



भारतीय विमानपत्तन प्राधिकरण  
पश्चिमी क्षेत्र मुख्यालय  
AIRPORTS AUTHORITY OF INDIA  
WESTERN REGION, HQRS.



सं.संख्या: भाविप्रा/पक्षे/मुंबई/समप्र(अभि.वि.)-एटीएस/सीडब्ल्यू/काआ-01/2022-23/01  
Ref.No.: AAI/WR/MUM/AGM(E-E)-ATS/CW/WO-01/2022-23/01

दिनांक : 06.06.2022  
DATE : 06.06.2022

**BY SPEED POST / E-mail**

प्रति / To,  
मेसर्स. वी.आर. असोसियट्स / M/s. V.R.Associates,  
आनंद टॉकीज के सामने, / Opp. Anand Talkies,  
सिताबुल्डी, नागपुर - 440 012/ Sitabuldi, Nagpur- 440 012

विषय/ Sub: "रिप्लेसमेंट ऑफ 11 केवी एचटी एमओसीबी पैनल विथ 11 केवी एचटी वीसीबी पैनल एट एटीएस कॉम्प्लेक्स, मुंबई  
। (निविदा आय.डी.: 2022\_भाविप्रा\_112860\_1) /  
"Replacement of 11 KV HT MOCB Panel with 11 KV HT VCB Panel at ATS Complex, Mumbai. (Tender ID:  
2022\_AAI\_112860\_1)"

संदर्भ : 1. आपका टेंडर 18.05.2022 को खुला।  
Ref.: 1. Your tender opened on 18.05.2022.

महोदय / Dear Sir,

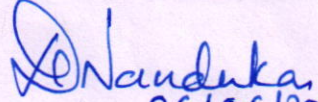
- उपरोक्त कार्य के लिए आपकी निविदा अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से आपके द्वारा उद्धृत मद दरों पर स्वीकार की जाती है जो कुल **रु.39,52,000.00 (रुपये उनतालीस लाख बावन हजार मात्र)** (जीएसटी रहित), जो निविदा में रखी गई अनुमानित लागत **रु. 43,24,886.00 (जीएसटी रहित)** से **8.62%** नीचे है। वैध टैक्स चालान के खिलाफ जीएसटी का भुगतान किया जाएगा। कृपया कर चालान में महाराष्ट्र राज्य के लिए **AAI GST no. 27AAACA6412D1Z8** उद्धृत करें।
- Your tender for the work mentioned above is hereby accepted on behalf of the Chairman, Airports Authority of India at the item rates quoted by you totaling to **Rs.39,52,000.00 (Rupees Thirty Nine Lakhs Fifty Two Thousand only) (excluding GST)** which is **8.62% below** the estimated cost put to tender of **Rs.43,24,886.00 (excluding GST)**. GST will be paid against Valid Tax invoice. Please quote **AAI GST no.27AAACA6412D1Z8** for Maharashtra State in Tax Invoice.
- सहायक महाप्रबंधक (अभि.विद्युत), भाविप्रा, एटीएस कॉम्प्लेक्स, मुंबई कार्य के प्रभारी अभियंता होंगे। आपसे अनुरोध है कि आप सहायक महाप्रबंधक (अभि.विद्युत), भाविप्रा, एटीएस कॉम्प्लेक्स, मुंबई के कार्यालय में दिनांक **20.06.2022** तक उपस्थित रहकर हस्ताक्षर करने तथा करार की कार्यवाही पूर्ण करने का कष्ट करें। ठेका करार का निष्पादन 100/- रुपये (केवल एक सौ रुपये) के गैर-न्यायिक स्टैम्प पेपर पर किया जाएगा तथा स्टैम्प पेपर का खर्च आपके द्वारा वहन किया जाएगा।
- Asstt.General Manager (Engg.-E.), AAI, ATS Complex, Mumbai shall be the Engineer-In-Charge of the work. You are requested to attend the office of the Asstt.General Manager (Engg.-E), AAI, ATS Complex, Mumbai by **20.06.2022** 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) and the cost of the stamp paper shall be borne by you.

**CONTD. 2/-**

3. आपसे अनुरोध है कि इस पत्र के जारी होने की तिथी से 10 दिनों के भीतर सुरक्षा राशि जो टेंडर राशि के 10 % है को प्रस्तुत करें, अन्यथा अनुबंध के पृष्ठ 55 पर शर्त के अनुसार आपके बिल से काटा जाएगा।
3. You are requested to furnish security deposit @ 10 % of tendered amount within 10 days from the date of issue of this letter, failing which the same will be deducted from your bill as per condition on page 55 of the contract document.
4. आपसे अनुरोध है कि ठेका श्रम (विनियमन और उन्मूलन) अधिनियम 1970 और ठेका श्रम (विनियमन और उन्मूलन) केंद्रीय नियमावली 1971 और केंद्रीय एवम राज्य सरकारों के न्यूनतम वेतन तथा उससे संबंधित अन्य नियमों के प्रावधानों का पालन करें।
4. You are requested to comply with the provisions of contract labour (Regulation and abolition) Act of 1970 and contract labour (Regulation & abolition) Central rules 1971 and minimum wages Act & rules of central and state Governments with its upto date amendments thereof.
5. आपको यह भी निर्देश दिया जाता है कि आप तुरंत प्रबंधक (अभि.वि.), भाविप्रा, एटीएस कॉम्प्लेक्स, मुंबई से संपर्क करें जो आपको साइट सौंपने की व्यवस्था करेंगे।
5. You are also directed to contact Manager (Engg.-E.), AAI, ATS Complex, Mumbai immediately who will arrange to hand over the site to you.
6. कृपया यह भी नोट कर ले कि निविदा के अनुसार कार्य निष्पादन हेतु अनुमत समय **04 (चार) महीने** है, जिसकी गणना इस कार्य आदेश के जारी होने की तिथि के बाद 10वें दिन से की जाएगी।
6. Please note that the time allowed for carrying out the work is **04 (Four) months**, which shall be reckoned from 10th day after the date of issue of this work order.
7. इस ठेके के संबंध में कोई और पत्राचार सामान्य रूप से सहायक महाप्रबंधक (अभि.विद्युत), भाविप्रा, एटीएस कॉम्प्लेक्स, मुंबई को संबोधित किया जाना चाहिए।
7. Any further correspondence in connection with the contract should normally be addressed to the Asstt. General Manager (Engg.-E.), AAI, ATS Complex, Mumbai.
8. ऊपर उल्लिखित सभी पत्र अनुबंध का हिस्सा होंगे।
8. All the letters referred above shall form part of contract.
9. कृपया इस पत्र की प्राप्ति सूचना दें तथा इसके साथ संलग्न अनुप्रति पर हस्ताक्षर करके टोकन के प्रतिग्रहण के रूप में अधोहस्ताक्षरी को वापस भेजें।
9. 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..
10. कार्य आदेश के संबंध में किसी प्रकार की टंकनीय त्रुटी/विसंगति होने पर अंग्रेजी संस्करण मान्य होगा।
10. With reference to this work order, if in case of any typographical mistake / discrepancy arise, the English version shall prevail.

धन्यवाद, / Thanking You,

भवदीय / Yours faithfully,

  
06/06/2022

सहायक महाप्रबंधक (अभि.विद्युत),

Asstt. General Manager (Engg.-E.),

कृते तथा ओर से, अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण

For and on behalf of Chairman, Airports Authority of India.

सहायक महाप्रबंधक (अभि.विद्युत),  
Asstt. Gen. Manager (Engg.-E.)

भारतीय विमानपत्तन प्राधिकरण, ए.टी.एस. कॉम्प्लेक्स  
Airports Authority of India, A.T.S. Complex,  
मुंबई/Mumbai - 400 099.

संलग्न / Encl. : मात्रा का बिल / Bill of quantities.

**AIRPORTS AUTHORITY OF INDIA**  
ENGINEERING ELECTRICAL WING, ATS COMPLEX, MUMBAI - 400 099.

**BILL OF QUANTITIES (B.O.Q.)**

**Name of Work:** Replacement of 11 KV HT MOCB Panel with 11 KV HT VCB Panel at ATS Complex, Mumbai. (Tender ID: 2022\_AAI\_112860\_1)

| Sr.No. | Description of Items                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
| 1.00   | <b>SH:1:- 11 KV H.T. BREAKER SWITCHBOARD PANEL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |            |              |
|        | Supplying, installation, testing & commissioning of indoor type (IP 4X) floor mounted metal clad, 11KV Switch board VCB panel with 05 Nos VCBs(2 Nos Incomers+2 Nos Outgoings +1 No Bus coupler), totally enclosed & fully interlocked,trolley mounted (additional VCB handling trolley will not be acceptable) horizontal drawout, horizontal isolation type vacuum breaker as per IS/IEC 62271-200/100,IS 3247 as amended up to date and additional specifications, having capacities as mentioned below,free standing extensible on both sides, single break, trip free mechanism, 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 180MVA , short circuit current of 26.3KA for 3 seconds, & internal arc Test for AFLR 26.3 kA for 1 sec at individual compartments i.e busbar, VCB, and cable compartment, rack in and rack out mechanism, air insulated but encapsulated copper bus bars with 800A capacity and meeting fault level current, breaker featured with mechanical ON/OFF indicator with hand trip device, spring release coil, shunt trip coil and auxiliary switch of 6 NO + 6 NC and equipped with following switchgears and accessories i/c connections suitable for 3 x 240 sqmm. XLPE 11KV cable (cable entry from top),end termination with heat shrinkable jointing material etc. as required. (Note Cost of end termination not included in this item).The manufacture of the panel must possess a type test certificate / accreditation from CPRI. The panel must be type tested for internal arc fault of 25kA for 1 second at high power laboratories. Inspection of switchgear shall be carried out at manufacturer work. There should be electrical interlocking between two incomers and bus coupler complete as required. HT panel and VCB shall be as per AAI approved make list attached in tender documents. |      |      |            |              |
|        | <b>INCOMER- 2 Nos.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |              |
|        | Each Consisting of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |            |              |
|        | Vacuum Circuit Breaker Trolley mounted fully drawout, SC Breaking capacity 26.3kA for 3 second, Rated Voltage-12 kV, Rated Current-630A, Closing Coil-110V DC, Tripping Coil-110 V DC, Spring Charging Motor-230V AC, Contact-6NO+6NC. With Test and Service limit Switch Actuator. - 1 No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |            |              |
|        | Current Transformer,Single Phase (3nos),Cast resin,Twin core CTR-200/100/1-1A, Core-1:15VA Class-0.5; Core-2: 30VA Class-5P 10: - 1 No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |              |
|        | Potential Transformer, S P(3nos), Cast resin, Draw out type, mounted below VCB, PTR: 11KV/√3/110V/√3. CI-0.5, 100VA.OVF 1.2 Cont.and 1.9 for 8 hours including HT HRC fuse on 11 KV Side and MCBs on secondary side protection.. - 1 No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |            |              |
|        | Numerical Protection Relay for O/C, E/F, UV,OV Protection, flush mounted-with RS485 connection.Aux Supply - 110V DC. Flush mounted. - 1 No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |            |              |
|        | Trip Circuit Supervisor Relay, Aux Supply - 110V DC. Flush mounted. - 1 No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |            |              |
|        | Master Trip Relay, Aux Supply -110V DC. Flush mounted. - 1 No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |      |            |              |
|        | 1 No. Auxiliary relays for anti pumping and indication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |              |

| Sr.No. | Description of Items                                                                                                                                                                                                                                                                       | Unit | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
|        | 1 No - Multifunction Meter with accuracy class 0.5 LED display of I ,V, Hz, Active, Reactive , Apparent Power & Energy, Power factor, %THD , Maximum demand load, (complying with IEC61557-12) with RS 485 and protection MCB and required accessories to complete the system              |      |      |            |              |
|        | Analog Ammeter, 3phase,3 Wire, 0-100A With selector switch. - 1 No                                                                                                                                                                                                                         |      |      |            |              |
|        | Analog Voltmeter, 3Phase, 3 Wire, 0-15KV, with selector switch. - 1 No                                                                                                                                                                                                                     |      |      |            |              |
|        | 10A, 2P DC Supply ON/OFF Switch. - 1 No                                                                                                                                                                                                                                                    |      |      |            |              |
|        | 10A, 2P AC Supply ON/OFF Switch. - 1 No                                                                                                                                                                                                                                                    |      |      |            |              |
|        | 10A, 2P Local/Remote Selector Switch. - 1 No                                                                                                                                                                                                                                               |      |      |            |              |
|        | 25A, 110V DC, Trip Netural Closed (TNC) Switch, Spring return. - 1 No                                                                                                                                                                                                                      |      |      |            |              |
|        | Suitable Space Heaters with Thermostat, 230V AC. As recommended by OEM subject to climatic condition of site.                                                                                                                                                                              |      |      |            |              |
|        | Power Socket with piano Switch 5A, 5 pin, 230V AC . - 1 No                                                                                                                                                                                                                                 |      |      |            |              |
|        | Panel Illumination Lamp suitable LED 230V AC. - 1 No                                                                                                                                                                                                                                       |      |      |            |              |
|        | 1 No. Alarm annunciator with minimum 8 windows and buzzer, ACK, rest, test push button for transformer faults and electrical faults in respective window.Buzzer, 230V AC. - 1 No                                                                                                           |      |      |            |              |
|        | Phase Indicating LED Lamp R,Y,B 110V AC. - 3 Nos.                                                                                                                                                                                                                                          |      |      |            |              |
|        | Indicating LED Lamp VCB ON (R), OFF(G), Trip(A),VCB Spring Charged(W),Trip Ckt Healthy (W), DC On (R) - 5 Nos.                                                                                                                                                                             |      |      |            |              |
|        | 2A Control Fuse/MCB with Base for Lamp Ckt 110V DC. - 2 Nos.                                                                                                                                                                                                                               |      |      |            |              |
|        | 6A Control Fuse/MCB with Base for Spring Charging moto 230V AC. - 2 Nos.                                                                                                                                                                                                                   |      |      |            |              |
|        | 16A Control Fuse/MCB with Base for plug point, Space heater etc. - 2 Nos.                                                                                                                                                                                                                  |      |      |            |              |
|        | Neutral Link. - 2 Nos.                                                                                                                                                                                                                                                                     |      |      |            |              |
|        | <b>OUTGOING- 2 Nos.</b>                                                                                                                                                                                                                                                                    |      |      |            |              |
|        | Each Consisting of                                                                                                                                                                                                                                                                         |      |      |            |              |
|        | Vaccum Circuir Breaker Trolley mounted fully drawout, SC Breaking capacity 26.3kA for 3 second, Rated Voltage-12 kV, Rated Current-630A, Closing Coil-110V DC, Tripping Coil-110 V DC, Spring Charging Motor-230V AC, Contact-6NO+6NC. With Test and Service limit Switch Actuator. - 1 No |      |      |            |              |
|        | Current Transformer,Single Phase (3nos),Cast resin,Twin core CTR-200/100A/1-1A, Core-1:15VA Class-0.5;Core: 30VA Class-5P 10: - 1 No                                                                                                                                                       |      |      |            |              |
|        | 1 No. Micro processor based over current, short circuit 50,50 N & earth fault numerical IDMT relay with having RS 485 modbus communication facility consisting 3 element for over current relay and one earth fault capable of storing last 10 trip history.                               |      |      |            |              |
|        | Trip Circuit Supervisor Relay, Aux Supply - 110V DC. Flush mounted. - 1 No                                                                                                                                                                                                                 |      |      |            |              |
|        | Master Trip Relay, Aux Supply -110V DC. Flush mounted. - 1 No                                                                                                                                                                                                                              |      |      |            |              |
|        | 1 No. Auxiliary relays for anti pumping and indication                                                                                                                                                                                                                                     |      |      |            |              |
|        | 1 No. Auxiliary relays for transformer faults WTI with alarm, trip and hooter                                                                                                                                                                                                              |      |      |            |              |
|        | 1 No - Multifunction Meter with accuracy class 0.5 LED display of I ,V, Hz, Active, Reactive , Apparent Power & Energy, Power factor, %THD , Maximum demand load, (complying with IEC61557-12) with RS 485 , protection MCB and required                                                   |      |      |            |              |
|        | Analog Ammeter, 3phase,3 Wire, 0-100A With selector switch. - 1 No                                                                                                                                                                                                                         |      |      |            |              |
|        | 10A, 2P DC Supply ON/OFF Switch. - 1 No                                                                                                                                                                                                                                                    |      |      |            |              |
|        | 10A, 2P Local/Remote Selector Switch. - 1 No                                                                                                                                                                                                                                               |      |      |            |              |

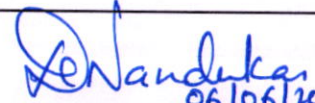
| Sr.No. | Description of Items                                                                                                                                                                                                                          | Unit | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
|        | 25A, 24V DC, Trip Netural Closed (TNC) Switch, Spring return. - 1 No                                                                                                                                                                          |      |      |            |              |
|        | Suitable Space Heaters with Thermostat, 230V AC. As recommended by OEM subject to climatic condition of site.                                                                                                                                 |      |      |            |              |
|        | Power Socket with piano Switch 5A, 5 pin, 230V AC . - 1 No                                                                                                                                                                                    |      |      |            |              |
|        | Panel Illumination Lamp suitable LED 230V AC. - 1 No                                                                                                                                                                                          |      |      |            |              |
|        | Buzzer, 230V AC. - 1 No                                                                                                                                                                                                                       |      |      |            |              |
|        | Indicating LED Lamp R,Y,B 110V AC. - 3 Nos.                                                                                                                                                                                                   |      |      |            |              |
|        | Indicating LED Lamp VCB ON (R), OFF(G), Trip(A),VCB Spring Charged(W),Trip Ckt Healthy (W), DC On (R). - 5 Nos.                                                                                                                               |      |      |            |              |
|        | 2A Control Fuse/MCB with Base for Lamp Ckt 110V DC. - 2 Nos.                                                                                                                                                                                  |      |      |            |              |
|        | 6A Control Fuse/MCB with Base for Spring Charging motor 230V AC. - 2 Nos.                                                                                                                                                                     |      |      |            |              |
|        | 16A Control Fuse/MCB with Base for plug point, Space heater etc. - 1 No                                                                                                                                                                       |      |      |            |              |
|        | Neutral Link. - 2 Nos.                                                                                                                                                                                                                        |      |      |            |              |
|        | <b>BUS-COUPLER- 1 No.</b>                                                                                                                                                                                                                     |      |      |            |              |
|        | Consisting of                                                                                                                                                                                                                                 |      |      |            |              |
|        | Vaccum Circuir Breaker Trolley mounted fully drawout, SC Breaking capacity 26.3kA for 3 second, Rated Voltage-12 kV, Rated Current-630A, Closing Coil-110V DC, Tripping Coil-110 V DC, Spring Charging Motor-230V AC, Contact-6NO+6NC. - 1 No |      |      |            |              |
|        | Current Transformer,Single Phase (3nos),Cast resin,Twin core CTR-200/100A/1-1A, Core-1:15VA Class-0.5;Core: 15VA Class-5P 10: - 1 No                                                                                                          |      |      |            |              |
|        | Numerical Protection Relay for O/C, E/F, UV,OV Protection, flush mounted-with RS485 connection. - 1 No                                                                                                                                        |      |      |            |              |
|        | Trip Circuit Supervisor Relay, Aux Supply - 110V DC. Flush mounted. - 1 No                                                                                                                                                                    |      |      |            |              |
|        | Master Trip Relay, Aux Supply -110V DC. Flush mounted. - 1 No                                                                                                                                                                                 |      |      |            |              |
|        | 3 element Auxillary Relay, Aux Supply-110 DC. Flush mounted.                                                                                                                                                                                  |      |      |            |              |
|        | Multifunction Meter V, A, F, PF, KW, KWh, KVA, KVAR, KVAH, KVARH, CTR-5A,PTR-110V AC. - 1 No                                                                                                                                                  |      |      |            |              |
|        | Analog Ammeter, 3phase,3 Wire, 0-100A With selector switch. - 1 No                                                                                                                                                                            |      |      |            |              |
|        | 10A, 2P DC Supply ON/OFF Switch. - 1 No                                                                                                                                                                                                       |      |      |            |              |
|        | 10A, 2P Local/Remotes Selector Switch. - 1 No                                                                                                                                                                                                 |      |      |            |              |
|        | 25A, 110V DC, Trip Netural Closed (TNC) Switch, Spring return. - 1 No                                                                                                                                                                         |      |      |            |              |
|        | Annunciator 8 Window. - 1 No                                                                                                                                                                                                                  |      |      |            |              |
|        | Suitable Space Heaters with Thermostat, 230V AC. As recommended by OEM subject to climatic condition of site.                                                                                                                                 |      |      |            |              |
|        | Power Socked with piano Switch 5A, 5 pin, 230V AC . - 1 No                                                                                                                                                                                    |      |      |            |              |
|        | Panel Illumination Lamp 5W LED, 230V AC. - 1 No                                                                                                                                                                                               |      |      |            |              |
|        | Buzzer, 230V AC. - 1 No                                                                                                                                                                                                                       |      |      |            |              |
|        | Indicating LED Lamp R,Y,B 110V AC. - 3 Nos.                                                                                                                                                                                                   |      |      |            |              |
|        | Indicating LED Lamp VCB ON (R), OFF(G), Trip(A),VCB Spring Charged(W),Trip Ckt Healthy (W), DC On (R). - 5 Nos.                                                                                                                               |      |      |            |              |
|        | 2A Control Fuse/MCB with Base for Lamp Ckt 110V DC. - 1 No                                                                                                                                                                                    |      |      |            |              |
|        | 6A Control Fuse/MCB with Base for Spring Charging moto 230V AC. - 1 No                                                                                                                                                                        |      |      |            |              |

| Sr.No. | Description of Items                                                                                                                                                                                                          | Unit  | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|--------------|
|        | 16A Control Fuse/MCB with Base for plug point, Space heater etc. - 1 No                                                                                                                                                       |       |      |            |              |
|        | Neutral Link. - 2 Nos.                                                                                                                                                                                                        |       |      |            |              |
|        | Test and Service limit Switch Actuator - 1 No.                                                                                                                                                                                |       |      |            |              |
|        | <b>Busbar</b>                                                                                                                                                                                                                 |       |      |            |              |
|        | 800 Amps. TP, 12 KV Copper Bus bar with heat shrinkable insulated sleeves with cast epoxy insulator to withstand full short circuit currents upto 26.3 kA for 1 second.                                                       | Job   | 1    | 3000000.00 | 3000000.00   |
| 2.00   | Supply ,Installation ,Testing and Commissioning of ARC Flash Protection for Complete HT panel (Item No.01) through ARC flash Relay .                                                                                          | Job   | 1    | 140000.00  | 140000.00    |
|        | <b>SH:2:-Supply of 11 kV Grade Cable</b>                                                                                                                                                                                      |       |      |            |              |
| 3.00   | Supply of following sizes of XLPE insulated PVC sheathed aluminium conductor armoured power cable of 11 KV grade ( Unearthed for 11 KV ) conforming to IS: 7098 (Part-II) amended upto date.                                  |       |      |            |              |
| a)     | a) 3 X 185Sq.mm. Aluminum                                                                                                                                                                                                     | Meter | 30   | 1200.00    | 36000.00     |
| b)     | b) 3 X 240 Sq.mm. Aluminium                                                                                                                                                                                                   | Meter | 30   | 1500.00    | 45000.00     |
|        | <b>SH:3:- Miscellaneous job</b>                                                                                                                                                                                               |       |      |            |              |
| 4.00   | Dismantling of the existing 11kV MOCB HT panel (2 Incomers +2 Outgoings+1 Bus Coupler), cable termination glands and lugs etc and shifting it to suitable location as per direction of E.I.C. as required.                    | Job   | 1    | 10000.00   | 10000.00     |
|        | <b>SH:4:- Laying of 11 kV Grade HT cable</b>                                                                                                                                                                                  |       |      |            |              |
| 5.01   | Laying of 3 Core XLPE power cable of 11 KV grade of upto 300 Sq.mm. on existing cable tray complete as required.                                                                                                              | Meter | 20   | 100.00     | 2000.00      |
| 5.02   | Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. | Meter | 20   | 300.00     | 6000.00      |
| 5.03   | Laying of 3 Core XLPE power cable of 11 KV grade of upto 300 Sq.mm. in existing open duct complete as required.                                                                                                               | Meter | 20   | 50.00      | 1000.00      |
|        | <b>SH:5:-Supply of 1.1 kV Grade Power Cable</b>                                                                                                                                                                               |       |      |            |              |
| 6.01   | Supplying of following sizes of 1.1 kV grade XLPE insulated copper conductor armoured stranded Power Cable conforming to 7098(Part 1) 1988. complete as required and as per specifications.                                   |       |      |            |              |
|        | a) 2C X 16 Sq.mm.                                                                                                                                                                                                             | Meter | 50   | 500.00     | 25000.00     |
| 6.02   | Supply of following sizes of 1.1 Kv grade Aluminium Power Cables,multi stranded conductor, XLPE Insulated, Armoured, FRLSH at outer sheathed, as per IS 7098(Part 1) 1988.                                                    |       |      |            |              |
|        | a) 4C X 25                                                                                                                                                                                                                    | Meter | 30   | 250.00     | 7500.00      |
|        | <b>SH:6:- Laying of 1.1 KV Grade LT Cable</b>                                                                                                                                                                                 |       |      |            |              |
| 7.01   | Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.                                                                              |       |      |            |              |
|        | a) Upto 35 Sq.mm. (Clamped with 1 mm. thick saddle)                                                                                                                                                                           | Meter | 20   | 25.00      | 500.00       |
| 7.02   | 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.                                                                                |       |      |            |              |

| Sr.No. | Description of Items                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit  | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|--------------|
|        | a) Upto 35 Sq.mm. (Clamped with 1 mm. thick saddle)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Meter | 60   | 25.00      | 1500.00      |
| 7.03   | Supplying and making end termination with brass compression gland and Copper/ aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE Copper/aluminium conductor cable of 1.1 KV grade as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |      |            |              |
| a)     | a)2C X 16 Sq.mm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Each  | 3    | 200.00     | 600.00       |
| b)     | b)4C X 25 Sq.mm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Each  | 2    | 200.00     | 400.00       |
|        | <b>SH:7:-110V Volt Battery Bank with Battery Charger</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |      |            |              |
| 8.00   | Design,Supply installation testing Commissioning of battery bank of 110 Volt, 2Volts,55 Nos, VRLA, 100 AH, (As per AAi Approved Make attached in tender document) with dual circuit automatic float cum boost battery charger, Thyristor / IGBT controlled type. The charger shall have selector switch for Auto Float-Boost/manual Float / Manual Boost mode of operation. DC output voltage of float/boost charger shall be within +2% for AC input of 415 volt +/-10%, 50 Hz +/-5% and for DC load variation from 0 to 100%. Constant voltage regulator shall be SCR / IGBT controlled & ripple content in output to be limited within 2% of DC output nominal voltage. Battery charger shall have automatic output current limiting feature.<br>Battery charger shall be complete with Main Transformer, full wave bridge rectifier, Solid state Constant Potential controller, Electronic controller, Potentiometer, digital ammeter, digital voltmeter, circuit breaker for Input & Output protection complete with 2 volt Battery cell of 100 AH Capacity. The panel shall be fabricated from CRCA sheet steel enclosure of 2 mm thick, hinged type lockable door, totally enclosed, vermin proof, free standing, suitable ventilated louvers covered with wire mesh, floor mounting, 'C' channel base frame of size 75x40 mm etc. including painting, all internal copper wiring, inter connections of all control & power cables, continuous earthing bus with provision for earth connections at both ends etc, complete as required. | Job   | 1    | 483250.00  | 483250.00    |
|        | <b>SH:8:- Insulating Mat</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |      |            |              |
| 9.00   | Supply and fixing of fire retardant electrically insulated synthetic mat of class B, 2.5 mm thick suitable for 11KV AC grade and 240V DC system meeting requirements of IS 15652:2006 and tested for breakdown strength, CPRI certified,tensile/elongation, aging properties, insulation resistance, effect to acid, alkaline, diesel, transformer oil & leakage current test, fire test etc. having minimum width of 1000 mm ± 20 mm along with all allied materials such as Pu-resin, Chemi bound, special PVC adhesive, liquid primer etc. to complete the job as per site conditions and as per direction from Engineer-in-Charge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Meter | 20   | 850.00     | 17000.00     |

| Sr.No. | Description of Items                                                                                                                                                                                                                                                                                                              | Unit  | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|--------------|
|        | <b>SH:9:- Cable End Termination</b>                                                                                                                                                                                                                                                                                               |       |      |            |              |
| 10.00  | 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 :                                                                                               |       |      |            |              |
|        | 3C X 240 Sq.mm. Aluminium                                                                                                                                                                                                                                                                                                         | Job   | 8    | 12000.00   | 96000.00     |
|        | <b>SH:10:- Cable Tray</b>                                                                                                                                                                                                                                                                                                         |       |      |            |              |
| 11.01  | Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray cable tray with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.                                        |       |      |            |              |
|        | 300 X 62.5 X 2 mm.                                                                                                                                                                                                                                                                                                                | Meter | 10   | 500.00     | 5000.00      |
|        | Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. |       |      |            |              |
| 11.02  | 300 X 62.5 X 2 mm.                                                                                                                                                                                                                                                                                                                | Each  | 2    | 10000.00   | 20000.00     |
|        | <b>SH:11:- Earthing</b>                                                                                                                                                                                                                                                                                                           |       |      |            |              |
| 12.00  | Earthing with G.I. earth plate 600 mm. X 600 mm. X 6 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.                                                                              | Each  | 2    | 7000.00    | 14000.00     |
| 13.00  | 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.                                                                                                                                | Meter | 6    | 500.00     | 3000.00      |
| 14.00  | 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 50 mm.)                              | Meter | 10   | 125.00     | 1250.00      |
| 15.00  | Providing and fixing 25 mm. X 5 mm. G.I. strip on surface or in recess for connections etc. as required.                                                                                                                                                                                                                          | Meter | 10   | 150.00     | 1500.00      |
| 16.00  | Providing and fixing 6 SWG dia. G.I. wire on surface or in recess for loop earthing as required.                                                                                                                                                                                                                                  | Meter | 50   | 20.00      | 1000.00      |

| Sr.No.                                                                                                                    | Description of Items                                                                                                                                                                                                       | Unit    | Qty. | Rate (Rs.)                       | Amount (Rs.) |
|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|----------------------------------|--------------|
|                                                                                                                           | SH:12:- Safety                                                                                                                                                                                                             |         |      |                                  |              |
| 17.01                                                                                                                     | Supplying and fixing of MS stand suitable for supporting four buckets.                                                                                                                                                     | Each    | 3    | 500.00                           | 1500.00      |
| 17.02                                                                                                                     | Supplying and fixing of fire bucket painted red and duly filled with sand conforming to IS: 2546-1974.                                                                                                                     | Each    | 12   | 200.00                           | 2400.00      |
| 18.00                                                                                                                     | Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required. | Each    | 4    | 150.00                           | 600.00       |
| 19.00                                                                                                                     | Providing and laying of water proof, chemical resistant PVC mat with thickness greater than 1.5mm and 3.6Mpa Tensile strength.                                                                                             | Sq.Mtr. | 60   | 500.00                           | 30000.00     |
|                                                                                                                           |                                                                                                                                                                                                                            |         |      | Total Rs.                        | 3952000.00   |
|                                                                                                                           |                                                                                                                                                                                                                            |         |      | (+) plus GST extra as applicable |              |
| ( Total Rupees: Thirty Nine Lakhs Fifty Two Thousand only (+) plus GST Extra as applicable )                              |                                                                                                                                                                                                                            |         |      |                                  |              |
| <div>Sanandkumar<br/>06/06/2022<br/>Asstt.General Manager (Engg.-Elect.)<br/>A.A.I., ATS Complex, Mumbai - 400 099.</div> |                                                                                                                                                                                                                            |         |      |                                  |              |

  
 06/06/2022  
 Asstt. General Manager (Engg.-Elect.)  
 A.A.I., ATS Complex, Mumbai - 400 099.  
 सहायक महाप्रबंधक (जी.पी. विद्युत)  
 Asstt. Gen. Manager (Engg.-E)  
 भारतीय विमानपत्तन प्राधिकरण, ए.टी.एस. कॉम्प्लेक्स  
 Airports Authority of India, A.T.S. Complex,  
 मुम्बई/Mumbai - 400 099.