.54
PART-III	SERVICE CONNECTION				
1	3.5 Core 35 sq. mm LT PVC cable(Un armoured)	Mtr.	30	206.72	6201.60
2	No. 8 SWG GI wire	Kg	3	102.00	306.00
3	200 Amp Kit-Kat Fuse	No	3	677.28	2031.84
4	GI service connection Bracket	No	1	367.20	367.20
5	Sundries	Ls	1	100.00	100.00
					9006.64
					A.Sub Total Rs. 898554.71
B	Stock,storage and insurance (@3% on A)				26956.64
C	TOTAL RS.				925511.36
D	T&P @ 2% of C				18510.23
E	Contingency @ 3% of C				27765.34
F	Transportation @ 7.5% of C				69413.35
G	Erection charges @ 10% on others ,5% on Dist. Transformers/Joist Pole/WPB Poles and 20% on PSC poles				67049.54
H	TOTAL RS.				1108249.81
18	Stay concreting in ratio 1:2:4 as per TPSODL specification and drawing = 0.2 cum	Nos.	13	1235.58	16062.54

19	Concreting of 11 Mtr. Pole in ratio 1:1:5:3(500x500x475)=0.45 cum	Nos.	11	2400.00	26400.00
20	Concreting of Pole in ratio 1:1:5:3(500x500x475)=0.11875cum	Nos.	11	720.00	7920.00
24	Materials for Masonary work for earth pit, charcoal, salt etc. including construction of earthing chamber (size -2"x2") and RCC slab cover.	No	14	1600.00	22400.00
23	Construction of Brick wall Boundary for fencing with excavation , PCC of m15, Plaster of 18 mm thick external surfaces, 12 mm thick pastering internal surfaces, exterior quality plastic emulsion paint , PCC of grade M 10, Dry Rubble siling with 225 or 300 mm thick , MS Gate, Concentina coil with iron angle and barbed wire fixing.	No	1.00	87,601.00	87601.00
				Total Rs.	1,60,383.54
	Total Rs.				12,68,633.35
VI	Construction of LT 3ph 5 W line using 3x35+1x25+1x16 sqmm XLPE AB Cable=0.700 Km				
1	8 Mtr Long ,125x75 mm RS Joist Pole(13Kg/Mtr.)	No	23	9193.60	211452.80
2	GI Base Plate(500x500x10mm)@20 Kg/Pc	No	23	2040.00	46920.00
3	3x35+1x25+1x16 sqmm XLPE AB Cable	Km	721.00	163.20	117667.20
4	L.T Stay set (Complete)	Set	9	707.20	6364.80
5	L.T Stay Insulator	No.	9	40.80	367.20
6	L.T Stay Clamp(1.4 K.g/Pair)	Pair	9	149.60	1346.40
7	7/12 SWG GI Stay Wire , Grade-2	Kg	63	102.00	6426.00
8	Dead end clamp with eye Hook	No	16	170.00	2720.00
9	Suspension clamp with I Hook	Pair	14	462.40	6473.60
10	Danger Board	No.	23	108.80	2502.40
11	Back clamp for danger Board(25x3 mm) GI earth flat,0.59 Kg/mtr. & 0.51 Mtr. ,1No.	Kg	6.9207	102.00	705.91
12	Anticlimbing Device(GI barbed wire 3 Kg per support)	Kg	69	108.80	7507.20
13	Back clamp for barbed wire anticlimbing deice 25x3 mm, flat,0.59 Kg/mtr. & 0.51 Mtr. Length 4 Nos.	Kg	27.683	102.00	2823.67
14	Earthing device /Support coil type GI	No	23	225.76	5192.48
15	No-8 GI wire (Dia 4.6mm) 0.131 KG/ Mtr.- 2 Mtr. For connecting pole with Coil earthing	Kg	6.026	102.00	614.65
16	GI Nuts & Bolts	Kg	1	106.08	106.08
17	Sundries	LS	1	300.00	300.00
					419490.39
	A.Sub Total Rs.				419490.39
B	Stock,storage and insurance (@3% on A)				12584.71
C	TOTAL RS.				432075.10
D	T&P @ 2% of C				8641.50
E	Contingency @ 3% of C				12962.25
F	Transportation @ 7.5% of C				32405.63

G	Erection charges @ 10% on others ,5% on Dist. Transformers/Joist Pole/WPB Poles and 20% on PSC poles				32317.69
H	TOTAL RS.				518402.18
18	Stay concreting in ratio 1:2:4 as per TPSODL specification and drawing = 0.2 cum	Nos.	9	1235.58	11120.22
19	Concreting of 11 Mtr. Pole in ratio 1:1:5:3(500x500x475)=0.45 cum	Nos.	23	2400.00	55200.00
20	Concreting of Pole in ratio 1:1:5:3(500x500x475)=0.11875cum	Nos.	23	720.00	16560.00
	Total Rs.				6,01,282.40
	Sub Total Rs.(PART-A)				18,69,915.75
PART-B	AREA ILLUMINATION WORK				
1	40001030 Supply and laying of 16 sq.mm 2 core PVC Al. Arm Cable of 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning , protective covering and refilling the trench etc. as required. (sl no- 5.1.1)(Make Cable- Finolex/ Havells/Polycab/KEI)	MTR	70	264.25	18497.50
2	40001126 providing and fixing 8 SWG(4mm)dia copper wire on surface or in recess for loop earthing as required (sl no-3.18)	RFT	60	27.89	1673.40
3	40001906 Supply and fixing of 2.5sqmm service wire along with G.I wire for support of service wire including all accessories and connections	MTR	150	29.34	4401.00
4	40002095 Supply, Installation, Testing & Commissioning of maintenance free chemical earthing having enhancing chemical compound with 3 Mtr. Long copper bonded steel rod and suitable termination clamp including all accessories. Make :- ABB / STAR-X / UNIVERSAL All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.	NO	1	16650	16650.00
5	40002113 Supply, erection & stringing of 1-phase 2-wire L.T line with (1X35 + 1 x25) mm ² AB cable over 8mtr long PSC Pole along the road. (30 Mtr Span).	MTR	490	172.34	84446.60

6	40002124 Supply & fixing of outdoor/indoor type 63A DPMCB panel having I/C-63 A DPMCB-01 No & 63 Amp 2P Change Over/rotary switch ,Outgoing -02 Nos 32 Amp DPMCB & 02 nos 32 A DP switch with powder coating all accessories & connection Make a) MCB/MCCB- legrand/schnider/abb/,L&T/Anchor/Panasonic (b) Voltmeter/Ametre-AE/CAPPA	NO	2	20125	40250.00
7	40002201 Supply & fixing of 200x150mmx60mm(nominal) size pvc(SINTEX) looping end box with hinged cover having one no.20 amp rating moulded fuse base & holder, 4amp NS type fuse and 4way connector to be used in the bottom of street light pole for cable termination as per electrical engg - in -charge and consoltant and complite as per electrical engg -in -charge and consultation	NO	42	1100	46200.00
8	40008405 Supply & fixing of 90 Wt. LED Street light fitting comprises of Pressure die cast Aluminium housing powder coated in silver grey and toughened glass, Surge Arrester 1 No & 100lum/wt, Protection IP66 having LM 79 LM 80 tested including bulb,choke,cover,G.I bracket,clamp & nut bolt connecting wire with all accessories . (Make- CROMPTON(MODEL NO-TRP-412-90-57-SL-LM-NSG)/PHILIPS(MODEL NO-BRP033 LED90S 90W 9000LM)/WIPRO(MODEL NO-LR08-102-XXX-57-XX)	NO	18	7504.8	135086.40
9	40008415 Supply & fixing of 120 Wt. LED FLOOD light fitting comprises of Pressure die cast Aluminium housing powder coated in silver grey and toughened glass, Surge Arrester 1 No & 100lum/wt, Protection IP66 having LM 79 LM 80 tested including bulb,choke,cover,G.I bracket,clamp & nut bolt connecting wire with all accessories and as per instruction of Electrical Engineer-in-charge . (Make- CROMPTON(MODEL NO-TFS-504-120-57-60D-SL-GL-NSG)/PHILIPS(MODEL NO-BVP142 LED100S 110W 11000)/WIPRO(MODEL NO-LF40-132-060-57-XX)	NO	24	10995.4	263889.60
	TOTAL RS.(PART-B)				6,11,094.50

PART-C	LIGHTNING PROTECTION SYSTEM				
1	<p>40002086 Air-Terminal Supply, Installation, Testing & Commissioning of Early Streamer Emission (ESE-30))type Lightning Air Terminal. Supporting Mast The mounting pole used to support the lightning air terminal shall be minimum length of 05 Mtr. , non corrosive and made up of medium class GI / SS pipe of 1.5" diameter having base plate at bottom for securely fixing the mast on roof top. The mounting pole and supports shall be securely fixed with the brackets and PVC insulated metallic guy wires to withstand the maximum wind velocity of that area. Protection Radius :- 48 Mtr Make :- ABB / STROMKING All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	NO	2	99250.00	198500.00
2	<p>40002089 Lightning Strike Counter Supply, Installation, Testing & Commissioning of non-electronic & non-resettable (Not require any external power supply) type lightning strike counter to count the lightning stroke having display with IP-67 enclosure including all accessories and connection..(6/7 digit) Make :- ABB / STROMKING All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge. Engineer-in-Charge.</p>	NO	2	27250.00	54500.00
3	<p>40002095 Supply, Installation, Testing & Commissioning of maintenance free chemical earthing having enhancing chemical compound with 3 Mtr. Long copper bonded steel rod and suitable termination clamp including all accessories. Make :- ABB / STAR-X / UNIVERSAL All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	NO	5	16650.00	83250.00

4	40002098 Supply, connection & Testing of sub earthing with 16 Sq.mm single core multi stranded copper flexible wire from surge protection device (SPD) panel to earth electrode & Main panel board to SPD panel including all accessories, cable socketing and connections. Make :- FINOLEX / ANCHOR / HAVELLS All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge	MTR	18	154.73	2785.14
5	40002101 Supply, Installation, Testing & Commissioning of indoor type wall mounted Surge protection device (SPD) panel made of 2 mm thick CRCA sheet, dust and vermin proof duly powder coated having the following arrangement & complete factory wired by 16 Sq.mm single core multi stranded copper flexible wire. [A] Type 1+2 AC Surge Protection Device (SPD) (TP+N) (50 KA) - 01 Set [B] 63 Amp. HRC fuse with link – 03 Nos [C] 100 Amp. 4 pole stud connector – 01 No Make of SPD & HRC Fuse :- HAVELLS / L&T / LEGRAND Make of Wire :- FINOLEX / ANCHOR / HAVELLS All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.	NO	1	18665.00	18665.00
6	40002720 Supply and laying of 70sqmm single core FR PVC insulated unseathed copper conductor for voltage grade 1100 volt as per IS-694 in surface/underground as required(sl no-5.5.2)(Make-KEI/FINOLEX/HAVELLS)	MTR	60	1041.47	62488.20
7	40003593 Supply & Erection of 12 mtr long Heavy gauge Tata MS stepped pole(6mtrx4inch and 6 mtr x 4 inch) with 2ft x2ft x 10mm MS Base plate and 30 cm x 30cm x6mm MS Top plate including fabrication,painting with 1 coat red oxide and 2 coat aluminium paint/12 mtr long heavy gauge G.I stepped pole with 4nos complete stay set for support of pole coupling and conctring along with all accessories complete as required and as per electrical engineer-in-Charge.	SET	2	44714.99	89429.98
TOTAL RS.(PART-C)					5,09,618.32
Total Cost(PART-A+PART-B+PART-C)					29,90,628.57
Cess @ 1%					29,906.29

	Total Estimated Cost				30,20,534.86
	Total Estimated Cost in Figures				30,20,535.00
EXCESS	<input type="checkbox"/> LESS <input type="checkbox"/> (Please Tick)	_____ %			
Quoted Amount in Figure					
Quoted Amount in word					

N:B- The Estimated cost is exclusive of GST .

Signature of Tenderer with seal

**Sd/-
Asst. Project Manager (Elect)**

**Sd/-
Project Manager(Elect.)**

**Sd/-
DM(Elect.)I/C**