



CHENNAI AIRPORT
ISO 9001:2015, ISO 14001:2015 & CHSAS 18001:2007 CERTIFIED AIRPORT

भारतीय विमानपत्तन प्राधिकरण

AIRPORTS AUTHORITY OF INDIA

No. AAI/Engg/AMED-VII/CISF/2024/A- 47

Date: 15.04.2024.

M/s. VK Sam Engineering.,
No.5, Rajiv Gandhi Nagar,
Ekkaduthangal,
Chennai - 600 032.

Sub: Renovation of Building Opposite to integrated Cargo Complex & Building near Gate No.2 for CISF Accommodation - Electrical works. SH: Supply, Replacement of Power Supply System Installations and associated Electrical Works.

Ref: Tender ID: 2024_AAI_184885_1

Dear Sir(s),

1. Your e-Tender for the above mentioned work has been accepted by the Competent Authority on behalf of The Chairman, Airports Authority of India, at the item rates quoted by you totaling to Rs. 65,43,630.00 (Rupees Sixty Five Lakhs Forty Three Thousand Six Hundred and Thirty Only) excluding GST which is 12.44% below the Estimated Cost of Rs. 74,73,341.00 (Rupees Seventy Four Lakhs Seventy Three Thousand Three Hundred and Forty One Only) excluding GST put to tender.
2. Joint General Manager (Engg. - Elect), Airports Authority of India, Chennai Airport, Chennai - 600 016 shall be the Engineer-In-Charge of the work. You are requested to attend to the Office of Joint General Manager (Engg -Elect), AAI, Chennai Airport by 24.04.2024 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value of Rs.100/- (Rupees One Hundred Only) and the cost of the stamp paper shall be borne by you.
3. Please deposit an Amount of Rs. 6,54,363.00/- (Rupees Six Lakhs Fifty Four Thousand Three Hundred and Sixty Three only) towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted as per Clause 1A of Contract Document. Earnest Money Deposit amount will be returned back to your account after deducting equal amount of EMD against Security Deposit from your bill.
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 and Minimum Wages Act and Rules there of Central and State Governments.
5. Please note that the time allowed for carrying out the work shall be 4 (Four Months) and the same shall be reckoned from 25.04.2024.
6. You are also directed to contact the Sr. Manager (Engg-Elect), Airport Maintenance Electrical Division-VII, Airports Authority of India, Operational Offices, Chennai Airport immediately for the execution of the above mentioned work.

Contd.....2

फैक्स: 044 - 2256 0008 ईपीएबीएक्स: 2256 0551, चेन्नईहवाईअड्डे, चेन्नई - 600 016.

Fax: 044 - 2256 0008 EPABX: 2256 0551, Chennai Airport, Chennai - 600 016.



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7. Any further correspondence in connection with the contract should normally be addressed to the Engineer-In-Charge.
8. 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.

Encl: Schedule of Work (Page No. 1 to 11)

Yours faithfully,

(A MARIAPPAN)

Jt. General Manager (Engg - Elect),
For and on behalf of the Chairman,
Airports Authority of India.



AIRPORTS AUTHORITY OF INDIA

CHENNAI INTERNATIONAL AIRPORT

CHENNAI - 600 016

SCHEDULE OF WORK

NAME OF WORK: Renovation of Building Opposite to integrated Cargo Complex & Building near Gate No.2 for CISF Accommodation - Electrical Works. SH: Supply, Replacement of Power Supply System Installations and associated Electrical Works.

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
SH-I : SUPPLY OF SUB STATION EQUIPMENTS					
1.00	Supply of indoor type floor mounted metal clad, 11KV Switch Board VCB panel with 02 Nos. VCBs, totally enclosed & fully interlocked, truck mounting, horizontal drawout, horizontal isolation type vacuum breaker as per IS13118/IEC 62271-1 (2007) & 200 (2003), as amended up to date and as per the Technical specifications, having capacities as mentioned below, free standing extensible on both sides, single break, suitable for indoor operation, motorised charged and auto/ manually closing breaker suitable for use on 11 KV, 3 Phase, 50Hz A.C. supply with short circuit fault level of 350 MVA for 3Sec complete with self contained, Copper bus bar of size not less than 60x10mm, Internal Arc Test for AFLR 18.4kA for 1Sec, rack in and rack out mechanism, air insulated but encapsulated copper bus bars of capacity meeting fault level current, breaker featured with mechanical ON/ OFF indicator with hand trip device, and all accessories such as shunt trip coil, motorised and manually operated spring assisted closing mechanism, emergency trip push button, castle lock, interconnections, audio visual buzzer connecting all alarms and trip commands, space heaters, earth bus bar 50x60mm etc., and equipped with following switchgears and accessories connections suitable for cable upto 3C x 240 sqmm XLPE cable of 11KV grade (cable entry from bottom) to terminate with heat shrinkable termination kit etc., complete as required.				
	1. a) Incoming-1 No. of 630Amp VCB				
	b) 1 No. - 11 KV /110 Volts drawout type resin cast PT Class 1.0 accuracy and 100 VA burden with 1 No Digital type voltmeter, Digital Meter of Schnider Make, Model EM 6400NG with RS port (or) Equivalent for each incomer, LED Type Breaker ON/ OFF/ TRIP/ Service position/test position/ Trip ckt healthy/spring charge indication Lamps, LED type Phase Indication Lamps and protection fuses/MCB for HT metering up to 12 KV on incomer.				
	c) 1 No. - Ammeter digital type of Class 1				
	d) 1 No. Microprocessor based numerical relay (Make: Schnider, Model: Model: REL15003D or equivalent) with O/L, E/F and S/C protection and 1 No. of Master trip relays.				

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
	e)1 No. - set of dual core dual ratio 3 CTs 100/ 50/ 5/ 5A of 10 VA burden and accuracy class - 1 for metering and class 5P10 for protection.				
	2. a) Outgoing for Transformer - 1 No. of 630Amp VCB				
	b) 1 No. Digital type voltmeter, 1No. Digital Meter of Schnider Make, Model EM 6400NG with RS port (or) Equivalent for each incomer, LED Type Breaker ON/ OFF/ TRIP/ Service position/ test position/ Trip ckt healthy/ spring charge indication Lamps, LED type Phase Indication Lamps and protection fuses/ MCB for HT metering up to 12 KV on incomer.				
	c) 1 No. - Ammeter digital type of Class 1				
	d) 1 No. Microprocessor based numerical relay (Make: Schnider, Model: Model: REL15003D or equivalent) with O/L, E/F and S/C protection and 1 No. of Master trip relays.				
	e) 1 No. - set of Auxiliary relays for Oil temperature, winding temperature and Bucholz alarm, trip.				
	f) 1 No. - Set of dual core dual ratio 3 CTs 100/ 50/ 5/ 5 A of 15VA burden and accuracy Class-1 for metering and class 5P10 for protection.				
	All as above 1.01 to 1.12	1	Job	11,23,000.00	11,23,000.00
2.00	TRANSFORMER Supply of Cast Resin Dry Type 500 KVA, 11/0.433KV, 3 Phase, 50Hz, DYn 11 vector group, copper wound class F insulation associated with winding temperature indicator/controller actuated by means of resistance temperature detector embedded in LV windings indoor type Transformer with less than 5% impedance, the transformer shall be provided with +5.0% to -7.5% in steps of 2.5% each offload tap changer with rotary links on HT side, having cable end boxes on HV side suitable for 3C x 185 sq.mm. XLPE cable of 11 kV grade and 3R 3.5 Core X 300 Sq.mm XLPE Cable of 1.1 KV Grade arrangement of LV side with neutral brought out separately, earthing terminals, lifting lugs, supplying and grouting of suitable MS channels with all accessories for mounting arrangement and confirming to IS 2026, IS 11171: 1985 with up-to-date amendment and confirming to transformers losses as per ECBC 2017 with up to date amendment as per technical specification etc., complete as required.	1	Job	16,99,500.00	16,99,500.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
3.00	Fabrication and supply of cubical type LT Panel - type tested design as per IEC 61439-1 & 2 suitable for 415 V, 3 Phase, 4 wire 50 Hz AC supply, made out of 2 mm thick CRCA sheet steel for load bearing portions, frame work, 2.0mm thick with doors, covers, partitions, non-load bearing portions, 3 mm thick for gland plates, dust tight, vermin proof, totally enclosed, the degree of protection of enclosures system shall be IP42 in accordance with IEC 60529, Form 4b compartmentalised design, floor mounting, free standing, extensible on both sides i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, having 800 Amps capacity FP Aluminium bus bars of high conductivity, DMC/ SMC bus bar supports with short circuit withstand capacity of 50 KA for 1Sec., bottom base channel of MS section not less than 100 mm x50 mm x 5 mm thick, fabrication shall be done in transportable sections, entire panel shall have a common copper earth bar of size 50mm x 5 mm at the rear with 2 Nos. earth stud, solid connections from main bus bars to switch gears with required size of Aluminium bus bars and control wiring with 1.5 Sq.mm. FRLSH PVC insulated copper conductor cable except CT secondary circuit for which control wiring shall be 2.5 Sq.mm. FRLSH PVC insulated copper conductor cable, cable alleys, cable gland plates and suitable for indoor operation, complete with all accessories, interconnection, earthing, alignment with the bus ducts etc., as required and comprising of following switch gears:				
	Incoming:				
	One No. 630A, 50 KA, Four Pole MCCB (Ics=Icu) as EB Supply Incomer with inbuilt O/L and S/C fault Protection with microprocessor based release and provided with Three Nos. Cast resin of suitable rating CTs with digital Multifunction Meter having RS 485 port (EM6400NG of Schneider make or equivalent), ON/OFF/TRIP and Phase indication LED indication lamp along with control MCBs as per Standard practice etc., as required.				
	One No. 630A, 50 KA, Four Pole MCCB (Ics=Icu) as DG Supply Incomer with inbuilt O/L and S/C fault Protection with microprocessor based release and provided with Three Nos. Cast resin of suitable rating CTs with digital Multifunction Meter having RS 485 port (EM6400NG of Schneider make or equivalent), ON/OFF/TRIP and Phase indication LED indication lamp along with control MCBs as per Standard practice etc., as required.				
	Two incomers shall be Electrically and Mechanically interlocked so that only One incomer can be switched on at a time. All accessories such as fuses, auxiliary contactors, auxiliary switches, etc., as required.				

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
	Outgoing:-				
	Two Nos. 250 A, 36 KA, Four Pole MCCB (Ics=Icu) with inbuilt O/L and S/C fault Protection with microprocessor based release and each MCCB provided with one set of Cast resin of suitable rating CTs with digital Multifunction Meter having RS 485 port (EM6459 of Schneider make or equivalent), ON/OFF/TRIP LED indication lamp along with control MCBs as per Standard practice etc., as required.				
	Two Nos. 100 A, 36 KA, Four Pole MCCB (Ics=Icu) with inbuilt O/L and S/C fault Protection with Thermal magnetic release and each MCCB provided with One set of Cast resin of suitable rating CTs with digital Multifunction Meter having RS 485 port (EM6459 of Schneider make or equivalent), ON/OFF/TRIP LED indication lamp along with control MCBs as per Standard practice etc., as required.				
	Four Nos. 63A, 36 KA, Four Pole MCCB (Ics=Icu) with inbuilt O/L and S/C fault Protection with Thermal magnetic release and each MCCB provided with One set of Cast resin of suitable rating CTs with digital Multifunction Meter having RS 485 port (EM6459 of Schneider make or equivalent), ON/OFF/TRIP LED indication lamp along with control MCBs as per Standard practice etc., as required.				
	Busbar:				
	One Set of FP Aluminium Bus Bars of minimum of 800 A Capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section supports & their spacing etc. for meeting fault level of 50 KA for 1 Sec with adequate size aluminium busbar for interconnection of incomer and outgoing switchgears and 50x5mm copper earth strip etc, as required. All accessories such as fuses, auxiliary contactors, auxiliary switches etc., as required.				
	One No. of Three Phase Surge Protection Device (SPD) Type I + II, having 100KA 10/350 micro seconds neutral to earth, 50 KA 10/350 micro sec line to neutral, with limiting voltage less than 1.5 KV shall be connected to the main busbar & shall be of modular type.				
	All as above 3.01 to 3.11.	1.00	Job	Rs. 6,93,680.00	Rs. 6,93,680.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
4.00	Design, fabrication, assembly, wiring, supply, erection, testing and commissioning of Hybrid Solution to achieve >0.99 Lag and TDDI/THDV values within IEEE recommended limits. The Solution should have an incomer of MCCB as specified below, 415V, +/- 5 % 50Hz, 3 phase, 36KA System. It includes the minimum 3 Nos. of suitable rating cast resin sensing CTs and the control cable from Incomer panel. The system shall be of design as per IS 16636. The degree of protection of enclosures system shall be IP42 in accordance with IEC 60529. The switching device of the active compensation system shall be IGBT based. The active compensation system should filter harmonics from 2nd to 51th individual harmonic order and shall be selectable for the entire range. The active compensation system should have feature to improve PF correction as well. The active compensation system should have a Multi master operation. Response time shall be 100 micro Sec or less. (IGBT BASED HYBRID POWER FACTOR CONTROL PANEL (50KVAR+75AMP))				
	Incoming				
	250Amps 36 KA, 4P with inbuilt O/C, S/C and E/F Protection with Microprocessor Based Releases with Ics = Icu - 1No. Each consisting of following 250/5A, CL-1, 15VA, Resin cast CTs - 3 Nos, 6A control MCB - 3 Nos. LED Type R-Y-B Phase Indication Lamps - (1 set) Digital ammeter -1Set VAF type Multifunction meter (MFM) - 1No. 7 Inch LCD Touch Screen for all Parameters Related to IGBT Based System. 1No. a) The LCD should display all parameters like Currents, Fundamental Current, iTHD, iTDD, Aunb, Voltages, vTHD, kW, kVAr, kVA, PF, dPF, Filter Current, Filter Loading (%), Stack Temperature, Ambient Temperature, Filter Runtime, System Runtime etc and also have the provision of a proper fault log which can be exported to an external storage device. Minimum of 8 stage APFC Relay. b)LCD interface should be able to log >2,00,000 time stamped events and faults in memory. c)LCD should be capable of displaying individual harmonics for currents and voltages upto 51st order. d)LCD should be capable of simultaneously displaying current and voltage waveforms. User should be able to select the phases to display.				
	Outgoings:				
	i) Each Active Harmonic Filter Feeder Consists of: (1 No.) a) 100A, 3P, 36KA, MCCB Thermal Magnetic with Spreader links -1 No. b) 75A AHF Module - 1 No. C) HMI i.e. Hybrid PQ controller shall be used to integrate the active and passive sections seamlessly.				

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
	ii) 1 No. Capacitor bank and each Feeders Consists of : a) 63A, 3P, 16KA, MCCB Thermal Magnetic with Spreader links -1 No. b) 25 kVAr, TP Capacitor duty Contactor - 1 No. c) 7% detuned reactor for feeder 25 kVAr - 1No. d) Capacitor shall be of heavy Duty Power Series MPP 12.5 kVAr @ (525V) 2 Nos. combined 25kVAr @ (415V) -1 No. iii) 1No. Capacitor bank and each Feeders Consists of : a) 25A, 3P, 16KA, MCB Thermal Magnetic with Spreader links -1No. b) 10kVAr, TP Capacitor duty Contactor - 1No. c) 7% detuned reactor for feeder 10 kVAr - 1No. d) Capacitor shall be of heavy Duty Power Series MPP 10KVAR - 1No. iv) 3 Nos. of Capacitor bank Feeders and each feeder Consists of : a) 16A, 3P, 16KA, MCB Thermal Magnetic with Spreader links -1No. b) 5kVAr, TP Capacitor duty Contactor - 1No. c) 7% detuned reactor for feeder 5 kVAr - 1No. d) Capacitor shall be of heavy Duty Power Series MPP 5KVAR - 1No. All outgoing having a) Selector Switches - 1 Set. b) On/OFF Indications and Push Buttons Switch - 1 Set. All individual compartments having a) Illumination Lamp, Door Limit switch, Space Heater, Exhaust Fan & Thermostat.				
	Busbar:				
	One Set of Aluminium Bus Bars of minimum of 400 A Capacity with heat shrinkable coloured sleeves and i/c DMC/SMC bus bar cross section, size supports & their spacing etc., for meeting fault level of 36 KA for 1 Sec and 25x5mm Copper earth strip etc., as required.				
	All accessories such as auxiliary contactors, auxiliary switches, push buttons MCBs, rotary handles, phase separators etc., as required.				
	All as above 4.01 to 4.08.	1.00	Job	Rs. 6,64,550.00	Rs. 6,64,550.00
5.00	Supply of nominal 2.5 mm thick (Width 1 Mtr) PVC synthetic, electric insulated mats conforming to IS 15652-2006 having Dielectric strength of 45 KV, no adverse effect of mineral oil, high insulation resistance (Minimum 1,00,000 M Ω on wet condition with 5 KV meggar) with yellow coloured bordered reflective Adhesive sticker of width 50mm at borders etc., as required.	30	Sq.Mtr.	750.00	22,500.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
6.00	Supply of nominal 2.0 mm thick (Width 1 Mtr) PVC synthetic, electric insulated mats conforming to IS 15652-2006 having Dielectric strength of 30 KV, no adverse effect of mineral oil, high insulation resistance (Minimum 1,00,000 M Ω on wet condition with 5 KV meggar) with yellow coloured bordered reflective Adhesive sticker of width 50mm at borders etc., as required.	30	Sq.Mtr.	650.00	19,500.00
7.00	Supply of compact circular stranded Al conductor provided with conductor screening of semi-conducting compound XLPE insulated provided with insulation screening over individual cores, consisting of extruded semi-conducting compound followed by lapped semi-conducting copper tapes, cores laid together with suitable filters, in the interspaces covered with inner sheath by extrusion, galvanized flat steel strip armoured and overall PVC sheathed cable, suitable for 11 KV (E) System conforming to IS 7098 (Part-II) 1985 as amended upto date and of following Size as required.				
	3 X 185 Sq.mm	100	Mtr	1,155.00	1,15,500.00
	SH-I : SUPPLY OF SUB STATION EQUIPMENTS TOTAL				₹ 43,38,230.00
SH-II: INSTALLATION, TESTING, COMMISSIONING OF SUB-STATION EQUIPMENTS.					
8.00	Installation, Testing and Commissioning of 11KV HT VCB Panel mentioned at SH-I/ 1 including provision of MS supporting "C" channel of size 100 x 50 x 6 mm thick including dismantling of existing HT Panel at Power House to create space for installation of new HT Panel, supply, laying and termination of 1.5 sqmm multi core copper conductor PVC insulated and PVC sheathed armoured control cables for sensing purpose between relays of HT VCB panel and transformer (For WTI and separate cables for A.C, D.C control supply), for A.C source of VCB Panel and for D.C source of Battery charger including shifting of dismantled HT panel to AAI store etc., complete all as required.	1	Job	35,000.00	35,000.00
9.00	Installation, Testing and Commissioning of 11 KV/ 0.433KV, 500 KVA, 3P, Dry type Transformer mentioned at SH-I / SOQ Item no. 2 i/c making suitable RCC platform upto 300 mm height with supporting channel, wheel stoppers as per specifications etc., complete as required.	1	Job	45,000.00	45,000.00
10.00	Installation, Testing and Commissioning of 415V, 630 Amps Bus bar rating MV LT Panel mentioned at SH-I / 3 including dismantling of existing LT Panel in power house at Airindia building, provision of supporting "C" channel size 100 x 50 x 6 mm thick including shifting of dismantled LT panel to AAI store etc., complete as required.	1	Job	17,000.00	17,000.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
11.00	Installation, Testing and Commissioning of 50 KVAR IGBT based Hybrid panel mentioned at SH-I /4 including provision of supporting "C" channel size 100 x 50 x 6 mm thick, laying of 1.5 sqmm multi strand copper conductor PVC insulated and PVC sheathed armoured control cable for sensing purpose between Current Transformers at LT panel and Hybrid APFC panel and all connections and interconnections & including shifting of dismantled APFC panel to AAI store etc., complete as required.	1	Job	10,000.00	10,000.00
12.00	Fixing of nominal 2.5 mm or 2.0 mm (Width 1 Mtr) thick PVC synthetic, electric insulated mats conforming to IS 15652-2006 along with suitable adhensive/ chemibond on the Surface/ Chequered plates / Concrete Covers over Cable Trench, sealing of all joints and edges, providing reflective tape of 50mm all around the mat etc., complete as required.	60	Sq.mtr	150.00	9,000.00
13.00	SITC of 15 Nos. of 2 Volt, 100 AH Exide Batteries [Totalling to 30V] of Model "PLANTE (YKP9)" or Equivalent with Initial Charging including providing and fixing suitable size wooden Stand as per OEMs recommendation or E-I-C direction for positioning of Batteries etc., complete as required.	1.00	Job	1,15,000.00	1,15,000.00
14.00	SITC of 30V, 20 Amps, DC Battery Charger with Thyristor Based Rectifier suitable to operate in 230V, 50Hz, single phase AC Power Supply with charging arrangement for Trickle/ Boost including with suitable range Digital Meter for both AC/DC for measuring Current and Voltage, Regulator, Selector Switches, Indication Lamps etc., for operating Batteries associated with 11 KV HT Panel, as required.	1.00	Job	95,000.00	95,000.00
	SH-II: INSTALLATION, TESTING, COMMISSIONING OF SUB-STATION EQUIPMENTS TOTAL				₹ 3,26,000.00
SH-III : LAYING OF CABLES, EARTHING AND ASSOCIATED WORKS					
15.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
a	Above 120 sq. mm and upto 400 sq. mm	30	Mtr	110.00	3,300.00
16.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.				
a	Above 120 sq. mm and upto 400 sq. mm	40	Mtr	95.00	3,800.00
17.00	Laying and fixing of one number PVC insulated and PVC sheathed/ XLPE power cable of 11 KV grade of following size on wall surface wall as required.				
a	Above 120 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	10	Mtrs.	150.00	1,500.00
18.00	Laying and fixing of one number PVC insulated and PVC sheathed/ XLPE power cable of 11 KV grade of following size on cable tray as required.				
a	Above 120 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	10	Mtrs.	95.00	950.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
19.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV/1.1KV grade of size upto 400 Sqmm from the existing RCC/ HUME/ STONEWARE/ METAL/ GI PIPES/ Duct/ TRAY/ TERRACE etc., as required.	50	Mtr	300.00	15,000.00
20.00	Supplying and laying of "B" Class G.I pipe of 150 mm dia, i/c excavation of bituminous/ concrete road/ pavement, excavation of trench of required width for laying of G.I pipe, depth upto 800 mm, providing and laying cement concrete of 1:4:8 ratio at bottom (100 mm) of pipe, refilling the trench with soil, ramming, watering, consolidation and making the surface to original finish with PCC of 1:2:4 ratio on top (200 mm) and disposal of left out soil away from Airport premises etc., complete as required.				
a	150 mm	12	Mtr.	3,500.00	42,000.00
21.00	Supplying and laying of "B" Class G.I pipe of 150 mm dia including excavation of Soil depth upto 750 mm and refilling the trench with excavated Soil after laying Pipe, ramming, watering, consolidation and making good the surface to original finish and disposal of left out excavated soil away from Airport premises etc., complete as required.				
a	150 mm	12	Mtr.	2,750.00	33,000.00
22.00	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 Core, XLPE Aluminium Conductor cable of 11 KV grade as required.				
a	185 Sq. mm	3	No.	5,500.00	16,500.00
23.00	Supplying and making Outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 Core, XLPE Aluminium Conductor cable of 11 KV grade as required.				
a	185 Sq. mm	1	No.	7,000.00	7,000.00
24.00	Supplying and making indoor end termination with brass double 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	3½ x 300 Sq. mm	2	No.	1,800.00	3,600.00
25.00	Supply and Fixing of 10 mm thick SMC chequered plates including provision of 50 x 50 x 5mm thick MS angle in all side and diagonal of SMC plate for strengthening by Aluminium riveting and MS lifting hook etc., complete as required.	25	Sq.Mtrs	10,300.00	2,57,500.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
26.00	Supply, Fabrication, Transportation and Installation of the MS channel/ angle/ flat for cable tray/ support including cutting, welding, drilling, fixing, grinding, applying red oxide primer of two coats and two coat of enamel paint of Black colour etc., complete as required and as per the instructions of Engineer-In-Charge.	2,000.00	Kgs	125.00	2,50,000.00
27.00	Providing of earth pits using Copper bonded Earth electrode of 17.2 mm dia, 3 Metres installed vertically as per the site conditions complete and top cover fully backfilled with backfill earth enhancing compound of 25 Kgs. along with required masonry chamber, CI Cover outer size of 450mm X 450mm X 10mm including excavation & refilling etc., as required.	12	Nos.	8,500.00	1,02,000.00
28.00	Providing and fixing 50 mm X 5 mm copper strip in 80 mm dia 'B' Class G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer and brassing i/c excavation of bituminous/ concrete / pavement & excavation of Soil to the depth of 0.30 Mtrs from ground, refilling the Soil and with 1:2:4 concrete on top for 0.15 Mtrs after laying Pipe and making good the same to original surface etc., complete as required.	70	Mtr.	3,700.00	2,59,000.00
29.00	Providing and fixing 50 mm X 5 mm copper strip in recess including cutting of concrete floor and finishing to original floor and connection with brass nut, bolt, spring, washer and brassing etc., as required.	10	Mtr.	2,675.00	26,750.00
30.00	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface including connection with brass nut, bolt, spring, washer and brassing for connections etc., as required.	100	Mtr.	2,550.00	2,55,000.00
31.00	Providing Civil Works as required as detailed below: Making of cable trench of sizes 1 Mtr. width X 1 Mtr. depth as extension of existing trench by demolishing of cement concrete/ flooring on existing floor manually/ by mechanical means, excavation of trenches of required width upto a depth of 1.2 Mtr. below the concrete area and getting out the excavated soil/sand within a lead of 200 Mtr., providing and laying of position 1:4:8 (1 cement: 4 sand : 8 graded stonegraded stone 40 mm nominal size.) cement concrete at bottom, RCC of 1:2:4 including the cost of centring and shuttering for making the walls of thickness not less than 9 inch as required & cement mortar 1:4 (1 cement: 4 M Sand) and inside plastering 12mm thick with cement mortar 1:3 finished with floating coat of neat cement complete as required and matching with existing trench etc., as required.	38	Mtr.	10,500.00	3,99,000.00

Sl. No.	Description of Items	Qty	Unit	Basic Rate Excluding GST	Amount
32.00	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor, etc., up to floor five level, excluding the cost of centering, shuttering and finishing.				
a	Cement concrete in 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	6	Cum	8,000.00	48,000.00
b	Cement mortar in 1:6 (1 cement: 6 coarse sand)	3	Cum	5,000.00	15,000.00
c	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in with Cement mortar 1:6 (1 cement : 6 coarse sand).	3	Cum	10,000.00	30,000.00
d	Cement plaster of 15 mm on the rough side of single or half brick wall of mix with 1:6 (1 cement: 6 coarse sand).	12	Sq Mtr	500.00	6,000.00
e	Steel rod for RCC Slabs	200	Kgs	110.00	22,000.00
33.00	Demolishing of hard concrete floor manually/ by mechanical means using compressor drilling machine and making the surface to original finish with PCC of 1:2:4 mix to match with the adjacent hard concrete floor including disposal of concrete debris away from Airport premises etc., complete as required.	5	Cum	3,500.00	17,500.00
34.00	Liasoning charges towards CEA Approval of Sub-Station consisting of new 11KV HT Panel, new LT Panels, Hybrid filter panels, existing 1 No. of 400 KVA Transformer, DG set and other LT installations in Power House including Preparation of complete Drawings and other documents required for CEA clearance, submission of the same with CEA and getting Final CEA Approval etc., complete as required.	1	Job	65,000.00	65,000.00
	SH-III : LAYING OF CABLES, EARTHING AND ASSOSIATED WORKS TOTAL				Rs. 18,79,400.00
	TOTAL AMOUNT (SH-I + SH-II + SH-III)				Rs. 65,43,630.00
	TOTAL				Rs. 65,43,630.00

(Rupees Sixty Five Lakhs Forty Three Thousand Six Hundred and Thirty Only)

Note: Applicable GST shall be paid on submission of taxable invoice as extra.

(A MARIAPPAN)
Jt.General Manager (E-E)

Signature Not Verified

Digitally signed by JAGAN MOHAN
BONTADA
Date: 2024.06.06 18:16:00 IST
Location: eProcurement System for
Central PSUs