



रजिस्टर्ड ए.डी. द्वारा/By Regd. A.D.

सं.सं. भाविप्रा/भोपाल/उप.म.प्र.(अभि.-वि.)/का.आ.-09/2022-23 1716(1-10)
Ref. No: AAI/BPL/DGM(E-E)/WO-09/2022-23

दिनांक: 13.07.2022
Date: 13.07.2022

सेवा में,

मेसर्स रास कांटेक्टर एंड और इंजीनियर्स,
302, तीसरी मंजिल, ए-14,
देविका चैंबर आरडीसी,
राज नगर, गाजियाबाद - 201001
ई-मेल: rass.engineer@gmail.com

M/s RASS CONTRACTOR AND ENGINEERS,
302, 3rd Floor, A-14,
Devika Chamber RDC,
Raj Nagar, Ghaziabad - 201001
E-mail: rass.engineer@gmail.com

विषय : "विद्युत आपूर्ति में वृद्धि | उपशीर्ष: राजा भोज विमानतल, भोपाल पर एच.वी.ए.सी. पैनल, एलटी पैनल, हाइब्रिड ए.पी.एफ.सी. पैनल आदि |"

Subject: "Augmentation of Power Supply. SH: HVAC panel, LT panel, Hybrid APFC panel etc. at Bhopal Airport."

संदर्भ : 1) आपकी निविदा दिनांक 06.07.2022 को खोली गई |

Ref.: 1) Your tender opened on dt: 06.07.2022.

महोदय/Dear Sir,

- 1- उल्लेखित कार्य हेतु आपकी ई-निविदा आपके द्वारा उद्धृत कुल **रु. 59,32,250/-** (रु. उनसठ लाख बत्तीस हजार दो सौ पचास मात्र) की नियत मद दर पर अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से एतद् द्वारा स्वीकृत की जाती है, जो कि ई-निविदा की अनुमानित लागत **रु. 71,53,005/-** (रु. इकहत्तर लाख तिरपन हजार पांच मात्र) से **17.07 % कम** है | ✓

Your E-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. 59,32,250.00 (Rupees Fifty Nine Lakh Thirty Two Thousand Two Hundred Fifty only)** which is **17.07% below** the estimated cost put to E-Tender of **Rs. 71,53,005.00 (Rupees Seventy One Lakh Fifty Three Thousand Five Only)**.

- 2- उप. महाप्रबंधक (अभि.-विद्युत), भारतीय विमानपत्तन प्राधिकरण, राजा भोज विमानतल, भोपाल इस कार्य के इंजीनियरिंग प्रभारी होंगे। आपसे निवेदन है कि आप संविदा करार पर हस्ताक्षर करने एवं उसे पूरा करने हेतु **08.08.2022** तक उप. महाप्रबंधक (अभि.-विद्युत), भारतीय विमानपत्तन प्राधिकरण, भोपाल विमानपत्तन के कार्यालय में उपस्थित हो। संविदा करार **रु 500/-** (पाँच सौ रुपये) के न्यायिकेतर (नॉन - ज्युडिशियल) स्टांप पेपर पर बनाया जायगा तथा स्टांप पेपर की लागत आपके द्वारा वहन की जाएगी |

Dy. Gen. Manager (Engg.-Elect.), Airports Authority of India, Raja Bhoj Airport, Bhopal shall be the Engineer-In-Charge of the work. You are requested to attend the office of the Dy. Gen. Manager (Engg.-Elect.), Airports Authority of India, Raja Bhoj Airport, Bhopal by **08.08.2022** to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value **Rs. 500/- (Rupees Five Hundred only)** and the cost of the stamp paper shall be borne by you.

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Contd...2

- 3- कृपया इस पत्र के जारी होने के 10 दिनों के अंदर प्रतिभूति जमा के रूप में रु. 5,93,225/- (रु. पांच लाख तिरानबे हजार दो सौ पच्चीस मात्र) की राशि इस कार्यालय में जमा करा दें अन्यथा करारनामों की संविदा की सामान्य शर्त के पृष्ठ संख्या - 15 पर दी गई शर्त 1ए के अनुसार उक्त राशि आपके बिल से काट ली जाएगी ।

Please deposit **Rs. 5,93,225/- (Rupees Five Lakh Ninety Three Thousand Two Hundred Twenty Five Only)** towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted as per condition of Clause 1A on page 15 of the contract document.

- 4- आपसे अनुरोध है कि आप ठेका श्रमिक (विनियम एवं उन्मूलन) अधिनियम 1970 के उपबंधों का अनुपालन करें । साथ ही ठेका श्रमिक (विनियम एवं उन्मूलन) केन्द्रीय नियमावली 1971 एवं केन्द्रीय एवं राज्य सरकारों के न्यूनतम वेतन तथा उससे संबंधित अन्य नियमों का पालन करें ।

You are requested to comply with the provisions of contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) Central rules 1971 and minimum wages Act and rules thereof Central and State Governments.

- 5- आपको सहायक महाप्रबंधक (अभि.-वि.), भारतीय विमानपत्तन प्राधिकरण, राजा भोज विमानतल, भोपाल से तत्काल संपर्क करने का भी निर्देश दिया जाता है । आपको कार्यस्थल (साइट) सौंपने का कार्य उनके द्वारा किया जाएगा ।

You are also directed to contact Asstt. Gen. Manager (Engg.-Elect.), AAI, Bhopal Airport immediately who will arrange to hand over the site to you.

- 6- कृपया नोट करे की कार्य पूरा करने के लिए आपको **04 (चार) माह** का समय प्रदान किया जाता है । यह समय इस पत्र के जारी करने की तिथि के 10वे दिन से माना जाएगा ।

Please note that the time allowed for carrying out the work shall be **04 (Four) Months**. The same shall be reckoned from 10th day from date of issue of this letter.

- 7- इस ठेके से संबंधित किसी भी प्रकार के पत्र व्यवहार के लिए उप महाप्रबंधक (अभि.-विद्युत), भा.वि.प्रा., राजा भोज विमानतल भोपाल - 462036 को संबोधित करें ।

Any further correspondence in connection with the contract should normally be addressed to the Dy. Gen. Manager (Engg.-Elect.), Airports Authority of India, R. B. Airport, Bhopal - 462036.

- 8- कृपया इस पत्र की प्राप्ति की सूचना दें तथा इसके साथ अनुलग्न अनुप्रति पर हस्ताक्षर करके टोकन के प्रतिग्रहण के रूप में अधोहस्ताक्षरी को वापस भेज दें ।

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.

- 9- यदि कोई विसंगति पाई जाती है तो अंग्रेजी भाषा ही मान्य होंगी ।

In case any discrepancy is found, then English version will be taken as correct.

भवदीय / Yours Faithfully

(**रामजी अवस्थी / Ramjee Awasthi**)

उप महाप्रबंधक (अभि.-विद्युत)

Dy. Gen. Manager (Engg.-Elect.)

भा.वि.प्रा., राजा भोज विमानतल, भोपाल - 462036

AAI, Raja Bhoj Airport, Bhopal - 462036.

कृते तथा ओर से, अध्यक्ष,

For and on behalf of Chairman,

भारतीय विमानपत्तन प्राधिकरण.

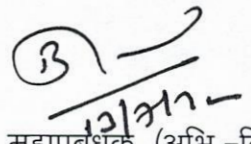
Airports Authority of India.

N.O.O. / मूल प्रतिलिपि पर नहीं**Copy to/ प्रतिलिपि प्रेषित :-**

1. संयुक्त महाप्रबंधक (सतर्कता), भा.वि.प्रा
पश्चिमी क्षेत्र, सी.एस.आई. एयरपोर्ट, मुंबई-99. (निविदा प्रपत्र के शेड्यूल 'A' कि कॉपी सहित)
Jt. General Manager (Vigilance) AAI.
Western Region, C.S.I. Airport, Mumbai-99 (Along with copy of Schedule 'A' of tender document)
2. आयकर आयुक्त
आयकर कार्यालय, होशंगाबाद रोड,
मैदा मिल के सामने, भोपाल।
Commissioner of Income Tax,
Income Tax office, Hoshangabad Road, Opposite Maida Mill, Bhopal.

आंतरिक/ INTERNAL

1. महाप्रबंधक (अभि), भा.वि.प्रा, दुमना विमानतल, जबलपुर - 482005 जानकारी हेतु ।
General Manager (Engg.), AAI, Dumna Airport, Jabalpur - 482005 for information please
2. विमानपत्तन निदेशक, भा.वि.प्रा, राजा भोज विमानतल, भोपाल-462036 जानकारी हेतु ।
Airport Director, AAI, R.B. Airport, Bhopal - 462036 for information please
3. सहायक महाप्रबंधक (वित्त), भा.वि.प्रा, राजा भोज विमानतल, भोपाल-462036 जानकारी हेतु ।
Asstt. Gen. Manager (Finance), AAI, R.B. Airport, Bhopal - 462036 for information please
4. सहायक महाप्रबंधक (अभि- विद्युत), भा.वि.प्रा, राजा भोज विमानतल, भोपाल-462036 कार्यस्थल सौंपने एवं
Asstt. Gen. Manager (Engg.-Elect.), AAI, R.B. Airport, Bhopal - 462036 उचित कार्यवाही हेतु ।
..... To handover the site and
..... necessary action.
5. प्रबंधक (अभि- विद्युत), भा.वि.प्रा, राजा भोज विमानतल, भोपाल-462036 ठेका करारानुसार कार्य
Manager (Engg.-Elect.), AAI, R.B. Airport, Bhopal - 462036 निष्पादन हेतु ।
..... To Supervise the work as per
..... contract agreement.
6. करार प्रति/Agreement Copy.
7. कार्य फाईल/Works File.


 उप महाप्रबंधक (अभि.-विद्युत)
 Dy. Gen. Manager (Engg.-Elect.)

Validate

Print

Help

Item Rate BoQ

Tender Inviting Authority: AGM(E-E), AAI, R.B. Airport, Bhopal

Name of Work: Augmentation of Power Supply. SH: HVAC panel, LT panel, Hybrid APFC panel etc. at Bhopal Airport.

Contract No: AAI/BPL/ENGG(E)/NIT-07/2022-23

Name of the Bidder/
Bidding Firm /
Company :

RASS CONTRACTOR AND ENGINEERS

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder (Without GST) Rs. P	TOTAL AMOUNT in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	53	55
1.00	HPFC PANEL - 400 Amp. APF3N + 200 KVAR (Detuned RTPFC) Panel Design, fabrication, assembly, wiring, supply, erection, testing and commissioning of Hybrid Power Factor Correction Panel to achieve 0.99 Lag and THDI / THD less than 5%. The Solution should have an incomer of MCCB as specified below, 433V, +/- 10 % 50Hz, 3 phase, 50KA, 3 Wire System. The system shall be of certified 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 be CE certified. The active compensation system should filter harmonics from 2nd to 51st 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 equal or less than 100 micro Sec. The switching device of the passive compensation system shall be thyristor Based. The capacitor bank shall comprise of capacitor units, de tuning reactors, PF controllers, circuit breakers etc as specified below:					
1.01	Controller- The system shall have integrated DSP controller based for Active and Passive section and shall be able to sense the reactive current requirement of the network and shall switch ON/OFF the required stages of a capacitor bank.					
1.02	The Hybrid Power Factor Correction panel shall comprising of following:					
1.03	Main Incomer MCCB 1 No. of 630 A Microprocessor based release FP MCCB with inbuilt O/C, S/C & earth fault protection (Ics = Icu = 25 KA) with 1 Set of Digital flush type calibrated Intelligent multifunction meters (with communication port) suitable rating class - 1.0 accuracy, showing V. A. PF, KW, KWH, Total harmonic distortion with 3 Nos. current transformers of dual core CT's of suitable Amp. ratio, 15 VA Class 1.0 metering, Tinned copper Spreader links, Phase barrier both side and extended rotary handle of circuit breaker complete with Interconnection. onnections etc.					

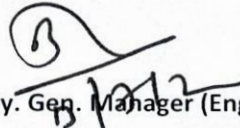
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder (Without GST) Rs. P	TOTAL AMOUNT in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	53	55
1.04	Bus Bar: Electrolytic high conductivity Aluminium extensible three phase and neutral busbars rated at 800 amps auxiliary Bus Bars of suitable capacity insulated with heat shrinkable coloured PVC sleeves & clip on shrouds for joints having a maximum current density as per indian standards suitable to with stand symmetrical fault level of 36 kA at 500 volts i/e polyamide bus bars supports at required intervals complete for cross section, size supports & their spacing etc. The neutral busbar is to be 100% of phase bus-bars.					
1.05	Hybrid Solution of Active filter of 400A and Passive component of 200kVAR: 1 nos of 400A, Active harmonic filter with 400Amp, FP 35kA (lcs-lcu upto 433 V), MCCB with inbuilt O/C, S/C & E/F protection and 400A, TP, AC3 contactor. 6 nos x 33.1 kVAR @ 525V with output of 25kVAR @ 415V, de-tuned MPP Heavy duty capacitor bank with 100A, 3P, MCCB 35kA (les-leu upto 433 V) with inbuilt O/C, S/C & E/F protection. Each capacitor bank shall have 50 kVAR thyristor switching module and 110A Semi-conductor HRC Fuses. 4 Nos. 50 kVAR, 14% copper Detuned reactor. Integrated Digital signal Processor (DSP) controller which shall control both the capacitors as well as Active Filter. The Solution should have surge arrestors 100kA and over temperature protection > 45 deg C. The system should be with compatible with Grid Power or D.G. Power Supply.					
1.06	The capacitor banks should be of type tested design and temperature rise test report of the capacitor bank performed at an independent laboratory should be submitted. HPFC PANEL- 400 Amp. APF3N + 200 KVAR Panel as described above.					
1.07	HPFC Panel - 400 Amp. APF3N + 200 KVAR Panel as described above.	3.00	Each	925000.00	2775000.00	INR Twenty Seven Lakh Seventy Five Thousand Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder (Without GST) Rs. P	TOTAL AMOUNT in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	53	55
2.00	Electrical PANEL Design, Manufacture, Supplying, Transport to the site, Receiving, Unloading, Shifting to various locations, handling, assembling, installation in correct aligned position, grouting with dash fasteners, GI nuts-bolts, testing and commissioning of the following bolted fabricated in compartmentalized conform to IS: 8623/1993, Suitable for 415V, 3Phase, 4 Wire 50 Hz Ac supply, are housed in design from CRCA sheet steel of 2mm thick for frame work and covers, 3mm thick for gland plate, bottom base channel of MS section not less than 100mmx 50mmx50mmx 5mm thick for Main L.T. Panel etc., incl. cleaning & finishing complete, SMC bus bar supports, with short circuit withstand capacity as mentioned in respective panel item, fabrication shall be done in transportable sections and all front and back doors shall be hinged type and earth with frame. Entire panel shall have a common copper continuous earth bar of size 40mm x 6mm or as specified below at the rear wip controller by 2 Amp SP MCB including all features of electrical & mechanical interlocking with incomers & bus coupler. 2 Nos. earth stud each side, solid inter connections from main bus bar to switch gears upto cable alley with required size. bus bars and insulated control wiring with suitable size of FRLSH PVC insulated copper conductor cable, cable alleys, cable gland plates in two half, incl. providing following switch gears. Note: Necessary modification shall be carried out in existing HVAC panel to connect with new HVAC panel. Nothing extra shall be paid.					
2.01	The Bus bars will be electrolytic grade E91 Aluminium. Panels will be powder coating (60-80micron as per IS:13871 for indoor and 90-100 micron for outdoor), include one size higher terminal block in cable alley and interconnecting wires between bus bars and terminals.					
2.02	INCOMING 1 Nos. 800 Amps four pole electrically operated fully drawout type air circuit breaker (50kA) with built in microprocessor based release unit protection for short circuit, over current and earth fault protection with adjustable setting as per specification and each incomer with following accessories:					
2.03	1 Set of RYB phase indicating LED lamps controlled by 2 amp MCB.					
2.04	1 Set of 'ON', 'OFF', 'TRIP & TCH (Trip circuit healthy) LED lamps controlled by 2 amp MCB.					
2.05	1 No. Digital MFM meter and 3 nos. Cast resin CTs of ratio 2500/5A , Class 0.5 accuracy and 15 VA burden. digital multifunction meter suitable to measure voltage, Ampere, Frequency, Power Factor, Measurement of both KVA/KW/kVAH/MDI, Individual Odd Harmonics for voltage and current including THD with RS-485 port.					

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NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder (Without GST) Rs. P	TOTAL AMOUNT in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	53	55
2.06	1 Set of Single phase preventer indicating LED lamps controlled by 2 amp MCB for trip and hooter for alarm.					
2.07	1 Set of Phase Reversal relay indicating LED lamps controlled by 2 amp MCB for trip and hooter for alarm.					
2.08	BUSCOUPLER 1 Nos. 800 Amps four pole electrically operated fully drawout type air circuit breaker (50kA) with built in microprocessor based release unit protection for short circuit, over current and earth fault protection with adjustable setting as per specification and each with following accessories:					
2.09	1 Set of 'ON', 'OFF', 'TRIP' LED lamps controlled by 2 amp MCB.					
2.10	Provide electrical and mechanical interlocking between Main incomers and buscoupler.					
2.11	BUSBARS 4P aluminium bus bars of 1000A capacity with heat shrinkable coloured sleeves i/c SMC bus bars supports at required intervals complete for cross section, size supports & their spacing etc. for withstanding fault level of 50 KA for 1 sec.					
2.12	OUTGOING 1 Set of 'ON', 'OFF', 'TRIP' LED lamps controlled by 2 amp MCB with each MCCB outgoing.					
2.13	1 No. 250A 3P MCCB with built in Microprocessor based release with adjustable thermal setting (Ics = Icu =50 KA) with Star Delta Starter with protection suitable for 60 HP Motors.					
2.14	1 No. 100A 3P MCCB with built in Microprocessor based release with adjustable thermal setting (Ics = Icu =50 KA) with Star Delta Starter with protection suitable for 20 HP Motors.					
2.15	1 No. 250A 3P MCCB with built in Microprocessor based release with adjustable thermal setting (Ics = Icu =50 KA) with VFD (Heavy Duty) suitable for 30 HP Motors.					
2.16	1 No. 100A 3P MCCB with built in Microprocessor based release with adjustable thermal setting (Ics = Icu =50 KA) with DOL Starter with protection suitable for 7.5 HP Motors.					
2.17	Each outgoing with digital MFM meter and 3 nos. Cast resin CTs of ratio as required, Class 0.5 accuracy and 10 VA burden. digital multifunction meter suitable to measure voltage, Ampere, Frequency, Power Factor, Measurement of both KVA/KW/kVAH/MDI, Max. Demand with RS-485 port.					
2.18	L.T. PANEL (HVAC) as described above	1.00	Set	595000.00	595000.00	INR Five Lakh Ninety Five Thousand Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder (Without GST) Rs. P	TOTAL AMOUNT in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	53	55
3.00	Supplying, installing by suspension on ceiling/along the wall, testing and commissioning of 800 A, Isc = 50 kA for 1 second capacity Sandwich Type Rising Mains for use on 3 phase 4 wire 415 V, 50Hz A.C. supply with metal clad enclosure having IP-54 rating after fixing the tap off boxes and all accessories, made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos. ETP grade aluminium bus bars with 99.5% purity at nominal current rating, crossovers joints, necessary joints, elbow joints & expansion joints and bends, fire barrier at each floor, provision of tapping at every meter, adopter box and copper flexible for joints, continuous earthing with 2 Nos. aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required. Note: Necessary modification shall be carried out in existing Electrical Panel to connect Bus Duct. Nothing extra shall be paid.	120.00	Meter	21000.00	2520000.00	INR Twenty Five Lakh Twenty Thousand Only
4.00	Providing and fixing 50 mm X 6 mm G.I. strip on surface or in recess for connections etc. as required.	50.00	Meter	395.00	19750.00	INR Nineteen Thousand Seven Hundred & Fifty Only
5.00	Providing, fixing & pasting in position 1000 mm wide, Electrical Insulating Mats as per IS 15652:2006, 3mm thick, suitable for 33 KV, fire retardant, no effect of acids, alkalies and transformer oils, moisture proof, high tensile strength and (Anti slip, marking on top).	10.00	RM	2250.00	22500.00	INR Twenty Two Thousand Five Hundred Only
Total in Figures					5932250.00	INR Fifty Nine Lakh Thirty Two Thousand Two Hundred & Fifty Only
Quoted Rate in Words		INR Fifty Nine Lakh Thirty Two Thousand Two Hundred & Fifty Only				


 Dy. Gen. Manager (Engg-Elect)
 AAI, R. B. Airport, Bhopal