## THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD. JANAPATH, BHOINAGAR, BHUBANESWAR - 22

[Electrical Division]

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## PRICE BID FOR THE WORK UNDER SL. NO:- 07 AS PER IFB

NAME OF THE WORK :- EXTERNAL ELECTRIFICATION WORK FOR POWER SUPPLY TO 20-F TYPE QUARTERS AT RESERVE OFFICE, PURI IN THE DISTRICT OF PURI.

NAME & ADDRESS OF THE FIRM					
	SCHEDULE OF V	<u>WORKS</u>	Γ		7 <b>.</b>
Sl. No.	Description of work	Unit	Qty.	Estimated C	AMOUNT IN RS.
I	11 KV LINE				
A	DP WITH AB SWITCH				
1	WPB (GI) Pole 160x152 (11Mtr. Long, 30.44KG/Mtr.)-DP	No	2	34,153.68	68307.36
2	Top Channel 100X50X6mm, 9.56 KG/Mtr., each channel length 2.3 mtr., 2 no's channel required =( 2x9.56x2.3)	Kg	57.36	102.00	5850.72
3	Fish Plate 50x6 mm., 2.36 Kg/Mtr., each 0.280 mtr. length, 6 no's required = (6x2.36x0.280)	Kg	3.9648	102.00	404.41
4	AB switch mounting channel 75x40x4.8 mm GI channel, 3000 mm Long (7.14 kg/mtr,2 Nos.)	Kg	42.84	102.00	4369.6
5	AB witch side support channel 100x50x6 mm GI channel (0.35Mtr Long)(9.56 kg/mtr,2 Nos.)	Kg	6.69	102.00	682.3
6	Channel support for down pipe 75x40x4.8 mm GI channel (7.14 kg/mtr,2 Nos.)each channel length 0.8 Mtr.	Kg	5.712	102.00	582.6
7	Double pole belting Channel 75x40x4.8 mm ,7.14 Kg/mtr., each channel length 3.0 Mtr.,4 nos channel required.	Kg	85.68	102.00	8739.3
8	50x50x6mm.GI Bracing Angle, 4.5Kg./mtr., each angle length 2.671 mtr., 4 nos angle required = (4.5x2.671x4)	Kg	63.216	102.00	6448.03
9	Danger Plate, 2 no's.	No.	2	108.80	217.60
10	Back Clamp for danger Plate 25X3 mm. flat, 0.59Kg/Mtr. Flat of 0.510mtr length 2 no's = (2x0.59x0.510)	Kg	0.6018	102.00	61.38
11	H.T. Stay clamp, 50x8 mm. flat, 3.14Kg/Mtr., 0.551 Mtr. Length, 2 no's qty. required (1 Pair)	Pair	2	170.00	340.00
12	H.T. Stay set (Complete )	Set	2	1,428.00	2856.00
13	H.T. Stay Insulator Type-C	No.	2	68.00	136.00
14	7/10 SWG Stay Wire 15kg /stay	K.g.	30	102.00	3060.00
15	Gi Pipe Earthing 40mm. 3 Mtr. Long	No.	2	1,428.00	2856.00

16	50x6mm GI Flat for earthing, 2.36kg/mtr., (2.5 mtr. For mesh formation and 2.5 mtr. For raising)= 5x2.36	Kg	48.38	102.00	4934.76
17	GI barbed wire anticlimbing device 3 Kg. Per support, 2 no's qty. required =(2x3kg)	Kg	6	108.80	652.80
18	Back Clamp for anticlimbing device 25X3 mm. flat, 0.59Kg/Mtr. Flat of 0.510mtr length 8 no's = (8x0.59x0.510)	Kg	2.4072	102.00	245.53
19	Lightning Arrester(12KV,10KA) (Station Class,class-2)	EA	3.00	4828	14,484.00
20	AB Switch (11KV,400A.3pole,50Hz)	Set	1.00	16116	16,116.00
21	11 KV pin insulator polymer	No.	3	272.00	816.00
22	H W fitting(B&S) 70KN, 3Bolt	No.	3	476.00	1428.00
23	Disc insulator (B&S) 70 KN polymer	No.	3	1,564.00	4692.00
24	Wedge connector for 55 sq. mm AAA Conductor	No.	3	146.20	438.60
25	Poly carbonate Bird Guard	EA	6	20.96	125.76
26	GI Nut, Bolt & Washer of different sizes	Kg	13.718	106.08	1455.21
27	Black Paint	Ltr	1	299.20	299.20
28	Yellow Colour Paint for Background	Ltr	2	167.46	334.92
A				A. Sub total	1,50,934.33
В		B. Stock, S	torage & Insu	rance @ 3% of A	4,528.03
C			Sı	ub Total (C=A+B)	1,55,462.36
D				T&P @ 2% of C	2,918.74
E			Cont	igency @ 3% of C	4,663.87
F				ntion @ 7.5% of C	11,659.68
-		Erecti		5% on poles	3,517.83
G				n Charges @ 10%	7,558.05
Н				Total	1,85,780.53
29	Fixing of 11 KV line Complete stay set includes 1) Turn Buckle Assembly 2) Stay Rod & Stay plate 3) Stay Insulator 4) Stay Wire. 5)Stay clamps with Nuts & bolts, including excvation, supply of 0.5Cum cement concrete foundation 1:2:4 size (500mmx500mmx800mm) using 20mm BHG metal with all labour and material (Excavation of earth will be done of size 500X500X1500 mm.)	No	2	2301.53	4603.06
30	Concreting Ratio 1:1:5:3(500 mmx500mmx2200 mm)=0.55 Cu. Mtr.	Cum	0.9	6648.85	5983.97
31	Couping Ratio 1:1:5:3(500 mmx500mmx450 mm)=0.1125 Cu. Mtr.	Cum	0.225	6648.85	1495.99
32	Construction of earthing chamber including installation of earthing pipe. Making earthing chamber including excavation, soil treatment with betonide powder, calculation of earth resistance, including installation of 3 Mtr. GI Pipe 40/50 mm including welding of GI flat around pipe.	No	2	3784.73	7,569.46
	Total Material + Services Cost (J+K)				

	11 KV CUT POINT WITH 90 DEGREE ANGLE						
1	11 KV pin insulator polymer	Set	4	272.00	1088.00		
2	H W fitting(B&S) 70KN, 3Bolt	No.	3	476.00	1428.00		
3	Disc insulator (B&S) 70 KN polymer	No.	3	1564.00	4692.00		
4	Wedge connector for 55 sq. mm AAA Conductor	No.	3	146.20	438		
5	Poly carbonate Bird Guard	EA	7	20.96	146		
A		•	•	A. Sub total	7,793.		
В		B. Stock, Storage & Insurance @ 3% of A					
C		<u> </u>	S	ub Total (C=A+B)	8,027.		
D				T&P @ 2% of C	160.		
E			Cont	igency @ 3% of C	240.		
F				ation @ 7.5% of C	602.		
<u> </u>	+	Ewaati		2,5% on poles	002.		
		Erecu	on Charges (a	y 5% on poles			
G			Erection	n Charges @ 10%	802.		
H				Total	9,833.		
C	11 KV PIN POINTS						
12	55 sq. mm AAA conductor	Km	0.02	40800.00	630.36		
A	1		•	A. Sub total	630.		
В		B. Stock, S	torage & Insi	rance @ 3% of A	18.		
C				ub Total (C=A+B)	649.		
D	T&P @ 2% of C						
	Contigency @ 3% of C						
<u>E</u>				ntion @ 7.5% of C	19.		
$\mathbf{F}$		l	48.				
	Erection Charges @ 5% on poles						
G			Erection	n Charges @ 10%	64.		
Н	uction of 11 ky line using 3Cx95 sq. mm XLPE U/G ca			Total			
Н	Supply of materials for 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable with			Total	64. 795.		
H Constru pply Po	Supply of materials for 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable with accessories	able of Le	ngth 100 Mt	Total			
H Constru	Supply of materials for 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable with accessories Length of 11kV 3C, 95sqmm cable (open trench)			Total			
H Constru Oply Po	Supply of materials for 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable with accessories  Length of 11kV 3C, 95sqmm cable (open trench) Supply of 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable (SC rating of cable in kA- 9kA)	able of Le	ngth 100 Mt	Total			
H Constru oply Po	Supply of materials for 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable with accessories Length of 11kV 3C, 95sqmm cable (open trench) Supply of 11kV, 3Core, 95sqmm, XLPE insulation	able of Le	ngth 100 Mt	Total r with RMU.	795.		
H Construction  1  a  1.1	Supply of materials for 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable with accessories  Length of 11kV 3C, 95sqmm cable (open trench) Supply of 11kV, 3Core, 95sqmm, XLPE insulation armoured UG cable (SC rating of cable in kA- 9kA and SC rating of Armour in kA- 9kA) Supply of Indoor termination kits Heat Shrinkable type suitable for 11kV, 3Core, 95 sqmm, HT UG	Mtr.	165 330.00	Total r with RMU.	3,36,270.		

2	Supply of 11kV RMU				
a	No. of 11kV 3Way RMU (LLV)	nos.	1		
2.1	Supply of 11KV RMU 3 Way, 630A (LLV)(2 ISO+1 BKR) +Aux PT	Nos.	1	5,35,000.00	5,35,000.00
3	Earthing				
3.1	Earthing Conductor: <b>50X6 mm</b> (2.4kg./mtr.) <b>GI Flat</b> for equipment, structure etc.)	kg	13.20	102.00	1,346.40
3.2	Pipe Earthing 40mm. GI Pipe	Nos.	2	1,428.00	2,856.00
	Sub Total (Supply Portion	on) (in Rs	s.)		11,72,457.60
Erection P	ortion			_	
Sl. No.	Description of items	Unit	Quantity	Rate (in Rs.)	Amount (in Rs.)
1	Laying, Commissioning, Testing of 11kV, 3core, 95sqmm, aluminium, XLPE insulation armoured (extruded type) UG cable by open trench method and HDD method				
1.1	Laying, Commissioning, Testing of 11kV, 3core, 95sqmm, aluminium, XLPE insulation armoured (extruded type) UG cable by open trench method.	Mtr.	330.00	100.17	33,056.10
1.3	Erection of Outdoor termination kits Heat Shrinkable type suitable for 11kV, 3Core, 95sqmm, aluminium UG cable kits for 3core (set)	Set	8	1,944.33	15,554.64
1.4	Laying of <b>160 mm dia</b> PE 80-PN8, <b>HDPE pipe</b> inside open trench.	Mtr.	298.00	306.87	91,447.26
2	ERECTION, COMMISSIONING, WIRING AND TESTING OF 11 KV RMU				
2.1	Erection of 11 KV 3 way 630 A LLV(2 ISO+1 BKR)+AUXPT	No.	1	12,000.00	12,000.00
	Sub Total (Erection Port	ion) (in R	s.)		1,52,058.00
Civil Porti	on				
Sl. No.	Description of items	Unit	Quantity	Rate (in Rs.)	Amount (in Rs.)
1	Civil works with supply of all materials like cement, MS tor rod, brick, coarse & fine aggregates and labour, T&P, etc for UG Cable Trench				
2.1	Earth work excavation of soil(1.6 Mtr. Wx1.775 Mtr. D)	cum	308.14	716.03	2,20,637.48
2.2	Earth work excavation of Hard rock(1.6 Mtr. Wx1.775 Mtr. D)	Cum	132.06	1759.39	2,32,345.04
2.3	Back filling with excavated soil outside and above the trench	Cum	112.76	204.58	23,068.44
2.4	PCC(1:3:6),M-10 Grade below trench (width 1500 mm ,thickness 75 mm throughout)	Cum	17.4375	5247.48	91,502.93
2.5	Supply and Erection of material for RCC partition Slab 750mmx100 mm(M-25 Grade)	Cum	15.1125	7483.54	1,13,095.00
2.6	Supply and Erection of material for RCC trench (150 mm thick(M-25 Grade)	Cum	95.325	7483.54	7,13,368.45

2.7	Supply and erection of Rod ,bending ,cutting and binding of prefabricated RCC trench(65.23 Kg/cum)	Kg	6218.05	111.50	6,93,312.58
2.8	Supply and erection of Rod ,bending ,cutting and binding of prefabricated RCC slabs(67.8 Kg/cum)	Kg	1025	111.50	1,14,245.97
2.9	Centering and shuttering of mass concrete	M2	914.5	307.89	2,81,565.41
2.1	Structural steel work riveted (channel GI-75x40x4.8 mm)(Flat GI-75x6mm)	Kg	532.735	130.00	69,255.55
3	Civil works for Prefabricated RCC foundation with supply of all materials				
3.1	Prefabricated RCC foundation of 11 KV RMU	EA	1	26,000.00	26,000.00
3.2	SITC of GI fencing with gate around each RMU	RM	18	3,682.44	66,283.92
3.3	Construction of earthing chamber including installation of earthing pipe. Making earthing chamber including excavation, soil treatment with betonide powder, calculation of earth resistance, including installation of 3 Mtr. GI Pipe 40/50 mm including welding of GI flat around pipe.	Set	2	3,784.73	7,569.46
3.4	Supply and Erection of Cable Route Marker along the cable route at an interval of 30mtrs with civil works	Nos.	6	1,035.17	6,211.02
3.5	Supply and erection of GI Pipe of dia. 150mm, Class-B (8Mtr.)	Mtr.	32	1,496.91	47,901.12
	Sub Total (Civil Portion) (in Rs.)				27,06,362.37
A	Sub Total (Supply Portion)				11,72,457.60
В	Stock, Storage & Insurance @ 3 % of A				35,173.73
C	Sub Total (A+B)				12,07,631.33
D	Contingency @ 3 % of C				36,228.94
Е	Tools & Plants Charges @ 2% of C (considered for ea	rthing iten	ns)		27.74
F	Transportation @ 7.5% of C				90,572.35
G	Erection Charges @ 10% of earthing items				138.68
Н	Total (C+D+E+F+G)				13,34,599.04
I	Sub Total (Erection Portion + Civil Portion)				28,58,420.37
J	Total Cost (H+I)				41,93,019.40
III	Supply and Laying of 1.1 KV LT U/G Cable using	4 C x 95 S	Sq. mm of leng	th 30 Mtr.	, ,
1	Supply of materials for 1.1 KV XLPE insulation armoured UG cablele with accessories-Open trench (along with spare cable)				
A	Length of 1.1 KV, 4C, 95 sq. mm XLPE insulation armoured-Aluminium UG Cable(open trench)	Mtr.	30		
1.1	4 core 95 sq. mm XLPE insulation armoured - Aluminium UG Cable	Mtr	60	438.71	26,322.60
1.4	Supply of <b>HDPE</b> PE 80-PN8 pipe of <b>110 mm</b> diameter (for 95 sqmm HT cable laying)	Mtr.	60	306.00	18,360.00
2	supply of 1.1 KV Multimeter Panel				
a	No. of 1.1 KV I/C -160 A & 21 Nos. of O/G 32 A	No	1		

2.1	Supply of 1.1 KV I/C-160 A & 21 Nos. of O/G 32A	No	1	2,07,000.00	2,07,000.00
3	Earthing of Multimeter Panel				
3.1	Earthing conductor 50x6mm (2.4 Kg/Mtr.)GI flat for equipment ,structure etc.)	Kg	13.2	102.00	1,346.40
3.2	40 mm Nominal bore GI pipe (medium gauge) earthing device with 3 Mtr. Long	Nos	2	1428.00	2,856.00
A				A. Sub total	2,55,885.00
	Erection Portion				
1	Laying ,commissioning ,Testing of 1.1 KV , Aluminium, XLPE insulation armoured UG cable by open trench method				
1.1	Laying of <b>HDPE</b> PE 80-PN8 pipe of <b>110 mm</b> diameter (for 95 sqmm HT cable laying)	Mtr	60	306.87	18,412.20
1.2	Laying of 1.1 KV ,4 core 95 sq. mm XLPE insulation armoured-aluminium UG cable	Mtr	60	47.87	2,872.20
2	SITC of Gland /AL term				
2.1	Supply and erection of double compression flameproof type glanding for armoured cable 3.5/4 core ,50-95 sq. mm including making hole in Base plate and dressing of cable along with vermin proofing properly .supply to be done as per TPCODL specification and approved make dowells.				
	per 11 cobb specification and approved make dowens.	EA	4	690.46	2,761.84
					24,046.24
Civil Porti	ion				
2	Civil works with supply of all materials like cement, MS tor rod, brick, coarse & fine aggregates and labour, T&P, etc for UG Cable Trench				
2.1	Earth work excavation of soil(1.6 Mtr. Wx1.775 Mtr. D)	cum	35.7	716.03	25,562.27
2.2	Earth work excavation of Hard rock(1.6 Mtr. Wx1.775 Mtr. D)	Cum	15.3	1759.39	26,918.67
2.3	Back filling with excavated soil outside and above the trench	Cum	14.4374	204.58	2,953.60
2.4	PCC(1:3:6),M-10 Grade below trench (width 1500 mm ,thickness 75 mm throughout)	Cum	2.8125	5247.48	14,758.54
2.5	Supply and Erection of material for RCC partition Slab 750mmx100 mm(M-25 Grade)	Cum	2.4375	7483.54	18,241.13
2.6	Supply and Erection of material for RCC trench (150 mm thick(M-25 Grade)	Cum	11.625	7483.54	86,996.15
2.7	Supply and erection of Rod ,bending ,cutting and binding of prefabricated RCC trench(65.23 Kg/cum)	Kg	758.299	111.50	84,550.34
2.8	Supply and erection of Rod ,bending ,cutting and binding of prefabricated RCC slabs(67.8 Kg/cum)	Kg	165	111.50	18,426.82
2.9	Centering and shuttering of mass concrete	M2	97.5	307.89	30,019.28
2.1	Structural steel work riveted (channel GI-75x40x4.8 mm)(Flat GI-75x6mm)	Kg	71.175	130.00	9,252.75
	Civil works for Prefabricated RCC foundation		i I		

	installation of 3 Mtr. GI Pipe 40/50 mm including welding of GI flat around pipe.	Set	2	3,784.73	7,569.46	
	Sub Total (Civil Portion) (in Rs.)				3,25,249.01	
A	Sub Total (Supply Portion)				2,55,885.00	
В	Stock, Storage & Insurance @ 3 % of A				7,676.55	
C	Sub Total (A+B)	2,63,561.55				
D	Contingency @ 3 % of C	7,906.85				
Е	Tools & Plants Charges @ 2% of C (considered for mi	ultimeter p	anel and ear	thing items)	4,291.94	
F	Transportation @ 7.5% of C				19,767.12	
G	Erection Charges @ 10% of earthing items				21,459.68	
Н	Total (C+D+E+F+G)				3,16,987.13	
I	Sub Total (Erection Portion + Civil Portion)				3,49,295.25	
J	Total Cost (H+I)				6,66,282.38	
IV	INSTALLATION OF 250 KVA S/S.					
1	50x6mm GI Flat for earthing, 2.36kg/mtr., (2.5x7 mtr. For mesh formation, 12 Mtr. For L.A and 2.5 Mtr for raising, 11 Mtr. For AB Switch ,2.8 Mtr. for HG Fuse, 5x2 Mtr. For DTR neutral,(13-4.5)mtr. For DTR Body, 0.500 Mtr. For LTDB & AB switch operating handle, 3 Mtr. for fencing.)	Kg	92.75	102.00	9460.50	
2	250 KVA , 11/0.4 KV (CU) Transformer BIS Energy Level-II	No	1	601213.06	601213.06	
3	LT Distribution Box with MCCB, Aluminium Busbar of 3 Bay with kit kat fuse for 250 KVA S/S	No	1	65280.00	65280.00	
4	1 Cx 400 mm2 LT XLPE Cable(Armoured) - FOR 250 KVA Trf.	Mtr	120	363.08	43569.60	
5	GI Pipe for earthing 40mm dia 3mtr long	No	7	1428.00	9996.00	
6	Name Plate	No	1	108.80	108.80	
A B	RS	tock Stor	age & Insu	A. Sub total rance @ 3% of A	7,29,627.96	
<u>В</u>	<b>D.</b> 9	tock, Stol		b Total (C=A+B)	7,51,516.80	
<u>D</u>				T&P @ 2% of C	13,926.88	
E				gency @ 3% of C	22,545.50	
F		,	Transportat	ion @ 7.5% of C	56,363.76	
G	Erection Charges @ 5% for transformer and joist pole cost including stock, storage & insurance @3%			30,962.47		
Н	E	Erection Charges @ 20% on PSC Poles				
I	Erection	r other materials	7,709.46			
J				Total	8,83,024.87	
7	PCC Ratio 1:3:6(M-10)Grade for DSS AREA(3.5X2.5X0.1))=0.875 Cu. Mtr.	Cum	0.875	5247.48	4591.55	

	Construction of earthing chamber including				
8	installation of earthing pipe. Making earthing chamber including excavation, soil treatment with betonide powder, calculation of earth resistance, including installation of 3 Mtr. GI Pipe 40/50 mm including welding of GI flat around	No	7	3784.73	26,493.11
	pipe.			500000	
9	LT DB Plinth	No	1	6000.00	6000.00
10	DTR Plinth	No	1 120	28000.00	28000.00
11	Laying of 1Cx400 sq. mm cable	Mtr	120	96.66	11,599.20
12	SITC and erection of GI fencing with gate	RM	18	3682.44	66,283.92
13	Supply of ALL lugs suitable for 400 sq. mm cable/conductor, crimping with cable and fixing /connecting include supply and erection of PVC Tape as per voltage requirement.	EA	16	322.21	5,155.36
14	Supply and erection of double compression Flameproof type Glanding for armoured cable 1 C 300-1000 sq. mm including making hole in Base plate and dressing of cable along with vermin proofing properly. Supply to be done as per TPCODL specification and approed make dowells.	EA	8	1227.48	9,819.84
					1,57,942.98
				Sub total Rs	10,40,967.85
	Sub Total Rs.				61,16,331.21
	Cess @1%				61,163.31
	Total Estimated Cost				61,77,494.53
	Total Estimated Cost in Figures				61,77,495.00
EXCESS	LESS (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/-D.M (Elect)

Sd/-Project Manager (Elect.)