

DEENDAYAL PORT AUTHORITY

An ISO 9001:2008 & ISO 14001:2004 Certified Port

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**Office of the Executive Engineer (E)
Ground Floor, P & C Building,
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No.: HW/WK/____-EL.Part/____

Date: 21/04/2023

EXPRESSION OF INTEREST

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

To,

_____.

Sub: "EOI Construction of toilet and rest rooms in CJ 13/16 area -
Electrification work thereof."

Sir,

You are requested to submit Expression of Interest for "EOI Construction of toilet and rest rooms in CJ 13/16 area - Electrification work thereof." as per schedule-B, Scope of Work and Terms & Conditions.

The Expression of Interest should reach to this office on or before 27/04/2023.

Yours faithfully

Sd/-
Executive Engineer (E)
Deendayal Port Authority

Name of Work: - "Construction of toilet and rest rooms in CJ 13/16 area.-
Electrification work thereof."

Schedule-B

Sr. No.	Description	Qty	Unit	Rate	Amount
1	Supply of 4 Core X 25 SQ.MM. 1.1 KV LT XLPE Insulated, , cores laid up PVC Inner sheathed, armoured, with extruded PVC Aluminium conductor cable as per IS-7098(Part I) 1988 with up to date amendment.	500	Mtr.		
2	Laying of single length LT armoured aluminium conductor XLPE cable of 1.1kV grade of size 4 core, 25 Sq.mm through excavation in hard/soft soil. The trench to be excavated of 300 mm width & 1 meter depth. The cable shall be laid through DWC pipe of suitable size. Necessary coupler shall be provided for coupling of DWC pipe during the laying of cable through DWC pipe. The filling of the trench shall be done with the excavated stuff & should be watered and rammed properly to its original position. The excess excavated stuff shall be disposed off from the Site of work and spreaded in low laying area as directed. This includes all labour and material as directed by Engineer in-Charge.	500	Mtr.		
3	<p>Design, supply, installation, testing & commissioning of outdoor type feeder Pillar panel. The Feeder Pillar shall be outdoor pedestal type with double door, handle with locking arrangement and top canopy. The Feeder Pillar shall be of suitable size; however, it shall be specious for easy maintenance. The minimum size of the Feeder Pillar shall be 750mm×500mm×300mm.</p> <p>The Feeder Pillar shall have following features:</p> <p>1)Protection Class: IP 65.</p> <p>2)Impact Resistance: IK 10</p> <p>3) Feeder pillar sheet thickness shall be minimum 2.5 mm. of M.S. material and shall be powder coated.</p> <p>All panel edges and door edges shall be reinforced against distortion. Cut outs shall be</p>	02	Each.		

	<p>true in shape and devoid of sharp edges.</p> <p>The complete structure shall be rigid, self-supporting free from vibration, twists & bends.</p> <p>Finished painted appearance of equipment shall present an aesthetically, pleasing appearance, free from dents and uneven surfaces.</p> <p>The feeder pillar panel shall be provided with following electrical items:</p> <p>1) Incomer – 4 Pole MCCB, 63A, 30 kA, 50Hz (with Thermal Magnetic Release): 1 No.</p> <p>2) Outgoing – 4 Pole MCB, 32A, C curve 10 kA, 50Hz: 1 No.</p> <p>3) Outgoing – 4 Pole MCCB, 16A, C curve 10 kA, 50Hz: 1 No.</p> <p>4) Wiring: Internal with complete wiring with suitable size of flexible copper</p> <p style="padding-left: 40px;">cable for I/c to O/g, suitably bind with proper gap as per IS.</p> <p>5) Digital Multi-Function Energy Meter (Accuracy Class 1): 1 No.</p> <p>6) 63/5 Amp CT (Class 1): 3 Nos.</p> <p>The test certificate from the NABL accredited laboratory for the Energy Meter shall submitted along with supply of Panel. Test certificates for the CTs shall also be submitted along with supply of Panel.</p> <p>The panel shall be complete in all respects having interconnection with PVC insulated cable single core, standard copper conductor of 650/1100V grade. The cable entry and exit shall be from bottom of the feeder pillar.</p> <p>The panel shall be provided with 2 Nos. GI terminals for earthing. Before placing the order for manufacturing the panel drawing should be approved by Engineer in charge showing the arrangement of the electrical components and should fulfil the needs of IE rules. The Feeder Pillar shall be manufactured from type test certificate holder for Feeder Pillar of similar or above rating. The contractor shall</p>				
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	submit the test report of the Feeder Pillar at the time of supply of Panel. Necessary civil foundation work shall be carried out by the contractor for installation of feeder pillar. The feeder shall be installed at 600 mm height above the ground level.				
4	Supply of 8 way double door SPN DB with IP42 degree of protection. The DB shall be made from special grade of CRCA sheet and powder coated. The DB shall be fitted with Busbar, DIN Rail and neutral link. The rates shall be excluding the cost of MCB.	6	EA.		
5	Fixing & commissioning of supplied 8 way double door SPN DB on wall / structure as directed. The DB shall be fixed rigidly on wall through suitable size of nut bolts/anchor fasteners/cemented wooden gutties as directed. This includes necessary wiring, connections & earth linking with all material, labour tools & tackles as directed by Engineer-In-charge.	6	EA.		
6	Supply of 32A, 415/440V, 4P (DP) MCB The MCBs shall be of DIN Rail mounted 'C' Series with 10kA Breaking Capacity. The supplied MCB shall be conform to relevant IS.	6	EA.		
7	Fixing & commissioning of supplied TPN MCB in existing SPN double door DB on wall / structure. The MCB shall be fixed on DIN Rail provided in existing DB. This includes necessary 1 Φ / 3 Φ wiring, connections, distribution & earth linking of DB with all material, labour tools & tackles as directed by Engineer-In-charge.	6	EA.		
8	Supply of 6 -32 A 230/250V SP MCB The MCBs shall be of DIN Rail mounted 'C' Series with 10kA Breaking Capacity. The supplied MCB shall be conform to relevant IS.	24	EA.		
9	Fixing of supplied SP MCB in existing SPN double door DB on wall / structure. The MCB shall be fixed on DIN Rail provided in existing DB. This includes necessary 1 Φ / 3 Φ wiring, connections, distribution & earth linking of DB with all material, labour tools & tackles as	24	EA.		

	directed by Engineer-In-charge.				
10	Providing & fixing following concealed wiring for single phase sub-circuit from the main switch /meter/DBs /MCBs to the switch board/street light with 2x2.5 Sq.mm. copper conductor to be used as phase & neutral and bare copper wire as earthing as per Technical Specification No. 8	1100	Mtr.		
11	Providing and Fixing concealed wiring for light/tube/ point with PVC insulated single core standard 1.5 Sq.mm. copper conductor wire as per Technical Specification No.9	160	Nos.		
12	Providing and Fixing concealed wiring for Fan point with PVC insulated single core standard 1.5 Sq.mm. copper conductor wire & single/twin module step cut electronic fan regulator as case may be as per Technical Specification No. 10	10	Nos.		
13	Providing & fixing concealed wiring for Power point with Flame Retardant, 1100 Voltage grade, single core stranded copper conductor wire of size 4.0 sq. mm. for phase & neutral wire and 2.5 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe of size 25 mm Diameter of Medium Mechanical Strength (MMS) type and other accessories such as Tee, junction box, inspection bends, elbow etc. of approved make. The proper size of grew shall be prepared by contractor on wall/ceiling as case may be & the conduit pipe shall be laid through prepared grew and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe in prepared grew the grew shall be closed with mixture of cement & sand and to match with existing surface of wall/ceiling. The work consists providing & fixing of 5 in 1 combined unit suitable for 1 with switch, socket, fuse & indicator with ISI mark. The PVC box of suitable size shall be embedded properly in the wall and the combined unit shall be fixed on embedded PVC box. The complete work consists necessary wiring connections and	02	Nos.		

	earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.				
14	<p>Supply of 70W LED pre-wired Street Light Fitting with constant current LED driver. Operating voltage for luminaries shall be 230 Volts 50Hz. A.C. supply. The rate shall inclusive of all taxes, packing, forwarding, insurance, transportation and unloading at site of work etc. excluding GST. The luminaries shall be comprising with following Technical particulars.</p> <p>Technical Specifications of LED Street Light</p> <p>Sr. N Parameters Requirement</p> <ol style="list-style-type: none"> 1) Rated System Wattage (Watts) 70Watt 2) Optical Assembly High Power Discreet LEDs with individual Lens designed to optimized application efficiency 3) Road viewing angle Horizontal 120 Degree & Vertical 70 Degree 4) Light Source SMD LED array with lens 5) Power Factor ≥ 0.95 6) Operating Voltage range (Volts) 120-270 V AC 7) Supply Frequency 50 Hz. 8) Total Harmonic Distortion (%) $< 10\%$ 9) Surge Protection (KV) $\geq 10KV$ 10) System Efficacy (Lumen/Watt) $\geq 100Lm/W$ 11) Ingress Protection (IP) 66 (Along with Test Report) 12) Luminaire Cover/Glass Heat Resistant toughened glass 13) Luminaire mounting arrangement Adjustable mounting arrangement for street light and with bracket arrangement for flood light 	16	Nos.		

<p>14) Colour rendering index (CRI) ≥ 70</p> <p>15) Working life of LED (No. Of hours) 50,000 Burning hours as per LM-80 Report</p> <p>16) Colour Temperature (Deg. Kelvin) $>5700^{\circ}\text{K} \pm 300^{\circ}\text{K}$</p> <p>17) LED Drive Current (A) Not more than 85% of the rated current carrying capacity of LED</p> <p>18) Make of LED Manufacturers The LED chip shall be Osram/ Cree/ Bridge lux/ Nichia/ Samsung/ Philips Lumidia make.</p> <p>(The contractor should produce the certificate of LED Make in the particular luminary used.)</p> <p>19) Driver One no. Independent drivers for the luminaire</p> <p>20) Driver Protection Short Circuit, Overload, open circuit, no-Load, EMI & Environmental</p> <p>21) Driver Technical Data Sheet Technical Data Sheet of the driver used in the offered Luminaire to be submitted along with offer</p> <p>22) Driver Type Constant current potted driver with internal surge protection of 4KV</p> <p>23) Driver efficacy $\geq 85\%$</p> <p>24) Driver Life Class (Burning Hours) >15000 Burning Hours</p> <p>25) Driver Make BIS Approved</p> <p>26) Certification preferred/ essential LM79/ LM 80</p> <p>27) Warrantee/Guarantee 5 Years from the date of supply against manufacturing defect</p> <p>All tests shall be carried out as per IS/BIS/IEC standards and all certificates shall be submitted at the time of supply of material, in absence of any certificate material shall not be accepted by DPA.</p>				
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15	Fixing & commissioning of supplied 70W LED Street Light fitting. The fitting shall be fixed on nipple of GI pipe bracket on the wall. This work also includes necessary wiring, connections & necessary earth linking connections with all material, labour, tools & tackles as directed by Engineer in Charge.	16	EA.		
16	This includes supply at site 10W LED Bulkhead fitting. The fitting shall be made from single piece pressure die-cast aluminium housing and heat resistant toughened frosted glass cover retaining frame offers excellent corrosion resistance, wiring guard made of powder coated M.S to protect the laminar from damages. The luminaries shall be pre-wired up to a terminal block. The rate shall be inclusive of all taxes (excluding GST), packing, forwarding, insurance, transportation, and unloading at site of work.	80	EA.		
17	Installation, testing commissioning of 10W LED Bulkhead fitting. The work includes fixing of fitting on wall at suitable height by screws, gutties & necessary connections with ceiling rose including all required material and labour as directed by Engineer In-Charge.	80	EA.		
18	Supply at site environmental friendly energy efficient 20-22Watt tube fixture. The fixture should be of low power consumption & having high efficiency. The housing provided for the above luminary should be of Epoxy powder coated white extruded aluminium channel housing for efficient heat dissipation. With cover having milky white special polycarbonate diffuser for glare free light distribution and end caps made of elegantly designed white coloured ABS end caps to enhance the aesthetic view for fixture. The luminary should be suitable to be mounted on wall/ceiling by means of mounting SS clips provided in the fixture.. The luminary should be, short circuit and surge protection and should be provided with suitable connecting terminal for electrical connection as per technical description given below. Technical Requirement for LED 20/22 Watt	24	EA.		

	<p>tube fixture.</p> <p>1) Input Voltage 120-260V However, condition for voltage fluctuation should be considered and the system should be robust enough to withstand such variation in supply source.</p> <p>2) Total Harmonics Distortion Should be less than 10%</p> <p>3) Lamp efficiency $\geq 70/w$</p> <p>4) Power consumption Minimum 20-22W</p> <p>5) Power Factor ≥ 0.90</p> <p>6) Life Expectancy About 50,000 burning hours at a ambient temp 45degree centigrade</p> <p>7) Surge Protection (KV) $\geq 10KV$</p> <p>8) LED Driver Constant Voltage and current</p> <p>9) Control Circuit Compatible to LED</p> <p>10) Input Frequency 50+/-1Hz</p> <p>11) Colour Rendering Index Minimum CRI of 70</p> <p>12) Colour Temperature Minimum 3000K</p> <p>13) Make LED The LED chip shall be Osram/ Cree/ Bridge lux/ Nichia/ Samsung/ Philips Lumidia make.</p> <p>14) Certification preferred/ essential LM79/ LM 80</p> <p>15 Warrantee/Guarantee 5 Years from the date of supply against manufacturing defect</p> <p>All tests shall be carried out as per IS/BIS/IEC standards and all certificates shall be submitted at the time of supply of material, in absence of any certificate material shall not be accepted by DPT.</p>				
19	Fixing & commissioning of supplied 1 x 20/22W LED tube fixture complete with batten on wall/ceiling at suitable height on cemented wooden gutties as directed, and connections with 3 core flexible copper cable from nearest	24	EA.		

	source of supply/ceiling rose & necessary connections with all material and labour and as directed by Engineer-In-charge				
20	Supply of 1200 mm sweep ceiling fan fitted with heavy duty grease filled double ball bearing that ensures noiseless performance and long lasting smoother life of fan suitable up to 250V AC supply. The Fan blades aerodynamically balanced to ensure 3.28 Service Value. The blades shall be made of 'heavy gauge' aluminum sheet so as to retain the blade's angel over a longer period. The Fan motor made of superior grade copper wire and impregnated in special varnish for long life operation. The motor shall be totally enclosed and low-loss-silicon steel stampings ensure minimum power consumption with high optimum output. The Fan coated with a special anticorrosive enamel paint that makes them rust free and ensures a classic appearance and longer life. The supplied fan conforming to ISI specifications. The fan shall be supplied with rotary step cut electronic regulator all accessories such as down rod 30/60/120cm long, PVC Bobbin, Stainless Steel Nut Bolt with cotter pin, capacitor etc.	14	EA.		
21	Fixing of supplied ceiling fan with all accessories in existing hook including necessary wiring and connection from nearest point / Ceiling rose through PVC flexible copper conductor wire and earth linking etc. The rotary step cut electronic regulator shall be fixed and screwed rigidly on switch board including wiring and connection etc. with all material and labour as directed by Engineer-in-charge.	14	EA.		
22	Supply of exhaust fan of size 200 mm with capacitor start and run type motor, continuously rated, totally enclosed fitted with heavy duty grease filled double ball bearing that ensures noiseless performance and long lasting smoother life of fan suitable for single phase 220/250 Volts A.C. 50HZ. The impeller shall be used in an Exhaust Fan is of the propeller type & both hub and impeller shall	4	Nos.		

	be dynamically balanced, frames and arms mounted on rubber bushings, to avoid vibrations.				
23	Fixing & commissioning of supplied exhaust fan as per direction of EIC on exhaust hole so that discharge of exhaust air can be done easily. However if exhaust hole is not provided, it is to be done by contractor. The grouting of the fan is to be done by suitable size of anchor fastener bolts, and by providing metallic mesh/louvers as directed to other side so that birds can be restricted in the passage. This includes connections with 3 core flexible copper cable from nearest source of supply & necessary connections & earth linking with all material and labour and as directed by Engineer-In-Charge.	4	Nos.		
24	<p>This includes preparation of earth station with chemical treated back filled compound 85 mm diameter Pipe In Pipe GI Type 3 Mtr Depth, Maintenance free including all accessories & Masonry work Enclosure with cover plate. The value of earth pit shall be less than 5ohm. A cement concrete (ratio of Cement:Sand:Metal should be 1:2:4) chamber of at least 30cm x 30cm shall be provided just below the surface of ground over the funnel for watering and having RCC/CI cover of suitable size as directed.</p> <p>This also includes removal of extra-excavated earth from the site. The work shall be carried out to entire satisfaction of Engineer-in-charge. This work includes all labour and material as directed by Engineer-in-Charge.</p>	4	No.		
25	Supply, laying, fixing and connection of GI strip of size 25 x 6 mm from earth station to Distribution Board as directed. The GI strip shall be laid and clamped suitably on wall/floor/structure or buried in the ground as directed. This work includes all material, labour, tools & tackles as directed by Engineer in-charge.	200	Mtr.		

26	This includes supply at site, laying, fixing and connecting of GI wire of size 8 SWG from earthing busbar of TPN Distribution Board to SPN Distribution Board as directed. The G.I wire shall be clamped suitably on wall/floor as directed. The work includes all material & labour required as directed by Engineer in-charge.	180	Mtr.		
Total Amount in INR					

(In words Rupees _____)
 (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

s/d-
 Executive Engineer (E)
 Deendayal Port Authority

SCOPE OF WORK

The Deendayal Port Trust (DPT) is the one of the Major Port in India; The Specification is intended to cover the Electrification work for Development of Land in the west of existing 66 hector area for storage of cargo (Extension of Custom Bonded area) at Deendayal Port , the works will be carried out simultaneously with Civil work , which includes electrical part i.e. Construction of toilet and rest rooms in CJ 13/16 area, Electrification work thereof. The work shall be executed to the satisfaction of the Engineer-in -Charge. For installation of equipments, the contractor shall arrange all types of tool & tackles. The Contractor shall arrange temporary power for installation & testing at his own cost. The contractor shall submit layout colored drawing of complete of wiring, installation & distribution in two set hard copy & soft copy after completion of work.

- Note:** 1) Any ancillary work arises during the execution of work, which is required to complete the work; the Contractor shall complete the item/items by carrying out such ancillary work without any extra payment.
- 2) The work shall be carried out with entire satisfaction of Engineer-in-Charge.

Signature & Seal of Contractor

Executive Engineer (E)
Deendayal Port Trust

Approved Make List for Electrical Items		
Sr. No.	Description	Recommended Makes
1	LT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ NICCO/ RALLISON/PRIMECAB/ HAVELLS/ UNIVERSAL/ UNISTAR/AVOCAB /ATLAS/ALLWIN/ALLCAB/ADCAB
2	LT PANEL	CPRI APPROVED
3	CHANGE OVER SWITCH	SIEMENS/L&T/ABB/C&S/SCHNIDER/ LEGRAND / INDOASIAN
4	SFU FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB/C&S
5	SFU FOR DISTRIBUTION PANELS & FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/HAVELLS/ C&S
6	MCCB FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB/ C&S
7	MCCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNIDER/ LEGRAND/ INDOASIAN/HAVELLS / C&S
8	MCB/ELCB/RCCB/ RCCBO FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/HAGER L&T/ABB / C&S
9	MCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/ HAVELLS/ STANDARD / C&S
10	MCB DISTRIBUTION BOARD	STANDARD / HENSEL/LEGRAND / INDOASIAN / HAVELLS / C&S
11	MULTI FUNCTION DIGITAL METER FOR MAIN LT DISTRIBUTION PANELS/DIGITAL KWH METERS	L&T/ENERCON/SECURE/L&G/ RISHABH
12	ANALOG VOLT/AMPARE METER FOR DISTRIBUTION PANELS AND FEEDER PILLERS	RISHABH/AE/ENERCON/L&T/SECURE
13	SLECTOR SWITCH FOR VOLTMETER/AMPARE METER	L&T/SIEMENS/C&S

14	PVC WIRE WITH COPPER CONDUCTOR	POLYCAB/MILEX/GUJCAB/ STANDARD/ FINOLEX/ANCHOR/RR
15	FLUSH TYPE SWITCHES, SOCKETS, HOLDERS AND CEILING ROSES & ELECTRONIC REGULATORS	ANCHOR/MK/NORTHWEST
16	DOOR BELLS/CALL BELLS	ANCHOR/LEGEND/MK/NORTHWEST
17	SEM Modular / MODULAR SWITCHES, SOCKETS, PLATES & BOXES	ANCHOR / MK / NORTHWEST / LEGRAND
18	PVC CONDUIT/OVAL CONDUIT & CASSING CAPPING AND ACCESSORIES	PRECISION/VULCAN/FINOLEX/ GARWARE/RESTOPLAST/SWASTIK/BPI/ASTRAL
19	LUMINARIES	PHILIPS/BAJAJ/WIPRO/CROMPTON GREAVES / OSRAM /C&S /SURYA ROSHNI /GE/C&S
20	LED Luminaries	Philips/Bajaj/Wipro/CG/Surya/Pyrotech/Syska/Nessa/C&S having surge Protection >10KV for fittings & internal Surge Protection for Driver of >4KV, LED Chip only OSRAM/CREE/Philips Lumileds//Citizen/ with certification of LM-79,80
21	CEILING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
22	WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
23	EXHUAUST FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
24	HEAVY DUTY INDUSTRIAL WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
25	ELECTRIC MOTOR	ALSTOM/CROMPTON GREAVES /SIEMENS/ KIRLOSKAR/ABB/LUBI
26	High Mast towers	Bajaj, Philips, BPP, Transrail
27	WATER PUMPS	SWASTIK / KSB/KIRLOSHKAR/TEXMO/LUBI
28	LUGS & CABLE GLANDS	DOWELLS / JAINSON / BRACO

Seal & Sign of
Contractor

s/d
Executive Engineer (E)
Deendayal Port Authority