



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

मदुरै हवाई अड्डा, मदुरै - 625 022.

MADURAI AIRPORT, MADURAI - 625 022.

(ISO 9001 - 2015 & 14001 - 2015 प्रमाणित / CERTIFIED)

भा.भा.वि.प्रा./मदुरै/इ(वि)/MDU-299/21-22

Ref: AAI/MDU/E-E/MDU-299/21-22/6229

दि:/Date: 21.01.2022

सेवा में /To

By Email & Speed post

M/s. ESSENN Power Controls Pvt. Ltd.,
ESSENN KUDIL, No. 46, 1st Street,
Sivananda Nagar,
Kolathur,
Chennai - 600 099.

E-mail: cpnsnpcl@gmail.com; info@essennpowercontrols.com

विषय/Sub : Providing of New LT panel in addition to existing and saturated essential panel at Old Power House, Madurai Airport - reg.

संदर्भ/Ref: Your e-tender (Financial bid-2021 AAI 97652 1) Opened on 03.01.2022

महोदय/Dear sir(s),

- 1) Your e-tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to **Rs. 17,31,925.00** (Rupees Seventeen Lakh Thirty One Thousand Nine Hundred and Twenty Five Only) plus applicable GST which is 20.75% below the estimated cost put to tender of Rs. 21,85,482.44 plus applicable GST.
- 2) Jt. General Manager (Engg-Elect.), Airports Authority of India, Madurai Airport, Madurai- 625 022, shall be the Engineer-in-charge of the work. You are requested to attend the office of the Asst. General Manager (Engg-Elect.), AAI, Madurai Airport by **31.01.2022** to sign and complete the contract agreement. The contract Agreement shall be executed on a non-judicial stamp paper of value Rs. 100/- (Rupees One Hundred only). The tender document shall be down loaded and signed in each page which shall form part of the agreement. The entire cost towards stamp paper, down loading and printing tender document shall be borne by the contractor.
- 3) As per relevant clause of GCC-2017, which is a part of the contract agreement, security deposit @ 10% (Ten Percent) of gross amount of each running bill will be deducted from your R/A bills which shall released after successful completion of Defects Liability Liability Period which shall be twelve months from the certified date of completion of contract.

Contd....2

D. NO = 4401

विमानपत्तन निदेशक का कार्यालय, मदुरै हवाई अड्डा, मदुरै - 625 022.

O/o The Airport Director, Madurai Airport, Madurai - 625 022.

दूरभाष / Tel : 0452-2690717 / फैक्स / Fax : 0452 - 2690151, 2690305 E-mail : apdmadurai@aai.aero

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- 4) You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) Central rules 1971 Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and condition of Service) Act 1996, Building and other construction Workers Welfare Cess Act 1996 as specified in Clause 19 on page no.50 of GCC of tender and rules of Central and State Governments.
- 5) You are also directed to contact Manager (Engg-Elect)-I, AAI, Madurai Airport immediately who will arrange to hand over the site to you. Please note that the time allowed for carrying out the work shall be **04 Months** and the same shall be reckoned from 04.02.2022.
- 6) Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-charge.
- 7) Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.
- 8) All other terms & Condition shall be as per Tender Document.

Encl: Schedule of Work

Yours faithfully,

Asst. General Manager (E-E)
For and on behalf of the Chairman
Airports Authority of India

विमानपत्तन निदेशक का कार्यालय, मदुरै हवाई अड्डा, मदुरै - 625 022.

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Tender Inviting Authority: AIRPORTS AUTHORITY OF INDIA

Name of Work: Providing of New LT panel in addition to existing and saturated essential panel at Old Power House, Madurai Airport

Contract No: 2021_AAI_97652_1

Name of the Bidder/ Bidding Firm / Company : M/S. ESSENN POWER CONTROLS PVT. LTD., CHENNAI - 600099.

PRICE SCHEDULE

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
1	Design, Fabrication ,Assembling , Supply, Installation ,Testing and Commissioning of Indoor LT panel Floor mounted , free standing,dust & vermin proof conforming to IEC 61439 suitable for 415V, 3Ph,4 wire ,50Hz supply system fabricated in compartmentalized design of Form 3 B and ingress protection of IP 42 from CRCA sheet of 2mm thick for frame work and covers and 3mm thick for gland plates i/c cleaning and finishing complete as per OEM process for powder coating in approved shade ,extendable type, 800A TPN aluminium busbars of high conductivity ,DMC/SMC busbar supports , with bottom base channel of MS section not less than 100mmx50mmx5mm thick with inter locking between incomers, entire panel shall have common GI earth Bar having minimum size of 50mm x 5mm at the rear with 2 Nos of earth studs , provision for cable entry from bottom of the panel , front access shall be available to all components in Panel which require adjustment , maintenance or replacement and each compartment should be provided with door and pad locking arrangement including supply and installation of all items as below and as per technical specification with all accessories. INCOMER: i) Microprocessor Based MCCB , 400 A , 4 Pole, 415V , 50KA (ICu=ICs) with inbuilt adjustable overload & short circuit protection with Spreader link & Extended Rotary Handle -2 Nos ii) Interlocking Arrangement Between two Incomers. iii) Digital Multi Function Meter , 3 Nos CTs of Suitable Amps ratio having Class 1 Accuracy - 2 Sets iv) R,Y ,B Phase Indication LED lamps for each phase with 3 Nos of 2A ,MCBS & Breaker Indication Lamps (ON/OFF/TRIP) with 2A control MCB-2 Sets Outgoing : i) Microprocessor Based MCCB , 250 A , 4 Pole, 415V , 50 KA (ICu=ICs) with inbuilt adjustable overload & Short Circuit protection with Spreader link & Extended Rotary Handle- 2 Nos ii) Microprocessor Based MCCB , 200 A , 4 Poles, 415V , 50 KA (ICu=ICs) with inbuilt adjustable overload & shortcircuit protection with Spreader link & Extended Rotary Handle - 2 Nos iii) Microprocessor based MCCB , 100 A , 4 Poles, 415V , 36 KA (ICu=ICs) with in built adjustable overload & Short Circuit protection with Spreader link & Extended Rotary Handle - 1 Nos iv) Microprocessor based MCCB , 63 A , 4 Poles, 415V , 36 KA (ICu=ICs) with in built adjustable overload & Short Circuit protection with Spreader link & Extended Rotary Handle - 5 Nos v)Breaker Indication Lamps(ON/OFF/TRIP) with 2A control MCBs - 10 Set.	1	Job	487500.00	487500.00	INR Four Lakh Eighty Seven Thousand Five Hundred Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
2	Supply, Installation, Testing and Commissioning of cubical type, floor mounted, indoor LT panel suitable for 415 V, 3 phase, 4 wire 50 Hz AC supply system, fabricated in compartmentalized design from CRCA sheet steel of 2 mm thick for frame work, doors and covers. 3 mm thick for gland plates, 7 tank process for powder coating in approved shade, having extendable type 250 A capacity TPN Aluminium bus bars of high conductivity, DMC/SMC bus bar supports, IP 42 protection, bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, entire panel shall have a common earth bar of suitable size at the rear with 2 Nos. earth stud, connections from main bus bar to switch gears and control wiring with 2.5sq.mm. copper wire, cable chamber and cable gland plates in bottom, including providing and fixing following switch gears, accessories as per tender specification complete as required. Panel should be fabricated as per the line diagram enclosed Incomer: 1) 200 A, 4 pole, 50kA (ICu=ICs) Thermomagnetic MCCB with Overload & shortcircuit protection with Extended rotary handle - 2 Nos Metering: 1) Digital multifunction meter -02 Nos. 2) 3 Nos of CTs of suitable Amps ratio with class 1 accuracy - 2 sets 3) R, Y, B phase Indication LED Lamps with 3 Nos of 2A Control MCBs - 02 Sets 5) Provision for vacant compartment for installing trivector meter / energy meter by electricity board - 1 No. Automatic source transfer system : 1) 200A, - 4 pole AST Switch with AST controller (with provision for priority setting of source, three mode operation: Auto,OFF,Manual) - 01 Nos Outgoing: 1) 63A, - 4 pole 25kA (ICu=ICs)Thermomagnetic MCCB with Overload & shortcircuit protection with Extended rotary handle - 02 Nos 2) 125A, - 4 pole 25kA (ICu=ICs)Thermomagnetic MCCB with Overload & shortcircuit protection with Extended rotary handle - 02 Nos 3) 160A, - 4 pole 25kA (ICu=ICs)Thermomagnetic MCCB with Overload & shortcircuit protection with Extended rotary handle - 02 Nos	1	Job	340000.00	340000.00	INR Three Lakh Forty Thousand Only
3	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 etc. Complete as required. a) 4C X 16 Sq.mm	3	Set	700.00	2100.00	INR Two Thousand One Hundred Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
4	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 etc. Completeas required. b) 4C X 25 Sq.mm	1	Set	800.00	800.00	INR Eight Hundred Only
5	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 etc. Completeas required. c) 3.5C x 35 Sq.mm	7	Set	900.00	6300.00	INR Six Thousand Three Hundred Only
6	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 etc. Completeas required. d) 3.5C X 50 Sq.mm	2	Set	1000.00	2000.00	INR Two Thousand Only
7	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 etc. Completeas required. e) 3.5C X 95 sq. mm	5	Set	1250.00	6250.00	INR Six Thousand Two Hundred & Fifty Only
8	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 etc. Completeas required. f) 3.5C X 185 Sq.mm	4	Set	1710.00	6840.00	INR Six Thousand Eight Hundred & Forty Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
9	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 etc. Completeas required. g) 3.5C X 240 Sq.mm	2	Set	1900.00	3800.00	INR Three Thousand Eight Hundred Only
10	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 etc. Completeas required. h) 3.5C X 300 Sq.mm	6	Set	1900.00	11400.00	INR Eleven Thousand Four Hundred Only
11	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 etc. Completeas required. i) 3.5C X 400 Sq.mm	4	Set	2100.00	8400.00	INR Eight Thousand Four Hundred Only
12	Retrieving and relaying of following LT cables in the Existing cable trench to proposed essential panel without disturbing the other cables etc. Above 185 Sq. mm and upto 400 sq. mm	40	Mtr	110.00	4400.00	INR Four Thousand Four Hundred Only
13	Supply of 3.5C X 35 Sq.mm XLPE insulated PVC Sheathed, armoured Aluminium conductor power cable of 1.1 KV grade as per IS 7098 part I 1988 with up to date amendment etc. As required.	150	Mtr	280.00	42000.00	INR Forty Two Thousand Only
14	Supply of 3.5C X 95 Sq.mm XLPE insulated PVC Sheathed, armoured Aluminium conductor power cable of 1.1 KV grade as per IS 7098 part I 1988 with up to date amendment etc. As required.	300	Mtr	575.00	172500.00	INR One Lakh Seventy Two Thousand Five Hundred Only
15	Supply of 3.5C X 400 Sq.mm XLPE insulated PVC sheathed, armoured Aluminium conductor power cable of 1.1 KV grade as per IS 7098 part I 1988 with up to date amendments etc. as required.	80	Mtr	1990.00	159200.00	INR One Lakh Fifty Nine Thousand Two Hundred Only

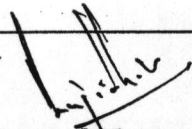
Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
16	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Upto 35 sq. mm (clamped with 1mm thick saddle)	110	Mtr	60.00	6600.00	INR Six Thousand Six Hundred Only
17	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	165	Mtr	95.00	15675.00	INR Fifteen Thousand Six Hundred & Seventy Five Only
18	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing Cable Trench as required. Upto 35 sq. Mm	40	Mtr	40.00	1600.00	INR One Thousand Six Hundred Only
19	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing Cable Trench as required. Above 35 sq. mm and upto 95 sq. Mm	135	Mtr	50.00	6750.00	INR Six Thousand Seven Hundred & Fifty Only
20	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following Size in the existing Cable Trench as required Above 185 Sq. mm and upto 400 sq. mm	160	Mtr	90.00	14400.00	INR Fourteen Thousand Four Hundred Only
21	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent designmix).	4	CUM	7500.00	30000.00	INR Thirty Thousand Only
22	Providing 15mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) at all levels.	4	Sq.mtr	6500.00	26000.00	INR Twenty Six Thousand Only
23	Modification of existing cable trench from Size: 300 X 300mm to 600 x 300mm including breaking the cement floor for required width, including all necessary civil works including getting out the excavated materials, and finishing, including plastering etc as required	2	Mtr	9500.00	19000.00	INR Nineteen Thousand Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
24	Providing & Fixing of 5mm thick chequered plate with necessary gas cutting works, welding works as directed by E-I-C and required width as per site condition with necessary lifting hook including fabrications and fixing complete at site as required. This job also includes supply and fixing of 50 X 50 X 6mm MS iron angle throughout the cable trench on both side by grouting them inside the trench at regular 1 mtr interval. The works also includes of painting the complete using 2 coats of black paint finish after 1 coat of red oxide primer etc. complete as required.	6	Sq.mtr	8500.00	51000.00	INR Fifty One Thousand Only
25	Supply and fixing PVC Synthetic elastomer electrically insulating mat with class A insulation conforming to IS :15652-2006 & CPRI tested having 2 mm thickness up to 3.3 KV, etc. as required	5	Sq.mtr	1450.00	7250.00	INR Seven Thousand Two Hundred & Fifty Only
26	Supply of 3 Pole 160A, 35KA and above (ICu=ICs) MCCB suitable to mounting existing TN250D SMDb.(Cat.no. (CM98608OONO) Make : L & T) or equivalent	1	Set	16000.00	16000.00	INR Sixteen Thousand Only
27	ITC of SMDb (TN250D SMDb. (Cat.no. (CM98608OONO) Make : L & T) on surface/ recess etc complete as required .	1	Job	2500.00	2500.00	INR Two Thousand Five Hundred Only
28	Supply, Installation, Testing and Commissioning of Three phase Surge Protection Device (SPD) having 100KA, (10/350 micro seconds) rating with limiting voltage of 1.5KV , response time $\leq 100\text{ns}$ to be installation in parallel at the main power entry point & shall be of replaceable modular type including copper wire 16 sq.mm 12 mtrs. for connecting surge protection device in parallel to the busbar of the main electrical panel, 63 amp 3 phase MCB 4 pole with enclosure along with all accessories as required for installation as per tender specifications.	1	Job	32000.00	32000.00	INR Thirty Two Thousand Only
29	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for a) 4 way (8 + 12), Double door	4	Job	9800.00	9800.00	INR Nine Thousand Eight Hundred Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
30	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 400 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's (but without MCB's and incomer) etc as required . b) 8 way , Double door	3	Job	13000.00	39000.00	INR Thirty Nine Thousand Only
31	Providing and fixing following rating and breaking capacity MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. a) Three pole 160 Amps, 25KA (ICu=ICs) MCCB	2	Job	8200.00	16400.00	INR Sixteen Thousand Four Hundred Only
32	Providing and fixing following rating and breaking capacity MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. b) Three pole 100 Amps, 25KA (ICu=ICs) MCCB	1	Job	4550.00	4550.00	INR Four Thousand Five Hundred & Fifty Only
33	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, 10 kA, "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	24	Job	160.00	3840.00	INR Three Thousand Eight Hundred & Forty Only
34	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, 10 kA, "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.. b) Double pole	8	Job	485.00	3880.00	INR Three Thousand Eight Hundred & Eighty Only
35	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, 10 kA, "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.. c) Triple pole	10	Job	770.00	7700.00	INR Seven Thousand Seven Hundred Only
36	Supplying and fixing 63A rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 300 milli amperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.	1	Job	2700.00	2700.00	INR Two Thousand Seven Hundred Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
37	Supplying and fixing following rating, 415 volts, 10 kA, "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) Three pole 40 Amps	2	Job	770.00	1540.00	INR One Thousand Five Hundred Forty Only
38	Supplying and fixing following rating, 415 volts, 10 kA, "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. b) Three pole 63 Amps	6	Job	1150.00	6900.00	INR Six Thousand Nine Hundred Only
39	Supplying and fixing following rating, 415 volts, 10 kA, "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. c) Four pole 100 Amps	2	Job	7800.00	15600.00	INR Fifteen Thousand Six Hundred Only
40	Providing and fixing following rating and breaking capacity MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. a) Four pole 125 Amps, 36KA (ICu=ICs) MCCB	1	Job	16500.00	16500.00	INR Sixteen Thousand Five Hundred Only
41	Providing and fixing following rating and breaking capacity MCCB with thermomagnetic release and terminal spreaders, rotary handle in existing cubicle panel board including drilling holes in cubicle panel, making connections, making suitable modification in busbar/cubicle panel etc. complete as required. a) Three pole 250 Amps, 50KA (ICu=ICs) MCCB	2	Job	22500.00	45000.00	INR Forty Five Thousand Only

Sl. No.	Item Description	Quantity	Units	RATE	TOTAL AMOUNT	TOTAL AMOUNT In Words
42	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.	4	Sets	11500.00	46000.00	INR Forty Six Thousand Only
43	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	50	Mtrs	255.00	12750.00	INR Twelve Thousand Seven Hundred & Fifty Only
44	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	10	Mtrs	1750.00	17500.00	INR Seventeen Thousand Five Hundred Only
Total in Figures					1731925.00	INR Seventeen Lakh Thirty One Thousand Nine Hundred & Twenty Five Only
Say Rs. 1731925.00 (Rupees. Seventeen Lakh Thirty One Thousand Nine Hundred and Twenty Five Only) plus applicable GST as per Government norms.						


Asst. General Manager (E-E),
AAI, Madurai Airport