

DEENDAYAL PORT AUTHORITY

(Erstwhile Deendayal/Kandla Port Trust)

Ministry of Ports, Shipping & Waterways, Govt. of India

Mechanical Engineering Department



Office of the Executive Engineer (Electrical), Ground Floor, Nirman Building, New Kandla, Kutch, Gujarat, Pin Code 370210. Email Id: Deepak.hazra@deendayalport.gov.in

No.: EL/AC/2843

Date: 22/07/2024

EXPRESSION OF INTEREST [EOI]

"Providing of Solar Street Lights in the Nagavaladiya Village, Anjar under CSR"

(This EOI is issued to elicit Expression of Interest from the parties interested in the work and does not constitute any binding commitment from the Deendayal Port Authority to proceed with the work or invite any or all the parties in the subsequent bidding process. The Open Tenders will be issued subsequently.)

Executive Engineer (Electrical), DPA invites Expression of Interest for the work of "Providing of Solar Street Lights in the Nagavaladiya Village, Anjar under CSR" from the reputed firms from those who have executed similar work in Government / Public Sector and other leading private organizations. The Expression of Interest (EOI) documents containing details of Scope of Work and Technical Specifications are enclosed herewith.

The interested firms are requested to submit their Expression of Interest (EOI) for the said work in BOQ format as enclosed at Annexure I. The EOI shall be submitted to the office of the undersigned on or before 31/07/2024. A soft copy of EOI is also acceptable through e-mail Id deepak.hazra@deendayalport.gov.in & nikunj.solanki@deendayalport.gov.in

-/sd

Executive Engineer (E)
Deendayal Port Authority

ANNEXURE – I

Sr. No.	Description	Qty.	Unit	Rate	Amount
Part A: Electrical Item					
1	Supply at site 5 meter height Octagonal type Pole as per Technical Specification No. 1	146	No.		
2	Erection of 5 meter height Octagonal type Pole as per Technical Specification No. 2	146	No.		
3	Supply at site all-in-one Solar Street Light as per Technical Specification No. 3	146	No.		
4	Installation, Testing & Commissioning of all-in-one Solar Street Light as per Technical Specification No. 4	146	No.		
5	Providing Pole earthing with 20mm diameter GI Rod as per Technical Specification No. 5	146	No.		
Total of Part A:					
Part B: Civil Items					
1	Providing Civil Foundation for Octagonal Pole as per the technical specification No. 6.	146	No.		
Total of Part B:					
Total of Part A & Part B:					
(In words Rupees _____ only) (NOTE: The rates should be inclusive of all taxes, duties, fees, cess etc and all incidental charges; but exclusive of GST).					
Signature & Seal of Contractor			-/sd Executive Engineer (E) Deendayal Port Authority		

SCOPE OF WORK

Deendayal Port Authority (DPA) is one of the Major Port in India. The Specification is intended to cover the work for Providing of Solar Street Lights in the Nagavaladiya Village, Anjar under CSR. The work shall be executed to the satisfaction of the Engineer in-Charge. The contractor shall arrange all types of tools, tackles, temporary power supply at his own cost for installation, testing & commissioning of the work. The contractor shall submit colored layout drawing of location of Solar Street Light Poles in two set hard copy & a soft copy after completion of the work.

TECHNICAL SPECIFICATION

Technical Specification No. 1:

This item includes supply at site 5-meter height GI Octagonal Pole at site. The pole shaft shall be made from sheet steel confirming to BSEN 10025 S355. The pole shaft shall have octagonal cross section and shall be continuously tapered with single longitudinal welding. There shall not be any circumferential welding. The welding of pole shaft shall be done by Submerged Arc Welding (SAW) process. Octagonal pole shaft shall be provided with the rigid flange plate manufactured from MS FE410 confirming to IS: 2062 with provision for fixing 4 foundation bolts. This base plate shall be fillet welded to the pole shaft at two locations i.e. from inside and outside. The Octagonal Pole shall be in single section. There shall also be a cleat of size 40mm x 40mm x 4mm for the purpose of Earthing for the Pole.

The Pole shall be hot dip galvanized as per Indian Standard with minimum average coating thickness of 85 microns. The galvanizing shall be done in single dipping.

The dimensions of the Octagonal Pole shall be as below:

- | | | |
|---------------------------|---|--|
| 1. Total Height | : | 5000 mm |
| 2. Top A/F | : | 70 mm |
| 3. Bottom A/F | : | 130 mm |
| 4. Sheet Thickness | : | 3 mm |
| 5. Base Plate size | : | 200 mm × 200 mm × 12 mm |
| 6. PCD | : | 200 mm |
| 7. Foundation Bolt | : | J – Bolt, 4 Nos. M16, 600 mm Bolt Length |
| 8. Anchor Plate Thickness | : | 3 mm |

All MS parts including hardware shall be hot dip galvanized as per Indian Standard. The manufacturer of the Octagonal Pole shall have ISO 9001 certification for manufacturing of the Octagonal Pole.

The contractor shall provide suitable nipple/arrangement at top of the Pole for installation of all-in-one Solar Street Light.

The rate shall be inclusive of all the taxes (excluding GST), insurance, packing, forwarding, transportation & unloading at site as directed by Engineer in-Charge.

Technical Specification No. 2:

This item includes erection of the supplied 5m Octagonal Pole on the constructed Pole Foundation. The Pole shall be bolted on the Pole Foundation with a set of four foundation bolts. The work includes all material, labour, tools & tackles as directed by Engineer in-Charge.

Technical Specification No. 3:

This item includes supply at site all-in-one Solar Street Light. The Technical Specification of all-in-one Solar Street Light is as below:

Sr. No.	Description	Specification
1	Light	
1.1	Luminous Flux (at System Level)	≥ 2000 lm
1.2	Luminous Efficacy	≥ 150 lm/W
1.3	Correlated Color Temperature	5700 K to 6500 K
1.4	Color Rendering Index (CRI)	≥70
1.5	Makes of LEDs	Osram, Cree, Lumileds, Nichia, Seoul.
1.6	Specification of LED	SMD type with wattage of each LED should be > 1 Watt and ≤ 3 Watt.
1.7	Material of optics	PC lens with toughened glass cover. The LEDs should be provided with UV resistant lens/glass cover for avoiding yellowing of the lense/glass cover. Or Exposed lensed PC Lens plate, the LEDs should be provided with anti-dust, UV resistant exposed lens for avoiding any dust & dirt accumulation on the fixtures and yellowing of the lenses.
2	Solar Panel	
2.1	Type	Mono Crystalline
2.2	Peak Wattage	≥ 30 Wp
3	Battery	
3.1	Type	Lithium Ferro Phosphate
3.2	Ampere Hour	≥ 6 Ah
3.3	Voltage	12.8 V
3.4	Charging & Discharging Cycle	≥ 2000
3.5	Location	Inbuilt
4	Charge Controller	
4.1	Type	MPPT (Maximum Power point Tracking)
4.2	Efficiency	≥ 90%
5	Dimming Profile	First 2 hours from dusk 100% with motion, 30% without motion. Next 3 hours 60% with motion, 20% without motion. Next 6 hours 30% with motion, 10% without motion.

		Next until dawn 50% with motion, 30% without motion.
6	Construction	Aluminium
7	Finishing	Corrosion resistant powder coating
8	Working Temperature Range	0°C to +90°C
9	Working Humidity	10% to 90% RH
10	Ingress Protection	IP65
11	Impact Resistance	IK08
12	Low Voltage Indication	Red LED
13	Charging Indication	Green LED
14	Protection	(a) Over charge Protection, (b) Deep discharge Protection, (c) Over current Protection, (d) Short circuit Protection, (e) Over voltage Protection
15	Warranty	5 Years for all-in-one Solar Street Light (Complete Fixture including LED Light, Solar Panel, Battery, Charge Controller, Sensor etc.) from the date of completion of work. During Warranty Period, if the material is found to be defective or has poor performance, the contractor shall promptly, Replace the material against manufacturing defects /Rectify the material, on receiving the instruction from Engineer in-Charge at contractor's cost. The contractor shall have final & total single point responsibility for performance of the supplied all-in-one Solar Street Light.
16	Certificate/Report	(1) Test Report of Solar Panel. (2) Test Report of Battery. (3) Test Report of LED Fixture. (4) LM79 Test Report issued by any NABL accredited laboratory. (5) Test Report of MPPT Controller. (6) LM80 Test Report (7) BIS Certificate for all-in-one Solar Street Light. Contractor shall submit all the above certificate/report for the Solar Street Light at the time of supply of material.

The rate shall be inclusive of all taxes (excluding GST), insurance, transportation, unloading at site as directed by Engineer in-Charge.

Technical Specification No. 4:

This item includes fixing & commissioning of supplied all-in-one Solar Street Light. The Solar Street Light shall be fixed on top of the 5m Octagonal Pole. The work includes all material, labour, tools & tackles as directed by Engineer in-Charge.

Technical Specification No. 5:

This item includes providing of Pole earthing with GI earthing Rod of 20mm diameter and 1.2 meter length. The Earth rod shall be buried & installed nearby the Lighting Pole as directed by Engineer in-Charge. The GI earthing rod shall be connected to the earthing stud of the Street Light Pole by providing required length of 25×3mm GI earthing Strip with necessary clamps, nuts & bolts. The work includes all material, labour, tools & tackles as directed by Engineer in-Charge.

Technical Specification No. 6:

The contractor shall construct civil foundation for 5m Octagonal Pole as per the drawing provided at Annexure – II. At the bottom of pit 50mm of sand layer shall be provided and over that 50mm CC of 1:4:8 mix shall be provided. The provision of Pole Foundation shall be executed well in advance and sufficient curing shall be given after completion of concrete works. The Pole Foundation shall be carried out in accordance with the best standards of workmanship and to the entire satisfaction of the Civil Engineering Department, DPA. The decision of the Civil Engineering Department will be final and binding on the contractor with regard to the quality and suitability of the materials for Pole Foundation. The Pole Foundation work shall be executed under supervision of Civil Engineering Department, DPA.

List of Approved Materials/Makes for Civil Items:

Specification/brand names of materials (Refer materials, whichever are applicable for the scope of work) and finishes approved are listed below. However, approved equivalent material and finishes of any other specialized firms may be used with the approval of the alternate brand by the Engineer in-Charge.

Sr. No.	Material	Approved Make
1	Cement	Ultratech, Birla, Ambuja, Sanghi, J K Laxmi
2	Reinforcement Bars	TATA, SAIL, RINL, JSW, JSPL
3	Structural Steel	TATA, SAIL, RINL, JSW, JSPL
4	Mechanical Splicing – Couplers	Dextra, Bartec or equivalent
5	Admixtures for Concrete	BASF, FOSROC, SUNANDA, CEARA, SIKA or its equivalent
6	Concrete Penetrating Corrosion Inhibiting Admixture	POLYALK CP-293, PCO KP-200 or Equivalent
7	Protective coat for Concrete Surface - Exposed to UV	Licensed suppliers of Interpenetrating Polymer Network Coating System (IPNet)

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Signature & Seal of Firm

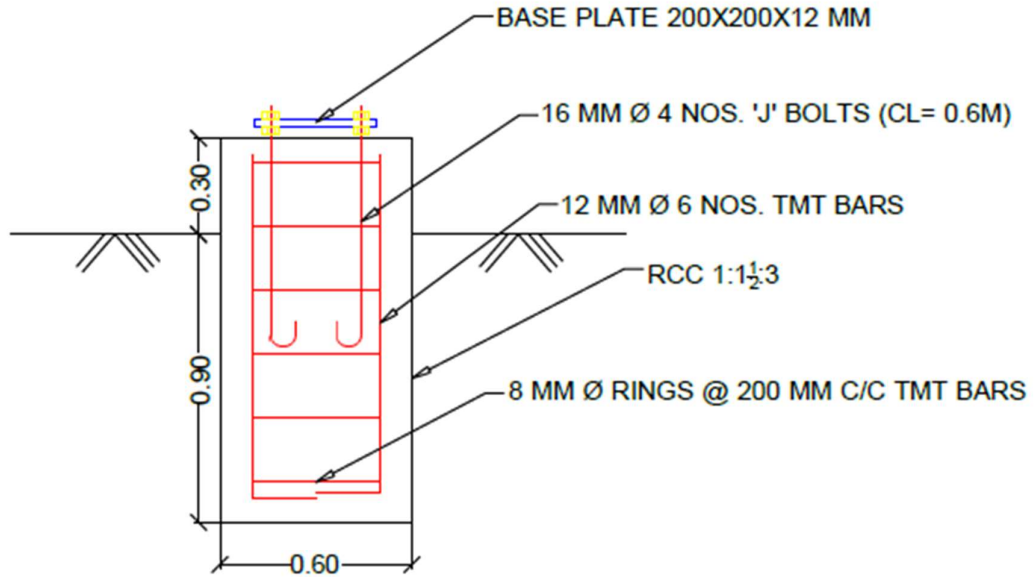
Executive Engineer (E)
Deendayal Port Authority

Approved Make List of Electrical Items		
Sr. No.	Description	Recommended Makes
1	HV VCB	Siemens/ Crompton Greaves/ ABB/ Schneider
2	HV Gas Insulated Breaker	Siemens/ Schneider/ ABB
3	Power Transformer	Voltamp/ Crompton Greaves/ Bharat Bijlee/ BHEL/ Siemens/ ABB/ Schneider/ T&R
4	Distribution Transformer	EMCO/ Kirloskar/ Patson/ Voltamp/ ABB/ Schneider/ T&R
5	Resin Cast Transformer	Voltamp/ Kirloskar/ EMCO
6	Dry Cast Transformer	Voltamp/ Kirloskar/ EMCO
7	HT XLPE Cable	Polycab/ Torrent/ RPG Asian/ Gloster/ Unistar
8	LT XLPE Cable	Polycab/ Torrent/ RPG Asian/ Rallison/ Primecab/ Havells/ Unistar/ Avocab/ Allcab/ Adcab
9	LT ACB	Siemens/ L&T/ Schneider Electric/ C&S
10	Protection Relay	Areva/ L&T/ Siemens/ ABB/ C&S
11	LT Panel	CPRI Approved
12	Changeover Switch	Siemens/ L&T/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian
13	SFU for Main LT Distribution Panel	Siemens/ L&T/ ABB/ C&S
14	SFU for Distribution Panel & Feeder Pillar	Siemens/ L&T/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian/ Havells
15	MCCB for Main LT Distribution Panel	Siemens/ L&T/ ABB
16	MCCB for Distribution Panel & Feeder Pillar	Siemens/ L&T/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian/ Havells
17	MCB/ELCB/RCCB/RCCBO for Main LT Distribution Panel	Siemens/ Hager/ L&T/ ABB
18	MCB for Distribution Panel & Feeder Pillar	Siemens/ L&T/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian/ Havells/ Standard
19	Distribution Board	Standard/ Hensel/ Legrand/ Indoasian/ Havells

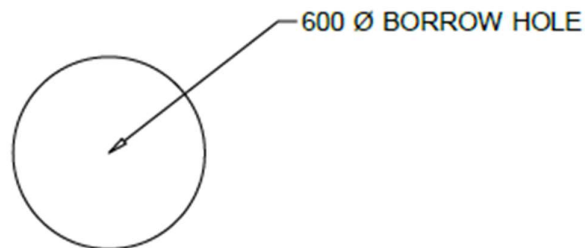
20	Multi-Function Digital Meter for Main LT Distribution Panel/ Digital kWh Meter	L&T/ Enercon/ Secure/ L&G/ Rishabh
21	Analog Volt/Ampere Meter for Distribution Panel & Feeder Pillar	Rishabh/ AE/ Enercon/ L&T
22	Selector Switch for Voltmeter/Ampere Meter	L&T/ Siemens/ C&S
23	Power Contactor & Overload Relay	L&T/ Siemens/ ABB
24	Quartz Time Clock Switch	L&T/ Indoasian/ Siemens
25	PVC Wire with Copper Conductor	RR Kabel/ KEI/ Polycab/ Milex/ Gujcab/ Standard/ Finolex/ Anchor
26	Flush type Switch, Socket, Holder, Ceiling Rose & Electronic Regulator	Anchor/ MK/ Northwest/ Vinay/ Panama/ Havells
27	Bells/ Call Bells	Anchor/ Legend/ MK/ Northwest
28	Modular Switch, Socket, Plate & Box	Anchor/ MK/ Northwest/ Legrand/ Havells/ Indoasian/ Siemens
29	PVC Conduit/ Oval Conduit & Casing Capping and Accessories	Precision/ Vulcan/ Finolex/ Garware/ Restoplast/ Swastik/ BPI
30	Lamp & Fluorescent Lamps	Philips/ Bajaj/ Wipro/ Crompton/ Osram/ Surya Roshni/ GE
31	HPMV & Metal Halide Lamps	Philips/ Bajaj/ Wipro/ Crompton/ Osram/ Surya Roshni/ GE
32	Ignitor for HPSV & Metal Halide Lamps	Philips/ Bajaj/ Wipro/ Crompton/ Osram/ Surya Roshni/ GE
33	Luminaries	Philips/ Bajaj/ Wipro/ Crompton/ Osram/ Surya Roshni/ GE
33	LED Luminaries	Philips/ Bajaj/ Wipro/ Crompton/ Surya/ Pyrotech/ Syska/ Nessa having Surge Protection $\geq 10\text{kV}$ for Fittings & Internal Surge Protection for Driver of $\geq 4\text{kV}$, LED Chip of only OSRAM/ CREE/ Philips Lumileds/ Citizen/ Nicia, with LM79 & LM80 Certification
34	Ceiling Fan	Bajaj/ Orient/ Usha/ Crompton/ Almonard/ GEC

35	Wall mounting Fan	Bajaj/ Orient/ Usha/ Crompton/ Almonard/ GEC
36	Exhaust Fan	Bajaj/ Orient/ Usha/ Crompton/ Almonard/ GEC
37	Heavy duty Industrial Wall mounting Fan	Bajaj/ Orient/ Usha/ Crompton/ Almonard/ GEC
38	Water Cooler	Voltas/ Usha/ Blue Star
39	Air Conditioner	Voltas/ Carrier/ Blue Star/ Usha/ Hitachi/ LG/ Samsung/ Onida
40	Refrigerator	Voltas/ Carrier/ Blue Star/ Usha/ Hitachi/ LG/ Samsung/ Whirlpool
41	Voltage Stabilizer	Veeline/ Capri
42	Inverter	Sukam/ Microtek
43	Engine for D.G. Set	Cummins/ Greaves/ Kirloskar/ Caterpillar/ Ashok Leyland/ Volvo
44	Alternator for D.G. Set	Stamford/ Crompton Greaves/ Jyoti/ Kirloskar Electric
45	Electric Motor	Alstom/ Crompton Greaves/ Siemens/ Kirloskar/ ABB
46	Water Pump	Swastik/ KSB
47	Water Geyser	Bajaj/ Usha/ Crompton Greaves/ Spherehot/ Racold
48	Lug & Cable Glands	Dowells/ Jainson/ Braco

Drawing for Civil Foundation of Octagonal Pole:



CROSS - SECTION



FOUNDATION PLAN

Signature & Seal of Firm

-/sd
Executive Engineer (E)
Deendayal Port Authority

TERMS AND CONDITIONS

1. Time Schedule: The work shall be completed within 120 days from the date of issue of Work Order.
2. The contractor shall install display board at site of work indicating the details of the work such as name of the work, name of contractor, scheduled date of start & completion of work, value of work etc. at his own cost.
3. The bidder, at his own responsibility and risk is encouraged to visit and examine the site of work and its surroundings and obtain all information that may be necessary for preparing the Bid. The costs of visiting the site shall be at the Bidders' own expense.
4. DPA will award the work to the bidder whose bid has been evaluated to be techno – commercially responsive and the lowest evaluated amount bid.
5. Work shall be guaranteed for 12 months from the date of completion of the work.
6. The rates should be quoted in figures and words both. In case of difference in figure & words, the rate mentioned in words will be considered.
7. The Party shall affix SEAL along with SIGNATURE in the EOI.
8. The work shall be carried out in accordance with the best standards of workmanship and to the entire satisfaction of the Engineer in-Charge.
9. Security Deposit @ 5% recovered from the bill and the SD can be released only after successful completion of guarantee period.
10. Payments Terms:
 - i) 70% payment will be released after receipt of material at site in good condition, after obtaining insurance cover as per tender condition and after inspection & certification of the same by Third Party Inspection Agency appointed by DPA and after inspection & acceptance of material by DPA.
 - ii) 20% of item rate after completion of erection, installation, testing and commissioning etc. and 90% of item rate for item covers only laying/fixing etc. (TPI appointed then after inspection & certification of the same by Third Party Inspection Agency).
 - iii) 10% will be released after successful completion of whole work (TPI appointed then after inspection & certification of the same by Third Party Inspection Agency) and handing over to DPA.All payments shall be made in Indian rupees unless specifically mentioned
11. All Payment will be made by RTGS only after satisfactory completion of work and submission of duly signed bill.
12. The contractor shall not deposit any materials at such a place that may cause inconvenience to the public or nearby offices.
13. The Contractor shall execute the work in such a way that not to cause inconvenience to the public or nearby offices and not to cause hindrance to traffic. Necessary barricading shall be done by the contractor at his own cost if required.
14. Income-tax and surcharge as applicable will be deducted from the bill while making payment to the contractor for carrying out the work and only net amount shall be paid to the contractor.

15. All tools, plants, scaffolding, ladder etc. and other machinery etc. required temporary for the purpose of execution of work will have to be arranged by the contractor at his own cost and storing of such tools, plants etc. will have to be made by him.
16. All the materials should be got approved from Engineer-in-Charge before put into use.
17. Correction if any should be signed / initialed by the contractor. White ink correction will not be allowed and lead to rejection of EOI.
18. All the rules and regulations governing DPA will be applicable.
19. After completion of the work, the site should be neatly cleaned by the contractor.
20. The contractor shall ensure not to cause any damages to the properties in the vicinity of work site during execution of work. If any damage occurs due to workmen/ machinery of the contractor, the contractor has to make good the loss / damage at his cost.
21. The contractor shall quote the price exclusive of GST. The contractor shall quote prevailing GST rate separately, which shall be reimbursed by DPA after ascertaining necessary compliance as per Goods & Service Tax, 2017. All other duties, taxes, cesses applicable if any, shall be borne by the contractor.

Income-Tax deductions and surcharge as applicable thereon shall be made good while making payments due to the contractor for carrying out the work and only net amount shall be paid as directed by the Central Board of Direct Taxes, Ministry of Finance, Government of India.

The rates quoted by the contractor shall be deemed to be inclusive of the taxes, duties etc. which the contractor will have to pay for the performance of this contract, except GST. The employer will perform such duties in regard to the deduction of such taxes at sources as per applicable law.

22. All the work shall be carried out to the entire satisfaction of Engineer in-Charge.

Signature & Seal of Firm

-/sd
Executive Engineer (E)
Deendayal Port Authority