

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

ISO9001:2008

TRAINAIR PLUS FULL MEMBER

पत्रांक सं० : भा.वि.प्रा./ना.वि.प्र.का./उ.म.प्र.अभि.(वि.)/का.सं./2021-22/टी-01/1386-1393/ दि०: 16/06/2021
Letter No.: AAI/CATC/DGME(E)/WO/2021-22/T-01/ Date: 16/06/2021

572-84

पंजीकृत डाक द्वारा
By Registered Post

सेवा में,

To,

मेसर्स शिव इलेक्ट्रिक,
110, डॉ. मुखर्जी नगर (पश्चिम)
दिल्ली-110009

M/s Shiv Electric
110, Dr. Mukharjee Nagar (West)
Delhi-110009

विषय : अगमेन्टेशन ऑफ पॉवर सप्लाई सिस्टम्, सबस्टेशन एण्ड एलाइड वर्क एट सी.ए.टी.सी. इलाहाबाद। उपशीर्ष: रिप्लेसमेन्ट ऑफ एक्सीस्टिंग एलटी पैनल्स ऑफ 33केवी सबस्टेशन।

Sub : Augmentation of power supply system, substation and allied work at CATC, Prayagraj.
SH: Replacement of existing LT Panels of 33KV Substation.

संदर्भ-1 : भा.वि.प्रा. की निविदा संख्या : 2021_AAI_66875_1 के लिए आपकी बिड।

Ref.-1 : Your bid for A.A.I. E-tender No.: 2021_AAI_66875_1

प्रिय महोदय,

- उपरोक्त कार्य के लिए आपकी निविदा रुपये 1,40,63,340.00 (रुपया एक करोड़ चालीस लाख तिरसठ हजार तीन सौ चालीस मात्र) (वस्तु एवं सेवाकर के बिना) की मदद दर निविदा, जो कि कार्य की न्यायोचित लागत रुपये 1,91,21,266.00 (रुपया एक करोड़ इक्यान्वे लाख इक्कीस हजार दो सौ छियासठ मात्र) से 26.45% (छब्बीस दशमलव चार पाँच प्रतिशत) कम है, आपके द्वारा निविदा प्रपत्र की अनुसूची 'अ' में दर्शायी गयी मदद दरों पर भरी गई है, को अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से स्वीकृत की जाती है।

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 totalling to ₹ 1,40,63,340.00 (Rupees One Crore Forty Lakh Sixty Three Thousand Three Hundred Forty Only) (Without GST) which is 26.45% (Twenty Six Point Four Five Percent), Below the justified cost of ₹ 1,91,21,266.00 (Rupees One Crore Ninety One Lakh Twenty One Thousand Two Hundred Sixty Six Only).

- उप महाप्रबन्धक अभियांत्रिकी (विद्युत), भा.वि.प्रा., ना.वि.प्र.का. बमरौली प्रयागराज इस कार्य के प्रभारी अभियन्ता होंगे तथा वरिष्ठ प्रबन्धक (अभि.-विद्युत)-II/प्रबन्धक (अभि.-विद्युत), ना.वि.प्र.का. उनके प्राधिकृत प्रतिनिधि होंगे। आपसे अनुरोध है कि दिनांक 01 जुलाई 2021 तक उप महाप्रबन्धक (अभियांत्रिकी-विद्युत), के कार्यालय में उपस्थित होकर ठेका संविदा को हस्ताक्षरित कर पूर्ण करें। अनुबन्ध रुपए 100/- के गैर न्यायीक स्टाम्प पेपर पर सम्पादित किया जाएगा, स्टाम्प पेपर की कीमत आपके द्वारा वहन की जाएगी।

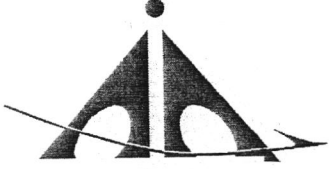
The Dy. Gen. Manager (Engg-Elect), AAI, CATC, Bamrauli, Prayagraj shall be the Engineer-In-Charge of the work and Sr. Manager (Engg.-Elect.)-II/ Manager (Engg.-Elect.), CATC shall be our authorised representative. You are requested to attend the office of the undersigned by 01/07/2021 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value ₹ 100/- and the cost of stamp paper shall be borne by you.

- कृपया सुरक्षा राशि रुपया 14,06,334.00 (रुपया चौदह लाख छः हजार तीन सौ चौतीस मात्र) इस पत्र के निर्गत दिनांक से 15 दिनों के भीतर जमा करें अन्यथा उक्त धनराशि की कटौती संविदा प्रपत्र की उक्त संदर्भित शर्त के अनुसार चालू लेखा बिलों से की जाएगी।

Please deposit ₹ 14,06,334.00 (Rupees Fourteen Lakh Six Thousand Three Hundred Thirty Four Only), towards security deposit within 15 days from the date of issue of this letter, failing which the same will be deducted from the Running Account Bill.

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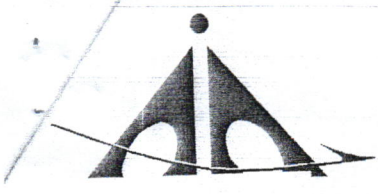
पृष्ठ - 2/3

- 4) आपसे अनुरोध है कि संविदा श्रमिक प्रावधान (विनियम एवं उन्मूलन) 1970 श्रमिक प्रावधान (विनियम एवं उन्मूलन)-केन्द्रीय नियम 1971, न्यूनतम मजदूरी अधिनियम एवं इस सम्बन्ध में केन्द्र/राज्य सरकार के नियमों का पालन करना सुनिश्चित करें।
You are requested to comply with the provisions of Contract Labour (Regulation & Abolition) Act of 1970 and Contract Labour (Regulation & Abolition) Central rules 1971 and Minimum Wages Act & Rules thereof Central and State Governments with upto date amendments.
- 5) आपको निर्देशित किया जाता है कि आप तुरन्त प्रभाव से वरिष्ठ प्रबन्धक (अभि.-विद्युत)- II/ प्रबन्धक (अभि.-विद्युत), ना0वि0प्र0का0, बमरौली, प्रयागराज से सम्पर्क करें जो आपको कार्यस्थल सौंपने की व्यवस्था करेंगे।
You are also directed to contact the Sr. Manager (Engg.-Elect.)-II/ Manager (Engg.-Elect.), CATC, Bamrauli, Prayagraj, immediately who will arrange to hand over the site to you.
- 6) कृपया ध्यान दें कि कार्य पूर्ण करने की अवधि 08 माह है जो कार्यादेश के दिनांक से दस दिन से प्रभावी मानी जाएगी।
Please note that time allowed for carrying out the work shall be 08 month. Which shall be reckoned from the tenth day of placing the work order
- 7) संविदा के सन्दर्भ में किसी प्रकार का पत्राचार सामान्यतः उप महाप्रबन्धक (अभि0-विद्युत), सी0ए0टी0सी0 बमरौली, प्रयागराज-211012 को सम्बोधित करें।
Any further correspondence in connection with the contract should normally be addressed to the Dy. Gen. Manager (Engg-Elect), CATC, Bamrauli, Prayagraj-211012.
- 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।
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) ठेके की त्रुटि दायित्व अवधि 12 महीने है।
The Defect liability period of the contract is 12 months.

नोट: यदि हिन्दी अथवा अंग्रेजी रुपान्तरण में कोई भिन्नता अथवा अस्पष्टता होती है तो अंग्रेजी रुपान्तरण अभीभावी होगा।

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

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संलग्नक / Enclosures

1- मात्रा अनुसूची / Schedule of Quantities (SCHEDULE "A").

भवदीय,

[Signature]
16/06/2021

उप महाप्रबन्धक (अभि०-विद्युत)
Dy. Gen. Manager (Engg-Elect.)
सी०ए०टी०सी०, बमरौली, प्रयागराज
CATC, Bamrauli, Prayagraj
कृते अध्यक्ष, भा०वि०प्रा०
On Behalf of Chairman, AAI

वितरण : -

1. वैयक्तिक सहायक, प्रधानाचार्य जी-सी.ए.टी.सी. बमरौली, प्रयागराज-सूचनार्थ।
2. महाप्रबन्धक (अभि.-वि.) क्षे.का. उ.क्षे., प्रचालन भवन, रंगपुरी, नई दिल्ली-37-सूचनार्थ।
3. संयुक्त महाप्रबन्धक (अभि.-वि.) क्षे.का. उ.क्षे., प्रचालन भवन, रंगपुरी, नई दिल्ली-37-सूचनार्थ।
4. सहायक महाप्रबन्धक (अभि०-सिविल)-सी.ए.टी.सी. बमरौली, प्रयागराज-सूचनार्थ।
5. सहायक महाप्रबन्धक (वित्त एवं लेखा)-सी.ए.टी.सी. बमरौली, प्रयागराज-सूचनार्थ।
6. वरिष्ठ प्रबन्धक (अभि०-विद्युत)-I-सी.ए.टी.सी. बमरौली, प्रयागराज-सूचनार्थ।
7. वरिष्ठ प्रबन्धक (अभि०-विद्युत)-II-सी.ए.टी.सी. बमरौली, प्रयागराज-सूचनार्थ।
8. वरिष्ठ प्रबन्धक (राजभाषा)-सी.ए.टी.सी. बमरौली, प्रयागराज-सूचनार्थ।
9. प्रबन्धक (अभि०-विद्युत)-सी.ए.टी.सी. बमरौली, प्रयागराज-उचित कार्यवाही हेतु।
10. कार्य आदेश फाइल
11. कार्य की फाइल
12. अनुबंध प्रतिलिपि
13. राजभाषा गार्ड फाइल

[Signature]

SCHEDULE OF QUANTITIES

NAME OF WORK:- Augmentation of power supply system, substation and allied work at CATC Allahabad. SH:-
Replacement of existing LT Panels of 33 KV Sub station

Sr. No.	Description of Items	Unit	Qty	Rate	Amount
	SH-A :- LT PANEL BOARD AND ACCESSORIES AT SUB STATION				
1	Design, manufacture supply, installation, testing and commissioning of Main LT Panel, as per IEC 61439, cubicle & modular type, made of 2 mm thick electro galvanized steel sheets /Aluzinc Sheet Steel for frame work and covers, 3mm thick for gland plates, totally enclosed, IP 54, free standing, floor mounting, dust and vermin proof, indoor, compartmentalised, including cleaning & finishing complete with 9 tank process, powder coated, painting, with front face having openable transparent tempered glass door with PU gasket complete with handle and gasket, suitable for operation on 3 Phase and neutral, 415v, 50 Hz AC system with Al.busbars extensible on both sides, fabrication shall be done in transportation sections, entire panel shall have a common earth bar of suitable size at the rear with 2 nos. earth stud, control wiring with FRLS. PVC insulated copper conductor, cable allays, cable gland plates in two half, interconnections including supply & installation of following items and as per detailed technical specification (For details please refer Technical Specification)	Job	1	3000000	3,000,000.00
a)	INCOMER				
(i)	2500A 4P ACB with microprocessor based current metering & graphical display release, EDO, 65KA = Icu = Ics = Icw, with LSING Protection with Under voltage release, Shunt Release, Closing Release. ACB protection release shall have LCD display of current, shall be fully compatible and ready to use for measurement of Current, voltage, energy parameters & having modbus, RS 485 communication. ACB shall have electrical & mechanical key interlocking. Suitable links and bus duct entry flange shall be provided for 2500 A termination - 02 nos				
(ii)	Indication Lamps, LED type for R,Y,B and breaker 'ON', spring charge, healthy circuit 'OFF', 'TRIP' indications each with 2 Amp MCBs for protection for both incomers				
(iii)	Breaker control switch (TNC switch)-02 nos				
(iv)	Feeder protection relay (Numeric)-02 nos				
	Metering & indications				
(v)	96 mm square flush pattern digital Voltmeter(0-500 V), accuracy class 1, suitable range for 3 phase, 4 wire operation with LED display and built-in selector switch along with 3 nos. of 2 Amp SP MCBs.- 2 Sets				
(vi)	96 mm sq. Flush pattern Digital Type Ammeter of suitable range (to measure 0-2500A), for 3 phase 4 wire operation with LED display and selector switch with 3 numbers of class 1.0 accuracy, 15 VA burden & suitable range CTs.- 2 sets.				
(vii)	Digital multi function digital meter to read V,A,KVA, KW, KVAR, KWH, PF, Hz etc with communication module (RS485) and LED display with 3 Nos CTs, 15 VA, class 1.0 and control circuit wiring with 2 Amp. SP MCBs.-2 sets.				
(viii)	3 Nos, 2500/5A, CL 0.5, 15 VA, Cast Resin CTs for metering- 2 sets				
(ix)	Breaker control switch (TNC switch)-02 nos				
(b)	BUS COUPLER				

Two

Sr. No.	Description of Items	Unit	Qty	Rate	Amount
(i)	2500A, 4P, ACB with microprocessor based current metering & graphical display release, EDO, 65KA= Icu = Ics = Icw, with Under voltage release. ACB protection release shall have LCD display of current, shall be fully compatible and ready to use for measurement of Current, voltage, energy parameters & having modbus, RS 485 communication ACB shall have electrical & mechanical key interlocking -01 No				
(ii)	Breaker control switch (TNC switch)-01 nos				
(iii)	phase Indication Lamps, LED type for R,Y,B and breaker 'ON', spring charge, healthy circuit 'OFF', 'TRIP' indications each with 2 Amp MCBs for protection.				
(c)	BUSBARS				
	1 set of high conductivity Aluminium electrolytic grade, bus bars of minimum 2500 Amps capacity, TPN with heat shrinkable colored sleeves and non-combustible, non-hygroscopic, high strength SMC/ DMC/Polymer material bus bars supports at required intervals.				
(d)	Accessories for Electrical & Mechanical Interlocking				
	Electrical & mechanical interlocking arrangement as per specifications among 2 nos. Incomers for transformers and 1 Bus coupler including interconnections etc. as required.				
(e)	OUTGOING				
i	1600A 4P ACB with microprocessor based current metering & graphical display release, EDO, 50KA = Icu = Ics = Icw, with LSING Protection with Under voltage release, Closing Release, Shunt Release. CB protection release shall have LCD display of current, shall be fully compatible and ready to use for measurement of Current, voltage, energy parameters & having modbus, RS 485 communication. ACB shall have electrical & mechanical key interlocking- 02 nos				
ii	96 mm square flush pattern digital Voltmeter(0-500 V), accuracy class 1, suitable range for 3 phase, 4 wire operation with LED display and built-in selector switch along with 3 nos. of 2 Amp SP MCBs.- 2 Sets				
iii	96 mm sq. Flush pattern Digital Type Ammeter of suitable range (to measure 0-2500A), for 3 phase 4 wire operation with LED display and selector switch with 3 numbers of class 1.0 accuracy, 15 VA burden & suitable range CTs.- 2 sets.				
iv	Digital multi function digital meter to read V,A,KVA, KW, KVAR, KWH, PF, Hz etc with communication module (RS485) and LED display with 3 Nos CTs, 15 VA, class 1.0 and control circuit wiring with 2 Amp. SP MCBs.-2 sets.				
v	2 Nos, 2500/5A/5A, 15 VA, Cast Resin CTs accuracy class 0.5 for metering - 02 sets				
vi	2 Nos. of 800 A, FP, 50 kA, MCCB with Microprocessor based release having adjustable over load and adjustable short circuit, earth fault protection inbuilt with release				
vii	1 Nos. of 630 A, FP, 36 kA, MCCB with Microprocessor based release having adjustable over load and adjustable short circuit, earth fault protection inbuilt with release				
viii	4 Nos. of 400 A, FP, 36 kA, MCCB with Microprocessor based release having adjustable over load and adjustable short circuit, earth fault protection inbuilt with release				
ix	01 Nos. of 320 A, FP, 36 kA, MCCB with thermal magnetic based release having adjustable over load and adjustable short circuit				
x	09 Nos. of 200A, FP, 36 kA, MCCB with thermal magnetic release having adjustable over load and adjustable short circuit protection				

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
xi	Note- All MCCBs should have (1) lcs = lcu at 415 V (2) Rotary operating mechanism and terminal extension / spreaders (3) ON/OFF Indication (4) All MCCBs shall be current limiting type				
	MAIN ESSENTIAL (Synchronizing panel)				
2	Design, manufacture supply, installation, testing and commissioning of synchronizing cum LT Panel, as pr IEC 61439, cubicle & modular type, made of 2 mm thick electro galvanized steel sheets /Aluzinc Sheet Steel for frame work and covers, 3 mm thick for gland plates, totally enclosed, IP 54 , free standing, floor mounting, dust and vermin proof, indoor, compartmentalized, including cleaning & finishing complete with 9 tank process, powder coated, painting, with front face having openable transparent tempered glass door with PU gasket complete with handle and gasket, suitable for operation on 3 Phase and neutral, 415v, 50 Hz AC system with Al.busbars extensible on both sides, fabrication shall be done in transportation sections, entire panel shall have a common earth bar of suitable size at the rear with 2 nos. earth stud, control wiring with FRLS. PVC insulated copper conductor, cable allays, cable gland plates in two half, interconnections including supply & installation of following items i/c providing & installation of suitable PLC as required and as per technical specification (For details please refer Technical Specification)	Job	1	5800000.00	5,800,000.00
a)	INCOMER				
(i)	1600A 4 pole with neutral contactor ACB with microprocessor based current metering & graphical display release , EDO, 50KA = lcu = lcs = lcv, with LSING Protection with Under voltage release, Shunt Release, Closing Release. CB protection release shall have LCD display of current , shall be fully compatible and ready to use for measurement of Current, voltage, energy parameters & having modbus,RS 485 communication. ACB shall have electrical & mechanical key interlocking- 02 nos				
(ii)	1250A 3 pole with neutral contactor ACB with microprocessor based current metering & graphical display release , EDO, 50KA = lcu = lcs = lcv, with LSING Protection with Under voltage release, Shunt Release, Closing CB protection release shall have LCD display of current , shall be fully compatible and ready to use for measurement of Current, voltage, energy parameters & having modbus,RS 485 communication. ACB shall have electrical & mechanical key interlocking- 03 nos				
(iii)	Indication Lamps, LED type for R,Y,B and breaker 'ON' , spring charge, healthy circuit 'OFF', 'TRIP' indications each with 2 Amp MCBs for protection for above breakers				
(iv)	Breaker control switch (TNC switch) for above breakers				
	Metering & indications				
(v)	96 mm square flush pattern digital Voltmeter(0-500 V), accuracy class 1, suitable range for 3 phase, 4 wire operation with LED display and built-in selector switch along with 3 nos. of 2 Amp SP MCBs.- 5 Sets				
(vi)	96 mm sq. Flush pattern Digital Type Ammeter of suitable range (to measure 0-1600A), for 3 phase 4 wire operation with LED display and selector switch with 3 numbers of class 1.0 accuracy, 15 VA burden & suitable range CTs.- 5 sets.				
(vii)	Digital multi function digital meter to read V,A,KVA, KW, KVAR, KWH, PF, Hz etc with communication module (RS485) and LED display with 3 Nos CTs, 15 VA, class 1.0 and control circuit wiring with 2 Amp. SP MCBs.-5 sets.				
(viii)	1600 or 1250/5A, CL 0.5 , 15 VA, Cast Resin CTs for metering- 5 sets				
(b)	BUS COUPLER				

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
(i)	1600A 4 pole with neutral contactor ACB with microprocessor based current metering & graphical display release , EDO, 50KA = Icu = Ics = Icw, with LSING Protection with Under voltage release, Shunt Release, Closing Release.CB protection release shall have LCD display of current , shall be fully compatible and ready to use for measurement of Current, voltage, energy parameters & having modbus,RS 485 communication. ACB shall have electrical & mechanical key interlocking- 02 nos				
(ii)	Breaker control switch (TNC switch)-02 nos				
(iii)	phase Indication Lamps, LED type for R,Y,B and breaker 'ON' , spring charge, healthy circuit 'OFF', 'TRIP' indications each with 2 Amp MCBs for protection.				
(c)	BUSBARS				
	1 set of high conductivity Aluminium electrolytic grade, bus bars of minimum 2500 Amps capacity, TPN with heat shrinkable colored sleeves and non-combustible, non-hygroscopic, high strength SMC/ DMC/Polymer material bus bars supports at required intervals.				
(d)	Accessories for Electrical & Mechanical Interlocking				
	Electrical interlocking arrangement as per specifications among incoming & outgoing, bus couplers ACB including interconnections etc. as required.				
(e)	OUTGOING				
i	1000A 4P ACB with microprocessor based release current metering & graphical LCD display , EDO, 50KA = Icu = Ics = Icw, with LSING Protection. - 01 nos				
ii	1250A 4P ACB with microprocessor based release current metering & graphical LCD display , EDO, 50KA = Icu = Ics = Icw, with LSING Protection. - 01 nos				
iii	Indication Lamps, LED type for R,Y,B and breaker 'ON', spring charge, healthy circuit 'OFF', 'TRIP' indications each with 2 Amp MCBs for protection.- 02 set				
iv	Breaker control switch (TNC switch)-02 nos				
v	13 Nos. of 400 A, FP, 36 kA, MCCB with Microprocessor based release having adjustable over load and adjustable short circuit, earth fault protection inbuilt with release				
vi	14 Nos. of 320 A, FP, 36 kA, MCCB with thermal magnetic based release having adjustable over load and adjustable short circuit				
vii	11 Nos. of 250A, FP, 36 kA, MCCB with thermal magnetic release having adjustable over load and adjustable short circuit protection				
viii	09 Nos. of 200A, FP, 36 kA, MCCB with thermal magnetic release having adjustable over load and adjustable short circuit protection				
ix	02 Nos. of 125A, FP, 36 kA, MCCB with thermal magnetic release having adjustable over load and adjustable short circuit protection				
x	Note- All MCCBs should have (1) Ics = Icu at 415 V (2) Rotary operating mechanism and terminal extension / spreaders (3) ON/OFF Indication (4) All MCCBs shall be current limiting type				
	CAPACITOR PANEL				

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
3	Design, supply, installation, testing and commissioning of Automatic Power Factor Corrector Panel, modular type 400 kVAR , 3ph, 4 wire, 415v, with capacitor duty contactor, totally enclosed, IP 42, free standing, floor mounting, dust and vermin proof, cubicle type to be fabricated out of min. 2 mm thick Sheet steel, with provision for capacitor mounting arrangement inside the panel with Aluminium Busbars, interconnections, adequate number of louvers and powder coated with approved shade including supply & installation of following components and as per detailed technical specifications (For details please refer Technical Specification)	Job	2	550000.00	1,100,000.00
(a)	INCOMER				
(i)	1 Nos. of 800 A, TP, lcs=lcu=36 kA, MCCB with Microprocessor based release having adjustable over load and adjustable short circuit-01No				
(ii)	96 mm square flush pattern digital Voltmeter(0-500 V), accuracy class 1, suitable range for 3 phase, 4 wire operation with LED display and built-in selector switch along with 3 nos. of 2 Amp SP MCBs.- 1 set				
(iii)	96 mm sq. Flush pattern Digital Type Ammeter of suitable range (to measure 0-800A), for 3 phase 4 wire operation with LED display and selector switch with 3 numbers of class 1.0 accuracy, 15 VA burden & suitable range CTs.- 1 set.				
(iv)	1 Set of Microprocessor based intelligent, 16 step APFC relay with PF display with three CT sensing for better PF in case of unbalance systems along with auto/manual mode selection switch (refer detailed specification)				
(v)	1 Set of Indication Lamps, LED type, R,Y,B each with 2 Amp. SP MCB for protection.				
(vi)	1 no. Intelligent multi function digital meter to read V, A, KVA, KW, KVAR, PF, Hz etc with communication facility (RS485 module) and LED display with CTs 800A/5A/5A, 15 VA burden, class 0.5 accuracy for metering and control circuit wiring with 2 Amp. SP MCBs for protection.				
(b)	BUSBARS				
	1 set of high conductivity Aluminium electrolytic grade, bus bars of minimum 800 Amps capacity, TPN with heat shrinkable colored sleeves and non-combustible, non-hygroscopic, high strength SMC/ DMC/Polymer material bus bars supports at required intervals.				
(c)	CAPACITORS- 400KVAR				
(i)	4 nos. 50 KVAR Heavy duty Metallised Poly Propylene Capacitor . Each with capacitor duty contactor , MCCB 100A,TP, 36 KA thermal release with adjustable O/L & Short circuit protection, spreaders, and rotary handle.				
(ii)	6 nos. 25 KVAR Heavy duty Metallised Poly Propylene Capacitor . Each with capacitor duty contactor, MCBs, 63A, TP, 10kA				
(iii)	2 nos. 12.5 KVAR Heavy duty Metallised Poly Propylene Capacitor . Each with capacitor duty contactor MCBs, 32A, TP, 10kA				
(iv)	2 nos. 10 KVAR Heavy duty Metallised Poly Propylene Capacitor . Each with capacitor duty contactor MCBs, 20A, TP, 10kA				
(v)	1 nos. 5 KVAR Heavy duty Metallised Poly Propylene Capacitor . Each with capacitor duty contactor MCBs, 10A, TP, 10kA				
(iii)	ON/OFF push button & ON/OFF LED type indication with 2 Amp SP MCB for protection for each capacitor bank				
(iv)	Axial flow fans with thermostat.				
(v)	Note- lcs = lcu upto 415V for all MCCB. Rotary operating mechanism and terminal extension / spreaders shall be provided to all the MCCBs.				
	SH-B				

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
4	Supplying, installing by suspension on ceiling, testing and commissioning of following capacity sandwich type Rising Mains as per IEC 61439 for use on 3 phase 4 pole , 50Hz A.C. supply with metal clad enclosure having IP-55 rating after fixing the tap off boxes and all accessories, made of 1.6 mm thick GI sheet duly powder coated in convenient sections complete with aluminium bus bars at nominal current rating, necessary joints, elbow joints & expansion joints and bends, provision of tapping at every metre, adopter box and copper flexible for joints, continuous earthing with 2 Nos aluminium strip of suitable size including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required Note: The bus trunking shall be measured along the length of enclosure. The strips which will go inside LT panels & end termination boxes of transformer shall not be taken into measurement of bus trunking quantity. Job also includes dismantling the existing bus duct by removing the electrical connections, earthing, and shifting up to AAI store (For details please refer Technical Specification)				
	2500 Amp, 50 KA, 4 pole sandwich type Bus Duct	Meter	42	19000.00	798000.00
5	Supply of following size 1.1 KV grade XLPE insulated, PVC sheathed, Aluminium conductor armoured power cable conforming to IS 7098 (Part 1) 1988 amended upto date.				
a	3.5x400 sqmm	Meter	120	1352.00	162240.00
b	3.5x300 sqmm	Meter	120	1100.00	132000.00
c	3.5x240 sqmm	Meter	500	930.00	465000.00
d	3.5x185 sqmm	Meter	200	740.00	148000.00
e	3.5x150 sqmm	Meter	160	600.00	96000.00
f	3.5x95 sqmm	Meter	30	430.00	12900.00
g	3.5x70 sqmm	Meter	140	350.00	49000.00
h	4x25 sqmm	Meter	60	180.00	10800.00
6	Supplying and making end termination with brass compression gland and aluminium lugs for following size of XLPE insulated PVC sheathed aluminium conductor cable of 1.1 kV grade as required.				
a	3.5x400 sqmm	Each	6	1500.00	9000.00
b	3.5x300 sqmm	Each	6	1300.00	7800.00
c	3.5x240 sqmm	Each	25	1200.00	30000.00
d	3.5x185 sqmm	Each	10	1000.00	10000.00
e	3.5x150 sqmm	Each	8	900.00	7200.00
f	3.5x95 sqmm	Each	1	700.00	700.00
g	3.5x70 sqmm	Each	7	400.00	2800.00
h	3.5x50 sqmm	Each	1	300.00	300.00
i	3.5x25 sqmm	Each	1	300.00	300.00
j	4x25 sqmm	Each	2	200.00	400.00
k	4x16 sqmm	Each	1	150.00	150.00

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
7	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	3.5x400 sqmm	Each	6	4500.00	27000.00
b	3.5x300 sqmm	Each	6	4000.00	24000.00
c	3.5x240 sqmm	Each	25	4000.00	100000.00
d	3.5x185 sqmm	Each	10	3000.00	30000.00
e	3.5x150 sqmm	Each	8	3000.00	24000.00
f	3.5x95 sqmm	Each	1	2500.00	2500.00
g	3.5x70 sqmm	Each	7	2000.00	14000.00
h	3.5x50 sqmm	Each	1	2000.00	2000.00
i	3.5x25 sqmm	Each	1	1500.00	1500.00
j	4x25 sqmm	Each	2	1500.00	3000.00
k	4x16 sqmm	Each	1	1500.00	1500.00
8	Laying and Fixing of one number XLPE/PVC insulated and PVC sheathed/XLPE aluminium/copper conductor armoured power cable of 1.1 KV grade of following sizes on surface/ cable tray/ wall etc as required.				
a	Upto 35 sq. mm (clamped with 1mm thick saddle)	Meter	20	70.00	1400.00
b	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	Meter	45	70.00	3150.00
c	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	Meter	90	70.00	6300.00
d	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	Meter	185	70.00	12950.00
9	Laying of one number XLPE/PVC insulated PVC sheathed aluminium/copper conductor armoured power cable of 1.1 KV grade of following sizes in the existing masonry open duct/ built in trench etc. as required.				
a	Upto 35 sq. mm	Meter	35	60.00	2100.00
b	Above 35 sq. mm and upto 95 sq. mm	Meter	110	60.00	6600.00
c	Above 95 sq. mm and upto 185 sq. mm	Meter	255	60.00	15300.00
d	Above 185 sq. mm and upto 400 sq. mm	Meter	495	60.00	29700.00
10	Supplying and installing following size of perforated Hot Dipped Galvanized 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.				
a	600 mm width X 75 mm depth X 2 mm thickness	Meter	45	1500.00	67500.00
11	Supply and fixing of flame retardant electrical insulation mat of 3.0 mm +/-10% thick electric insulated synthetic conforming to IS 15652:2006 and meeting the requirements of IS : 5216 (part 1,2,3), IS :8437, IEC 479 pub-1 along with suitable adhesive and water proofing compound as per in service recommendations of annexure A clause C of IS 15652 and suitable for class C upto 33 KV with out trolley movement	mtr	74.5	1000.00	74500.00

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
12	Supply and fixing of flame retardant electrical insulation mat of 2.0 mm +/-10% thick electric insulated synthetic conforming to IS 15652:2006 and meeting the requirements of IS : 5216 (part 1,2,3), IS :8437, IEC 479 pub-1 along with suitable adhesive and water proofing compound as per in service recommendations of annexure A clause C of IS 15652 and suitable for class A upto 3.3 KV AC & 240V DC with HT trolley movement	mtr	152.5	900.00	137250.00
13	Supply & fixing following danger notice plate made of mild steel sheet of at least 2mm thick & vitreous enameled white on both sides and with inscription in signal red colour on front side as required.				
i)	Danger / Caution board for 33KV size 250mm x 200mm.	Each	10	500.00	5000.00
ii)	Danger /Caution board for 433V size 200mm x 150mm .	Each	10	500.00	5000.00
14	Supply and fixing glass framed standard shock treatment chart in two different languages as per BIS 1986.	Each	4	500.00	2000.00
15	Supplying of Rubber hand gloves suitable for use in 33 KV power supply.	Each	4	500.00	2000.00
16	Supply of First Aid Box containing material as prescribed by St. John Ambulance brigade OR Indian Red Cross conforming to IS 2217-1963.	Each	4	500.00	2000.00
17	Supply and fixing of chequered plate of 6 mm thick including cutting to required size using gas cutter and lay the same over the trench, fixing of angle and supports for chequered plate, related civil works, finishing etc. and painting with two coats of enamel paint over one coat of Zinchromate primer as required.	Kgs.	2800	85.00	238000.00
18	Supply and fixing single line diagram, schematic diagrams etc. of 2mtrx1.5mtr size on suitable sheet including lamination etc. as required complete on wall.	Job	1	2500.00	2500.00
19	Earthing with Copper earth plate 600mm X 600mm X 3 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 mtr long etc with charcoal or coke and salt complete as required	Set	4	9000.00	36000.00
20	Providing and fixing 50 mm X 5 mm Copper strip on surface or in recess for connections etc. as required	Meter	60	1500.00	90000.00
21	Providing and fixing 50mm x 5mm copper strip at 0.50 m. below ground level for connections ,termination with nut bolt etc as required	Meter	36	1600.00	57600.00
22	Providing and fixing 50 mm X 5 mm copper. strip in 65 mm dia B class G.I. pipe from earth electrode including connection with nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	36	2300.00	82800.00
23	Earthing with GI earth plate 600mm X 600mm X 6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 mtr long etc with charcoal or coke and salt complete as required	Set	6	6000.00	36000.00
24	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required.	Meter	120	150.00	18000.00
25	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	Meter	120	150.00	18000.00
26	Providing and fixing 25 mm x 5 mm G. I. strip in 40 mm dia. G. I. pipe from earth electrode as required.	Meter	60	400.00	24000.00
27	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.	Cum	6	5500.00	33000.00
28	Provision of SCADA system for electrical parameter recording and monitoring system and associated wiring works software, hardware, integration, desktop computer etc complete as required (for 11 points/feeders only)	Job	1	450000.00	450000.00

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Sr. No.	Description of Items	Unit	Qty	Rate	Amount
29	Dismantling of existing 415 volt, 50Hz LT panels/AMF with accessories by disconnecting electrical connections, earthing connections of panels and transporting the upto AAI store (not more than 50 mtrs) by engaging skilled and unskilled manpower, mechanical means with required T & P etc complete as required.				
a	Non Essential Panel (approx. size 11x2.3x1.2 mtr)	Job	1	20000.00	20000.00
b	Essential Panel (approx. size 13.2x2.4x1.0 mtr)	Job	1	20000.00	20000.00
c	AMF panel/ LT panels/capacitor panels (approx. size 2.3x2.1x1.1 mtr)	Job	9	20000.00	180000.00
30	Provision of standby power supply /mobile DG sets to meet out power supply requirements of hostel and institute block during panel ITC works at 33 KV sub station				
a	125 KVA DG Set	Hrs	80	1000.00	80000.00
b	82.5 KVA DG Set	Hrs	120	1000.00	120000.00
31	Providing arrangements of electrical connections of LT load side with proper protection standards during transition period removal (existing LT panels) and installation of (new LT panels). The arrangement also includes provision of required rating switchgear, busbar, enclosure and suitable size of LT cables etc as required during execution of ITC LT panels. (any assistance or clarification shall be with the approval of EIC)	Job	1	25000.00	25000.00
32	Dismantling of following LT cables from open masonry duct and relaying the same cable on cable tray/open duct etc as required.				
a	up to 95 sqmm	Mtr	455	60	27300.00
b	Above 95 sq. mm and upto 185 sq. mm	Mtr	450	60	27000.00
c	Above 185 sq. mm and upto 400 sq. mm	Mtr	555	60	33300.00
				Total	14063340.00
				Say Rs	14063340.00

Rupees One Crore Forty Lakh Sixty Three Thousand Three Hundred Forty only

(Signature)
 18/6/2021
 (M.C. Upadhyay)
 Dy.Gen.Manager (E-E)
 AAI CATC Prayagraj

Signature Not Verified

Digitally signed by RAVINDRA KUMAR
 Date: 2022.06.29 13:22:02 IST
 Location: eProcurement System for Central PSUs