



ଓଡ଼ିଶା ବିଦ୍ୟୁତ ଶକ୍ତି ସଂଚାରଣ ନିଗମ ଲିମିଟେଡ.
ODISHA POWER TRANSMISSION CORPORATION LIMITED
(A GOVERNMENT OF ODISHA UNDER TAKING)
CIN- U40102OR2004SGC007553
OFFICE OF THE GENERAL MANAGER,
EHT (O&M) CIRCLE, CUTTACK
AT: MADHUSUDAN NAGAR, TULSIPUR, CUTTACK-753008
Phone: 0671-2300226 Fax: 0671-2300547

OPEN TENDER CALL NOTICE NO. 13/CTC/2018-19

Sealed tenders are invited by the undersigned from experienced contractors possessing HT/MV license issued by Govt. of Odisha/Govt. of India / Railways/ Military possessing valid I.T. Pan Card / GST registration/ clearance certificates for **Supply and erection of GI octagonal street light poles along with Supply And Fixing of 90 watt LED based street light fittings complete with Earthing, Pipe Laying and Cabling and all other accessories for providing street light at Grid Sub-Station Paradeep, Pattamundai, Kendrapada and Chandikhole on turnkey basis.** Cost of Tender Paper: **Rs 4480/-** which is Non-refundable and to be paid in shape of Cash/DD. EMD: **Rs10000/-** to be furnished along with the tender in shape of DD only. The detail tender specification can be obtained from the office of the undersigned, on payment of dues as mentioned below during office hours from 11.00A.M. to 5.00P.M. from Dt. 15.01.2019 to Dt.04.02.2019. The tenders shall be received up to 3 P.M. on Dt.05.02.2019 and will be opened at 3.30P.M on same date in the office of the undersigned. The Demand draft towards tender paper cost and EMD is to be drawn in favour of **EHT (O&M) Circle, OPTCL, Cuttack, Payable at Cuttack.** The tender not accompanied with EMD will be rejected.

This office will not be responsible for non-receipt / late receipt of tender document due to postal delay. All other terms and conditions of OPTCL purchase & contract regulation will also be applicable to the successful bidders while placing the work order.

The undersigned reserves the right to reject any or all the tenders without assigning any reason thereof.

SL No	Name of the item	Cost Of tender specification	Eligibility Criteria for bidders
1	Supply and erection of 25 nos. of 90 watt LED based street lights with supply and erection of GI Tubular/Octagonal poles at following grids Grid S/S Paradeep: 10nos Grid S/S Pattamundai: 05nos Grid S/S Kendrapada: 05nos <u>Grid S/S Chandikhole: 05nos</u> Total: 25nos	Rs4000/- + GST @ 12% i.e Rs. 480/- =Rs4480/- (Non-refundable in shape of Cash/DD)	Experienced contractors with HT / MV license issued by Govt. of Odisha / Govt. of India / Railways/ Military possessing valid I.T. Pan Card / GST registration/ clearance certificates are eligible to apply

DETAILS OF THE WORK

PART-A: Supply of Materials			
Sl. No	Description	Unit	Quantity
1.	<p>Supply and erection of Galvanized octagonal pole, which shall be single pole section with galvanized single designer cross arm with luminaire mounting bracket and inclusive of stud connector and 6A MCB as per the specification and direction of Engineer-in-Charge.</p> <p><u>Specification</u></p> <p>Galvanization, Welding and Base Plate: The pole should be hot dip galvanized as per I.S.-2629 I.S.-2633 / I.S- 4799 or BSEN 1461 or equivalent standard with not less than coating thickness of 70micron. The galvanization shall be done in single dipping. The welding should conform to BS 5135 or equivalent. The base plate should conform to IS 2062 or equivalent.</p> <p>Design:</p> <p>a) The design shall be as per the diagram included.</p> <p>b) There shall not be any circumferential weld joint.</p> <p>c) The pole shall be bolted on to precast foundation with a set of four foundation bolts with anchor plates within the concrete precast for greater rigidity.</p> <p>d) The foundation bolts should be made up of tor rod.</p> <p>e) The galvanized mounting single armed bracket made out of G.I tubular pipes of diameter not less than 40mm size shall be supplied along with the pole for installation of the luminaries as per the design with MS plate for rigidity between cap and pipe and with provision of passing electrical cable from the pole to the end of cross arm for connection of street light LED luminary.</p> <p>f) The pole shall have door of dimensions 90mmx400mm (WxH) at the elevation of 500mm from the base plate. The door shall be vandal resistant and shall be weather proof with round flat rubber gasket on the door edges to ensure the safety of inside connection. The door shall be flush with the extension surface and shall have</p>	Nos	25

	<p>suitable locking arrangement. The poles shall be adequately strengthened at location of door to compensate for loss in section.</p> <p>Electricals: The pole should have 4pin loop in loop out stud connector system with 6A MCB of B Series of reputed make (Legrande / L&T / Schneider / C&S). There shall be suitable arrangement for the purpose of earthing. Cable gland at bottom of suitable size for entry & exit of 25 Sq. mm, 3½ core, armored aluminium cable.</p> <p>Pole Dimensions: Pole steel grade as per IS 5986 Height of pole: 7Mtr., Top Dia: 70mm, Bottom Dia: 130mm, Thickness:3mm, Base plate dimension: (LxBxT): 220mm x 220mm x 12mm, Pitch Circle diameter: 220mm Base plate shall have 4 holes of 24mm diameter for foundation bolts. Base Plate Steel grade IS 2062 E250 or equivalent</p> <p>Foundation Bolt: M20 Type with Hot Dip Galvanization Anchor Plate: 50mm Projected bolt length: 600mm</p> <p>Single arm designer bracket length: 1.5Mtr Long made up of steel tubular pipes of size not less than 40mm</p> <p>Tolerances: Diameters: ±2.5% Total Length: ±30mm Straightness: 0.3%</p>		
2	<p>Supply & fixing of lighting fixture of 90watts LED street light complete fitting with secondary optical lens and 10KVA Surge Protection Device.</p> <p>Specification: Make- (Havells / Bajaj / Crompton / Phillips/ Jaquar) Luminaire Body: Pressure die cast Aluminium housing having good quality powder coating with clear toughened glass. LED Chip: LM80 certified high power cool white LED Chip of reputed make (LED Chip Make: Cree, Nichia, Phillips, Osram). Lens: 120degree Suitable secondary lens for better light distribution, LED Driver: Integral electronic constant current driver of min 85% efficiency, Internal wiring: Teflon insulated, Cu Conductor, Hardware: SS & MS Zinc plated & passivated nuts, bolts and other necessary hardware. Ingress Protection: IP 66 and above. Lumen Maintenance: 50,000 Hrs @ L80, Operating Temperature: 10° C to 50° Rated Voltage: 240V, 50Hz AC, Wattage: 90W±10%, Current: ,0.43A, PF:<10%, Lumen: 7700Lm, Efficiency:>85Lm/W, CCT:5700K,</p>	Nos	25

	<p>CRI:>70, Weight: 4.Kg. Protections: Open & Short Circuit protection, reverse polarity operation & 10KVA Surge protection Device. Test Report: LM79 for luminaire.</p>		
3	<p>Supply and fixing of ISI marked 3.5 core 25mm² Aluminium conductor armored cable of reputed make from pole to pole and up to lighting / AC distribution board.</p> <p>Specification Make: Finolex / KEI Industries / R R Kabel / Havells India/ Universal Cables. Size: 25 mm² Core: 3 ½ Conductor Material: Aluminium Material: PVC Insulated PVC Type: C for inner sheath, ST2 for outer sheath Current rating: 97A Overall Diameter (Strip / Wire): 23.8mm / 22.2mm Min. Insulation of Inner Sheath: 0.3mm Thickness of PVC insulation: 0.9mm/0.7mm Nominal Dimension of Armour (Strip/Wire): 4 x 0.8mm DC Resistance (Max) @ 20⁰C / km: 1.4 Ohms AC Resistance (Max) @ 70⁰C / km: 1.54 Ohms IS: 7098</p>	Mtr	650
4	<p>Supply and laying of ISI marked HDPE Pipes of reputed make with continuous run from pole to pole and up to lighting / AC distribution board as per instruction of Engineer-in-Charge. The HDPE pipe should be brought out of the concrete foundation through the foundation bolts and base plate.</p> <p>Specification Size: 40mm or 1 ¼ inch Type: PE- 63 IS: 4984</p>	Mtr	650
5	<p>Supply & fixing of ISI marked 1.5mm² four (4) Core PVC Insulated Fire retardant Copper Cable from pole MCB/ TB to light fitting of reputed make.</p> <p>Specification Make: Finolex / KEI Industries / R R Kabel / Havells India/ Universal Cables. Size: 1.5 mm² Core: 3 Length: 90-100mtrs/roll Conductor Material: Copper Material: PVC Insulated Current rating: 15A Resistance (Max) / km @ 20⁰ C: 14 Ohms Number/ Nominal Dia of Wire: 30 /0.25mm Nom. Thickness of Insulation: 0.6mm Nom. Thickness of Sheath: 0.9mm Max. Overall Diameter: 8.0 mm IS: 694</p>	Roll	3

PART B: Work			
SL. No	Specification	Unit	Quantity
1	Pole Foundation: Supply of all Materials, labour, T&P and transportation for providing earth work, filling in foundation with clean coarse river sand, PCC (1:3:6) using 40 mm size hard granite stones, M150 grade RCC (1:2:4) using 12mm size hard granite stone chips with centering, shuttering and including supply, cutting, bending, binding, fitting and placing uncoated MS Rod reinforcement complete as per drawing along with binding wire, providing 6mm thick cement plaster finished smooth over RCC Surface, painting two coat of cement paint over one coat of primer and carriage of excavated materials with lead/lift by mechanical means cost, conveyance, royalty taxes etc. all complete as per the direction of Engineer-in-Charge. (Refer Detailed Calculation Below)	Set	25
2	Pipe Laying: Excavation (depth up to 600mm, width: 300mm from pole to pole to control room & back filling with clean coarse river sand / loose soil for laying) for laying of HDPE pipe as per instruction of Engineer-In-Charge and disposal of surplus excavated earth (after back filling) with lead / lift by mechanical means cost, conveyance, royalty taxes etc. all complete	Cum	120
3	Earthing: Pipe earthing including excavation of earth, treatment of bentonite compound, back filling with borrowed earth, termination to street light poles by nut and bolting, apply of paint where necessary with supply of labour and T&P as per IS-3043 and as per direction of Engineer-in-Charge, with cost of earthing pipe (Dia:50mm and Length: 3050mm Medium Gauge) and 8SWG GI Wire to nearest poles	Set	9

VOLUME CALCULATION FOR ONE NUMBER POLE FOUNDATION

1. **Excavation** in first depth: (L x W x H = 1000mm x 1000mm x 1350mm) = 1.35Cum

2. **Sand Filling:** (L x W x H = 1000mm x 1000mm x 50mm) = 0.05Cum

3. **PCC(1:4:8):** (L x W x H = 1000mm x 1000mm x 75mm) = 0.075Cum

4. **RCC(1:2:4):**

Section 1: (L x W x H = 900mm x 900mm x 300mm) = 0.243Cum

Section 2: (L x W x H = 600mm x 600mm x 1200mm) = 0.432Cum

Total: 0.675Cum

5. **MS Rod** of 8Tor @ 100Kg/Cum = 0.675Cum x 100Kg/Cum = 67.5Kg

6. **Back Filling:**

(Total Excavated Volume) ó (Total Concrete i.e. RCC/PCC and sand filled Volume)

= 1.35Cum ó (0.675Cum + 0.075Cum + 0.05Cum)

= 1.35Cum ó 0.8Cum = 0.55Cum