



**DEENDAYAL PORT AUTHORITY**

ISO 9001:2008 | ISO 14001 | ISPS Compliant Port



Office of Executive Engineer (Electrical), Ground Floor, Nirman Building, New Kandla, Kutch, Pin Code 370210.

No.: EL/WK/2859

Date: 09/12/2024

**EXPRESSION OF INTEREST [EOI]**

**"Design, Supply, Installation, Testing & Commissioning of Solar Street Light (LED Base) from KK Road to 8<sup>th</sup> Oil Jetty Substation, Kandla"**

(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 "Design, Supply, Installation, Testing & Commissioning of Solar Street Light (LED Base) from KK Road to 8<sup>th</sup> Oil Jetty Substation, Kandla" from the reputed firms from those who have executed similar work in Government/public sectors 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 for the said work in BOQ format as enclosed at Annexure I. The completed EOI (Expression of Interest) shall be submitted to the office of the undersigned on or before **19/12/2024**. A soft copy of EOI is also acceptable through e-mail Id [anantrao.kumthekar@deendayalport.gov.in](mailto:anantrao.kumthekar@deendayalport.gov.in) & [Deepak.hazra@deendayalport.gov.in](mailto:Deepak.hazra@deendayalport.gov.in) .

-/sd

Executive Engineer (E)  
Deendayal Port Authority

Name of Work: Design, Supply, Installation, Testing & Commissioning of Solar Street Light (LED Base) from KK Road to 8<sup>th</sup> Oil Jetty Substation, Kandla.

**Annexure - I**

Sr. No	Item Description	Qty	Unit	Rate	Amount
1	Design, Supply of 9 Mtr dual arm octagonal pole & Solar LED Street Light as per Technical Specification No. 1.				
	(a) 9 Mtr Hot dip galvanized dual arm octagonal pole	350	Nos.		
	(b) 150W and above Solar LED Street Light as per Design(Cool White) all in one	700	Nos.		
2	Installation, Testing & Commissioning of 9 Mtr. dual arm Octagonal Pole & Solar LED Street Light as per Technical Specification No. 2.				
	(a) 9 Mtr Hot dip galvanized dual arm octagonal pole	350	Nos.		
	(b) 150W and above Solar LED Street Light as per Design(Cool White) all in one	700	Nos.		
Total					
(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 Firm			-/sd Executive Engineer (E) Deendayal Port Authority		

## **SCOPE OF WORK & TECHNICAL SPECIFICATION**

Deendayal Port Authority (DPA) is one of the Major Port in India. The Specification is intended to cover the work for Design, Supply, Installation, Testing & Commissioning of Solar Street Light (LED Base) from KK Road to 8th Oil Jetty Substation at 8th Oil Jetty, Kandla. 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 quantity mention in Annexure – I is for reference only, however contractor has to design at his own for achieving **50 lux** on road. The contractor shall submit colored layout drawing of location of Solar Street Light Poles in four sets hard copy & a soft copy after completion of the work. As DPA has faced numbers of cyclone in last many years, hence the design shall be considered with wind speed on 200Km/h.

The Pole Foundation work shall be executed under supervision of 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.

### **TECHNICAL SPECIFICATION**

#### **Technical Specification No. 1:**

##### **(A) Supply of 9 Mtr Hot Dip Galvanized dual arm octagonal pole:**

General Specifications: Supply of 9Mtr Hot Dip Galvanized Street Light Octagonal Pole with Foundation Type Base Plate & Foundation Bolts (Dimensions for pole as Top Diameter 100 mm, Bottom Diameter 200 mm, Section Length- 9000 mm, Thickness-4 mm, Foundation Type Base Plate (250X250X20 mm), Foundation Bolts (M24 X 700/750 MM4Nos). with dual type arm bracket as per design , suitable for Solar LED street light fitting.

Pole Shaft: The pole shaft shall be made from sheet steel conforming to BSEN 10025. The pole shaft shall have octagonal cross section and shall be continuously tapered with single longitudinal welding. There shall not be any circumferential welding. All octagonal pole shafts shall be provided with the rigid flange plate of suitable thickness as per design with latest IS standard 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 apart from same gusset shall also be provided.

Dimension: Pole Top Diameter 100 mm, Bottom Diameter 200 mm, Section Length- 9000 mm, Thickness-4 mm Base Plate (250X250X20 mm), Foundation Bolts (M24 X 700/750 MM-4Nos)

Material: Octagonal Poles -Steel Grade BSEN 10025 - S355J0 or Equivalent Base Plate Fe 410 conforming to IS 226 / IS 2062

Pole Sections: The Octagonal Poles shall be in single section. There shall not be any circumferential weld joint.

Galvanization: The poles shall be hot dip galvanized as per relevant Indian standards with average coating thickness of minimum 100 micron and above.

Fixing Type: The Octagonal Poles shall be suitable for bolting on a foundation with a set of four foundation bolts for greater rigidity.

Bracket for fixing Solar luminaire of 150 and above as per Design: The brackets shall be made of specified size G.I heavy duty pipe with minimum 1500 mm long and minimum 48 mm dia with necessary holding brackets or as per design, hold fasts etc suitable for LED light mounting.

Documentation: Pole drawing along with details of baseplate, foundation bolts and foundation details (RCC) shall be submitted along with offer

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.

**(B) Supply of 150W and above Solar LED Street Light as per Design (Cool White) all in one:**

<b>Sr. No.</b>	<b>Description</b>	<b>Specification for 150 W and above</b>
<b>1</b>	<b>Light</b>	
1.1	Luminous Flux (at System Level)	≥ 20300 Lm
1.2	Luminous Efficacy	≥ 135 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	As per Design
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.
<b>2</b>	<b>Solar Panel</b>	
2.1	Type	Topcon / Polycrystalline
2.2	Peak Wattage	≥ 42
<b>3</b>	<b>Battery</b>	
3.1	Type	Lithium Ferro Phosphate
3.2	Ampere Hour	≥ 100Ah
3.3	Voltage	25.6 V
3.4	Charging & Discharging Cycle	≥ 2000
3.5	Location	Inbuilt
<b>4</b>	<b>Charge Controller</b>	
4.1	Type	MPPT (Maximum Power point Tracking)
4.2	Efficiency	≥ 95%
5	Dimming Profile	1st 1 Hrs 100W , Next 4 Hrs Full 150W, Next 5Hrs 70W , Last 2 Hrs Full 120W Or as per Design.

6	Construction	Aluminium
7	Finishing	Corrosion resistant powder coating
8	Working Temperature Range	-10 Deg. C to +55 Deg. C
9	Working Humidity	10% to 95% RH
10	Ingress Protection	IP65
11	Impact Resistance	IK07
12	Low Voltage Indication	Red LED
13	Charging Indication	Green LED
14	Protection	<ul style="list-style-type: none"> <li>• Over charge Protection,</li> <li>• Deep discharge Protection,</li> <li>• Over current Protection,</li> <li>• Short circuit Protection,</li> <li>• Over voltage Protection</li> </ul>
15	Warranty	<p>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.</p> <p>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.</p> <p>The contractor shall have final &amp; total single point responsibility for performance of the supplied all-in-one Solar Street Light.</p>
16	Certificate/Report	<ul style="list-style-type: none"> <li>• Test Report of Solar Panel.</li> <li>• Test Report of Battery.</li> <li>• Test Report of LED Fixture.</li> <li>• LM79 Test Report issued by any NABL accredited laboratory.</li> <li>• Test Report of MPPT Controller.</li> <li>• LM80 Test Report.</li> <li>• BIS Certificate for all-in-one Solar Street Light.</li> </ul> <p>Contractor shall submit all the above certificate/report for the Solar Street Light at the time of supply of material.</p>

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

**Technical Specification No. 2:**

- (A) This item includes erection of the supplied 9m dual arm Octagonal Pole on the constructed Pole Foundation. The pole shall be erected at site in plumb, however if any minor deviation is there proper washers shall be provided in the bolt to remove the deviations. The pole shall be bolted on the Pole Foundation with a set of four foundation bolts. The work includes 04 Nos. Anchor bolt of size 20mm dia and 750mm long J bolt along with 02 Nos. Nuts & flat washer with RCC Foundation 450mm X 450mm X 1800mm, dip having 200mm PCC of ratio 1:4:8 below RCC and, all material, labour, tools & tackles as directed by Engineer in-Charge.
- (B) This item includes fixing & commissioning of supplied all-in-one Solar Street Light. The Solar Street Light shall be fixed on top of the 9m Dual Octagonal Pole. The work includes all material, wiring, testing, aiming, labour, tools & tackles etc, as directed by Engineer in-Charge.

Signature & Seal of Firm

-/sd  
Executive Engineer (E)  
Deendayal Port Authority

**Approved Make List of Electrical Items**

<b>Sr. No.</b>	<b>Description</b>	<b>Recommended Makes</b>
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/ LK E&A/ Schneider Electric/ C&S
10	Protection Relay	Areva/ LK E&A/ Siemens/ ABB/ C&S
11	LT Panel	CPRI Approved
12	Changeover Switch	Siemens/ LK E&A/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian
13	SFU for Main LT Distribution Panel	Siemens/ LK E&A/ ABB/ C&S
14	SFU for Distribution Panel & Feeder Pillar	Siemens/ LK E&A/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian/ Havells
15	MCCB for Main LT Distribution Panel	Siemens/ LK E&A/ ABB
16	MCCB for Distribution Panel & Feeder Pillar	Siemens/ LK E&A/ ABB/ C&S/ Schneider Electric/ Legrand/ Indoasian/ Havells
17	MCB/ELCB/RCCB/RCCBO for Main LT Distribution Panel	Siemens/ Hager/ LK E&A/ ABB
18	MCB for Distribution Panel & Feeder Pillar	Siemens/ LK E&A/ 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	LK E&A/ Enercon/ Secure/ L&G/ Rishabh
21	Analog Volt/Ampere Meter for Distribution Panel & Feeder Pillar	Rishabh/ AE/ Enercon/ LK E&A

22	Selector Switch for Voltmeter/Ampere Meter	LK E&A/ Siemens/ C&S
23	Power Contactor & Overload Relay	LK E&A/ Siemens/ ABB
24	Quartz Time Clock Switch	LK E&A/ 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/ Havells having Surge Protection $\geq$ 10kV for Fittings & Internal Surge Protection for Driver of $\geq$ 4kV, 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/ Spherohot/ Racold
48	Lug & Cable Glands	Dowells/ Jainson/ Braco

**Signature & Seal of Contractor**

**-sd/  
Executive Engineer (E)  
Deendayal Port Authority**

## **TERMS AND CONDITIONS**

- (1) **Time Schedule: The work shall be completed within 180 days from the date of issue of Work Order.**
  - (2) **Bidder shall be Authorized Channel Partner/Dealer/Contractor for executing of Solar LED Lights of 150W and above.**
  - (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 contractor shall affix SEAL along with SIGNATURE in the Offer.
  - (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:**
    - 50% 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.
    - 50% payment will be released after successful completion of whole work (if 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) 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 staff or nearby offices.
  - (13) The Contractor shall execute the work in such a way that not to cause inconvenience to the public or staff or nearby offices and not to cause hindrance. 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 the materials should be got approved from Engineer-in-Charge before put into use.
  - (16) All the rules and regulations governing DPA will be applicable.
  - (17) After completion of the work, the site should be neatly cleaned by the contractor.
  - (18) The contractor shall ensure not to cause any damages to the port 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.

- (19) For Entry & exist of material and contractor personnel, pass shall be arranged by firm.
- (20) 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.

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

**Signature & Seal of Contractor**

**-sd/  
Executive Engineer (E)  
Deendayal Port Authority**

