COTTON UNIVERSITY

Tender for

SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University

Technical bid

NIT No: 17 of 2023-24 Dated 11.09.2023

NOTICE INVITING TENDER

No: 17 of 2023-24 Dated 11.09.2023

Cotton University invites sealed item rate tenders in two bid system from the interested and eligible electrical contractors/ panel builders for SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University.

Key details of the tender are furnished below-

Tender Notice No	17 of 2023-24 dated 11.09.2023
Name of the work	SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University
Estimated value	Rs. 20,67,326.00
Cost of tender document	Rs 1000.00
Last date and time of receipt of tenders	26.09.2023 up-to 14.00 Hrs
Date and time of opening of technical bid	26.09.2023 at 15.00 Hrs
Date and time of opening of price bid	Will be intimated to the technically qualified bidders through email.
EMD	Rs. 41,350.00 for General Category Rs. 20,675.00 for Reserved Category
Completion period	60 days

Terms and Conditions:

1. Tenders will be opened in presence of authorized bidder's representatives who choose to attend the opening of tender on the above specified date, time. If the opening date happens to be a closed day/holiday, the tender will be opened on the next working day.
2. Any future clarification(s) and / or corrigendum (s) shall be communicated through the website. Therefore, the bidders are requested to regularly visit the website.
3. **Validity period**: The rates quoted in the tender shall remain valid for 120 days.
4. Complete Tender Document may be downloaded from the university's website ***www.cottonuniversity.ac.in***. Interested contractors, who have credentials to fulfil the qualifying criteria as detailed in the Special Conditions of Contract, are requested to submit tenders as per the formats and guidelines given in this document.
5. **Submission of EMD and cost of tender document:** The EMD and the cost of tender documents shall be submitted in the form of Demand draft/ Banker's cheque in favour of "Registrar, Cotton University" payable at Guwahati. The EMD and the cost of tender document shall be submitted in the envelope containing the Technical Bid. **Tender submitted without EMD and cost of tender document shall be summarily rejected and such tenders will not be considered for technical evaluation.**
6. Bidders are expected to examine all instructions, forms, terms & conditions, and specifications in the bidding document. The bidders may also visit the substation room with prior intimation to the Registrar, Cotton University and upon his permission. Failure to furnish all information prescribed in the bidding documents or submission of bids not

substantially responsive to the bidding documents in every respect may result in the rejection of the bid.

7. **Scope and Specifications of Work:** The scope and specifications of work to be completed by the agency engaged for this purpose is given in Annexure I. The offered system shall strictly conform to the specifications given in Annexure I. It may be noted that the technical parameters specified against respective equipment/ accessories are minimum requirement expected to be fulfilled. The system or equipment(s) not fulfilling the minimum parameters specified in the technical specification may lead to rejection of the bid, at the discretion of the University. The decision of the University in this regard shall be final.
8. **Submission of Bid**: The Notice Inviting Tender (NIT) is being issued under two bids system, i.e. Technical Bid & Price Bid. The interested bidders are required to submit the bid as per detailed instructions given in the Special Conditions of Contract, to **The Registrar, Cotton University, Panbazar, Guwahati-781001,** so as to reach within the specified time of the last date of submission of the tender. If the submission date is a holiday, the time and date of the next working day shall be the last date and time of submission of the bids.
9. Late tenders will not be considered. No responsibility will be taken for postal delay or non -receipt of Bid documents. Unsealed bids or bids sent by FAX or e-mail, will not be considered.
10. The bidders who have participated in the tender vide NIT No- 04 of 2023-24 dtd. 12.06.2023 need not deposit cost of bid and EMD if they wish to participate in this tender. However, they must have to submit tender documents along with full submittals required under the NIT as fresh submission of tender.
11. The Price Bids of only the eligible bidders shall be opened in presence of their authorized representatives, on a date, to be intimated to them (the eligible bidders). The price bids of only those bidders will be opened whose bids have been found eligible as per the terms mentioned in the Special Conditions of Contract. Interested bidders are requested to carefully study the eligibility criteria stated in the Special Conditions of Contract. All eligibility conditions have to be satisfied on the date of submission of the bid and not on a later date. The date and time of opening of the technical bids/ price bids will not be postponed due to the non-presence of any bidder or his authorised representative.
12. **Rejection of Bids:** Canvassing by the bidder in any form, unsolicited letter and post tender correction, unsigned bids shall be summarily rejected and may lead to forfeiture of EMD. Conditional tenders will also be rejected. Cotton University reserves the right to cancel/reject any/all the tenders without assigning any reason thereof.
13. **Completion period:** The successful bidder will have to complete the works within 60 days from the date of conclusion of the contract or signing of work order unless the period is extended by mutual agreement.
14. The authority of Cotton University may accept or reject any or all the bids in part or in full without assigning any reason and does not bind itself to accept the lowest bid. The University, at its discretion, may change the quantity / upgrade the criteria / drop any item or part thereof at any time before placing the Purchase Order.
15. A bid submitted with false information will not only be rejected but also the EMD submitted by the bidder will be forfeited. Further, the contractor may be debarred from participation in future tendering process.
16. Any corrigendum/addendum pertaining to the NIT shall be uploaded in the official website of the University. Therefore, all prospective bidders are requested to visit the University's website regularly.

SPECIAL CONDITIONS OF CONTRACT

1. **Scope:**
   Scope of work shall include SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University. The requirement and specification is attached under Technical Specification. The major scope shall include Supply, installation, testing and commissioning of MV panel, supply, laying, termination etc. of 1.1KV grade cable. All other associated works covered under the scope are specified in the Schedule of Quantities/ BOQ.
2. **The works to meet the minimum technical parameters:**
   The works shall strictly conform to the specifications given in Annexure I. It may be noted that the technical parameters specified against respective equipment/ accessories are minimum requirement expected to be fulfilled. The equipment/ works not fulfilling the minimum parameters specified in the technical specification may lead to rejection of the bid, at the discretion of the University. The decision of the University in this regard shall be final.
3. **Bids should include complete documents/ information:**
   Bidders are expected to examine all instructions, forms, terms & conditions, and specifications in the bidding document. The bidders may also visit the electrical panel room and the substation site with prior intimation to the Registrar, Cotton University and upon his permission. Failure to furnish all information prescribed in the bidding documents or submission of bids not substantially responsive to the bidding documents in every respect may result in the rejection of the bid.
4. **Release/ forfeiture of EMD:**
   The EMD submitted shall bear no interest. The EMD of the unsuccessful bidders shall be released, while that of the successful bidder shall be retained till submission of the performance security. The EMD of the bidders may be forfeited under following conditions-
   i) If the bid is prematurely withdrawn.
   ii) If submission of any false document is detected.
   iii) If the successful bidder fails to commence the work within 15 days of issue of the work order, or fails to submit the performance security within the stipulated days from issue of the w/o, or fails to sign the agreement within 10 days of issue of the work order.
   iv) If the successful bidder abandons the work before completion, or fails to complete the work within stipulated time.
   v) If the contract with the successful bidder faces termination due to reasons stated in clause-19 below.
5. **Performance Security Deposit**:
   The successful bidder will have to deposit a Performance Security Deposit of 5% of the total amount of work order within 10 days of the receipt of the LOI/Order. The Performance Security Deposit may be furnished in the form of Demand draft/Banker's Cheque of any scheduled bank drawn in favour of "The Registrar, Cotton University" payable at Guwahati. Bid security/ EMD shall be refunded to the successful bidder on receipt of performance security. The performance security deposit shall be released after successful completion of the warranty/ guarantee period.

6. **ELIGIBILITY CRITERIA:**
The bidders must fulfil the following minimum qualifying criteria to become eligible for opening of the price bid-

i) Must have valid electrical registration in APWD, CPWD or any PSU or autonomous body. Copy of the same shall be attached

(Or)

Panel Manufacturer having test certificates from CPRI/ ERDA.

ii) Must possess valid electrical contractor's license of minimum 650 volts. Copy of the licence shall be attached.

iii) Must have executed at least one similar works of value not less than Rs. 16.50 lakhs in any Govt/ Semi Govt department/ PSU/ Autonomous body during last seven years. Copies of work order and completion certificate shall be enclosed as supporting document. "Similar" works shall mean SITC of main LT panel and associated works. The work executed against one work order shall be considered as one work.

iv) The bidder should have minimum average annual financial turn over (gross) of Rs. 10,00,000.00 /- during last three consecutive financial years. Audited balance sheets shall be submitted as supporting document.

7. **Submission of Bid**: The Notice Inviting Tender (NIT) is being issued under two bids system, i.e. Technical Bid & Price Bid. The interested bidders are required to submit two separate sealed envelopes super scribing as mentioned below

7.1 Envelope No.1- "Technical Bid": Technical Bid" shall contain all the information and documents in the same serial order as mentioned in the Annexure–T-I. The complete document should be numbered chronologically and super-scribed "Technical Bid for SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University on the top of envelope. This envelope shall also contain the bid EMD and the cost of tender document.

7.2 Envelope No. 2 "Price Bid": Price Bid shall contain Price Bid of the bidder/tenderer in the prescribed format and signed and stamped, super-scribed "Price Bid for SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University" on the top of envelope.

7.3 All envelopes shall indicate the name and address of the bidder to enable the bid to be returned, if required. If any envelope is not sealed and marked as required, the University will assume no responsibility for the bid's displacement or premature opening. Both envelopes shall be sealed in third envelope of bigger size, which shall also be sealed with superscription "SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University" with date and time of submission and addressed to- **The Registrar, Cotton University, Panbazar, Guwahati-781001**, so as to reach within the specified time of the last date of submission of the tender.

7.4 Late tenders will not be considered. No responsibility will be taken for postal delay or non -receipt of Bid documents. Unsealed bids or bids sent by FAX or e-mail, will not be considered.

7.5 Each page of the tender and all the documents/ attachments shall be duly signed and stamped by the authorized person of the bidder. Unsigned and unstamped document shall not be considered for evaluation.

8. **Opening of the Price bids:** The Price Bids of only the eligible bidders shall be opened in presence of their authorized representatives, on a date, to be intimated to them (the eligible bidders). The price bids of only those bidders will be opened whose bids have been found qualified and eligible as per the terms mentioned above. All eligibility conditions have to be satisfied on the date of submission of the bid and not on a later date. The date and time of opening of the technical bids/ price bids will not be postponed due to the non-presence of any bidder or his authorised representative.

9. **Rejection of Bids:** Canvassing by the bidder in any form, unsolicited letter and post tender correction, unsigned bids shall be summarily rejected and may lead to forfeiture of EMD. Conditional tenders will also be rejected. Cotton University reserves the right to cancel/reject any/all the tenders without assigning any reason thereof.
10. **GST and Duties:** Price shall be inclusive of cost of product, GST, duties, labour charges, levies and all cartage charges. No escalation whatsoever shall be payable. The bidders will be entirely responsible for all charges and levies payable by him to the respective authorities.
11. **Warranty/ Guarantee:**
    11.1 The period of comprehensive warranty / guarantee of the SITC works covered under the scope of this tender shall be for two years (24 months) and the same need to be clearly specified.
12. **Completion period:**
    The successful bidder will have to complete the works within 60 days from the date of conclusion of the contract or signing of work order unless the period is extended by mutual agreement.
13. **Terms of Payments:**
    Terms of payment shall be as follows:
    a) Advance payment will be not be made in any case;
    b) The invoice shall be raised in favour of the Registrar, Cotton University, Guwahati
    c) Payment will be released through bank transfer (RTGS / NEFT) after successful completion of the works to the satisfaction of the Cotton University.
18. **Liquidated Damages:**
    The SITC under the scope of this tender shall be completed within the time schedule as mentioned above to be calculated from the date of supply order/ award letter failing which the contractor shall be liable to pay liquidated damages as compensation for an amount equal to 1% or such smaller amount as authorities at the University may decide, on the said bid price of the whole work for every delay of one week but not exceeding 10% on the total value of the order.
19. **Termination of Contract:**
    The University shall have the right to terminate this contract in part or in full in any of the following cases if:
    a) The work is delayed for causes not attributable to natural calamity, or not attributable to the owner (Cotton University) for more than 30 days after the schedule date of completion,
    b) The contractor fails to start the work within 15 days from the date of issue of the work order,
    c) The bidder is declared bankrupt or becomes insolvent; and
    d) For any other reason, which in the opinion of the Cotton University, warrants cancellation of contract award.
    e) In case of termination of contract, for the reasons stated above, the contractor shall forfeit the right to claim any balance payment/ EMD/ Performance Security etc due to him from the Cotton University on the date of cancellation against the contract.

20. **Only new materials to be used:**
    Each and every material/ equipment/ accessories used for the SITC works must be in brand new condition. Old / damaged/ repaired material will not be acceptable. It will be returned to the contractor for replacement on his / her own expenses. The delay caused in completion of the work, if any, due to such replacement, shall be considered as a cause attributable to the contractor.

21. Panel shall be inspected in the factory by the authorised personnel of the University. All routine tests shall be conducted as per relevant Indian Standard. Panel shall be brought to the site after due clearance accorded by the University.

ANNEXURE-I

TECHNICAL SPECIFICATIONS

1.1.0 Erection of Equipments :

1.1.1 All details of the installation shall be mechanically and electrically correct.

1.1.2 On completion of installation works the contractor shall get the equipment checked up by the Engineer – in - charge. After obtaining necessary clearance from the Cotton University's Engineer – in – Charge, the contractor shall forthwith take steps to test the equipment and installations. All the test result must be submitted to the Cotton University's Engineer – in – Charge for approval, before any equipment / installations are put into service.

1.1.3 All the instruments / equipment required for checking, testing and commissioning shall be arranged by the contractor.

1.1.4 Cranes, if necessary shall be arranged by the contractor at his own cost.

1.2.0 Installation and Commissioning of M.V. Panel,

1.2.1 The installation and commissioning of M.V. panels should be done properly on the floor marked in the sub-station building.

1.2.2 For installation of the panels, MS channels for support, to be placed over the cable trench, if needed, shall be covered under the scope of the contractor

1.2.3 Earthing as required, should be done properly for M.V. panels from the earthing terminals provided in the panel.

1.3.0 Earthing –

1.3.1 The type of Earth Electrode shall be as per the item description provided in the schedule of items/ BOQ.

1.3.2 The earthing shall be done as per provision of IS 3043

1.3.3 Earth Bus –

a) Two G.I. Strips, each of size 50 mm x 6 mm shall be provided as earth bus in the sub-station panel room. Each of these strips shall be connected to an independent earth electrode. The two earth leads from the body of each RMU and MV Panels shall be connected to these two strips of earth bus. The two strips of the earth bus shall be bonded together.

1.3.4 Location for Earth Electrodes -

a) Normally an earth electrode shall not be located not closer than 1.5 m from any building. Care shall be taken to see that the excavation for earth electrode does not affect the foundation of the building. If the excavation fouls with building, in such cases, electrodes may be located further away from the building, with the prior approval of the Engineer-in-charge.

b) The location of the earth electrode will be such that the soil has a reasonable chance of remaining moist as far as possible. Entrances, pavements and roadways, should be avoided for locating earth electrodes.

1.3.5 Earth Resistance –

The earth resistance at each electrodes shall be measured. No earth electrodes shall have a greater ohmic resistance than 5 ohms.

Whether the above stated earth resistance is not achieved, necessary improvement shall be made by additional provisions, such as additional electrode (s), different type of electrode, or artificial chemical treatment of soil etc., as may be directed by the Engineer-in-charge.

1.3.6 Earthing Conductor (Main earthing lead) -

The main earthing lead conductor shall be securely terminated on the plate with two bolts, nuts, check nuts and washers.

The main earthing lead strip from the electrode up to the sub-station building shall be protected from mechanical injury by a medium class, 40 mm dia G.I pipe. The protection pipe in ground shall be buried at least 30cm deep (to be 60cm in case of road crossing and pavements).

The earthing conductor strip shall be securely connected at the other and to the earth stud / earth bar by bolt, nuts and washer.

1.6. Specification & Technical data of MV Panels -

1.6.1. The M.V panel shall be indoor cubicle type, floor mounted, free standing, totally enclosed, dust and vermin proof metal clad MV switch board in sectionalized and compartmentalized construction made of sheet steel not less than 2mm thick, with necessary stiffeners, complete with front side cable allays, hinged sectionalized rear doors, common earth bar etc. as required. Min clearance between phases shall be 25.4mm and between live parts and shall be 19mm.

1.6.2. Door Safety Lock –

Each door and cable compartment door shall be fitted with spring –loaded locks as an operational feature and provide a positive locking system with a quarter turn of the key.

1.6.3. Neoprene Gaskets –

Doors and covers are provided with double –lipped neoprene gaskets and door hinged are concealed to ensure positive dust – proofing and aesthetic appearance.

1.6.4. Pre-treatment and painting –

This comprises –

- Degreasing, de-rusting and hot-dip phosphatising in eight tank process.
- Powder coated painting of approved colour.
- Oven –drying to get a smooth, scratch and corrosion resistant surface.

1.6.5. Draw Out Circuit Breaker Section –

Each incoming feeder shall be provided with its own draw out type circuit breaker as per the specification mention in the clause no. 1.6.7.

- Racking Spindle – Smooth insertion of the circuit breaker from the test position to the connected (service) position – and withdrawal vice versa – with the compartment door closed . is facilitated by the racking spindle mechanism.
- Mechanical Interlock – The operating handle shall ensure that insertion or withdrawal can be done only with the circuit breaker 'OFF'. Padlocking facility in the 'ON' and 'OFF' condition, as well as of access to the locking spindle, is provided.
- Cable Termination – Large space must be available for cabling termination.. The well spaced cable compartment of each feeder shall fully segregated from the other feeder by steel sheets. Cable supports shall be provided in each compartment.

1.6.6. Bus-bars and Bus-bars supports -

The bus bar shall be high conductivity electrolytic quality Aluminium conforming to relevant Indian Standards and shall be of sufficient cross section so that current density of 66 Amps. / sq.cm is not exceeded. The cross section of neutral bus bar shall be half that of phase bus bars. Each bus bar shall be individually insulated by means of PVC insulating taper of sleeves. Maximum bus bar temperature shall not exceed 80°C under normal operating conditions. Joints for the bus bar shall be bolted with double cover fish plates and with adequate contract area.

- Main Phase, Neutral & Earth Bus-bars –
  * Material : E91E Aluminium.
  * Section : flat.
- Bus-bar support –
- The main and auxiliary bus-bars shall be supported by fiberglass reinforced polyester(FRP) insulators. This polyester material has the following properties-
  * Very high tracking index, class kA3C.
  * Withstand temperature up to 130^{0}C
  * High impact and tensile strength .
  * Good fire retardance and self extinguishing properties.

The insulators shall place and designed to increase arc resistance.

1.6.7. Specification of Air Circuit Breaker –

i)	Make	Siemens / L&T / ABB/ Schneider
ii)	Type	Manually operated drawout type – Thermal & Magnetic release
iii)	Service Voltage	415V
iv)	Continuous rated capacity	As specified in the Schedule of Items (BOQ)
v)	The C.B. must be as per IS : 13947 – Part - 2	
vi)	Closing Method	Spring controlled manual
vii)	Rated short time withstand capacity	Min. - 50 KA (1 sec.)
viii)	Symmetrical Breaking capacity	Service breaking capacity of min. 50 KA

ix)	Frequency	50 Hz.
x)	Operating Mechanism	Spring controlled manual trip free type closing mechanism and with mechanical OFF / ON indicator. Door interlock , direct acting O/L trip coil set at 2000/5 or 1600/5 or 1000/5 or 800/5 Amps C.T for protection. including neutral C.T, Earth leakage relay etc.
xi)	Inter lock	Mechanical door operating interlocking system as directed. The A.C.B. should have suitable interlocking arrangement to avoid mal-operation. Plexiglass window are provided on the compartment door to enable them to be ready easily.
xii)	Range of releases	The range of releases includes shunt, overload, short-circuit & earth fault.
xiii)	Fault indications	Separate indications for short-circuit, overload & earth fault.
xiv)	Positions	'Service' — Main & auxiliary contacts connected 'Test' — Power contacts disconnected, control circuit contacts connected 'Isolated' — Both power & control circuit contacts disconnected 'Maintenance' — Moving parts of the breaker - completely pulled outside for maintenance

1.6.8. Moulded Case Circuit Breakers :

a) MCCBs shall comply with the requirement of IEC 60947 – 2 / IS13947 – Part – 2.

b) Breaking capacity mentioned in the item specifications shall mean 'Service Breaking Capacity'. Icu = Ics

c) MCCBs installed in MV panel shall be provided with spreader links and rotary operating mechanism of robust design, with door interlock and padlock facility.

d) MCCBs shall be load-line reversal type.

e) All protection releases (for MCCBs from 200 A or above) shall have the adjustable current settings as follows –

i) Overload protection – 80% to 100% of In

ii) Short circuit – 3 to 6 In

f) Earth fault protection module wherever specified in the schedule of items, shall have the protection settings as follows –

i) Adjustable pick-up settings from 10% to 50% of In

ii) Adjustable delay settings from 100 m.sec. to 200 m.sec.

1.6.9. Drawings for approval :

The contractor shall submit design drawings of the M.V panels for approval to the Cotton University The construction / fabrication works shall start only after the final approval of the drawings by the University

List of Approved Make of Materials :

All materials and accessories shall be of makes listed below. Makes of any item(s) not specified under the list, but required in the work shall be approved by the CU prior to use in the work.

Sl. No.	Material	Brand name / Manufacturer
1	ACB	Siemens / L&T / ABB/ Schneider
2	MCCB	Siemens / L&T / ABB/ Schneider
3	11 kV Cable termination / straight through joint	Raychem – heat- shrinkable type
4	Lugs	Dowells
5	11 KV Compact Switchgear	ABB (to be supplied by CU)
8	Electronic Meters/ MFM	ABB/ L&T/ RESHABH/ SECURE
9	ct	KAPPA/ AE/PRAGATI/Newtek
9	Indicating lamp LED	L&T / Siemens
10	M.V. Panel	Manufacturer having adequate infrastructure for anti rust treatment with 7/8 tank process and powder coated painting and panels tested & approved by CPRI (Manufacturer to be approved by Cotton University)

ANNEXURE-2

Tender particulars to be filled up by the bidders

Sl no	Particulars	To be filled by the tenderer
1.	Name of the tenderer (Attach copy of the Registration under relevant laws)	
2	Status of the tenderer (Attach documents, if registered company/ partnership/ proprietary ship)	
3	. Power of attorney of the official signing the tender document	
4	Details of EMD – Amount, Draft Number, Date, and Issuing Bank	
5	Details of Cost of tender document – Amount, Draft Number, Date, and Issuing Bank	
6	Whether the firm has been debarred or blacklisted for any services, supplies or products dealing in, by any organization or educational institute/university or central/state government and criminal case/legal proceedings are pending or industrial dispute is pending or contemplated against them	
7	Credential related document provided with copies of WO, completion certificates and contact information of the clients during the last 7 years for similar type substation work. (Eligibility criteria specified in the Special Conditions of Contract may be referred)	
8	PAN Number (Copy of PAN card to be enclosed)	
9	Copy of GST registration certificate	
10	Audited balance sheet for last three years	
11	Copy of unpriced bill of materials	
16	Address, contact no of the office/ branch office in Guwahati	

It is certified that all the above information are correct to the best of my/our information, knowledge and belief.

Date :

Place :

.....

_____

Signature of the authorized person

Name : .....

Designation :

SEAL

ANNEXURE-3

SIGNED AND STAMPED DECLARATION

1. I, ... Son/Daughter of Shri .... Proprietor/Partner/Director/Authorized signatory of M/S ..... am competent to sign this declaration and execute the tender document.

2. I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.

3. The information/documents furnished along with the above application are true and authentic to the best of my knowledge and belief.

4. I/We am/are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my tender at any stage/ forfeiture of EMD besides liabilities towards prosecution under appropriate law.

5. Each page of the tender document and papers submitted by my company is authenticated, sealed and signed, and I take full responsibility for the entire documents submitted.

Date :

Place :

.....

Signature of the authorized person

Name : .....

Designation :

SEAL

ANNEXURE-4

List of similar works executed during last 7 years

(to be filled by the bidder)

Sl no	Name of the work and work order no, date	Name and address of client with contact no.	Value of the work in Rupees	Date of commence ment	Date of completion

Note: Copies of the work order and completion report shall be enclosed, without which the works shown in the table will not be considered,

Date :

Place :

Signature of the authorized person

Name : .....

Designation :

SEAL

NIT No- 17 of 2023-24 Dated 11.09.2023

PRICE BID

SITC of main LT panel and associated works in the 11kV Sub-Station of Cotton University

Si no	Item	Qty	Rate (Rs)		Amount(Rs)
			In figure	In words	
1	Supply, installation, testing and commissioning of 415V, 3 phase 4 wire system MV panel, floor mounting, totally enclosed, compartmentalized, fabricated out of CRCA not less than 2.0mm thick for load bearing members and 1.6mm thick for doors. Framework may be angle iron/ bolted type construction. The panel shall be treated through 7/ 8 tank pretreatment process followed by powder painting having thickness not less than 60 micron. Degree of protection shall be IP-42. Consisting of following-				
	1600A aluminum bus bar (maximum current density shall be 0.66A/Sq.mm made of E91E Aluminium) for 3 phases and 800A aluminum bus bar for neutral (two sections connected by bus coupler)				
	2 sets of 1200/5A CTs for each of the two incoming feeders				
	Multifunction digital meters for measurement of A, V, KW, KWH & PF (two sets for the two incoming feeders). LED indicating lamps for the two incoming feeders				
	Incoming feeders- 1250A, 4P, MDO type ACB 2 nos (one in each section)				
	Bus coupler breaker-				

	1250A, 4P, MDO type ACB 1 no				
	Incoming and the bus coupler breakers shall be interlocked by mechanical interlocking device	1 Set			
	Outgoing feeders-				
	630A, 3P, 50KA, MCCB – 4 Nos (2nos in each section)				
	400A, 3P, 50KA, MCCB- 6 Nos (3nos in each section)				
	250A, 3P, 35KA, MCCB- 4 Nos (2nos in each section)				
	100A, 3P, 35KA, MCCB- 4 Nos (2nos in each section)				
	Laying of 1.1 KV grade 300 sq mm, $3^{1}/_{2}$ C, XLPE insulated, armoured, aluminum power cables from Transformer to AMF panel & from AMF panel to incoming ACB (for one Section). Cables shall be laid in trenches. (cables shall be supplied by the department)				
	a) Directly in ground	40M			
	b) In trenches	40M			
3	End termination				
	Supplying and making end termination with brass compression gland & aluminium lugs for 1.1KV grade 300 sq mm $3^{1}/_{2}$ C cables				
4	Earthing for the sub station	8Nos			
4.1	Supply, installation & testing of GI earth station with perforated 50mm dia and 3.00M long heavy duty GI pipe with necessary GI fittings such as socket Tee, elbow, nipple and 65mm X 50mm GI reducing socket for funnel including locking arrangement 300mm X 300mm X 6mm hinged cover CI earth plate complete with digging of earth pit, construction of brick chamber and plastering of both inner and outer surface of wall as specified and directed by department	8Nos			
4.2	Supplying and laying of 50mm X 6mm size GI strips drawn on surface from earth electrode to electrical switchgears, machineries etc. complete with supply of GI nuts and bolts, screws etc including riveting, soldering &	35M			

	making necessary connections, as specified and directed by the department.				
4.3	Supplying and laying of 25mm X 6mm size GI strips drawn on surface from earth electrode to electrical switchgears, machineries etc. complete with supply of GI nuts and bolts, screws etc including riveting, soldering & making necessary connections, as specified and directed by the department.	30M			
5	Supply of 3.5 core, 300.0 sq.mm, 1.1KV grade XLPE insulated armoured, underground power cable	120M			
6	Supply of 3.5 core, 95.0 sq.mm, 1.1KV grade XLPE insulated armoured, underground power cable	100M			
Total					
Rebate if any (in percentage)					
Total after rebate					

Seal:

Signature: