



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/AC/ EOI/Glass House/

Date: /08/2025.

EXPRESSION OF INTEREST [EOI]

“Electrification work for Glass House at A.O. Building”

(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 **“Electrification work for Glass House at AO Building – Electrical Part”** 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 BOQ & Approved Make List 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 23/08/2025. A soft copy of EOI is also acceptable through e-mail Id xenedpa@gmail.com & deepak.hazra@deendayalport.gov.in.

Sd/-

Executive Engineer (E)
Deendayal Port Authority

ANNEXURE – I

S.N.	DESCRIPTION OF ITEM	QTY.	Unit	RATE (Rs.)	AMOUNT (Rs.)
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a	Group-A	10	Each		
b	Group-B	15	Each		
c	Group-C	20	Each		
2	wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.	5	Each		
3	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a	Group-A	20	Point		
b	Group-B	40	Point		
c	Group-C	50	Point		
4	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	2100	Meter		
5	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	300	Meter		
6	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	3 x 1.5 sq. mm (For Ac)	300	Metre		
b	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire(switch Board)	900	Metre		
c	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	50	Metre		
7	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	100	Metre		
8	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	20 mm	300	Metre		
b	25 mm	1000	Metre		
c	32 mm	50	Metre		
d	50 mm	50	Metre		

S.N.	DESCRIPTION OF ITEM	QTY.	Unit	RATE (Rs.)	AMOUNT (Rs.)
9	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	2 Pair	250	Metre		
10	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	Telephone socket outlet	5	Metre		
b	TV antenna socket outlet	2	Nos.		
11	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
a	1 or 2 Module (75mmX75mm) (For LAN etc)	10	Each		
12	Supplying and drawing of UTP 4 Pair CAT 6 LAN Cable in the existing surface/recessed steel/PVC conduit as required.				
a	1 Run of Cable	2500	Mtr.		
b	2 Run of Cable	50	Mtr.		
c	3 Run of Cable	50	Mtr.		
13	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	25	Each		
14	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	25	Each		
15	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required.	130	Each		
16	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required. (For AC)	5	Each		
17	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated , ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.	3	Each		
18	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	12 Way, Double door	1	Each		
b	16 Way, Double door	2	Each		

S.N.	DESCRIPTION OF ITEM	QTY.	Unit	RATE (Rs.)	AMOUNT (Rs.)
19	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	4way (4 + 12), Double door	1	Each		
b	6way (4 + 18), Double door	1	Each		
c	8 way (4 + 24), Double door	1	Each		
20	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a	4 Way (4+12), Double door	Ro	Each		
b	6 way (4 + 18), Double door	Ro	Each		
c	8 way (4 + 24), Double door	Ro	Each		
21	Supplying and fixing following amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	Single Pole	65	Each		
b	Double pole	5	Each		
c	Triple pole and neutral	2	Each		
22	Supplying and fixing following rating, double pole, 240 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40 A	1	Each		
b	63 A	Ro	Each		
23	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40 A	2	Each		
b	63 A	1	Each		
24	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	25 A	4	Each		
b	40 A	3	Each		
c	63 A	3	Each		
25	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.				
a	63 mm dia (OD-63 mm & ID-51 mm nominal)	150	Meter		
b	90 mm dia (OD-90 mm & ID-76 mm nominal)	150	Meter		
26	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade as required.				
a	3 X 10 sq. mm (22mm)	8	Each		

S.N.	DESCRIPTION OF ITEM	QTY.	Unit	RATE (Rs.)	AMOUNT (Rs.)
b	4 X 10 sq. mm (25mm)	2	Each		
c	4 X 16 sq. mm (28mm)	6	Each		
d	3½ X 70 sq. mm (48 mm)	2	Each		
27	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	3	Each		
28	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	50	Meter		
29	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	20	Meter		
30	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/submain wiring/ cable as required.	100	Meter		
31	SITC of SMD LED, IP 40, 12W Recessed downlighter with System efficacy of 120lm/W and system lumen output 1440 lumen, operating in an ambient temperature of 0°C to 45°C at 50Hz frequency. Luminaire shall have aluminium pressure die cast housing in white with high transmittivity diffuser for uniform illumination and reduced glare. EMC/PCT package of wattage of 0.5-1 W LEDs used in the product shall comply with IEC 62471 for Photo-biological safety. LM 80-08 compliant LEDs from reputed makes such as Nichia/Cree/ Bridgelux/ Lumiled/ Osram/Seoul should be provided. The LED shall comply with L70 life of 50000 burning hours tested at maximum current. The LEDs used should be with CCT of 4000 K and CRI of Minimum 80, with MacAdam CCT binning <3 mounted on 1.6mm MCPCB/FR4 with 35 micron cu layer. LED Driver shall be external, Isolated type, Constant Current topology driver with proper heat sink for heat dissipation suitable to operate at nominal rated voltage of 240V with 1 kV internal surge protection, Power factor of minimum 0.95, driver efficacy of minimum 85%, and total harmonic distortion (THD) of less than or equal to 10% should be integral to the luminaire. Manufacturer shall have inhouse lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from a NABL/UL accredited lab to verify above parameters. Compliance to Indian Standards of IS10322 Part 5 / Sect 5:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012.	12	Each		
32	SITC of Surface Down Light 4000K with Integral driver & completely made in India luminaire. The luminaire's shall be made of Exteruded aluminium powder coated. Optical compartment is sealed with toughened glass using Silicon gasket ensuring IP65 & IK06 protection and lifelong performance.The LEDs shall have minimum CRI ≥80. The luminaire shall have wattage 15W and shall deliver 1350 lumens. Beam angle of the Luminaire shall be 60 deg. Fixture shall operating temperature range of 0°C to 45°C. Input Voltage Range of 150 - 270V AC. 2 stage Constant current driver with Inbuilt 2kV surge protection. The luminaire shall have declared life of 50,000 burning hours at L70. Luminaire and Driver must be made in India with same brand. Luminaire manufacturer must have In-house NABL accredited lab to conduct LM79. The successful bidder must submit the NABL accreditation certificate for Luminaire manufacturer along with technical bid. LM80 , RoHS compliance issued by LED luminaire manufacturer, BIS certificate for LED	9	Each		

	Luminaire. Brand name shall be embossed / engraded on each an every light fixtures. Luminaire and Driver should be Made in India. Luminare, Driver and controller should be with same make.				
33	SITC of Suspended Mounted Decorative Luminaire, 4000K with Integral driver & completely made in India luminaire. The luminaire's shall be made of Aluminium powder coated with HET Diffuse, IP20 , The LEDs shall have minimum CRI ≥80. The luminaire shall have wattage 30W and shall deliver 3000 lumens. Fixture shall operating temperature range of 0°C to 45°C. Input Voltage Range of 198 - 264V AC. 2 stage Constant current driver with Inbuilt 2.5kV surge protection. The luminaire shall have declared life of 50,000 burning hours at L70. Canopy integrated with suspension wire 1 metre , Pre-wired up to terminal block, Easy to mount on true ceiling and with adjustable height suspension, Luminaire and Driver must be made in India with same brand. Luminaire manufacturer must have In-house NABL accredited lab to conduct LM79. The successful bidder must submit the NABL accreditation certificate for Luminaire manufacturer along with technical bid. LM80 , RoHS compliance issued by LED luminaire manufacturer, BIS certificate for LED Luminaire. Brand name shall be embossed / engraded on each an every light fixtures. Luminaire and Driver should be Made in India. Luminare, Driver and controller should be with same make.	2	Each		
34	SITC of 10W COB LED Downlight luminaire having 900 lumens, suitable for pendant mounting. Luminaire shall be made up of Black powder coated extruded Aluminium housing with inbuilt heat sink to provide better thermal management to enhance LED life. Suspension wire of 1.5m should be supplied with the luminaire. The luminaire should be equipped with the secondary optics of high efficiency reflector with clear glass to have precise light beam to cut down glare to UGR <10. LM 80-08 compliant LEDs from reputed makes such as Nichia/Cree/ Bridgelux/ Lumiled/ Osram/Seoul should be provided. LEDs used in the product shall comply with EN 62471 for Photo-biological safety and certificate for the same from manufacturer shall be provided. The luminaire should be IP20 rated. The LED shall be compliant with LM80-08 standard with L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 4000 K and CRI of Minimum 80. LED Driver shall be Integrated type, Isolated, Constant Current operated driver with range 140-280V AC. Driver Efficiency > 85% & 3 KV internal surge protection, Power factor greater than 0.95 and total harmonic distortion (THD) of less than 10% should be integral to the luminaire. Manufacturer shall have inhouse lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from a NABL/UL accredited lab to verify above parameters. Compliance to Indian Standards of IS10322 Part 5 / Sect 5:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012.	39	Each		
35	SITC of PIR Occupancy sensor, PIR sensor for accurate motion detection, Easy wireless integration with controllers, keypads, Effortless commissioning with individual /group light fixtures, DC (12V) powered compact sensor designed for fixture mount and recessed application, Widest coverage area of diameter 8m at 4m height, Secured, safe and reliable communication with AES 128-bit encryption.	13	Each		
36	SITC Surface Box	13	Each		

S.N.	DESCRIPTION OF ITEM	QTY.	Unit	RATE (Rs.)	AMOUNT (Rs.)
37	SITC of Microwave TrueSense Occupancy & Daylight Sensor, Multi-one solution: one sensor can work as occupancy, vacancy and daylight sensors, Microwave sensing technology for accurate motion detection (Microwave 5.8GHz), Daylight control with inbuilt daylight sensor, Easy wireless integration with controllers, gateways, keypads, mobile apps, Effortless commissioning with individual /group light fixtures, Designed for suspended, recessed and surfaced application, Standalone sensor: works directly on 230V AC supply, No wiring between controller and sensor required, Widest coverage area of diameter 17m at 10m height, Secured, safe and reliable communication with AES 128-bit encryption among iSense components.	7	Each		
38	SITC of iSense Occupancy-Daylight Microwave Sensor, Multi-one solution: one sensor can work as occupancy, vacancy and daylight sensors, Microwave sensing technology for accurate motion detection (Microwave 5.8GHz), Daylight control with inbuilt daylight sensor, Easy wireless integration with controllers, gateways, keypads, mobile apps, Effortless commissioning with individual /group light fixtures, Designed for suspended, recessed and surfaced application, Standalone sensor: works directly on 230V AC supply, No wiring between controller and sensor required, Widest coverage area of diameter 17m at 10m height, Secured, safe and reliable communication with AES 128-bit encryption among iSense components.	1	Each		
39	SITC IR Remote	1	Each		
40	SITC Supply of Aqua Suspended Mounted Luminaire DALI Dimming and Tuning LED Luminaire, Light in weight & corrosion free suitable for contemporary, White / Black powder coated extruded aluminum housing with plastic engineered molded endcaps and Special translucent flexible silicon diffuser, Modular design, Easy to mount on true ceiling and with adjustable height suspension Flexibility in shape and no visible hardware on external surface, interiors 50mm width Suspended Mounted in 15W/mtr, system lumen efficacy of 80lm/W with in 5700K and diffused optics with THD<10% with three segments, suspended at 1.5mtr, Segment 1: length: 17.844mtr Segment 2: length 35.99mtr, Segment 3: length 17.837mt With 2mtr adjustable suspension.	1	Lot		
41	SITC of 15W DALI Dimming and Tuning Suspended Mounted LED Downlight luminaire having 1500 lumens, suitable for pendant mounting. Luminaire shall be made up of Black powder coated CRCA housing with HET diffuser. Suspension wire of 1.5m should be supplied with the luminaire. LM 80-08 compliant LEDs from reputed makes such as Nichia/Cree/ Bridgelux/ Lumiled/ Osram/Seoul should be provided. LEDs used in the product shall comply with EN 62471 for Photo-biological safety and certificate for the same from manufacturer shall be provided. The luminaire should be IP20 rated. The LED shall be compliant with LM80-08 standard with L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 2700k-5700K and CRI of Minimum 80. LED Driver shall be Integrated type, Isolated, Constant Current operated driver with range 150-270V AC. Driver Efficiency > 82% & 3 KV internal surge protection, Power factor greater than 0.90 and total harmonic distortion (THD) of less than 20% should be integral to the luminaire. Manufacturer shall have inhouse lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from	9	Each		

	a NABL/UL accredited lab to verify above parameters. Compliance to Indian Standards of IS10322 Part 5 / Sect 5:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012.				
42	SITC of iSense DALI Controller: Maxx can control upto 32-DALI Drivers, Dual Channel: DALI intensity control and color (CCT) tuning, Auto addressing feature to detect non dimmable, dimmable and color tunable lights, Logarithmic dimming options makes smooth lighting transition, Suitable for individual & group commissioning, Inbuilt memory unit capable of time based scheduling and dimming to automate control of lights, sensors & switches, Secured, safe and reliable communication with AES 128-bit encryption among iSense components.	3	Each		
43	SITC y of AC powered BLE enabled wired 8 button switch, Comes with On/Off, dimming and scene control features, Multiple scenes can be created with each button controls, Easy wireless integration with controllers, gateways, keypads, mobile apps, Designed for recess mounted application, Dual-function button: long-press ON for brightness, OFF for dimming, Scene animation control: play, pause, stop, and skip between scenes control, Works on 230V AC power supply, Secured, safe and reliable communication with AES 128-bit encryption among iSense components.	1	Each		
44	SITC of Smart Curtain Roller Blind, AC powered smart curtain motor that can control roller blind curtains, Designed for effortless roller blind automation, Seamless control, anytime, anywhere with iSense app/keypad, Curtain motor control: open, close, stop, and adjust to a specific position, Ultra-quiet operation for a comfortable environment, 230VAC-powered system for stable performance, Automate with motion and light sensors and time-schedules, Inbuilt memory unit capable of time based scheduling and dimming to automate control of lights, sensors & switches, Support RS485 protocol, Comes with motor, track & inbuilt controller can handle curtain width upto 2m, Secured, safe and reliable communication with AES 128-bit encryption among iSense components. MAKE: Wipro.	4	Each		
45	Supplying and laying of following size of XLPE insulated and PVC sheathed aluminum conductor armoured power cable of 1.1 KV grade (ISI Mark) confirming to IS: 7098 (Part-I) 1988 in the existing masonry open duct/ loose/loop for connection etc as reqd.				
a	3 x 10 Sq. mm	50	Meter		
b	4 x 10 Sq. mm	100	Meter		
c	4 x 16 Sq. mm	50	Meter		
d	3.5 x 70 Sq. mm	150	Meter		
46	Supplying and laying copper cable of following sizes XLPE insulated armoured cable of 1.1 KV grade as per IS:7098 (Part-I) 1988 between various pressure switch and system controller / starter etc. on surface /existing pipe complete with connections at both end with glands etc. as required.(For Lift Supply)				
a	4 x 16 sq.mm	150	Meter		
47	Supplying and laying copper cable of following sizes XLPE insulated armoured cable of 1.1 KV grade as per IS:7098 (Part-I) 1988 between various pressure switch and system controller / starter etc. on surface /existing pipe complete with connections at both end with glands etc. as required.				
a	4 x 16 sq.mm	150	Meter		
b	3 x 4 sq.mm.	150	Meter		

S.N.	DESCRIPTION OF ITEM	QTY.	Unit	RATE (Rs.)	AMOUNT (Rs.)
48	Supplying, installation, testing & commissioning of EXIT signage of suitable size, double side i/c strings for pendent mounting (IP:42) as per site requirement, visible from 20 mtrs. with integral battery capacity of 2 hrs. etc. Complete as reqd.	1	Each		
49	RJ-45 socket outlet (For LAN)	5	Each		
50	Supply, Installation, Testing and Commissioning of on grid Solar Photo voltaic Power Plant conforming to MNRE specifications as amended, consisting of Mono/Poly Crystalline silicon solar cells, net metering facility, necessary protections, earthing, mounted on Aluminium/GI structure of suitable strength with following components complete as required:-				
	a) Solar Photo voltaic Module of capacity 330Wp or above, manufactured in India, conforming to IS14286/IEC61215 ,IS/IEC61730-Part-1, IS/IEC61730-Part-2. Solar Photovoltaic Module conversion efficiency shall not be less than 16.5%. PV modules used in solar power plants/systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years. b) Power Conditioning Unit (PCU) of 350-800V DC Input voltage range and 400 VAC, three phase, 4 wire, 50Hz +/- 2.5Hz, output voltage suitable to generate AC Power with efficiency not less than 97%, total harmonic distortion less than 3% and suitable for ambient temperature from 0 to 50 degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency. c) Data Monitoring System complete with accessories. d) Fixing of Array junction box & Main junction box with IP65 protection and termination arrangement for incoming and outgoing cable along with glands, lugs and other accessories etc. as required. e) Lightning and surge voltage protection. f) Connections & Interconnections by supplying & fixing required size XLPE insulated copper conductor 1.1kV grade armoured power and control cables between solar modules, main power cable to grid supply PCU unit along with supplying & fixing of necessary channel/conduit lugs and other accessories etc	60	kWp		
51	Supplying Installation, testing & commissioning of following Sizes exhaust Fan of metal body complete with louver's / shutter's in the existing opening including making the hole to suit the size of the above fan, making good the damage and connection with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable, and testing, commissioning etc. as required.				
a	300 mm Sweep 900 rpm, heavy duty	4	Each		
b	450 mm Sweep 900 rpm, heavy duty (For Kitchen)	1	Each		
52	Supplying, Installation, testing and commissioning of wall mounted 400 mm sweep fan, oscillating type for mounting on wall complete with regulator along with taken by double string etc as required.\	2	Each		
53	Supply, installation, testing and commissioning of UPS with isolation transformer & battery for backup, minimum load power factor 0.8, power factor 0.99, having OVCD (over voltage cut-off device), having CVCF (constant voltage constant frequency, bypass parameters configurable, 2 stage charging (constant current/float charge), having temperature compensated charger, Fan speed control, digital signal processor controller, total harmonic distortion (current)-THDi (<10%@50% R Load, Input 1 phase voltage 230v, voltage range 110-300v, Output voltage (220AC/230AC/240AC ± 1%), Total harmonic distortion Voltage (THDv- <3% linear load, <5% nonlinear load, 90 %AC/AC efficiency, Over load capacity(105-110%: 3min, 111-130%:				

	30Sec), operating temperature with full load 0-40°C, communication features (RS232, USB com port, Intelligent slot(optional). UPS installation with all required material arrangements as required as per IS specification.				
(a)	5 KVA (1 phase input & 1 phase output) for For 60 minute backup, min. 8000 VAH	1	Each		
54	SITC of MAIN PANEL FOR CONFERENCE HALL	Nos	1		
	Fabrication, supply, Installation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, Door 1.6mm compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter-connection with suitable size conductor cable/solid strip, having switchgears and accessories, mountings and internal wiring. earth terminals, numbering etc, complete in all respect, suitable for following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply as required:				
	Incommer				
	NDIACATING LAMP 'R' PHASE LED TYPE 240V AC 22.5 SQ.MM- 1 Nos.				
	INDIACATING LAMP 'Y' PHASE LED TYPE 240V AC 22.5 SQ.MM- 1 Nos.				
	NDIACATING LAMP 'B' PHASE LED TYPE 240V AC 22.5 SQ.MM -1 Nos.				
	NDIACATING LAMP 'A' PHASE LED TYPE 240V AC 22.5 SQ.MM -1 Nos.				
	CONTROL SWITCH 6A -4 Nos.				
	160 A FP MCCB 35 KA -1 Nos.				
	SPREADER & ROHM FOR MCCB -1 Nos.				
	AUX CONTACT BLOCK -1 Nos.				
	MULTIFUNCTION METER DIGITAL TYPE 96*96 SQ MM -1 Nos.				
	160/5A C.T. CL-1,- 3 Nos.				
	AL TPN BUSBAR WITH .8 A PE SQMMM DENSITY - LOT				
	OUTGOING				
	63 A FP MCB 10 KA -2 Nos.				
	40 A FP MCB 10 KA -2 Nos.				
	32 A FP MCB 10 KA -2 Nos.				
	25 A DP MCB 10 KA -1 Nos.				
	63 A FP MCCB 35 KA -2 Nos.				
	SPREADER FOR MCCB -2 Nos.				
	ROHM FOR MCCB -2 Nos.				
55	Supply of ISI Marked Automatic Transfer Switches (ATS) confirming to IEC : 60947-1 & IEC : 60947-6-1 with automatic inbuilt time delay 4 pole, 415 V with two earthing terminals if required.	Nos	1		
	Amount				
(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		

APPROVED MAKE LIST

Sr. No.	Description	Recommended Makes
1	HT VCB	SIEMENS / CROMPTON GREAVES/ABB/Schneider
1(a)	HV Gas Insulated Breakers	SIEMENS /Schneider/ABB
2	POWER TRANSFORMERS	VOLTAMP/CROMPTON GREAVES /BHARAT BIJLEE/ BHEL/ SIEMENS/ ABB/ Schneider/T&R
3	DISTRIBUTION TRANSFORMERS	EMCO/KIRLOSKAR/PATSON/VOLTAMP/ ABB / Schneider / T&R
4	RESIN CAST TRANSFORMERS	
	A) RESIN CAST IMPREGNATED	VOLTAMP / KIRLOSKAR / EMCO
	B) DRY CAST	VOLTAMP/KIRLOSKAR/EMCO
5	HT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ /GLOSTER/ UNISTAR/ UNISTAR/KEI/FINOLEX/HAVELS
6	LT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ RALLISON/PRIMECAB/ HAVELLS/ UNISTAR/AVOCAB / ADCAB
7	LT ACB	SIEMENS/L&T/SCHNEIDER/C&S
8	PROTECTION RELAYS	AREVA/L&T/SIEMENS/ABB/C&S
9	LT PANEL	CPRI APPROVED
10	CHANGE OVER SWITCH	SIEMENS/L&T/ABB/C&S/SCHNIDER/ LEGRAND / INDOASIAN
11	SFU FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB/C&S
12	SFU FOR DISTRIBUTION PANELS & FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/HAVELLS
13	MCCB FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB
14	MCCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNIDER/ LEGRAND/ INDOASIAN/HAVELLS
15	MCB/ELCB/RCCB/ RCCBO FOR MAIN LT DISTRIBUTION PANEL	SIEMENS/HAGER L&T/ABB
16	MCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/ HAVELLS/ STANDARD
17	MCB DISTRIBUTION BOARD	STANDARD / HENSEL/LEGRAND / INDOASIAN / HAVELLS

18	MULTI FUNCTION DIGITAL METER FOR MAIN LT DISTRIBUTION PANELS / DIGITAL KWH METERS	L&T/ENERCON/SECURE/L&G/ RISHABH
19	ANALOG VOLT/AMPARE METER FOR DISTRIBUTION PANELS AND FEEDER PILLERS	RISHABH/AE/ENERCON/L&T
20	SLECTOR SWITCH FOR VOLTMETER/AMPA RE METER	L&T/SIEMENS/C&S
21	POWER CONTACTOR & OVER LOAD RELAYS	L&T/SIEMENS/ABB
22	QUARTZ TIME CLOCK SWITCH	L&T/INDOASIAN/SIEMENS
23	PVC WIRE WITH COPPER CONDUCTOR	RR KABEL / KEI / POLYCAB/MILEX/GUJCAB/ STANDARD / FINOLEX / ANCHOR
24	FLUSH TYPE SWITCHES, SOCKETS, HOLDERS AND CEILING ROSES & ELECTRONIC REGULATORS	ANCHOR/MK/NORTHWEST/VINAY /PANAMA / HAVELLS
25	DOOR BELLS/CALL BELLS	ANCHOR/LEGEND/MK/NORTHWEST
26	MODULAR SWITCHES, SOCKETS, PLATES & BOXES	ANCHOR / MK / NORTHWEST / LEGRAND /HAVELLS / INDOASIAN / SIMENS.
27	PVC CONDUIT / OVAL CONDUIT & CASSING CAPPING AND ACCESSORIES	PRECISION/VULCAN/FINOLEX/ GARWARE/ PRESTOPLAST/ SWASTIK / BPI
28	GLS LAMPS & FLUORESCENT LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
29	HPSV, HPMV & METAL HELIDE LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
30	IGNITORS FOR HPSV, METAL HELIDE LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
31	LUMINARIES	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE/C&S
31a	LED LUMINARIES	Philips// Bajaj/Wipro/CG/Surya/Pyrotech/Syska/Nessa/C&S having surge Protection $\geq 10KV$ for fittings & internal Surge Protection for Driver of $\geq 4KV$, LED Chip only OSRAM/CREE/Philips Lumileds/Citizen/with LM- 79,80 CERTIFICATION
32	CEILING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC

33	WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
34	EXHUAUST FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
35	HEAVY DUTY INDUSTRIAL WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC or its equivalent
36	WATER COOLER	VOLTAS/SHRIRAM USHA/BLUE STAR
37	AIR CONDITIONERS	VOLTAS/CARRIER/BLUESTAR/USHA/ HITACHI/LG/ SAMSUNG/ONIDA
38	REFRIGERATORS	VOLTAS / CARRIER / BLUESTAR / USHA / HITACHI / LG / SAMSUNG / WHIRLPOOL
39	VOLTAGE STABILIZER	VEELINE / CAPRI
40	INVERTERS	SUKAM / MICROTEK
41	D.G. SETS	
	A) ENGINE	CUMMINS/GREAVES/KIRLOSKAR/ CATERPILLAR /ASHOK LEYLAND /VOLVO
	B) ALTERNATOR	STAMFORD/CROMPTON GREAVES /JYOTI/ KIRLOSKAR ELECTRIC
42	ELECTRIC MOTOR	ALSTOM/CROMPTON GREAVES /SIEMENS/ KIRLOSKAR/ABB
43	WATER PUMPS	SWASTIK / KSB
44	WATER GEYSER	BAJAJ/USHA / CROMPTON GREAVES / SPHEREHOT / RACOLD
45	LUGS & CABLE GLANDS	DOWELLS / JAINSON / BRACO

Note: In case of supply of Make of material which is neither available in the DPA approved, the said material should be supplied as per the Make decided by EIC for which written intimation will be given to the contractor.

Before procurement of material, the Make of the material should be approved by EIC in writing.

Sd/-
Executive Engineer (E)
Deendayal Port Authority

Seal & Signature of Contractor