



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

संख्या: भा0वि0प्रा0/वारा0/स.म.प्र.अभि0(विद्युत)/543/W-1/2024-25/10329-37 दिनांक: 26.07.2024
Ref :- AAI/VNS/AGM Engg.(E)/543/ W-1/ 2024-25 / 5248-55 Date : 26.07.2024
सेवा में, To,

मेसर्स सौरभ इन्टरप्राइजेज,
पूरा-रघुनाथपुर, बाबतपुर,
वाराणसी-221006.

M/s Saurabh Enterprises,
Pura-Raghunathpur, Babatpur,
Varanasi-221006.

कार्य का नाम:- कन्स्ट्रक्शन ऑफ ए.एस.आर/एम.एस.एस.आर. ऐट एल.बी.एस.आई.
एयरपोर्ट वाराणसी। उपशीर्षक : सब-स्टेशन एण्ड एलाईड वर्क्स।

Name of work:- Construction of ASR/MSSR Building at LBSI Airport,
Varanasi. SH :- Substation and Allied Works.

संदर्भ:-ई-निविदा (2024 AAI 197932 1) खोलने का दिनांक 19.07.2024

Ref:- Your Tender ID (2024 AAI 197932 1) opened on 19.07.2024

प्रिय महोदय, Dear Sir,

- उपरोक्त कार्य के लिए रुपये 2,00,88,940.00 (जीएसटी रहित) (रुपये दो करोड़ अठासी हजार नौ सौ चालीस मात्र) की मद दर निविदा, जो कि कार्य की अनुमानित लागत रुपये 2,48,53,191.00 (रुपये दो करोड़ अड़तालीस लाख तिरपन हजार एक सौ इक्यानब्बे मात्र) से 19.17% (उन्नीस दशमलव एक सात प्रतिशत) कम है, आपके द्वारा निविदा प्रपत्र में दर्शायी गयी मद दरों पर भरी गई है, अद्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से स्वीकृत की जाती है।
- Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you, totaling to Rs. 2,00,88,940.00 (excluding GST) (Rupees Two Crores Eighty Eight Thousand Nine Hundred Forty Only) which is 19.17% (Nineteen Point One Seven Percent) below the Estimated cost of Rs. 2,48,53,191.00 (Rupees Two Crores Forty Eight Lacs Fifty Three Thousand One Hundred Ninety One Only)
- सहायक महाप्रबन्धक (अभि0-वि0)ए भा.वि.प्रा., लाल बहादुर शास्त्री अन्तरराष्ट्रीय हवाई अड्डा, वाराणसी इस कार्य के कार्य प्रभारी अभियन्ता होंगे तथा सहायक प्रबन्धक (अभि0-वि0), उनके प्राधिकृत प्रतिनिधि होंगे। आपसे अनुरोध है कि दिनांक 05.08.2024 तक सहायक महाप्रबन्धक (अभि0-वि0), के कार्यालय में उपस्थित होकर संविदा अनुबन्ध को हस्ताक्षरित कर पूर्ण करें। अनुबन्ध 100/-रुपए के गैर न्यायिक स्टाम्प पेपर पर सम्पादित किया जाएगा, स्टाम्प पेपर की कीमत आपके द्वारा वहन की जाएगी।
- Asstt. General Manager (Engg-E), AAI, LBSI Airport, Varanasi shall be the Engineer-in-charge of the work and Asstt. Manager (E-E), shall be the authorized representative of Engineer-in-charge. You are requested to attend the office of Asstt. General Manager Engg. (E) AAI, LBSI Airport, Varanasi by 05.08.2024 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100.00 (Rupees One Hundred Only) and the cost of the stamp paper shall be borne by you.

शेष पृष्ठ 2 पर

Ambir Singh
AGM(E)



पृष्ठ - 2/ 3

3. निविदा के साथ प्राप्त धरोहर राशि **रुपये 4,97,064.00** (रुपये चार लाख सन्तानब्बे हजार चौसठ मात्र) संविदा प्रपत्र के अनुच्छेद अनुसार प्रतिभूति निक्षेप राशि का हिस्सा मानकर उसमें बदल दिया जाएगा। कृपया शेष प्रतिभूति निक्षेप राशि रुपया 15,11,830.00 (रुपये पन्द्रह लाख ग्यारह हजार आठ सौ तीस मात्र) इस पत्र के निर्गत दिनांक से दस दिनों के भीतर जमा करें अन्यथा उक्त धनराशि की कटौती संविदा प्रपत्र की पृष्ठ संख्या 16 के शर्त संख्या 1ए के अनुसार चालू लेखा बिलो से की जाएगी।
3. The earnest money amount of **Rs. 4,97,064.00** (Rupees Four Lacs Ninety Seven Thousand Sixty Four Only) received along with your tender will be treated and converted as a part of Security Deposit. Please deposit Rs. 15,11,830.00 (Rupees Fifteen Lakhs Eleven Thousand Eight Hundred Thirty Only) towards balance Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted from your running bill as per conditions of clause no. 1A on page 16 of Clause of Contract of contract document.
4. आपसे अनुरोध है कि संविदा श्रमिक प्रावधान (विनिमय एवं उन्मूलन) एक्ट 1970, श्रमिक प्रावधान (विनिमय एवं उन्मूलन)-केन्द्रीय नियम 1971, न्यूनतम मजदूरी अधिनियम एवं इस सम्बन्ध में केन्द्र/राज्य सरकार के नियमों का पालन करना सुनिश्चित करें।
4. 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 with upto date amendments.
5. आपको निर्देशित किया जाता है कि आप तुरन्त प्रभाव से सहायक महाप्रबन्धक (अभि0-वि0), भा.वि.प्रा., लाल बहादुर शास्त्री अन्तरराष्ट्रीय हवाई अड्डा, वाराणसी से सम्पर्क करें जो आपको कार्यस्थल सौंपने की व्यवस्था करेंगे।
5. You are also directed to contact Asstt. General Manager (Engg.-E), AAI, LBSI Airport, Varanasi immediately who will arrange to hand over the site to you.
6. कृपया ध्यान दें कि कार्य पूर्ण करने की अवधि **चार (4) माह है** जो कि दिनांक **05.08.2024** से प्रभावी मानी जाएगी।
6. Please note that the time allowed for carrying out the work period is **Four (4) Months** and the same shall be reckoned from dated **05.08.2024**.
7. संविदा के सन्दर्भ में किसी भी प्रकार का पत्राचार सामान्यतः सहायक महाप्रबन्धक (अभि0-वि0), भा.वि.प्रा., लाल बहादुर शास्त्री अन्तरराष्ट्रीय हवाई अड्डा, वाराणसी को सम्बोधित करें।
7. Any further correspondence in connection with the contract should normally be addressed to the Asstt. General Manager (E-E), AAI, Lal Bahadur Shastri International Airport, Varanasi.
8. कृपया इस पत्र की पावती भेजें एवं पत्र कि अनुलिपि जो कि संलग्न है को हस्ताक्षरित कर अधोहस्ताक्षरी को स्वीकृत चिन्ह के रूप में वापस करें।
8. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

शेष पृष्ठ 3 पर

Ambank Sm
AGM(22)



पृष्ठ - 3/ 3

9 उपरोक्त के हिन्दी पाठ में कोई अन्तर या द्विधार्थकता होने की स्थिति में अंग्रेजी पाठ मान्य होगा।

In case of difference or ambiguity in Hindi and English version, the English version will prevail.

धन्यवाद।

संलग्नक- यथोपरि

Encl:- As above

भवदीय

Ambir Singh
26/07/2024

कृत अध्यक्ष

सहायक महाप्रबंधक (अभि0-विद्युत)

For and on behalf of the chairman, AAI
Asstt. General Manager (Engg,-E)

SCHEDULE OF QUANTITY

Name of Work :- Construction of ASR/MSSR Building at LBSI Airport, Varanasi. SH :- Substation and Allied Works.

SI.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
1.00	SH I : SITC of T/F, DG sets, Shifting of DG set, HT Panel Supply, Installation, Testing & Commissioning of ONAN (Oil Immersed Natural Air Cooled) type, 250 KVA, 11 KV / 0.433 KV, 3 Phase, 50Hz, Dyn 11 vector group, copper wound class A insulation with winding temperature indicator, oil temperature indicator indoor type Transformer as per IS-1180 with up to date amendments. The transformer shall be provided with +5% to -10% in steps of 2.5 % each Off load tap changer on HT side, having cable end boxes on HV side suitable for 3C x 95 sq.mm. XLPE cable of 11 KV grade and 400 Amp. Cable box arrangement of LV side with neutral brought out separately including supplying and grouting of suitable MS channels with all accessories for mounting arrangement and confirming to relevant standard as amended up to date & as per specifications complete in all respects as required at site including any civil foundation, minor civil works as required for installation of transformer.	Job	2.00	1100000.00	2200000.00
2.00	Providing, Installation, Testing and Commissioning of CPCB IV compliant 'Silent Type' Diesel Generating set alongwith having Prime Power Rating of 160 kVA, 415 volts at 1500 RPM, 0.8 lagging power factor at 415V suitable for 50 Hz, 3 phase 4 wire system & for 0.85 Load Factor and consisting of the followings: Diesel Engine : Diesel engine of 4 stroke liquid cooled, electric start, of suitable BHP at 1500 RPM suitable for above output of alternator at 45 Degree C, 50% RH & at 1000 Meter MSL and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% over loading for one hour after 12 hours of continuous operation. The engine will be fitted complete with all the required accessories. Engine mounted Instrument Panel fitted with and having digital display for following : (i) Start-stop switch with key. (ii) Water temperature indication. (iii) Lubrication oil pressure indication. (iv) Lubrication oil temperature indication. (v) RPM indication. (vi) Over speed indication. (vii) Low lub. Oil trip indication. (viii) Engine Hours indication. Alternator: Synchronous alternator rated at 160kVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 45 Degree C, 50% RH & at 1000 Meter MSL. The alternator shall be having SPDP enclosure, brushless, continuous duty, self-excited and self regulated through AVR conforming to IS:4722/BS 2613 suitable for tropical conditions and with class- F/H insulation. Base Frame & Foundation : Both the engine and alternator shall be mounted on suitable base frame made of MS channel with necessary reinforcement which shall be installed on existing cement concrete foundation and vibration isolation arrangement as per recommendations of manufacturer. Fuel line work : Providing and Installing external service fuel tank of 990 Ltr. capacity fabricated out of 3mm thick MS sheet. Fuel piping between fuel tank and diesel engine with MS class 'C' pipes of suitable dia. up to 25 mtrs. Complete with valves, level indications & accessories as required as per specifications. Exhaust System : Dry exhaust manifold with residential exhaust silencer and catalytic convertor including exhaust piping up to 20 metres height with MS support structure with back pressure calculation etc. as per CPCB norms, lightning arrester vial, and supplying and fixing of GI strip on MS support structure on insulated base up to base of structure. Starting System : 12V/24V DC starting system comprising of starter motors, voltage regulator and arrangement for initial excitation complete with suitable nos of batteries (150 AH capacity lead acid type) as required as per specifications. Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per specifications. Works includes complete SITC Job including required works as per O.E.M guidelines like providing & fixing C channel etc. complete in all respects as required at site.	Job	1.00	1300000.00	1300000.00

Ambarkhand
ACM/RS/

SI.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
3.00	Dismantling, shifting, installation, testing & commissioning of existing 11 kV VCB breaker type HT panel of make - Megawin with 01 Incomer panel & 02 Nos. Outgoing panels including proper dismantling of panels, cable terminations, earth strips, etc. using suitable machinery as required & shifting to new location i.e. New MSSR Power House (inside operational area approx distance 1 km) by using sufficient size Hydra Machines i/c loading and unloading at designated place with all the required suitable tools/machinery, without any damages to HT panel and its components complete as required. The dismantling is to be done in such a way so the same equipments can be installed at New Location for proper utilization. Item also includes re-assembling, installation, testing & commissioning of the shifted HT panel at New MSSR Power House. The commissioning has to be carried out through OEM & as per OEM recommendations.	Job	1.00	55000.00	55000.00
4.00	Dismantling & shifting of existing silent type Greaves make 160 KVA DG set assembly including dismantling of canopy (enclosure), cable terminations, batteries, earth strips, silencer, exhaust piping, insulation, cladding of exhaust piping, fuel piping, fuel tank, MS support structure of exhaust pipe and diesel tank etc. using suitable machinery, cutting as required & shifting to new location i.e. New MSSR Power House (inside operational area approx distance 1 km) by using sufficient size Hydra Machines i/c loading and unloading at designated place with all the required suitable tools/machinery, without any damages to component & equipment as required. The dismantling is to be done in such a way so the same equipments can be installed at New Location for proper utilization.	Job	1.00	35000.00	35000.00
5.00	Installation, testing & commissioning of the shifted Greaves make 160 KVA DG set at New MSSR Substation by assembling all the parts of the DG set i/c canopy, cable connection, replacement of all the Nuts Bolts, gaskets of suitable size as required, installation of shifted fuel tank and SITC of fuel line work with suitable size dia MS class 'C' pipe between fuel tank and diesel engine complete with valves & accessories including all the connection in the existing AMF panel complete as per site requirement, installation, testing and commissioning to be done as per OEM recommendation complete with load testing as per Special Conditions of Contract.	Job	1.00	45000.00	45000.00
6.00	Fixing of existing shifted MS support structure alongwith making of foundation of grade 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of suitable size for exhaust fume pipes from DG Sets for bottom support along horizontal and vertical runs upto the height required for exhaust pipe, including replacment of all the nuts, bolts, washers by cutting, welding etc. and applying two coats of red oxide and two coats of synthetic enamelled paint of colour and shade as per site requirement. The support structure shall be suitable for the exhaust pipe height. Work includes all necessary civil work as directed by the EIC and as per site requirement.	Job	1.00	70000.00	70000.00
7.00	Laying & fixing of existing shifted MS exhaust Piping for 160 kVA D.G. Sets for Exhaust system including the bends, reducers & supporting arrangement for attaching the pipe to existing RCC /MS structure by cutting/welding, painting etc., replacment of all the nuts, bolts, washers, gasket complete as per site requirement. Nothing will be paid for any replacement of damaged MS pipe required to complete the job.	Metre	20.00	3000.00	60000.00
8.00	Providing and fixing of 50mm thick mineralwool/ glasswool/Rockwool insulation (of 46 kg per cubic meter density) around the exhaust pipes, cladding with aluminium sheet of 0.63 mm thick complete as required as per site requirement.	Metre	10.00	2000.00	20000.00
9.00	Providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in foundation of pump, DG set etc including form work etc as required including required excavation in soft soil, cemented soil etc. complete as required.	cum	8.00	6500.00	52000.00
10.00	SH II : SITC of LT Panel Main LT Panel : Fabrication, Supply, Installation, Testing and Commissioning of cubicle type, IP-42, indoor LT panel - type tested assembly (TTA) as per IEC 61439-1&2, floor mounting, free standing, suitable for 415V+/-10%, 3 Phase, 4 wire, 50 Hz AC supply system, fabricated in compartmentalized modular design from 2 mm thick CRCA sheet, 3 mm thick for gland plates and 1.6 mm for doors, covers & partitions i/c cleaning & finishing, complete with 7 tank process for powder coating in approved shade, TPN Aluminium alloy bus bars of high conductivity, SMC / DMC bus bar supports, with short circuit withstand capacity of 50 KA for 1 sec, bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, fabrication done in transportable sections, entire panel shall have a common Al. earth bus bar of suitable size, at the rear end with 2 Nos. earth stud, solid / flexible connections from main bus bar to switchgears and from switchgear output to cable termination in cable alley with required size of Copper conductors / Aluminium bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor cable (FRLS), cable alleys, cable gland plates in two half, complete with all accessories, interconnection, interlocking, earth ing i/c providing following switchgears / accessories as per specifications:	Job	1.00	650000.00	650000.00

Ambirish Singh
AGM (E&I)

Sl.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
	A) Incomers & Bus coupler: (a) 400 A, 50 kA, Four Pole MCCB (Ics = 100% Icu), Microprocessor Based Release with O/L & S/C Protection - 3 Sets (Incomer - 2 Nos. & Bus-Coupler - 1 No.) (b) Digital KWH meter and Intelligent Digital Multi Function Meter to read V, A, kVA, KW, kVAR, PF, Hz, THD and individual order harmonics up to 31st Order etc. with communication facility (RS-485 port), CL-1.0, LED display with 03 Nos of CTs, 400/5, 15 VA, Class 1.0 and control circuit wiring with 2 Amps MCBs for controlling and protection including data logging facility (block profile 15/30 min integration up to min. 30 days) - 2 Sets. (c) Set of R, Y, B Phase indicating lamps, LED type, with 2 Amp MCB for protection. - 3 Sets. (d) Set of Indication Lamps, LED type for MCCB 'ON', 'OFF', 'TRIP' with 02 Amps MCB for protection - 3 Sets. e) Auxiliary contacts / contactors, auxiliary relays, shunt trip etc. for interlocking of the incomer MCCBs and bus coupler MCCB as required. - 1 Set. (f) 3 Phase 4 Wire kWh Meter, CT op base mounting, Class accuracy 0.5s with 03 Nos of CTs, 400/5, 15 VA, Class 1.0 - 2 Sets. (g) Surge Protection Device - Type 1+2, 3 Pole + NPE, I_{max} = 50 kA, Modular Type, conforming to EN/IEC 61643-11 with 32A, FP C-Series MCB including complete connection with copper flexible cable and as per technical specifications. (OBO - V50-3+NPE-320 / L&T AUSP123PN50 or similar) - 2 Sets B) Main Busbars: TPN, high conductivity Aluminium, both sides extensible type main bus bars of minimum of 630 Amps. capacity with heat shrinkable coloured sleeves and i/c DMC / SMC bus bars cross section supports & their spacing etc. For withstanding fault level of 50 kA capacity for 1 sec. - 1 Set C) Outgoings: (a) 200 A, 36 kA, 4 Pole MCCB (Ics = 100% Icu), Microprocessor Based Release with O/C & S/C Protection + Digital Ammeter with in-built selector switch, RS 485, CL-1 accuracy & suitable range of cast resin CTs (03 Nos) including connections etc as required. - 2 Sets. (b) 100 A, 36 kA, Four Pole MCCB (Ics = 100% Icu) with O/L and S/C Fault Protection with Adjustable Thermal and Adjustable Magnetic Releases + Digital Ammeter with in-built selector switch, RS 485, CL-1 accuracy & suitable range of cast resin CTs (03 Nos) including connections etc as required. - 3 Sets. (c) 63 A, 25 kA, Four Pole MCCB (Ics = 100% Icu) with O/L and S/C Fault Protection with Adjustable Thermal and Adjustable Magnetic Releases + Digital Ammeter with in-built selector switch, RS 485, CL-1 accuracy & suitable range of cast resin CTs (03 Nos) including connections etc as required. - 2 Sets. (d) 40 A, 25 kA, Four Pole MCCB (Ics = 100% Icu) with O/L and S/C Fault Protection with Adjustable Thermal and Adjustable Magnetic Releases + Digital Ammeter with in-built selector switch, RS 485, CL-1 accuracy & suitable range of cast resin CTs (03 Nos) including connections etc as required. - 3 Sets. NOTE: a) All MCCBs shall be provided with ON, OFF & TRIP indication lamps (LED type) with 2 Amp SP MCB for protection. b) All MCCBs shall be provided with rotary operating handle and spreader terminals.				
11.00	Switch Room LT Panel Fabrication, Supply, Installation, Testing and Commissioning of cubicle type, IP-42, indoor LT panel - partially type tested assembly (PTTA) as per IEC 61439-1&2, floor mounting, free standing, suitable for 415V+/-10%, 3 Phase, 4 wire, 50 Hz AC supply system, fabricated in compartmentalized modular design from 2 mm thick CRCA sheet, 3 mm thick for gland plates and 1.6 mm for doors, covers & partitions i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, TPN Aluminium alloy bus bars of high conductivity, SMC / DMC bus bar supports, with short circuit withstand capacity of 36 KA for 1 sec, bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, fabrication done in transportable sections, entire panel shall have a common Al. earth bus bar of suitable size, at the rear end with 2 Nos. earth stud, solid / flexible connections from main bus bar to switchgears and from switchgear output to cable termination in cable alley with required size of Copper conductors / Aluminium bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor cable (FRLS), cable alleys, cable gland plates in two half, complete with all accessories, interconnection, interlocking, earthing i/c providing following switchgears / accessories as per specifications. Cable entry top/bottom should be as approved as per site requirement. A) Incomers & Bus coupler: (a) 200 A, 36 kA, Four Pole MCCB (Ics = 100% Icu), Microprocessor Based Release with O/L & S/C Protection - 3 Sets (Incomer - 2 Nos. & Bus-Coupler - 1 No.) b) Digital KWH meter and Intelligent Digital Multi Function Meter to read V, A, kVA, KW, kVAR, KWH, PF, Hz, THD and individual order harmonics up to 31st Order etc. with communication facility (RS-485 port), CL-1.0, LED display with 03 Nos of CTs, 400/5, 15 VA, Class 1.0 and control circuit wiring with 2 Amps MCBs for controlling and protection including data logging facility (block profile 15/30 min integration up to min. 30 days) - 2 Sets. c) Set of R, Y, B Phase indicating lamps, LED type, with 2 Amp MCB for protection. - 3 Sets. d) Set of Indication Lamps, LED type for MCCB 'ON', 'OFF', 'TRIP' with 02 Amps MCB for protection - 3 Sets. e) Auxiliary contacts / contactors, auxiliary relays, shunt trip etc. for positive interlocking of the incomer MCCBs and bus coupler MCCB as required. - 1 Set. f) Surge Protection Device - Type 1+2, 3 Pole + NPE, I_{max} = 50 kA, Modular Type, conforming to EN/IEC 61643-11 with 32A, FP C-Series MCB including complete connection with copper flexible cable and as per technical specifications. (OBO - V50-3+NPE-320 / L&T AUSP123PN50 or similar) - 2 Sets	Job	1.00	400000.00	400000.00

Ambirah Pral
AGM (S)

Sl.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
	B) Main Busbars: TPN, high conductivity Aluminium, both sides extensible type main bus bars of minimum of 300 Amps. capacity with heat shrinkable coloured sleeves and i/c DMC / SMC bus bars cross section supports & their spacing etc. For withstanding fault level of 36 kA capacity for 1 sec. - 1 Set C) Outgoings: (a) 100 A, 36 kA, 4 Pole MCCB (Ics = 100% Icu), Microprocessor Based Release with O/C & S/C Protection + Digital Ammeter with in-built selector switch, RS 485, CL-1 accuracy & suitable range of cast resin CTs (03 Nos) including connections etc as required. - 4 Sets. (b) 40 A, 25 kA Four Pole MCCB (Ics = 100% Icu) with O/L and S/C Fault Protection with Adjustable Thermal and Adjustable Magnetic Releases + Digital Ammeter with in-built selector switch, RS 485, CL-1 accuracy & suitable range of cast resin CTs (03 Nos) including connections etc as required. - 2 Sets. NOTE: a) All MCCBs shall be provided with ON, OFF & TRIP indication lamps (LED type) with 2 Amp SP MCB for protection. b) All MCCBs shall be provided with rotary operating handle and spreader terminals.				
12.00	AMF LT Panel Fabrication, Supply, Installation, Testing and Commissioning of cubicle type, IP-42, indoor LT panel - partially type tested assembly (PTTA) as per relevant IEC/IS norms, floor mounting, free standing, suitable for 415V+/-10%, 3 Phase, 4 wire, 50 Hz AC supply system, fabricated in compartmentalized modular design from 2 mm thick CRCA sheet, 3 mm thick for gland plates and 1.6 mm for doors, covers & partitions i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, TPN Aluminium alloy bus bars of high conductivity, extensible on both sides, SMC / DMC bus bar supports, with short circuit withstand capacity of 50 KA for 1 sec, bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, fabrication done in transportable sections, entire panel shall have a common Al. earth bus bar of suitable size, at the rear end with 2 Nos. earth stud, solid / flexible connections from main bus bar to switchgears and from switchgear output to cable termination in cable alley with required size of Copper conductors / Aluminium bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor cable (FRLS), cable alleys, cable gland plates in two half, complete with all accessories, interconnection, interlocking, earthing i/c providing following switchgears / accessories as per specifications:- a) 250 A, 50 KA, 4 Pole MCCB (Ics = 100% Icu), Microprocessor Based Release with O/C & S/C Protection - 2 Sets. (b) 250 A, 4 Pole Power Contactor with Aux. Contacts - 2 Nos. (c) 250 A, 4 Pole Bypass Changeover Switch to bypass Mains / DG - 01 No. (d) Protection Relays - Over Current + Earth Fault, Under Voltage, Under Voltage (Each - 2 Nos.), Reverse Power (1 No.) with CTs of suitable range - 15VA, CL-5P10 accuracy for protection as applicable. (e) LED Indication lamps for RYB (2 Sets), Load on Mains, Load on DG, DC Control ON, Battery Charger ON etc. with 2 Amp MCB for protection. (f) Digital KWH meter and Intelligent Digital Multi Function Meter to read V, A, kVA, KW, kVAR, PF, Hz, THD and individual order harmonics up to 31st Order etc. with communication facility (RS-485 port), CL-1.0, LED display - 2 Nos. + Digital Ammeter, RS 485, CL-1.0, with in-built selector switch with 2 Amps MCBs for controlling and protection - 2 Nos. + 3 Nos. CTs, 300/5, 15 VA, Class 1.0 and control circuit wiring with 2 Amps MCBs for controlling and protection. (g) Microprocessor Based Advanced AMF Control Logic Relay with Built-In DG Protection suitable for installed DG set - 1 No. (h) 12/24 V DC Control Circuit, Voltage Monitoring Relay (2 Nos), Cranking Relay, Engine Starting Relay, Aux. Relays, Timers, Aux. Contactors, Selector Switches, Push Buttons, Emergency Stop Push Button, 2 A Control MCBs as required for control / interlocking / protection & Accessories etc. as required. - 1 Set. (i) 12/24 V DC Battery Charger as per the DG set to be installed, complete with transformer / rectifier, DC Voltmeter and DC Ammeter, Selector Switch for Trickle / Off / Boost with current adjustment - 1 Set (j) 8 Window Annunciator with Push Button for Test/Accept/Reset + Hooter for indication of High Water Temperature, High/Low Lube Oil Pressure, Engine Overspeed, Engine Fails to Start, Over Current, Under / Over Voltage, Reverse Power & Earth Fault Etc. as required. - 1 Set (k) Control Cabling with 12C x 2.5 Sqmm Cu. Arm. Cable between AMF Panel and DG Set Control Unit up to 30 metres as required. NOTE: All MCCBs shall be provided with rotary operating handle and spreader terminals.	Job	2.00	400000.00	800000.00
13.00	Supply, installation, testing and commissioning of Four Pole, 250 Amp, Manual On Load Changeover switch for 02 incomer 01 outgoing configuration complete with SS or as per OEM enclosure, handle etc. as required.	Each	1.00	45000.00	45000.00
14.00	SITC of Automatic Transfer Switch 4P, 125A, 415V, 3 phase, 50 Hz with Bypass mechanism, totally enclosed, wall mounted, dust & vermin proof, indoor type having 2 incomer & 1 Outgoing along with detachable gland plate complete as per site requirement.	Each	1.00	45000.00	45000.00
15.00	SH III : Supply & Laying of HDPE pipes, Cables, Termination & Joints Supply of 3C x 95 Sqmm. size, 11 KV grade, XLPE insulated & PVC sheathed armoured aluminium conductor HT(E) cable generally conforming to IS 7098 Part II-1985 with up to date amendments as required.	Metre	1324.00	700.00	926800.00
16.00	Supplying of 1.1 kV grade multicore stranded Aluminium Conductor XLPE insulated galvanised steel strip armoured & overall PVC sheathed armoured power cables as per IS: 7098 Part-I complete as required. a) 3.5 X 400 Sq.mm	Metre	2772.00	1600.00	4435200.00

Arnbir Ind
ACME

Sl.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
17.00	Supplying of 1.1 kV grade multicore stranded Aluminium Conductor XLPE insulated galvanised steel strip armoured & overall PVC sheathed armoured power cables as per IS: 7098 Part-I complete as required. a) 3.5C X 185 Sq.mm	Metre	698.00	800.00	558400.00
18.00	Supply and laying of double wall corrugated high density polyethylene (DWC HDPE pipe) pipe confirming to IS:14930 (part-2) with latest amendment, complete along with 4mm nylon rope with accessories like couplers, bends, tee etc. in the soil for GLF supply/power supply work upto 750 mm deep, back filling & making good the same as per site requirement as per the direction of engineer in charge. a) 120 mm dia (OD-120 mm & ID-103 mm nominal)	Metre	2600.00	250.00	650000.00
19.00	Supply and laying of double wall corrugated high density polyethylene (DWC HDPE pipe) pipe confirming to IS:14930 (part-2) with latest amendment, complete along with 4mm nylon rope with accessories like couplers, bends, tee etc. in the soil for GLF supply/power supply work upto 1200 mm deep, back filling & making good the same as per site requirement as per the direction of engineer in charge. a) 90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	1240.00	200.00	248000.00
20.00	Supply and laying of double wall corrugated high density polyethylene (DWC HDPE pipe) pipe confirming to IS:14930 (part-2) with latest amendment, complete along with 4mm nylon rope with accessories like couplers, bends, tee etc. in the soil for GLF supply/power supply work upto 750 mm deep, back filling & making good the same as per site requirement as per the direction of engineer in charge. a) 90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	400.00	225.00	90000.00
21.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV (HT) grade of following size in the existing RCC/ HUME/ METAL/HDPE pipe as required. Upto 120 sq. mm	Metre	1240.00	40.00	49600.00
22.00	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL/HDPE pipe as required. a) Above 95 sqmm and upto 185 sqmm	Metre	400.00	40.00	16000.00
23.00	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL/HDPE pipe as required. a) Above 185 sqmm and upto 400 sqmm	Metre	2600.00	50.00	130000.00
24.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV (HT) grade of following size in the existing masonry open duct as required. Upto 120 sq. mm	Metre	20.00	40.00	800.00
25.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. a) Above 95 sqmm and upto 185 sqmm	Metre	260.00	50.00	13000.00
26.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. a) Above 185 sqmm and upto 400 sqmm	Metre	20.00	50.00	1000.00
27.00	Providing and laying 6 SWG dia G.I. wire in/along with HDPE/RCC/ HUME/ METAL pipe/existing trench or along with cable for loop earthing etc complete as required.	Metre	4560.00	25.00	114000.00
28.00	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :. a) 3 X 95 Sq.mm	Set	2.00	5000.00	10000.00
29.00	Supplying and making end termination with brass compression gland and Aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE Aluminium conductor cable of 1.1 KV grade as required. a) 3.5 X 400 Sq.mm	Set	12.00	3000.00	36000.00
30.00	Supplying and making end termination with brass compression gland and Aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE Aluminium conductor cable of 1.1 KV grade as required. a) 3.5 X 185 Sq.mm	Set	24.00	2000.00	48000.00

Ambrish Jind
ACME

Sl.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
31.00	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required : a) 3 X 95 Sq.mm	Set	4.00	6000.00	24000.00
32.00	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. a) 3.5 X 400 Sq.mm	Set	6.00	3500.00	21000.00
33.00	Design, manufacture, supply, installation, testing and commissioning of outdoor type feeder pillar box as per latest IS of size 0.60 m X 0.75 m X 0.30 m with double door fabricated from 2 mm thick MS steel including TPN Bus bar of following rating with suitable equidistant arrangement for connection of 01 I/c and 02 Outgoing cables, cable entry from bottom, arrangement for earth connection, totally enclosed type with free standing floor mounted, dust & vermin proof etc including MS angle iron stand as per site requirement complete as required. a) 415 V, 400 AMP, 50 Hz	Job	6.00	11500.00	69000.00
34.00	SH IV : Earthing Earthing with copper earth plate 600 mm X 600 mm X 3 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.	Set	6.00	15000.00	90000.00
35.00	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.	Set	18.00	7000.00	126000.00
36.00	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Meter	50.00	1150.00	57500.00
37.00	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	76.00	240.00	18240.00
38.00	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	60.00	1550.00	93000.00
39.00	Providing and fixing 25 mm X 5 mm GI strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	98.00	750.00	73500.00
40.00	SH V : Precision Air Conditioning Supply of 15 TR Floor Mounted, Bottom discharge, Top suction, Air Cooled DX type CRAC units for Equipments room application suitable to maintain equipment room temperature at 18°C ± 2°C, equipped with most advanced industry technology, guaranteeing precise control of Equipment room. Suitable for 415 Volts, 50 Hz, 3 Phase Power Supply. The units shall be selected on the basis of following parameters: i) Not Less than 15TR Gross Sensible Cooling Capacity @ min. 14500 CMH ii) Return Air Selection at : 24 Deg. C. / 40 % RH of return air. iii) Supply air in between 14-16 Deg C. or as suitable to maintain room temperature at 18°C ± 2°C iv) 45 Deg C of Design Ambient temperature v) Each unit shall have independent double circuit with double outdoor units The Indoor unit shall comprise of Variable capacity Digital Scroll Compressor, Fiberglass corrosion resistant EC fans, Evaporator DX Cooling Coil with hydrophilic coating, Microprocessor controllers, Thermostatic Expansion valves, Driers, EU4/G4 Filter, Suction and Discharge piping, Internal power and Control wiring, Crank case heaters, infrared Humidifier, Heaters, HP/LP Cutouts, Power and Control contactors, water leak detectors and Other Electrical accessories. Each unit shall be BMS compatible and shall have inbuilt software to facilitate BMS connectivity through RS485 Modbus Protocol and Ethernet with Modbus Protocol and HTTP Protocol. Each unit shall have inbuilt sequential controller for operating unit in N+1 configuration. Microprocessor should have inbuilt features of Team Mode and cascade mode to be used incase required. Each unit shall have individual display panel, which shall display date, time, actual & set values, operating conditions, signal faults, collective faults, limiting values etc. as per the specifications considered excluding initial gas charge. The Outdoor Condenser unit shall have IP 54 protection and shall comprise of Condenser fans & motor, Condenser cooling coil (Copper coil with aluminum fins), automatic Fan speed controller, Isolator switch. Complete as per OEMs specifications. Supply and Installation of factory integrated Motorized Return Air Damper to be placed at top/inlet of the machine.	Each	3.00	140000.00	420000.00
41.00	Installation, testing and commissioning of Floor Mounted, Bottom discharge, Air Cooled DX type CRAC units (Indoor & Outdoor) for Equipment room application, including Lifting, shifting & positioning of Indoor and outdoor units, Pressure testing, Vacuuming, charging, communication cabling, integration, interfacing, sequential operation, testing Commissioning of the system by OEM engineer, including provision of suitable MS stand for Indoor and Outdoor units as per OEM, Initial charge of R-410A refrigerant gas, including minor civil work complete as per site requirement for guaranteeing precise temperature control of Equipment room.	Job	3.00	100000.00	300000.00

Ambirish Smt
ACM/ES

Sl.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
42.00	Supply & fixing of 18 gauge Hard Drawn Copper Pipe Refrigerant piping duly complete with all insulation, supports, clamps, fittings, connections, sleeves etc fittings and finished with two coated of enamel paint of approved colour code including suitable thickness as per OEM closed cell elastomeric insulation with Class 'O' fire retardent properties for piping the air conditioned space.	Metre	120.00	3000.00	360000.00
43.00	Supply & Installation of Electrical PVC INSULATED & FRLS MULTI CORE copper cable (as per IS 694) on surface, cable tray, pipe as per site requirement (Cable size-4x2.5 Sq.mm.).	Metre	80.00	350.00	28000.00
44.00	Supply & Installation of Electrical PVC INSULATED & FRLS MULTI CORE copper cable (as per IS 694) on surface, cable tray, pipe as per site requirement (Cable size-4 x 25 Sq.mm.).	Metre	80.00	1150.00	92000.00
45.00	Supplying and installing of 300 mm width X 50 mm depth X 1.6 mm thickness size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, oainting suspenders etc as required.	Metre	60.00	700.00	42000.00
46.00	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 300 mm width X 50 mm depth X 1.6 mm thickness	Each	4.00	1500.00	6000.00
47.00	Providing & fixing GI sheet cover over the cable trays on the cable trays of size 300 mm width X 50 mm depth by using 2 mm thick GI sheet including bending as per required size, fixing securely over the cable trays to give a finished look complete as required as per site requirement.	Metre	40.00	1000.00	40000.00
48.00	Supply and fixing of 25 mm dia CPVC Pipe for humidifier inlet. Complete with fittings supports, valves, 6 mm thick nitrile rubber insulation as required.	Metre	100.00	700.00	70000.00
49.00	Supply and fixing of 40 mm dia CPVC Pipe for drain pipe. Complete with fittings supports, valves, 6 mm thick nitrile rubber insulation as required.	Metre	60.00	900.00	54000.00
50.00	SITC of powder coated extruded aluminium Air Tranfer Grills with Volume control damper for Supply Air(600mm X600mm)	sq.mtr.	15.00	11000.00	165000.00
51.00	Supply and Application of 19 mm thick thermal insulation of floor of Server Room & walls below false floor using closed cell nitrile rubber elastomeric insulation with class 'O' fire retardant using suitable adhesive.	sq.mtr.	200.00	500.00	100000.00
52.00	Supply and Installation of Return Air Plenum of suitable height to provide air tight connection between PAC. Plenum should be factory fabricated double skin insulated from inside. The plenum should be powder coated with the colour matching with the PAC.	sq.mtr.	30.00	5000.00	150000.00
53.00	SITC of 1.5 Ton 5 Star Invertor technology Split type Air-Conditioner unit fitted with hermetically sealed compressors operating on refrigerant R-410A or equivalent green gas suitable for wall mounting and suitable for operating on 230V +_10%, 50Hz, Single Phase, AC Supply including providing suitable plug top, including 3 metre refrigrant piping, related civil works and providing & fixing of Iron stand for outdoor unit etc. complete as required.	Job	8.00	50000.00	400000.00
54.00	Supply and installation of Digital Thermohygrometer Data logger for recording and displaying temperature and humidity in a room complete as per site requirement.	Each	3.00	50000.00	150000.00
55.00	SH VI : Pump, Insulating Mat, Misc. Items Providing and lowering of three phase submersible pump set with 05 HP motor & suitable stage pump suitable for discharge rate of approx. 120 Litre per minute at approx 79 mtr head including supplying and fixing of PVC coated wire rope for pump support and safety complete as per site requirement.	Job	1.00	40000.00	40000.00
56.00	Providing and placing in position up to 50 mm dia GI column pipe with flange made out of Jindal medium class along with flange including nut, bolt, gasket, coupling complete as required	Metre	30.00	1000.00	30000.00
57.00	Providing and fixing of 3 core 4 sqmm submersible flat, copper Cable suitable for submersible pump.	Metre	80.00	125.00	10000.00
58.00	Providing and fixing of fully automatic Star Delta starter Panel Board suitable for 5 HP motor pump made out of 14 SWG sheet for submersible pump fitted with Ammeter, Voltmeter, single phase preventer, MCB, on/off switch push botton, indicating lamps etc. with all accessories as required.	Job	1.00	7000.00	7000.00

Ambark Jain
ACMEs,

Sl.No	Description of Work / Item(s)	Units	Qty.	Rate	Amount
59.00	Supply and fixing of high voltage synthetic insulating mat made of synthetic Elastomer suitable for upto 11 KV conforming to IS 15652:2006 with minimum width of 1 metre and thickness of 2.5 mm +/- 10 % (Class-B). Insulating mat should be flexible , anti skid, fire reatrdant, water and moisture proof with no adverse effect of acids,alkalies and transformer oil. Insulating mat should be fixed with suitable adhesive/chemibond , resin,water proofing compound and other sealing materials as per specifications. Insulating mats should be ISI marked alongwith CM/L nos at every meter.	Metre	30.00	1270.00	38100.00
60.00	Supply and fixing of high voltage synthetic insulating mat made of synthetic Elastomer suitable for upto 3.3 KV conforming to IS 15652:2006 with minimum width of 1 metre and thickness of 2.0 mm +/- 10 % (Class-A). Insulating mat should be flexible , anti skid, fire reatrdant, water and moisture proof with no adverse effect of acids,alkalies and transformer oil. Insulating mat should be fixed with suitable adhesive/chemibond , resin,water proofing compound and other sealing materials as per specifications. Insulating mats should be ISI marked alongwith CM/L nos at every meter.	Metre	65.00	1360.00	88400.00
61.00	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS: 15683-2006 Complete erected with necessary clamp made front 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Each	5.00	8000.00	40000.00
62.00	Providing of set of 4 Nos. 9.5 Litre capacity GI bucket painted in post office red colour with prior coat of red oxide paint and written with white paint 'FIRE' and mounted on MS angle iron frame with bracket of appropriate size & capacity l/c filling sand etc.	Sets	2.00	1200.00	2400.00
				TOTAL	20088940.00

Ambir Singh
26/07/2024
 Asst. General Manager Engg.(E)
 AAI, LBSI Airport Varanasi.