

Tender Inviting Authority: JOINT MANAGER [ELECTRICAL DIVISION] ,
THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD,

Name of work :- Supply, Installation, Testing & Commissioning of External Lighting with additional Electrification work and Lightning Protection System at Bolangir Bus Stand in the district of Bolangir.

BID REF NO.-44 /JM/ ELECT/OPHWC/2020-21

Bidder
Name

SCHEDULE OF WORKS

Sl. No.	Description of work	Qty.	Unit	Estimated Rate	AMOUNT Rs.
A	EXTERNAL LIGHTING WORK				
1	Supply and Fixing of 200 AMP. TPMCCB [35 KA] with 200 AMP. 415 VOLT CUT OUT - 03 NOS WITHOUT METER SPACE with 200 AMP , 25 / 6 MM. COPPER BUS BAR - 04 NOS, INSTRUMENTS- 0 –200 AMP. AMMETER WITH SELECTOR SWITCH - 01 SET ,200 / 5 AMP. CT - 01 SET, 0 – 500 VOLT. VOLTMETER WITH SELECTOR SWITCH - 01 SET ,INDICATING LAMP WITH CONTROLLING SWITCH - 01 SET including all accessories and connections as per instruction of Electrical Engineer-in- Charge. [make-(a)Mcb /Mccb - Legrand/ Schnider/Havells Crabtree/ ABB, (b)volt meter, ammeter-AE/IMP, (d) all other accessories ISI mark]	SET	2	57,845.00	115,690.00
2	Supply and laying of 95 sq.mm 3.5 core PVC Al. Arm Cableof 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning ,protective covering and refilling the trench etc. as required. (Sl. No -25 sl no- 5.1.2)	Mtr	270	680.63	183,770.10
3	Supply and laying of 35 sq.mm 3.5 core PVC Al. Arm Cableof 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning ,protective covering and refilling the trench etc. as required. (Sl. No -25 sl no- 5.1.2)	Mtr	225	379.55	85,398.75
4	Supply and laying of 10 sq.mm 2 core PVC Al. Arm Cableof 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning ,protective covering and refilling the trench etc. as required from LT Pole to 63 Amp RDPMS and 63 Amp RDPMS to LT line for street light purpose . (sl no- 5.1.1)(Make cable-Finolex / L &T / Anchor / Havels/ V guard/HPL)	Mtr	580	235.95	136,851.00
5	Supply & fixing of 2.5 sqmm 3core flexible copper cord (MTR)	Mtr	300	65.97	19,791.00
6	Supply of 40mm Dia HDPE Pipe ,PE 63grade,04MPA,2.0 wall thickness. Make :-	Mtr.	980	62.00	60,760.00

7	Cable laying & connection inside the HDPE Pipe under the earth from pole to pole (Trench depth 1'6", Sand filling 6")	Mtr.	980	85.00	83,300.00
8	Supply, installation,testing & commissioning of floor mounting front operated front access extensible type cubicle panel totally enclosed, dust and vermin proof with IP-42 /55 protection with hinged and lockabale doors.CRCA sheets including interconnections,tinned copper crimping lugs, bonding to earth and painting suitable for use at 415 V, 3phase 4 wire 50 Hz system, and to withstand a fault level of 25KA symmetrical for 1 sec at 415 V complete as per specifications, as required and as below : All switchboards shall have provision for entry of cables from the bottom as required. All live accessible parts shall be shrouded and all equipment shall be finger touch proof. The bus bars shall be insulated with heat shrinkable sleeves.SMC/DMC shrouds and busbar supports shall be used with Indication lamp, C.T , Digital Voltmeter, Digital Ammeter and control fuse etc. complete.				-
9	METER PANEL with 200A 4P MCCB -1 No as incomer , 5-30A single phase digital energy Meter followed by 40A 2P MCB-13 Nos, 5-30A Three phase digital energy Meter followed by 40A 4P MCB -8 Nos as Outgoing .	set	1.00	162665.00	162,665.00
	Fittings & Fixtures				-
10	Supply and Erection of BAJAJ/ CROMPTON/ PHILIPS make 20 M Panaromic GRP Umbrella high mast shaft in two sections suitable for wind speed 200 KM/Hr complete with all accessories, lantern carriage suitable for use with 9 nos. of specially designed highly corrossion resistant aluminium alloy housing 150 wt LED flood light luminaires of same high mast manufacturing company having excellent heat dissipation characterstic,protection against over voltages & over current, colour temperature of 5700 K, IP 65 protection and suitable inbuilt driver to maintain minimum power factor of 0.95 . The high mast should be of proper size as per the structral calculation of the high mast manufacturing company considering Panaromic GRP umbrella on the top of the mast to withstand the 200 KM/HR wind speed. The GRP Umbrella should cover all the luminaires on the top and must be supplied in approved colour. The high mast should have arrangement for raising, lowering of lantern carriage, Winch,integral powertool/motor, torque limiter,6 mm stainless steel wire rope of AISI 316 grade,lightening finial,stainless steel hard wares , LED aviation obstruction fitting, M30x 850 mm long EN 8 grade foundation bolts, anchor plate & templates ,Feeder pillar having arrangement for automatic ON-OFF lighting system & Raising lowering of mast and other accessories .The bottom dia , Top dia ,bottom thickness and top thickness should be as per the structral calculation done by the highmast manufacturer considering	1.0 SET		554600.00	554,600.00

11	Supply and installation of 8mtr high hot dip galvanised octagonal poles with 155 mm bottom A/F & 70 mm top A/F made up of 3mm thk. HT sheet alongwith base plate of size 260X260X16mm thk.alongwith 1.5 mtr Sword Type Single arm bracket made of 40NB GI pipe complete with 4Nos of M24X750mm long 'J' type EN 8 grade foundation bolts with 2nos of 6amp MCB with Bakelite sheet along with energy saving LED confirming to IP 65 or 66 of 90 watt street light luminaries to deliver an average 15lux to all parts of the road to be fixed on the ends of arms mounted on pole with Die-cast aluminium housing with epoxy powder coating , Driver with in built Protection against high voltage surge,open and short circuit.The scope includes Construction of Civil Foundation with M 20 grade of concrete suitable for soil bearing capacity of 10 t/sqmr with Excavation ,PCC along with Labour etc. and erection of 8 mtr sword pole and fixing of LED light fitting along with tools and tackles ,crane/hydra with 8 GI wire coil earthing with coil with nuts and bolts.(MAKE OF LIGHT FITTING- WIPRO/ PHILIPS/ CROMPTON/ BAJAJ)	20.0	EA	19700.00	394,000.00
B	LIGHTNING ARRESTER SYSTEM				
1	<p><u>Air-Terminal</u> Supply, Installation, Testing & Commissioning of Early Streamer Emission (ESE) type lightning Air terminal.</p> <p><u>Supporting Mast</u> 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.</p> <p><u>Protection Radius :- 48 Mtr.</u> Make :- ABB / STROMKING / POWER TRAC All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	No	1	97,850.00	97,850.00
2	<p><u>Lightning Strike Counter</u> 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)</p> <p>Make :- ABB / STROMKING / POWER TRAC All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	No	1	25,000.00	25,000.00

3	Supply, Installation, Testing & Commissioning of 25 x 5 MM copper flat (Insulated / through 1.5" diameter super quality PVC pipe) from lightning air terminal to earth electrode on wall / ceiling/concrete column/under buried trench by proper saddling & making connection at both ends the and making good the damages caused. All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge Make of PVC Pipe :- AKG / KINJAL / ORIPLAST S..(CSR SL . NO- 3.11) .	Mtr.	60	509.11	30,546.60
4	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	3	15,200.00	45,600.00
5	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	2,785.14
6	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	18,665.00	18,665.00
	Total Estimated Cost in Figures.				2017272.59
	CESS @1%				20172.73
	TOTAL RS.				2037445.32
	SAY RS.				2037445.00
EXCESS <input type="checkbox"/> LESS <input type="checkbox"/> (Please Tick) _____%					

Quoted Amount in Figures.	
Quoted Amount in words	

N.B-The Estimate Cost is Exclusive of G.S.T i.e. @ 12%

Signature of Tenderer with seal

Sd/-
Asst. Project Manager (Elect.)

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

Sd/-
Joint Manager (Elect.)