

Government eProcurement System
Created By: VENKATESWARA RAO CH
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Tender Title: SITC of 1 MWp Grid Connected Solar Photo Voltaic Power Plant and Comprehensive Operation and Maintenance Contract
at Begumpet Airport Sub Head Electrical works for Control Room
Tender ID: 2020_AAI_40226_1

Tender Inviting Authority: Asst.General Manager(E-E), AAI, Begumpet Airport.

Name of Work: SITC of 1 MWp Grid (33 KV) Connected Solar Photo Voltaic Power Plant & Comprehensive/Operation and Maintenance Contract

Contract No: 2020_AAI_40226_1

SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	Standard Airconditioning and Refrigeration Engineers		SWAS AND IT PRIVATE LIMITED	
					Rate	Amount	Rate	Amount
1.00	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. Group B.	19.00	Point		853.00	16207.00	230.00	4370.00
2.00	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. a). 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	150.00	Meter		161.00	24150.00	280.00	42000.00
3.00	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. a) 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	340.00	Meter		190.00	64600.00	340.00	115600.00
4.00	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. a) 2 X 4 sq. mm + 1 X 4 sq. mm earth wire	325.00	Meter		226.00	73450.00	380.00	123500.00
5.00	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.	20.00	Each		439.00	8780.00	450.00	9000.00

L1 Amount	L1 Vendor
4370.00	SWAS AND IT PRIVATE LIMITED
24150.00	Standard Airconditioning and Refrigeration Engineers
64600.00	Standard Airconditioning and Refrigeration Engineers
73450.00	Standard Airconditioning and Refrigeration Engineers
8780.00	Standard Airconditioning and Refrigeration Engineers

6.00	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 A & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	8.00	Each
7.00	Supply of 36W LED VENUS NEO HE fixture (Size not less than 595x595x65mm) Ultra modern designed architectural LED luminarie which provides soft-light and glare free symmetrical illumination suitable for Armstrong/Grid ceiling. LED luminaire shall be suitable for 230V, 50Hz. 1-Phase AC supply as required.	19.00	Each
8.00	Supply & fixing of 30W LED Energy saving and environmental friendly long life LED street light made up of pressure die cast aluminium housing with high power LED as lighting source and lens embedded PC cover having IP65 protection and impact resistance of K7, suitable for single phase, 230 volts, 50 Hz, AC supply, and supplying and fixing of 40 mm dia X 2.00 meter long G.I. pipe (medium class) bracket for mounting of above fitting on wall including bending the pipe to the required shape, 2 Nos. of suitable size flat iron clamps with nuts, bolts and washer, painting and including wiring (upto 2.0mtrs) with 3x1.5 Sq.mm copper conductor and complete as required.	4.00	Each
9.00	Supply of Wall fan of 400mm swing, 1350 RPM with control ON-OFF, variable speed modes, oscillation control, height adjustable, balanced 3 leaf suitable for operation on 230volts, 50hz, AC power supply etc as required.(Make: Havells, Model: Swing or similar from list of approved makes)	6.00	Each
10.00	Supply of 300mm , 1400RPM Heavy Duty Exhaust fan with 4 blades, bird protective guard and all other required accessories suitable for working at 230Volts, 50HZ, single phase, AC supply etc. as required.(Make: Havells, Model: Turbojet SP or equivalent)	1.00	Each
11.00	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	19.00	Each
12.00	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. a) Upto 450 mm sweep	3.00	Each

539.00	4312.00	480.00	3840.00
2444.00	46436.00	3650.00	69350.00
3500.00	14000.00	4500.00	18000.00
2366.00	14196.00	4900.00	29400.00
3223.00	3223.00	4600.00	4600.00
89.00	1691.00	360.00	6840.00
332.00	996.00	2400.00	7200.00

3840.00	SWAS AND IT PRIVATE LIMITED
46436.00	Standard Aircondition ing and Refrigeratio n Engineers
14000.00	Standard Aircondition ing and Refrigeratio n Engineers
14196.00	Standard Aircondition ing and Refrigeratio n Engineers
3223.00	Standard Aircondition ing and Refrigeratio n Engineers
1691.00	Standard Aircondition ing and Refrigeratio n Engineers
996.00	Standard Aircondition ing and Refrigeratio n Engineers

13.00	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting/LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	19.00	Each
14.00	Supply, Installation, testing and commissioning of MV Indoor type, floor mounted, compartmentalized, cubical type panel board of 415 volts(nominal) extendable on both sides, fabricated out of 2mm thick cold rold sheet steel, free standing & totlly enclosed, weather proof/dust proof/vermin proof with bottom /top cable entires & cable alleys. The switch board shall be suitable for operation 3phase, 4 wire, 50HZ, A/C power supply and with busbars and following switchgear, instrumentation, protective devices etc., complete with connections, interconnections, earthing, painting and marking etc complete as required.For Incoming : a) 250 Amps, 4 Pole, MCCB having 36 KA breaking capacity, 125 - 160 Amps thermal release range - 01 No. For Outgoing : a) 32 amps TPN MCB's --- 06 Nos b) 6 to 32 amps Double pole 'C' MCB's --- 06 Nos c) 6 to 32 amps Single pole 'C' MCB's --- 12 Nos d) 6 to 32 amps Single pole 'B' MCB's -- 12 Nos e) Timer switch ----- 01 Nos Metering : i) 0 -500volts ,Digital type voltmeter with selector switches along with control fuses(voltmeter shall have provision to read single phase voltage and 3phase voltage) ii) 0 to 200amp Digital type Ammeter with 3nos CT'S of ratio 200/5amps and with selector switch, iii) LED type Indicating Lamps for 03 phase and Control fuses to Monitor incoming power supplies. iv)Aluminium busbar suitable for 125 Amps.Power terminals, gland plates, earth terminals etc.	1.00	Job
15.00	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "C" curve, SP MCB in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	6.00	Each

165.00	3135.00	190.00	3610.00
56661.00	56661.00	63800.00	63800.00
1496.00	8976.00	1600.00	9600.00

3135.00	Standard Aircondition ing and Refrigeratio n Engineers
56661.00	Standard Aircondition ing and Refrigeratio n Engineers
8976.00	Standard Aircondition ing and Refrigeratio n Engineers

16.00	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. (but with charcoal/ coke and salt) as required.	2.00	set
17.00	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. himble excavation and re-filling as required.	20.00	Meter
18.00	Supply, Installing, Testing and Commissioing of Split type, 1.5 TR Airconditioner (cooling capacity: minimum 4500 Kcal/hr) of 5 star rating Inverter type Hi-Wall Split 1.5 Ton non ductable fan coil unit (indoor unit), condensing unit(outdoor unit) with rotary compressor suitable for operation on 1phase, 230V±10% , 50HZ, AC power supply including fixing the outdoor unit on a fabricated MS stand/wall Bracket/Brick foundation as per the site requirement . The supply of unit shall include the copper pipings , power cables for interconnecting between the indoor unit and out door unit as per standard manufaturer design (ie., up to 3 mtrs) including the drain pipes, first charge of refrigerant etc as required. (As per list of approved makes). a) Insulated copper pipe --- Liquid Line b) Insulated copper pipe ---- Suction Line c) 3 core x 2.5 sqmm PVC insulated copper wire. d)Suitable size of casing and capping/PVC pipe for covering the refrigerant line for above (a), (b) & (c) .	6.00	Each
19.00	Supply and Installation of following copper pipe for suction and delivery line with all accessories suitable for 1-phase, 1.5TR Split AC's i/c Insulation, power & Control cabling etc. as required. a) Insulated copper pipe - Liquid line b) Insulated copper pipe - Suction c) 3C X 2.5 sqmm copper conductor cable d) Insulation Foam tubing for covering the refrigerant lines in (a) & (b) e) Suitable size of casing and capping/PVC pipe for covering the refrigerant line of above (a),(b) & (c)	20.00	Meter

5605.00	11210.00	3450.00	6900.00
173.00	3460.00	3450.00	69000.00
53416.00	320496.00	1650.00	9900.00
1110.00	22200.00	1560.00	31200.00

6900.00	SWAS AND IT PRIVATE LIMITED
3460.00	Standard Aircondition ing and Refrigeratio n Engineers
9900.00	SWAS AND IT PRIVATE LIMITED
22200.00	Standard Aircondition ing and Refrigeratio n Engineers

20.00	Supply, installation, testing and commissioning of wall mounting type, 4 KVA Capacity, single phase, automatic line voltage stabilizer, suitable operation on 170 volts to 270 volts AC input, 200 volts to 240 volts AC output, single phase, 50Hz AC power supply with built in time delay, high voltage cut off, and low voltage cut off at 145 volts and input/output/trip indications and suitable for application of 1.5 Ton Air conditioning unit etc. as required.	6.00	Each
21.00	Supply and Installation of following size CPVC pipe for drain line with all accessories, etc. as required. a) 20 mm dia (for 1.5TR AC)	20.00	Meter
22.00	Supply, Installation, Testing & Commissioning of UL / EN listed (latest version) Modular Microprocessor based expandable intelligent Addressable Type Fire Alarm Control Panel of following loops, with minimum 320 character graphics / LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), The panel should be equipped with loop capacity to take minimum 240 intelligent addressable detectors/ devices (In any combination) in one loop. Four access levels, capable of taking Protocol Devices, Graphical Display, sufficient numbers of programmable relay controls for controlling ventilation fan, fire pump room, monitoring of fire sprinkler and fire hydrant pump, 230 volts, 50 Hz AC power supply, automatic battery charger, 24 volts sealed maintenance free lead acid batteries sufficient for 2 hours normal working and then be capable of operating the system for 30 minutes during an emergency / fault conditions along with battery stand as required. The panel shall have facility for seamless integration with PA system (For Giving trigger Signal to Start pre-recorded Digital Voice Evacuation from PA system in case of fire). The panel shall be compatible for Building Management System with open protocol BACNET / MODBUS etc. as per specification, complete as required. (a). One Loop	1.00	Each

2190.00	13140.00	7800.00	46800.00
93.00	1860.00	130.00	2600.00
114957.00	114957.00	6900.00	6900.00

13140.00	Standard Airconditioning and Refrigeration Engineers
1860.00	Standard Airconditioning and Refrigeration Engineers
6900.00	SWAS AND IT PRIVATE LIMITED

23.00	Supply, Installation, Testing & commissioning of UL / EN listed (latest version) intelligent addressable multi criteria detector {Smoke + heat } with inbuilt fault isolator / isolator base and with unique optical sensing chamber, visible LED, fully coated circuit board, superior RF / Transient protection suitable for 2 wires loop connection, complete with plug into common separate base & housing constructed of LEXAN (or polycarbonate) complete with connections etc. as required and to be installed below / above false ceiling roof and concealed space and as per enclosed specifications ,complete as required. (Cost of plug in common base shall deemed to be included in cost of detectors)	8.00	Each
24.00	Supplying & laying of 2 x 1.5 sqmm FRLS armoured cable, 600 / 1000V rated with annealed copper conductor as per applicable IS standard complete as required.	60.00	Meter
25.00	Supply, installation, testing and commissioning of UL / EN listed (latest version) loop powered addressable Hooter-cum- strobe with inbuilt fault isolator / isolator module with adjustable sound level in the range of min. 90 db to Max. 120 db at 1M distance complete with termination etc. as required and as per enclosed specification.	1.00	Each
26.00	Supply, Installation, Testing & commissioning of UL / EN listed (latest version) intelligent addressable Manual call station (Resettable pull / push type) suitable for semi flush mounting, IP 54 for indoor use & IP 65 for outdoor use with inbuilt fault isolator / isolator module with double gang outlet box, equipment for key operated test-reset lock, electronic or rotary switches for address setting. Manual pull station shall be connected with two wire to SLC loop of Fire Control Panel. Cover shall be made out of LEXAN (or poly carbonate equivalent) with clear operating instruction and the word Fire appearing on the front complete with connections etc. as required and as per enclosed specifications.	1.00	Each

4138.00	33104.00	8800.00	70400.00
157.00	9420.00	270.00	16200.00
4138.00	4138.00	6650.00	6650.00
3218.00	3218.00	5600.00	5600.00

33104.00	Standard Aircondition ing and Refrigeratio n Engineers
9420.00	Standard Aircondition ing and Refrigeratio n Engineers
4138.00	Standard Aircondition ing and Refrigeratio n Engineers
3218.00	Standard Aircondition ing and Refrigeratio n Engineers

Total in Figures

878016.00

782860.00

Lowest Amount Quoted BY: SWAS AND IT PRIVATE LIMITED(782860.00)

BOQ Summary Details

Tender Title: SITC of 1 MWp Grid Connected Solar Photo Voltaic Power Plant and Comprehensive Operation and Maintenance Contract at Begumpet Airport Sub Head Electrical works for Control Room

Tender ID: 2020_AAI_40226_1

Sheet Name	Sl.No	Bidder Name	Amount	Bid Rank
BoQ1	1	SWAS AND IT PRIVATE LIMITED	782860.00	L1
	2	Standard Airconditioning and Refrigeration Engineers	878016.00	L2

Signature Not Verified

Digitally signed by CHINTALA
VENKATESWARA RAO
Date: 2020.02.24 16:39:33 IST
Location: eProcurement System for Central
PSUs