

STATE BANK OF INDIA LOCAL HEAD OFFICE, LUCKNOW INVITES TENDERS UNDER TWO BID SYSTEM ON GEM PORTAL FOR

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 11 KV 630A 18.4KA VACUUM CIRCUIT BREAKERS(VCB) PANEL AND 11/.433 KV 1X400 KVA TRANSFORMERS AT STATE BANK OF INDIA, GORAKHPUR MAIN BRANCH CAMPUS, BANK ROAD GORAKHPUR (U.P.)

Tender Documents Consisting of:

NIT, General Rules and Instruction for the Guidance of Tenderer, Form of Tender, Articles of Agreement, General Conditions of Contract, Technical Specifications and Bill of Quantities

> Premise & Estate Dept. 1st Floor, Local Head Office, Motimahal Marg, Hazratganj, Lucknow: 226001

> > Phone: 0522-2295315

E-mail: agmpne.lholuc@sbi.co.in



STATE BANK OF INDIA

NOTICE INVITING TENDER

State Bank of India invites tenders on GeM portal through BOQ bid option from the Schneider/ABB/CG Power/Siemens/Lauritz Knudsen/GE/Kirloskar make OEM (Original Equipment Manufactures) or their authorised channel partners/Dealers (Tender Specific Authorization) for Supply Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.), details given below:

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1. Name of Work :	Supply, Installation, Testing and Commissioning (SITC) 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11K 630Amps 18.4kA HT VCB Panel (ICOG) and HT/I Cabling works at State Bank of India, Gorakhpur Ma Branch Campus, Bank Road, Gorakhpur (U.P.),	
2. Estimated Cost of work :	Rs. 33,57,050.00+ GST	
3. Time allowed for completion :	150 Days from the date of handing over of site	
4. Earnest Money Deposit (EMD) :	Rs. 33,600.00(Rs. Thirty Three Thousand Six Hundred Only) in the form of Demand Draft or Banker's Cheque in favour of AGM(P&E), State Bank of India, LHO Lucknow. (to be submitted in a sealed envelope). The bidders who have already submitted their EMD in previous bid can upload the same EMD in this bid also.	
5. Security deposit :	5% of contract value to be held till one year	
6. Availability of tender documents:	Tender documents to be downloaded from the Bank website https://bank.sbi under the "SBI in the News" Procurement News" and GeM portal www.gem.gov.in from 10.07.2025 to 16:00 Hrs on 31.07.2025.	
7. Date and place of Pre-Bid Meeting:	Estate Dept., 1st Floor, Local Head Office, Motimahal Marg Hazratganj, Lucknow: 226001. The bidder are advised that the query related to pre-bid meeting should be sent throug email on agmpne.lholuc@sbi.co.in an ramji.sharan@sbi.co.in one day before the pre bid meeting.	
8. Address at which the hard copy of Tender fee, Technical bid and EMD of tenders are to Be submitted :	Technical bid, Authorisation letter, experience certificate, copy of Balance sheet, PAN & GST should be submitted online on GeM portal and hard copy of original EMD and Authorization certificate should be submitted in the Department and price bid on the portal GeM portal before 31.07.2025 by 16:00 Hrs. Contact: Ramji Sharan, Dy. Manager(Electrical)-	

	07408403577. Hard copy of original EMD and Authorization certificate should be submitted at State Bank of India, Premise & Estate Dept., 1st Floor, Local Head Office, Motimahal Marg, Hazratganj, Lucknow: 226001 Representative of bidders may be present during opening of Bids. However Bid would be opened even in the absence of any or all the bidders representatives.	
9. Last Date & Time of submission of online tender on GeM portal/Price bid:	Online uploading of signed and scanned copies of all pages of Technical Bid, all other documents mentioned above and online submission Price bid through the GeM portal upto 16:00 Hrs on 31.07.2025.	
10. Date and time of opening of etender:	31.07.2025 at 16:30 Hrs Technical bid and date and time of price bid shall be informed later (Online Technical bid will be opened only of those bidders who will submit proper EMD and Authorization certificate in hard copy. Price Bid will be opened only of those bidders who are successful in Technical Bid after scrutiny)	
11. Defects liability Period :	12 month from the date of completion	
12. Validity of order :	03(Three) month from the date of opening of pride bid of tender.	
11. Liquidated Damages :	0.5% per week subject to a maximum of 5% of contract value.	
13. Eligible Taxes/Deductions:	A) Income Tax and GST TDS will be deducted at source as per Govt. Guidelines. Reimbursement of GST will be made only on submission of proper GST invoice as per applicable GST provisions/Rules. The contractor should comply with the following. Contractor should have valid GST Registration Number.	
	Invoice should specifically/separately disclose the amount of GST levied at applicable rate as per GST provisions/Rules. In case of Correction in the bills after scrutiny, contractor should submit fresh bills for payment. Contractor should timely file his GST return in accordance with GST provisions to enable the bank to claim the credit of GST paid to the contractor. The GST Number of State Bank of India Lucknow Circle are 09AAACS8577KAZE	
14. Mode of Payment :	Electronic mode of payment shall be preferred. The contractor shall have to furnish their bank account details with Branch Name, Branch Code, IFSC and account no. along with the bill.	
15. Payment Terms:	70% of total cost components of Transformers, VCB panel and cables against delivery at site with necessary documents and 25% after commissioning, 2.5% will be against virtual completion certificate and remaining 2.5% will be held with us as	

	security deposit for 1 year and could be released after submission of performance Bank Guarantee from a any scheduled /commercial Bank.
16. Any additional information:	The quoted rate should be inclusive of materials, labour, wages, fixtures, transportation, installation, all taxes(including GST at applicable rates), wastage's, Octroi, machinery, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental charges and all related expenses to complete the work
17. Factory Inspection :	The transformer and VCB panel is to be dispatched after factory inspection by the Bank's Engineer and necessary tests.

Mode of Submission of Tender: The tender shall be submitted in online through GeM portal in accordance with the procedure detailed herein below. Specified documents shall be sealed in envelopes of appropriate size each of which shall be sealed.

- 1. Envelope shall contain Earnest Money Deposit (EMD) only with Covering Letter in hard copy should be submitted above mentioned address.
- 2. Online uploading of signed and scanned copies of all pages of Technical Bid, all other documents mentioned above, EMD DD and price bid is to be submitted online.

The envelope containing the tender documents as per instructions mentioned above shall be submitted in the office of the Assistant General Manager, State Bank of India, Premise & Estate Dept., 1st Floor, B-Wing, Local Head Office, Motimahal Marg, Hazratganj, Lucknow: 226001. The Envelope should be super scribed "EMD and Authorization certificate for SITC of Transformers and VCB Panel at State Bank of India, Gorakhpur Main Branch, Gorakhpur (U.P.)".

Envelope marked Technical Bid containing Earnest Money Deposit along with Covering Letter and all other documents, will be opened if the Earnest Money Deposit and all other tender document is not found as prescribed, the tender shall be rejected.

In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.

SBI has the right to accept/reject any or all tenders without assigning any reasons.

For and Behalf of State Bank of India

INSTRUCTIONS TO THE TENDERERS

1. Scope of Work

Online tenders are invited on GeM portal by SBI LHO Lucknow for the work of Supply, Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.).

1.1 Site and its Location

The proposed work is to be carried out at **State Bank of India, Gorakhpur Main Branch Campus, Bank Road Gorakhpur.**

2.0 Tender Documents

2.1 The work has to be carried out strictly according to the conditions stipulated in the tender consisting of the following documents and the most workmen like manner:

Instructions to Tenderers

General Conditions of Contract

Special Conditions of Contract

Additional Specifications

Drawings

Price Bid

- 2.2 The above documents shall be taken as complementary and mutually explanatory of one another but in case of ambiguities or discrepancies, shall take precedence in the order given below:
 - a) Price Bid
 - b) Additional Specifications
 - c) Technical Specifications
 - d) Drawings
 - e) Special Conditions of Contract
 - f) General Condition of Contract
 - g) Instruction to Tenderers
- 2.3 Complete set of tender documents including relative drawings can be downloaded from etendering portal of the e-tendering service provider engaged by SBI.
- 2.4 The tender documents are not transferable.

3.0 Site Visit

3.1 The tenderer must obtain himself on his own responsibility and his own expenses all information and data which may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The tenderer is requested satisfy himself regarding the availability of water, power, transport and communication facilities, the character quality and quantity of the materials, labour, the law and order situation, climatic conditions, liaison requirements with local authorities/ authorities maintaining the campus, security agencies guarding the campus, traffic regulations in and around the site etc;

The tenderer will be fully responsible for considering the financial effect of any or all the factors while submitting his tender.

4.0 Security Deposit

4.1 Earnest Money

- 4.1.1 The tenderers are requested to submit the Earnest Money of 33,600.00 (Rs. Thirty Three Thousand Six Hundred Only) in the form of Demand Draft or Banker's Cheque in favour of AGM(P&E), State Bank of India, LHO Lucknow in the form of Demand Draft or Bankers' Cheque in favour of SBI, Lucknow payable at Lucknow drawn on any Bank in India.
- 4.1.2 EMD in any other form other than as specified above will not be accepted. Tender not accompanied by the EMD in accordance with clause 4.1 above shall be rejected.
- 4.1.3 No interest will be paid on the EMD.
- 4.1.4 EMD of unsuccessful tenderers will be refunded/ returned within 30 days of award of Contract.
- 4.1.5 EMD of successful tenderer will be retained as a part of security deposit.

4.2 Initial Security Deposit

The successful tenderer will have to submit a sum equivalent to 2% of contract value less EMD, by means of Demand Draft drawn in favour of State Bank of India payable at Lucknow within a period of 7 days of acceptance of tender.

4.3 Additionally Security Deposit (ISD)/ Additional Performance Guarantee (APG)

Additional Security deposit (ASD)/Additional performance Guarantee (APG) shall be applicable if the bid price is below 10% of the estimated cost put to tender. The amount of such ASD/ APG shall be the difference between 90% of estimated cost put to tender and the quoted price. ASD in the format of DD / Banker's Cheque / Bank Guarantee shall be submitted within 15 days of intimation of award of work / work order, without which the contractor will not be allowed to start the work and failure of submission of ASD will result in forfeiture of EMD and cancellation of tender.

For e.g., if a contractor is quoting 15% below the estimated cost put to tender (i.e. 85% of the estimate), then ASD of 5% of estimated cost is required to be obtained from the contractor (90%-85%).

4.4 Security Deposit

Total security deposit shall be 5% of contract value. Out of this 2% of contract value is in the form of initial security deposit, which includes the EMD. Balance 3% shall be deducted from the running account bill of the work at the rate of 10% of the respective running account bills i.e., deduction from each running bill account will be 10% till total 3% of contract value is reached. 50% of the total security shall be paid to the contractors on the basis of the virtual completion certificate. The balance 50% would be paid to the contractors after the defects liability period as specified in the contract provided he has carried out all the work and attended to all the defects in accordance with the condition of the contract and clearance, if any, of the observations of the CTE of CVC.

No interest shall be paid to the amount retained by the Bank as Security Deposit.

5.0 Signing of Contract Documents

The successful tenderer shall be bound to implement the contract by signing an agreement and conditions of contract attached herewith within 7 days from the receipt of intimation of acceptance of his tender by the Bank. However, the written acceptance of the tender by the Bank will constitute a binding agreement between the Bank and successful tenderer whether such formal agreement is subsequently entered into or not.

6.0 Completion Period

Time is essence of the contract. The work should be completed in all respects in accordance with the

terms of contract within a period of 150 Days from the date of handing over of the site.

7.0 Validity of Tender

Tenders shall remain valid and open for acceptance for a period of ninety days from the date of opening price bid. If the tenderer withdraws his/her offer during the validity period or makes modifications in his/her original offer which are not acceptable to the Bank without prejudice to any other right or remedy the Bank shall be at liberty to forfeit the EMD.

8.0 Liquidated Damages

The liquidated damages shall be 0.5% per week subject to a maximum of 5% of the accepted Contract Value.

9.0 Rate and Prices:

9.1 The tenderers shall quote their rates for individual items both in words and figures. In case of discrepancy between the rate quoted in words and figures the unit rate quoted in words will prevail. If no rate is quoted for a particular item the contractor shall not be paid for that item when it is executed.

The amount of each item shall be calculated and the requisite total is given. In case of discrepancy between the unit rate and the total amount calculated from multiplication of unit rate and the quantity the unit rate quoted will govern and the total amount will be corrected.

	The tenderers need not quote their rates for which no quantities have been given. In case the tenderers quote their rates for such items those rates will be ignored and will not be considered during execution.
	The tenderers should not change the units as specified in the tender. If any unit is changed the tenders would be evaluated as per the original unit and the contractor would be paid accordingly.
9.2 is 0	The tenderer should not change or modify or delete the description of the item. If any discrepancy observed he should immediately bring to the knowledge of the Architect/Bank.
9.3 be	Each page of the BOQ shall be signed by the authorized person and cutting or over writing shall duly attested by him.
	Each page shall be totaled and the grand total shall be given.
	The rate quoted shall be firm and shall include all costs, allowances, taxes, levies etc. and deduction at source for Income Tax, GST TDS etc. will be made as per statutory rules.
	The contractor shall be required to conduct necessary tests of the water brought from tube well or

□ Nominated Contractor for Allied work, if any.

any other outside source, from approved laboratory.

and statements required to be furnished to the appropriate authorities.

The contractor shall get allied works executed only through Contractors already in SBI's Panel, for different categories of works.

The contractor is required to comply with all act of the Government relating to labour and the rules and regulations made there under from time to time and to submit at the proper times all particulars

To

Assistant General Manager(Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow - 226001

Dear Sir,

Reg.: Supply, Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at

Sta	State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.),		
(IC	I/ We refer to the tender notice issued by you for Supply, Installation, Testing and Commissioning TC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel OG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, rakhpur (U.P.), works and allied works in connection with the above.		
	I/ We hereby offer to perform, provide, execute, complete and maintain the works in conformity with the drawings, designs, conditions of contracts, specifications, schedule of quantities relating to the works for the sum of Rs		
а.	I/ We have satisfied myself/ ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions, subject to above, I/ We do hereby agree, should this tender be accepted in whole or in part, to: Abide by and fullfill all the terms and provisions of the said conditions annexed here to,		
a.	Complete the works within 150 Days as per the work program enclosed with the tender in two or three shifts if considered necessary by the Employer/ Architects at no extra cost to the Employer.		
I.	I/ We have deposited an Earnest Money of Rs. 33,600.00(Rs. Thirty Four Thousand Six Hundred Only) in the form of Demand Draft or Banker's Cheque in favour of AGM(P&E), State Bank of India, LHO Lucknow payable at Lucknow which, I/ We note, will not bear any interest and is liable for forfeiture. If our offer is withdrawn within the validity period of acceptance by the Employer.		
Or Or	I. If the contract agreement is not executed by us within 7 days from the date of receipt of the letter of acceptance.		
Or	I. If we fail to pay the initial security deposit as stipulated.		
	I. If the work is not commenced within 3 days after issue of work order.		
neceive	I / We understand that you are not bound to accept the lowest or any tender you \dot{z} .		

The names of DIRECTORS of our Firm	are:	
1		
2		
3		
4		
Yours faithfully,		
Signature		
Designation		
Name of Partner/ Director of the Firm, auto sign or name of person having power of to sign the contract. (Certified true copy of attorney should be attached)	f attorne	y
Signature and address of witnesses:	a.	Signature
	Name	÷
	Addro	ess
	b. Sig	nature
	Name	:
	Addre	255

FORMAT FOR AGREEMENT

	greement made on theof India a corporation constr				
	Office at Lucknow and many				
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		(hereinaf	ter called "the Cont	tractor") of	f the other part.
WHER	REAS the Employer is desiro	ous of executing SITC	of Transformers, V	/CB Pane	l and HT & LT
Cablin	ng Works to be carried out	at Existing Premises o	of State Bank of 1	India, Go	rakhpur Main
	ch Campus, Bank Road Go ngs, Bills of Quantities and Sineer.	A \ /		_	
the Spo AND V Condit attache	WHEREAS the said Drawing ecifications as stated have be WHEREAS the Contractor hations of Contract and furthered (hereinafter collectively reped in the said Specification	en signed by or on behas agreed to execute the r subject to the Special eferred to as "the said of the	alf of the parties here work upon the Co al Conditions set for Conditions") as per	reto: Inditions of orth in Schoth in Schoth	f Tender and the hedule-II hereto Drawings and as
NOW	IT IS HEREBY AGREED A	S FOLLOWS:			
☐ In at t	consideration of the sum of the time and in the manner so	Rupeeset forth in the said Con	•		to be paid apon and subject
	e Employer shall pay to the C	Contractor the said sum	of Rs		
	such other sum as shall be	come payable hereund	er at the times and	1 in the m	nanner specified
3. ceasing	The term "The Architects" ig to be Architects for the pur				

- 3. The term "The Architects" in the said conditions shall mean if appointed or in the event of their ceasing to be Architects for the purposes of this Contract, such other persons as shall be nominated for that purpose by the Employer, not being a person to whom the contractor shall object for reasons considered to be sufficient by the Employer mentioned in the said Conditions. Provided always that no persons subsequently appointed to be Architects under this Contract shall be entitled to disregard or overrule any decision or approval or direction given or expressed by the Architects for the time being.
- 4. The said Conditions, Specifications and Priced Bills of Quantities shall be read and construed as forming part of this agreement, and the parties hereto shall respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their parts respectively in such Conditions, Specifications and Priced Bills of Quantities contained.
- 5. This agreement is subject to jurisdiction of courts in Lucknow only.
- 6. The Asstt. General Manager (P& E), State Bank of India, Local Head Office, Lucknow shall exercise powers on behalf of the said Employer for the purpose of the Contract Agreement.
- 7. Whereas both the parties agree to sign the following annexure Annexed to this Agreement in token of their acceptance.

- i. Agreement
- ii. General Conditions of contract.
- iii. Special Condition of Contract.
- iv. Safety Codes.
- v. Specifications.
- vi. Material Testing & Their Frequency.
- vii. List of Approved Makes/ Brands
- viii. Priced Bill of Quantities.
- ix. Drawings.
- 8. The Bank shall pay the contractor such sum as shall become payable hereunder at the times and in the manner specified in the said Conditions mentioned in the General Conditions of Contract.
- 9. Whereas the Contractor hereby undertakes and agrees to carry out and complete the works within 150 **Days** from the date of handing over site or 15 days from the date of issue of letter of acceptances, whichever is later. The Contractor agrees and has deposited the sum of Rs. ______ by way of Initial Security Deposit for due fulfillment of this Contract for the Works. It is agreed that the Security Deposit shall be deducted from each running bills and refunded to the contractor as per clause 2 of the General Conditions of the Contract Annexed herewith.
- 10. Whereas it is agreed that the earnest money amounting to Rs. 33,600.00(Rs. Thirty Three Thousand Six Hundred Only) deposited by the Contractor in the form of Demand Draft along with the tender shall be forfeited in full in case the Contractor does not remit the Initial Security Deposit within the stipulated period of the start of the works by the stipulated date mentioned in the award letter.
- 11. Whereas Shri ______ is the accredited representative(s) of the Contractor who would be responsible for taking instructions from the Employer in relation to the Works. The Contractor agrees to pay Sales Tax or any other Tax on material or finished works like Works Contract Tax, Turnover Tax etc. including Income Tax in respect of this Contract of the Works and the Employer will not entertain any claim whatsoever in this report nor the Employer shall be responsible to pay any Tax as mentioned above. If due to non payment of any of the aforesaid Tax or other Taxes connected with the Works, the Contractor suffers any loss or damages occurred to the Contractor and the Employer will be entitled to claim damages from the contractor for non completion of the Work within 75 days stipulated in Para 9.0, above.
- 12. Whereas the Contractor hereby declares the list of all the relative working with the Employer which is annexed herewith.

OR

Whereas the Contractor declares that none of his relative is working with the Employer.

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Whereas the Contractor declares that he has associated himself with the agencies of the appropriate classes of person for Sanitary and Water Supply Installation etc. or any other specialized job to complete the works.

13. The Plans, Drawings, Specifications, Contract Documents and the Documents above mentioned shall form basis of this Contract and the decision of *the* Assistant General Manager (Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow - 226001 for the time being as mentioned in the Conditions of Contract in reference to all matters of dispute as to material, workmanship or account and as to the intended interpretation of the clauses of the Agreement

or any of the document attached hereto shall be final and binding on both parties and may be made rule of the court.

- 14. The work comprises of the "Supply, Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.)," as mentioned above and all subsidiary and other works connected therewith on the same site as may be ordered to be done from time to time by the Assistant General Manager(Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow 226001 for the time being even though such works may not have been shown on the Plans or described in the said Specifications or Schedule of Quantities of various classes of Work to be done.
- 15. The Employer through the the Assistant General Manager (Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow 226001 reserves himself the right of altering the Plans, Drawings and nature of Work of adding to or omitting any items of work or having portions of the same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this Contract.
- 16. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in Lucknow and only the courts of Lucknow shall have jurisdiction to determine the same.
- 17. The several parts of this Contract have been read to us and fully understood by us.

In Witness whereof the parties above named have executed these presents today and year first hereinabove written.

Signed,	Sealed	and Del	livered	hv.
Digitu,	Scarcu	and DC	uvcicu	Uy.

Authorised Representative of Employer

Authorised Representative of Contractor

SCHEDULE I

Supply, Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.), all as described in Tender inclusive hereto as Specifications.

SCHEDULE II		
The following Letters/ Correspondence form a part of Agreement: 1. 2. 3.		
As witness our hands the day and year first written	above,	
In presence of		
Signature:	Signature by the said Employer	
Name:	Name:	
Occupation:	Designation:	
Address:	Address:	
In presence of		
Signature:	Signature by the said Contractor	
Name:	Name:	
Occupation:	Designation:	
Address:	Address:	

PART – 1 DISCLAIMER

The information contained in this tender document or information provided subsequently to Bidder(s) or applicants whether verbally or in documentary form/email by or on behalf of State Bank of India (Bank), is subject to the terms and conditions set out in this tender document and all other terms and conditions subject to which such information is provided.

This tender is neither an agreement nor an offer and is only an invitation by the Bank to the interested parties for submission of bids. The purpose of this tender is to provide the Bidder(s) with information to assist the formulation of their proposals. This tender does not claim to contain all the information each Bidder may require. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this tender and where necessary obtain independent advices/clarifications. Bank may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this tender. No contractual obligation whatsoever shall arise from the tender process *unless a Purchase order has been issued* by duly authorized officers of the Bank with the selected Bidder.

The Bank, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this tender or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the tender and any assessment, assumption, statement or information contained therein or deemed to form part of this tender or arising in any way for participation in this Bid Stage.

The Bank also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused arising from reliance of any Bidder upon the statements contained in this tender.

The issue of this tender does not imply that the Bank is bound to select a Bidder or to appoint the Selected Bidder or Concessionaire, as the case may be, for the Project and the Bank reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Bank or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Bank shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

1.1 **Broad Scope of Work:**

1.1.1 Supply, Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.),

The successful bidder should Design, Supply, transportation, loading and unloading, Transit Insurance, Delivery at site, Installation, Cabling, Testing, Commissioning, Documentation, Warranty and Service support of all the components supplied under this tender including Transformers, VCB panel, cabling and various components as per Technical Specifications and Bill of Quantities. The bidders may submit the

bids as per the preferred makes / model mentioned in Annexure 3.1.1 or equivalent/higher. The bidder has to integrate the all the systems being provided and provision for integration with existing air conditioners, if needed in future.

- 1.1.2 To provide all necessary hardware and software required to make the solution work strictly as per technical specifications. The specifications given are minimum. Bidders can quote equivalent or higher technical specifications to meet the Bank's requirements. However no weightage would be given for higher configurations.
- 1.1.3 IT related system, if any, provided for operation with transformers and VCBs equipment, the same should be provided with Pre installed OS Software with latest service pack with original DVD Media, license and installation/activation keys. This Operating System DVD shall be used for installation of the OS in case of software corruption, hard disk replacement etc. Additional software, if any, supplied should be provided with media. Recovery / Reinstallation DVD containing software device drivers etc. for all HT substation system equipment etc. shall be provided. In case AC connectivity cables are crimped, the cables and connectors shall be of unsoldered type.
- 1.1.4 Bidder's Responsibility: Supply and installation of all the hardware and software items as per the scope of work and detailed technical specifications. All these equipment/ accessories will be warranted and must operate at OR above the guaranteed values with regard to availability. The system spare parts, as and when required and complete maintenance support of the system in future shall be back to back guaranteed from OEM for a period of 01 Years from the date of successful taking over of the complete project (acceptance by the Bank). One copy of Hardware and Software documentation shall be provided along with the supply of equipment. The bidder shall provide services as detailed in this specification. The bidder shall arrange for all tools, tackles, testing instruments etc., as required during all operations such as transportations, installation, testing and commissioning etc., for completing the scope of work as per this specification. These tools and tackles and testing instruments etc., shall be allowed to be taken back by the bidder. The bidder shall undertake all testing and commissioning activities and shall provide assistance during inspection and acceptance testing by the Bank. Bidder shall provide all required equipment and services, whether explicitly mentioned in these specifications or not, to fulfil the intent of the specification and to ensure completeness, operability and maintainability of the system at no extra cost to the Bank. Bidder shall furnish the part Number/Product identification Number for all products as provided by the original manufacturer. Bidder shall provide a clear and explicit activity wise action plan and schedule of completion of the above work. Bidder shall provide a detailed list of Project Manager, Site Engineer, Technician etc., who are intended to be assigned for commissioning of the subject project, clearly mentioning the detail of their work experience, certifications and other skills. This shall be subject to approval by the Bank. Bidder shall ensure that the manpower is technically competent and must possess requisite certifications from various OEMs as required. SBI shall have discretion of accepting or rejecting the manpower proposed. During the execution phase, any changes in the manpower deployment at site should be notified in writing to the Bank with the details of the new person assigned for the task, and approval for the same to be sought from the Bank.
- 1.1.5 The bidder shall carry out, complete and maintain the said work in every respect strictly in accordance with this contract and with the directions of and to the satisfaction of the Bank. The architect/consultant at the directions of the Bank from time to time issue further drawings and/or written instructions, details directions and explanations which are hereafter collectively referred to as Architect's/Consultant's instructions in regard to: the variation or modification of the design, quality or quantity of work or the addition or omission or substitution of any work, any discrepancy in the drawings or between the BOQ and/or drawings and/or specifications, the removal from the site of any material brought thereon by the contractor and the substitution of any other materials thereof, the demolition, removal and/or re-execution of any work executed by him, the dismissal from the work of any person employed/engaged thereupon.

- 1.1.6 **Ownership of drawings**: All drawings, specifications and copies thereof furnished by the SBI through its architect/ consultants are the properties of the SBI. They are not to be used on other work.
- 1.1.7 Detailed drawings and instructions: The SBI through its architects/consultants shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the contract documents, true developments thereof and reasonably inferable there from. The work shall be executed in conformity therewith and the contractor prepare a detailed programme schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI.
- 1.1.8 All the equipment provided under this contract shall be complete with power cables. The Equipment shall operate on 11 KV/433 V/230 volts, 50 Hz Three/single phase AC power supply and the power cables complying with Indian Electrical standards
- 1.1.9 The equipment are to be supplied under this tender shall be the industry proven products and not the R&D models. The equipment shall confirm to the requirements of relevant Indian & International Standards.
- 1.1.10 All the components of the main system shall be from the same Original Equipment Manufacturer (OEM). Assembled product of different makes or refurbished products shall not be accepted.
- 1.1.11 The System Integrator (SI, also referred as Bidder in this document) should ensure that products / technologies /services quoted under this project are not declared end of life by the respective OEM and also ensure that End-of-Life of the proposed product is not earlier than one year from the date of acceptance of the project.
- 1.1.12 The bidder should ensure that the spares and upgrades for the product shall be available at least for FIVE years from the date of acceptance of the project.
- 1.1.13 During warranty period replacement of defective components or sub-components shall be replaced by the brand new spare parts bearing the same OEM part number Only under exceptional circumstances of non-availability of spare of the same part number the compatible spare having different OEM part number may be accepted. However, in such cases the spare part to be supplied against the defective part shall be brand new and shall bear part number from the OEM.
- 1.1.14 The BOQ estimated by SBI is not exhaustive. Any additional items / components as required for the successful completion of the work under taken may be assessed by the bidder and the same may be incorporated in the offer. The BOQ as assessed by the bidder as above should be clearly indicated in the offer. Even at the time of execution, if any additional items / components are required to complete the system, notwithstanding the BOQ as identified by the bidder as above, the same shall be provided free of cost by the Bidder. Only such bidders who have quoted their prices for the complete scope in all respect shall be considered for evaluation.
- 1.1.15 The bidders are strongly advised to visit and examine the site (prior to pre-bid meeting) and to obtain himself, on his own responsibility, all information, such as the architectural and interior drawings, that may be necessary for preparing the Bid and entering into a Contract. The expenditures of visiting the sites shall be at bidders own expenses. The bidders should do necessary environmental survey for cabling, containments (conduiting and raceways) and towards copper piping, drain piping installation across the facility).

1.1.16 Scope for Installation, Testing, Commissioning and Handing over of the Project

The scope of work comprises Installation, Integration, Testing, Commissioning and Handing over of the supplied equipment under this project. The bidder shall dismantle and safe keep of the old Transformers, Oil Circuit Breakers(OCB) panel and cabling. The bidder shall provide a comprehensive integrated turnkey solution. Any minor Electrical works, Civil interior work, flooring and minor carpentry work relating to the installation of the equipment supplied under this project shall be in the scope of the bidder.

The bidders shall quote for a total integrated turnkey solution covering all the above. The bidder shall supply and install all required Pipes, connectors, cables, etc. as well as the programming necessary to complete the installation of the project.

Installation & Commissioning inter alia including Supply, laying with suitable protection, termination / fixing of cables, connectors, lugs and other items, not specifically even mentioned in the Technical Specification, BOQ and is required to successfully complete the project shall be provided free of cost by the bidder.

1.1.17 The Bidder must furnish complete information asked in this tender. Bidder has to quote for the total scope of supply and other works. Amongst other things, the Bidder must supply the details /specifications regarding the following items along with his bid.

Software: Comprehensive write-up on features of software including but not limited to control panel software, Transformers and VCB system.

Site Preparation, Supervision and Installation.

Special requirements, if any, of operating parameters like the range of temperature, humidity, dust level and power requirement.

Printed Brochures / Pamphlet / Leaflet illustrating Technical details / specifications etc. for all the items / materials quoted should be enclosed with bid.

The Bidder must address all the above aspects in the same order and must indicate very specifically any deviation taken by him on account of make / configuration / technical and other particulars in a separate schedule included in the bid documents. Unless specifically brought out in the specific schedule as mentioned above, the bid shall be deemed to be in line with the technical and other particulars mentioned in the tender specifications.

Site Preparation, Supervision and Installation:

It shall be the responsibility of the bidder to supervise the site preparation by the owner (i.e. Bank) to ensure that the site is prepared as per his requirements such as environmental conditions, power requirements etc. The bidder shall ensure that his system operates efficiently under these conditions.

The bidder shall furnish along with his offer a list of facilities and other necessities required by him, if any, for site preparation etc. The bidder shall be fully responsible for installation and commissioning of the equipment including cabling related to installed equipment (except power cables) and other related activities such as unpacking, uncarting, inspection etc. for which the owner shall provide the required space at his premises, the bidder will have to arrange by himself all testing equipment and tools required for maintenance and make his own transport arrangements.

The bidder shall furnish schematic drawings, signal flow diagrams with cable details, color coding and

numbering of the cables. Final version of the Schematic drawings after execution shall be submitted as "As Built" Drawings and duly approved by the Bank / Architect / consultant. Detailed shop drawings for all the equipment to be flushed on the table / lectern / related furniture to be provided before starting the execution to the Bank, since it carries dependency on the other vendors/contractor on the site.

1.2 Eligibility Criteria

Bidders meeting the following criteria are eligible to submit their Bids along with supporting documents. If the Bid is not accompanied by all the required documents supporting eligibility criteria, the same would be rejected:

ANNEXURE-A

ELIGIBILITY CRITERIA

Bidders meeting the following criteria are eligible to submit their Bids along with supporting documents. If the Bid is not accompanied by all the required documents supporting eligibility criteria, the same would be rejected:

Sr.	Eligibility Criteria	Documents to be submitted
No.		
1.	The bidder must have valid A- Class Electrical Contractors license issued by the Directorate of Electrical Safety, Uttar Pradesh.	
2.		(OEM), they should enclose the details of locations where the manufacturing and testing facilities are available.2. If the bidder is an authorized partner for the OEM, the standard MAF
	behalf of the principal /OEM, the same partner	/ 1
	shall not submit a bid on behalf of another	= = =
	principal /OEM for this tender.	
3.	The Bidder or its OEM should have permanent office or at least one service centre within the geographical area of Uttar Pradesh for quick response in case of breakdowns.	location and contact details of the said
4.	The average annual turnover for financial year 2021-22, 2022-23, 2023-24 should not be less than Rs. 10.07 lacs.	Submit copies of audited balance sheets/ IT
5.	The Bidder must have similar work successfully in the last 7 years in one centres, any Central / State Govt Organization /PSU / Public Listed Company	Certificate from the client mentioning the
	completed similar work (HT substation/Transformer/ VCB) as detailed below in the period starting 01/07/2018.	a) Name, address and contact nos. of client.
	- Two similar single work order completed works each costing not less than Rs. 16.78 lacs.	b) Work order reference and details (Submit copy of work order):

	or - One similar single work order completed works costing not less than Rs. 26.85 lacs.	c) Order Value: d) Date of start of work: e) Scheduled date of completion of work: f) Actual date of completion of work (Submit copy of completion certificate)
7.	Firm should have valid PAN card, GST registration	Submit copies of card, registration certificates
	Should be an income tax assessee for the previous three financial years, i.e. 2021-22, 2022-23, 2023-24.	Submit copy of IT returns for the years

Note: Documentary evidence like certificates etc. must be furnished against each of the above criteria along with an index. All documents must be signed by the authorized signatory of the bidder. Relevant portions, in the documents submitted in pursuance of eligibility criteria, should be highlighted.

1.3 Cost of Bidding: The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Bank will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the Bidding process.

B. THE BIDDING DOCUMENTS

1.4 Documents constituting the Bid

- 1.4.1 The Bidding Documents include:
 - (a) PART 1 Invitation to Bid (ITB)
 - (b) PART 2 Disclaimer
 - (c) PART 3 Instruction for Bidders (IFB)
 - (d) PART 4 Terms and Conditions of Contract (TCC)
 - (e) PART 5 Bid Forms, Price Schedules and other forms (BF)
- 1.4.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Document. Failure to furnish all information required by the Bidding Document or to submit a Bid not substantially responsive to the Bidding Document in every respect will be at the Bidder's risk and may result in the rejection of the Bid.

1.5 Clarification / Amendment of Bidding Document

- 1.5.1 Text of queries raised (without identifying source of query) and response of the Bank together with amendment to the bidding document, if any will be posted on Bank's website. No individual clarification will be sent to the bidders. It is the responsibility of the bidder to check the website before final submission of bids.
- 1.5.2 Relaxation in any of the terms contained in the Bid, in general, will not be permitted, but

if granted, the same will be put up on Bank's Website.

- 1.5.3 All bidders must ensure that such clarifications / amendments have been considered by them before submitting the bid. Bank will not take responsibility for any omissions by bidder.
- 1.5.4 At any time prior to the deadline for submission of Bids, the Bank, for any reason, whether, at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the Bidding Document, by amendment.
- 1.5.5 In order to enable bidders reasonable time in which to take amendments into account in preparing the bids, the Bank, at its discretion, may extend the deadline for submission of bids.

C. PREPARATION OF BIDS

1.6 Language of Bid

1.6.1 The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Bank and supporting documents and printed literature shall be submitted in English.

1.7 Documents Comprising the Bid

- 1.7.1 Documents comprising the <u>Technical Proposal Envelope</u>, should contain following:
 - (a) Bid Form as per Annexure-3.2.1
 - (b) BOM & Compliances Annexure-3.1.1
 - (c) Undertaking of Authenticity Annexure-3.1.2
 - (d) SLA T&C Annexure-3.3
 - (e) Retention Bank Guarantee Annexure-3.4.1
 - (f) MAF Annexure-3.5
 - (g) Masked Price Bid listing all the components as per Price Bid (Annexure-3.2.3) without indicating any prices.

completed in accordance with the clauses in the BID and duly signed by the authorized representative of the Bidder and stamped with the official stamp of the Bidder (Board resolution authorizing representative to bid and make commitments on behalf of the Bidder to be attached).

- 1.7.2 While submitting the Technical Bid, literature on the software / hardware if any, should be segregated and kept together in one section / lot. The other papers like EMD, Forms as mentioned above etc. should form the main section and should be submitted in one lot, separate from the section containing literature.
- 1.7.3Any Technical Proposal not containing the above will be rejected.
- 1.7.4 The Technical Proposal should NOT contain any price information. Such proposal, if received, will be rejected.

1.8 Bid Form

1.8.1 The Bidder shall complete both the Envelopes of the Bid Form furnished in the Bidding

Document separately and submit them simultaneously to the Bank. Bids are liable to be rejected if only one (i.e. Technical Bid or Indicative Price Bid) is received.

1.9 Bid Prices

- 1.9.1 Prices are to be quoted in **Indian Rupees** only.
- 1.9.2 Prices quoted should be inclusive of all Central / State Government levies, taxes, excise duty, custom duty etc., as also cost of incidental services such as transportation, insurance etc. inclusive of GST.
- 1.9.3 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and shall not be subject to variation on any account, including exchange rate fluctuations, *any upward revision* in taxes, duties, levies, charges etc. A Bid submitted with an adjustable price quotation will be treated as non-responsive and will be rejected.

1.10 Delivery Schedule & Penalty for Delayed Deliveries

- 1.10.1 Delivery of all equipment should be within 150 **Days** from date of placing of order.
- 1.10.2 In the event of the equipment not being delivered, installed, tested and commissioned within a period of 150 Days from date of Purchase Order, a penalty of 0.5% per week subject to a maximum of 5% of contract value.
- 1.10.3 This amount of penalty so calculated shall be deducted at the time of making final payment after successful installation and commissioning of hardware.
- 1.10.4 The Bank also reserves the right to cancel the Purchase Order and forfeit the EMD. In the event of such cancellation, the vendor is not entitled to any compensation. PLEASE NOTE THE DELIVERY SCHEDULE SHALL BE FOLLOWED STRICTLY AS STIPULATED. ANY DELAY SHALL BE VIEWED SERIOUSLY AND PENALTIES LEVIED.

1.11 Documentary Evidence Establishing Bidder's Eligibility and Oualifications

- 1.11.1 The documentary evidence of the Bidder's qualifications to perform the Contract if its Bid is accepted shall establish to the Bank's satisfaction:
 - (a) that, in the case of a Bidder offering to supply products and/or Systems under the Contract which the Bidder did not produce, the Bidder has been duly authorized as per authorization letter (Annexure-3.5)
 - (b) that adequate, specialized expertise are available to ensure that the support services are responsive and the Bidder will assume total responsibility for the fault-free operation of the solution proposed and maintenance during the warranty period and provide necessary maintenance services.

1.12 Documentary Evidence Establishing Eligibility of Products and Conformity to Bidding Documents

1.12.1 The Bidder shall submit point by point compliance to the technical specifications and it should be included in the Bid.

- 1.12.2 Any deviations from specifications should be clearly brought out in the bid.
- 1.12.3 The Bidder should quote for the entire package on a single responsibility basis for hardware / software / services it proposes to supply.

1.13 Earnest Money Deposit (EMD)

- 1.13.1 The Bidder shall furnish, as part of its Bid, an EMD of Rs. 33,600.00(Rs. Thirty Three Thousand Six Hundred Only) in the form of Demand Draft or Banker's Cheque in favour of AGM(P&E), State Bank of India, LHO Lucknow
- 1.13.2 The EMD is required to protect the Bank against the risk of Bidder's conduct, which would warrant the EMD's forfeiture.
- 1.13.3 The EMD shall be denominated in Indian Rupees and shall be in the form of a Demand Draft or Bank Guarantee as per Annexure-3.4.2, issued by a Scheduled Commercial Bank in India, other than State Bank of India, drawn in favour of State Bank of India payable at Lucknow and valid for a period of 90 days.

{In case, SBI is the sole Banker for the Bidder, a Letter of Comfort from SBI may be accepted.}

- 1.13.4 Any Bid not secured, as above, will be rejected by the Bank, as non-responsive.
- 1.13.5 The EMD of the unsuccessful Bidders shall be returned within 2 weeks from the date of bid finalisation.
- 1.13.6 The successful Bidder's EMD will be discharged upon the Bidder signing the Contract and furnishing the Performance Bank Guarantee (PBG) equivalent to 2.5% of the value of the contract as per format in Annexure-3.4.2. The PBG will be for the period of the contract with claim period of 2 months after date of expiry of PBG.
- 1.13.7 The EMD may be forfeited:
 - a) if a Bidder withdraws his Bid during the period of Bid validity specified in this tender; or
 - b) if a Bidder makes any statement or encloses any form which turns out to be false / incorrect at any time prior to signing of Contract; or
 - c) in the case of a successful Bidder, if the Bidder fails;
 - (i) to sign the Contract;

or

(ii) to furnish Performance Bank Guarantee

1.14 Period of Validity of Bids

1.14.1 Bids shall remain valid for a period of 90 days from the date of opening of the Bid. A Bid valid for a shorter period may be rejected by the Bank as non-responsive.

- 1.14.2 In exceptional circumstances, the Bank may solicit the Bidders' consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The EMD provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its EMD.
- 1.14.3 The Bank reserves the right to call for fresh quotes any time during the validity period, if considered necessary.

1.15 Format and Signing of Bid

1.15.1 Each bid shall be in two parts:-

Part I- Technical Proposal.

The Technical bid should be submitted online on GeM portal, and EMD should be submitted offline in as sealed envelope super scribed with "EMD for SITC of Transformer and VCB Panel at State Bank of India, Gorakhpur Main branch Campus, Gorakhpur"

Part II- Online Price Proposal.

"Online Price Bid" shall be submitted online on the GeM portal.

- 1.15.2 The Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The person or persons signing the Bids shall initial all pages of the Bids, except for un-amended printed literature.
- 1.15.3 Any inter-lineation's, erasures or overwriting shall be valid **only** if they are initialed by the person signing the Bids. The Bank reserves the right to reject bids not conforming to above.

D. SUBMISSION OF BIDS

1.16 Sealing and Marking of Bids

- 1.16.1 The Bidders' shall seal the NON-WINDOW envelopes containing one copy of "EMD".
- 1.16.2 The inner envelopes shall be addressed to the Bank at the address given in Part-I above and marked as described in Clause 1 above.
- 3.16.3 The outer envelope shall:
 - a) be addressed to the Bank at the address given in Part-I; and
 - b) bear the Project Name "SITC of Transformer and VCB Panel at State Bank of India, Gorakhpur Main branch Campus, Gorakhpur"
- 1.16.4 All envelopes should indicate the name and address of the Bidder on the cover.
- 1.16.5 If the envelope is not sealed and marked, the Bank will assume no responsibility for the bid's misplacement or its premature opening.

1.17 Deadline for Submission of Bids

- 1.17.1 Bids must be received by the Bank at the address specified, no later than the date & time specified in the "Schedule of Events" in Invitation to Bid.
- 1.17.2 In the event of the specified date for submission of bids being declared a holiday for the Bank, the bids will be received upto the appointed time on the next working day.
- 1.17.3 The Bank may, at its discretion, extend the deadline for submission of bids by amending the bid documents, in which case, all rights and obligations of the Bank and bidders previously subject to the deadline will thereafter be subject to the extended deadline.
- **1.18 Late Bids:** Any Bid received after the deadline for submission of Bids prescribed, will be rejected and returned unopened to the bidder.

1.19 Modification and Withdrawal of Bids

- 1.19.1 The Bidder may modify or withdraw its Bid after the Bid's submission, provided that written notice of the modification, including substitution or withdrawal of the Bids, is received by the Bank, prior to the deadline prescribed for submission of Bids.
- 1.19.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched. A withdrawal notice may also be sent by Fax, but followed by a signed confirmation copy, postmarked, not later than the deadline for submission of Bids.
- 1.19.3 No Bid may be modified after the deadline for submission of Bids.
- 1.19.4 No Bid may be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Bid Form. Withdrawal of a Bid during this interval may result in the Bidder's forfeiture of its EMD.
- E. Opening and Evaluation of Bids

1.20 Opening of Technical Bids by the Bank

- 1.20.1 The Bidders' names, Bid modifications or withdrawals and the presence or absence of requisite EMD and such other details as the Bank, at its discretion, may consider appropriate, will be announced at the time of technical Bid opening.
 - 1.20.2 Bids and modifications sent, if any, that are not opened at Bid Opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the Bidders.

1.21 Preliminary Examination

- 1.21.1 The Bank will examine the Bids to determine whether they are complete, required formats have been furnished, the documents have been properly signed, and the Bids are generally in order.
- 1.21.2 Prior to the detailed evaluation, the Bank will determine the responsiveness of each Bid to the Bidding Document. For purposes of these Clauses, a responsive Bid is one, which conforms to all the terms and conditions of the Bidding Document without any deviations.

- 1.21.3 The Bank's determination of a Bid's responsiveness will be based on the contents of the Bid itself, without recourse to extrinsic evidence.
- 1.21.4 If a Bid is not responsive, it will be rejected by the Bank and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

1.22 Technical Evaluation

- 1.22.1 Only those Bidders and Bids who have been found to be in conformity of the eligibility terms and conditions during the preliminary evaluation would be taken up by the Bank for further detailed evaluation. Those Bids who do not qualify the eligibility criteria and all terms during preliminary examination will not be taken up for further evaluation.
- 1.22.2 The Bank reserves the right to evaluate the bids on technical & functional parameters including factory visit and witness demos of the system and verify functionalities, response times, etc.
- 1.22.3 Bank will evaluate the technical and functional specification of all the equipments quoted by the Bidder.
- 1.22.4 During evaluation and comparison of bids, the Bank may, at its discretion ask the bidders for clarification of its bid. The request for clarification shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. No post bid clarification at the initiative of the bidder shall be entertained.

1.23 Evaluation of Price Bids and Finalization

- 1.23.1 Only those Bidders who qualify in pre-qualification and Technical evaluation would be shortlisted for commercial evaluation via GeM portal details of which are provided in NIT.
- 1.23.2 The L1 Bidder will be selected on the basis of net total of the price evaluation as quoted in GeM portal.
- 1.23.4 Arithmetic errors, if any, in the price breakup format will be rectified as under:
 - (a) If there is a discrepancy between the unit price and total price which is obtained by multiplying the unit price with quantity, the unit price shall prevail and the total price shall be corrected unless it is a lower figure. If the bidder does not accept the correction of errors, the bid will be rejected.
 - (b) If there is a discrepancy in the unit price quoted in figures and words, the unit price in figures or in words, as the case may be, which corresponds to the total bid price for the bid shall be taken as correct.
 - (c) If the vendor has not worked out the total bid price or the total bid price does not correspond to the unit price quoted either in words or figures, the unit price quoted in words shall be taken as correct.
- 1.23.5 For factors retained in the Bid, one or more of the following quantification methods will be applied:

- (a) Delivery Schedule: The System and/or Services covered under this bid are to be installed and commissioned within the period mentioned in Clause 3.10.1. No credit will be given to early deliveries.
- (b) Quotation of Prices for all Items: The Bidder should quote for complete solution proposed/listed in this Bid. In case, prices are not quoted by any Bidder for any specific product and / or service, for the purpose of evaluation, the highest of the prices quoted by other Bidders participating in the bidding process will be reckoned as the notional price for that service, for that Bidder. However, if selected, at the time of award of Contract, the lowest of the price(s) quoted by other Bidders (whose Price Bids are also opened) for that service will be reckoned. This shall be binding on all the Bidders. However, the Bank reserves the right to reject all such incomplete bids.
- 1.23.6 Bank may waive off any minor infirmity or non-conformity or irregularity in a bid(*i.e.* technical bid or Price bid), which does not constitute a material deviation, provided such a waiving does not prejudice or affect the relative ranking of any bidder.

1.24 Contacting the Bank

- 1.24.1 No Bidder shall contact the Bank on any matter relating to its Bid, from the time of opening of Price Bid to the time the Contract is awarded.
- 1.24.2 Any effort by a Bidder to influence the Bank in its decisions on Bid evaluation, Bid comparison or contract award may result in the rejection of the Bidder's Bid.

1.25 Award Criteria

- 1.25.1 The Bank will award the Contract to the successful Bidder who has been determined to qualify to perform the Contract satisfactorily, and whose Bid has been determined to be responsive, and is the lowest evaluated Bid.
- 1.25.2 The Bank reserves the right at the time of award of contract to increase or decrease the quantity of goods and / or services or change in location where equipments are to be supplied from what was originally specified while floating the tender without any change in unit price or any other terms and conditions.
- 1.26 Bank's right To Accept Any Bid and to reject any or All Bids: The Bank reserves the right to accept or reject any Bid in part or in full or to cancel the Bidding process and reject all Bids at any time prior to contract award, without incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Bank's action.

1.27 Notification of Award

- 1.27.1 Prior to expiration of the period of Bid validity, the Bank will notify the successful Bidder in writing or by e-mail, that his Bid has been accepted.
- 1.27.2 The notification of award will constitute the formation of the Contract. The selected Bidder should convey acceptance of the award of contract by returning duly signed and stamped duplicate copy of the award letter within 7 days of receipt of the communication.
- 1.27.3 Upon notification of award to the L1 Bidder, the Bank will promptly notify each

unsuccessful Bidder and will discharge its EMD.

1.28 Performance Bank Guarantee: Performance Bank Guarantee of 2.5% of the Bid Value/Final Bill value in the format at Annexure-3.4.2 to be submitted by the successful Bidder for a period of contract from a Scheduled Commercial Bank other than SBI within a week of receipt of formal communication from the Bank about their successful bid. Purchase Order will be released only after receipt of the Performance Bank Guarantee

{In case, SBI is the sole Banker for the Bidder, a Letter of Comfort from SBI may be accepted.}

1.29 **Signing of Contract:**

- 1.29.1 In the absence of a formal contract, the Bid document, together with the Bank's notification of award and the vendor's acceptance thereof, would constitute a binding contract between the Bank and the successful Bidder.
- 1.29.1 Failure of the successful Bidder to comply with the requirement of Clause 3.30 (if required) or Clause 3.31.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD.
- 1.29.2 The Bank reserves the right either to invoke the Performance Bank Guarantee or to cancel the purchase order or both if the Bidder fails to meet the terms of this tender or contracts entered into with them

1.30Miscellaneous

- 1.30.1 The selected Bidder should carry out all installation tasks in coordination with the Estate Department, depending on the Bank's requirement.
- 1.30.2 The selected Bidder should undertake, during the period of contract, if required by the Bank, the relocation / shifting of the equipment without any cost to the Bank.
- 1.30.3 The Selected bidder (Service Provider) has to get itself annually audited by external empaneled Auditors appointed by the Bank/inspecting official from the Reserve Bank of India or any regulatory authority, covering the risk parameters finalized by the Bank/such auditors in the areas of products (IT hardware/ software) and services etc. provided to the Bank and the Service Provider are required to submit such certification by such Auditors to the Bank. The Service Provider and or his / their outsourced agents / sub contractors (if allowed by the Bank) shall facilitate the same The Bank can make its expert assessment on the efficiency and effectiveness of the security, control, risk management, governance system and process created by the Service Provider. The Service Provider shall, whenever required by the Auditors, furnish all relevant information, records/data to them. All costs for such audit shall be borne by the Bank.
- 1.30.4 Where any deficiency has been observed during audit of the Service Provider on the risk parameters finalized by the Bank or in the certification submitted by the Auditors, the Service Provider shall correct/resolve the same at the earliest and shall provide all necessary documents related to resolution thereof and the auditor shall further certify in respect of resolution of the deficiencies. The resolution provided by the Service Provider shall require to be certified by the Auditors covering the respective risk parameters against which such

deficiencies have been observed.

1.30.5 Service Provider shall, whenever required by the Bank, furnish all relevant information, records/data to such auditors and/or inspecting officials of the Bank/Reserve Bank of India and or any regulatory authority. The Bank reserves the right to call and/or retain for any relevant material information /reports including audit or review reports undertaken by the service provider (e.g., financial, internal control and security reviews) and findings made on Selected bidder in conjunction with the services provided to the Bank.

Note: Not withstanding anything said above, the Bank reserves the right to reject the contract or cancel the entire process without assigning reasons thereto.

PART - 2. TERMS AND CONDITIONS OF CONTRACT (TCC)

- **2.1 Definitions :** In this Contract, the following terms shall be interpreted as indicated:
- 2.1.1 "The Bank" means State Bank of India, its Associate, Subsidiaries and Joint Ventures located in India.
- 2.1.2 "The Contract" means the agreement entered into between the Bank and the Vendor, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;
- 2.1.3 "Vendor" is the successful Bidder whose technical bid has been accepted and whose price as per the commercial bid is the lowest and to whom notification of award has been given by Bank.
- 2.1.4 "The Contract Price" means the price payable to the Vendor under the Contract for the full and proper performance of its contractual obligations;
- 2.1.5 "The Equipment" means all the hardware / software and / or services which the Vendor is required to supply to the Bank under the Contract;
- 2.1.6 "The Services" means those services ancillary to the supply of the Products, such as transportation and insurance, installation, commissioning, customization, provision of technical assistance, training, maintenance and other such obligations of the Vendor covered under the Contract;
- 2.1.7 "TCC" means the Terms and Conditions of Contract contained in this section;
- 2.1.8 "The Project" means supply, installation, testing and commissioning of computer hardware / software & services with 1 year Warranty.
- 2.1.9 "The Project Site" means various branches / offices of the State Bank of India where the equipment is to be supplied, installed and commissioned.

In case of a difference of opinion on the part of the Bidder in comprehending and/or interpreting any clause / provision of the Bid Document after submission of the Bid, the interpretation by the Bank shall be binding and final on the Bidder.

- 2.2 Use of Contract Documents and Information
- 2.2.1 The Supplier shall not, without the Bank's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Bank in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 2.2.2 The Supplier will treat as confidential all data and information about the Bank, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Bank.

3.3. Country of Origin / Eligibility of Goods & Services

- 3.3.1 All goods and related services to be supplied under the Contract shall have their origin in eligible source countries, as per the prevailing Import Trade Control Regulations in India.
- 3.3.2 For purposes of this clause, "origin" means the place where the goods are mined, grown, or manufactured or produced, or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

2.4. Use of Contract Documents and Information

- 2.4.1 The Vendor shall not, without the Bank's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Bank in connection therewith, to any person other than a person employed by the Vendor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.
- 2.4.2 The Vendor shall not, without the Bank's prior written consent, make use of any document or information except for purposes of performing the Contract.
- 2.4.3 Any document, other than the Contract itself, shall remain the property of the Bank and shall be returned (in all copies) to the Bank on completion of the Vendor's performance under the Contract, if so required by the Bank.

2.5. Patent Rights

2.5.1 In the event of any claim asserted by a third party of infringement of copyright, patent, trademark, industrial design rights, etc. arising from the use of the Goods or any part thereof in India, the Vendor shall act expeditiously to extinguish such claim. If the Vendor fails to comply and the Bank is required to pay compensation to a third party resulting from such infringement, the Vendor shall be responsible for the compensation to claimant including all expenses, court costs and lawyer fees. The Bank will give notice to the Vendor of such claim, if it is made, without delay. The Vendor shall indemnify the Bank against all third party claims.

2.6 Inspection and Quality Control Tests

- 2.6.1 The Bank reserves the right to carry out pre-shipment factory / godown inspection at by a team of Bank officials or demand a demonstration of the solution proposed on a representative model in Bidder's office.
- 2.6.2 The Inspection and Quality Control tests before evaluation, prior to shipment of Goods and at the time of final acceptance would be as follows:
 - (a) Inspection/Pre-shipment Acceptance Testing of Goods as per quality control formats including functional testing, burn-in tests and mains fluctuation test at full load, facilities etc., as per the standards / specifications may be done at factory site of the Supplier before dispatch of goods, by the Bank / Bank's Consultants / Testing Agency.

- (b) The supplier should intimate the Bank before dispatching the goods to various locations/offices for conduct of pre-shipment testing. Successful conduct and conclusion of pre-dispatch inspection shall be the sole responsibility of the Supplier;
- (c) Provided that the Bank may, at its sole discretion, waive inspection of goods having regard to the value of the order and/or the nature of the goods and/or any other such basis as may be decided at the sole discretion of the Bank meriting waiver of such inspection of goods.
- (d) In the event of the hardware and software failing to pass the acceptance test, as per the specifications given, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Bank reserves the right to cancel the Purchase Order.
- (e) The inspection and quality control tests may be conducted on the premises of the Supplier, at point of delivery and / or at the Goods' final destination. Reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors, at no charge to the Bank. If the testing is conducted at the point of delivery or at the final destination, due to failure by the vendor to provide necessary facility / equipment at his premises, all the cost of such inspection like travel, boarding, lodging & other incidental
 - Expenses of the Bank's representatives to be borne by the vendor.
- (f) Nothing stated herein above shall in any way release the Supplier from any warranty or other obligations under this Contract.
- (g) The Supplier shall provide complete and legal documentation of Systems, all subsystems, operating systems, compiler, system software and the other software. The Supplier shall also provide licensed software for all software products, whether developed by it or acquired from others. The Supplier shall also indemnify the Bank against any levies/penalties on account of any default in this regard.
- (h) On successful completion of acceptability test, receipt of deliverables, etc., and after the Bank is satisfied with the working on the system, the acceptance certificate will be signed by the representative of the Bank.
- 2.6.3 The Bank's right to inspect, test and where necessary reject the products after the products arrival at the destination shall in no way be limited or waived by reason of the products having previously being inspected, tested and passed by the Bank or its representative prior to the products shipment from the place of origin by the Bank or its representative prior to the installation and commissioning.
- 2.6.4 Nothing stated hereinabove shall in any way release the Vendor from any warranty or other obligations under this contract.

2.7 Delivery & Documentation

- 2.7.1 The Vendor shall provide such packing of the products as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperature, salt and precipitation during transit and open storage. Size and weights of packing case shall take into consideration, where appropriate, the remoteness of the Products final destination and the absence of heavy handling facilities at all transit points.
- 2.7.2 Delivery of the equipment shall be made by the Vendor in accordance with the system approved / ordered. The details of the documents to be furnished by the Vendor are specified

hereunder:-

- (a) 2 copies of Vendor's Invoice showing Contract number, Products description, quantity, unit price and Total amount.
- (b) Delivery Note or acknowledgement of receipt of Products from the Consignee or in case of products from abroad original and two copies of the negotiable clean Airway Bill
- (c) 2 copies of packing list identifying contents of each package.
- (d) Insurance Certificate.
- (e) Manufacturer's / Vendor's warranty certificate.
- 4.7.3 The above documents shall be received by the Bank before arrival of Products (except where it is handed over to the Consignee with all documents) and if not received the Vendor will be responsible for any consequent expenses.
- 2.7.4 Delivery, Installation and commissioning of the equipment shall be made by the vendor in accordance with the system approved / ordered.

2.7.5 For the System & other Software, the following will apply:

- (a) The vendor shall supply standard software packages published by third parties in or out of India in their original publisher-packed status only, and should have procured the same either directly from the publishers or from the publisher's sole authorized representatives only.
- (b) The Vendor shall provide complete and legal documentation of all subsystems, <u>licensed</u> operating systems, <u>licensed system</u> software, <u>licensed utility software</u> and other <u>licensed software</u>. The Vendor shall also provide <u>licensed software</u> for all software products whether developed by it or acquired from others. There shall not be any default in this regard.
- (c) In case the Vendor is providing software which is not his proprietary software then the Vendor must submit evidence in the form of agreement he has entered into with the software vendor which includes support from the software vendor for the proposed software for the full period required by the Bank.
- (d) The vendor shall explicitly absolve the Bank of any responsibility / liability for use of system / application software delivered along with the equipment, (i.e. the vendor shall absolve the Bank in all cases of possible litigation / claims arising out of any copyright / license violation) for software(s) published either by third parties, or by themselves.
- **2.8 Acceptance Procedure:** On successful completion of installation, commissioning, acceptability test, receipt of deliverables, etc., the acceptance certificate (Annexure-3.6) signed by the Vendor and the representative of the Bank will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the systems.

2.9 Insurance:

2.9.1 Without limiting his obligations and responsibilities under the contract, the contractor shall insure in the joint names of the SBI and the contractor against all loss of damages from whatever cause arising other than the excepted risks, for which he is responsible under the terms of contract and
 Signature and seal of the bidder

in such a manner that the SBI and contractor are covered for the period stipulated in clause 28 of GCC and are also covered during the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under following sub clause.

- a) The works for the time being executed to the estimated current Contract value thereof, or such additional sum as may be specified together with the materials for incorporation in the works at their replacement value.
- b) The ELECTRICAL WORKS and plant and other things brought on to the site by the contractor to the replacement value of such ELECTRICAL WORKS and plant and other things.

Such insurance shall be effected with an insurer and in terms approved by the SBI which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the Architect / consultant the policy if insurance and the receipts for payment of the current premiums.

2.9.2 **Damage to Persons and Property**

The contractor shall, except if and so far as the contract provides otherwise indemnify the SBI/SBI against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation of damages for or with respect to:

- a) The permanent use or occupation of land by or any part thereof.
- b) The right of SBI/SBI to execute the works or any part thereof on, over, under, in or through any lands.
- c) Injuries or damages to persons or properties which are unavoidable result of the execution or maintenance of the works in accordance with the contract.
- d) Injuries or damage to persons or property resulting from any act or neglect of the SBI their agents, employees or other contractors not being employed by the contractor or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the SBI/SBI, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

2.9.3 Contractor to Indemnify SBI

The contractor shall indemnify the SBI/SBI against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the matters referred to in the provision sub-clause 26.2 of this clause.

2.9.4 Contractor's Superintendence

The contractor shall fully indemnify and keep indemnified the SBI/SBI against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claim made under or action brought against SBI/SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expenses to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the SBI/SBI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Architect / Consultant in this behalf.

2.9.5 Third Party Insurance

2.9.6 Before commencing the execution of he work the contractor but without limiting his obligations and responsibilities under clause 2.9 of GCC shall insure against his liability for any material or physical damage, loss or injury which may occur to any property including that of SBI/SBI, or to any person, including any employee of the SBI/SBI, by or arising out of the execution of the works or in the carrying out of the contract, otherwise than due to the matter referred to in the provision to clause 2.9 thereof.

2.9.7 Minimum amount of Third Party Insurance

Such insurance shall be effected with an insurer and in terms approved by the SBI/SBI which approval shall not be reasonably withheld and for at least the amount stated below. The contractor shall, whenever required. Produce of the Architect / consultant the policy or policies of insurance cover and receipts for payment of the current premiums.

2.9.8 The minimum insurance cover for physical property, injury, and death is Rs. 5 lacs per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

2.9.9 Accident or Injury to Workman

The SBI/SBI shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI/SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI/SBI against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

2.9.10 Insurance against Accidents etc. to Workmen

The contractor shall insure against such liability with an insurer approved by the SBI during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the architect / consultant such policy of insurance and receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor the contractor's obligation to insure as aforesaid under this sub-clause shall be satisfied if the sub contractor shall be insured against the liability in respect of such persons in such manner that SBI is indemnified under the policy but the contractor shall require such sub-contractor to produce to the Architect / Consultant such policy of insurance and the receipt for the payment of the current premium.

2.9.11 Remedy on Contractor's failure to Insure:

If the contractor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the SBI/SBI may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the SBI as aforesaid from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

Without prejudice to the others rights of the SBI/SBI against contractors. In respect of such default, the employer shall be entitled to deduct from any sums payable to the contractor the amount of any damages costs, charges, and other expenses paid by the SBI/SBI and which are payable by the contractors under this clause. The contractor shall upon settlement by the insurer of any claim made against the insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the monies received from the insurer in respect of such damage shall be paid to the contractor and the

contractor shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.

- 2.9.12 The insurance shall be in an amount equal to 110 percent of the value of the Products from "Warehouse to final destination" on "All Risks" basis, valid for a period not less than one month after installation and commissioning and issue of acceptance certificate by the Bank.
- 2.9.2 Should any loss or damage occur, the Vendor shall:
 - a) initiate and pursue claim till settlement and
 - b) promptly make arrangements for repair and / or replacement of any damaged item irrespective of settlement of claim by the underwriters.

2.10 Warranty / Uptime / Penalty:

The entire illumination system shall be guaranteed to be free from defective workmanship or materials and any defects that may appear within 12 months from the date of issue of completion certificate for the entire work, which in the opinion of the Employer have arisen from bad workmanship or materials, shall upon intimation by the Employer, be made good by the Contractor at his own cost within the time specified. During the said period of 12 months, the contractor (successful tenderer) shall make periodical inspection of the working of the illumination system free of charge at least once a month or earlier, if required, and attend to the testing of the various parts and such other service that may be required of him. All routine maintenance/service calls during the defects liability period will also have to be attended in a prompt manner. The warranty period shall be 12 months from the date of handing over of the system to the Bank.

2.11 Payment Terms

- 2.11.1 Payment shall be made in Indian Rupees.
- 2.11.2 Payment for this bid will be released as under:
 - (a) 70% of the material delivered on site due on Delivery of transformers, VCB panels & cables and 25% after installation. Payment will be released after receipt of Invoice and Installation & Commissioning Certificate duly signed by the Bank's Engineer/Architect. As already stated, for reasons of delays in installation and commissioning not attributable to the Bank the liquidated damages may be levied as stated.
 - (b) Balance 2.5% after virtual completion certificates and 2.5% the expiry of warranty period OR Against submission of Bank Guarantee from a Scheduled Commercial Bank other than SBI or its Associate Banks, for an equivalent amount valid for the period of 14 months from the date of acceptance (Annexure-3.4.1).
- 2.11.4 Payments will not be released for any part-shipment or short-shipments.

2.12 Prices

2.12.1 Prices payable to the Vendor as stated in the Contract shall be firm and not subject to adjustment during performance of the Contract, irrespective of reasons whatsoever, including exchange rate fluctuations, any upward revision in taxes, duties, levies, charges, etc.

- 2.12.2 The Bidder will pass on to the Bank, all fiscal benefits arising out of reductions, if any, in Government levies viz. sales tax, excise duty, custom duty, etc. or the benefit of discounts if any announced in respect of the cost of the items for which orders have been placed during that period.
- 2.12.3 The Bank reserves the right to re-negotiate the prices in the event of change in the international market prices of both the hardware and software.

2.13 Change Orders

- 2.13.1 The Bank may, at any time, by a written order given to the Vendor, make changes within the general scope of the Contract in any one or more of the following:
 - (a) Method of shipment or packing;
 - (b) Place of delivery;
 - (c) Quantities to be supplied subject to 25% above or below the originally declared quantities.
- 2.13.2 If any such change causes an increase or decrease in the cost of, or the time required for the Vendor's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Vendor for adjustment under this clause must be asserted within thirty (30) days from the date of Vendor's receipt of Bank's change order.
- **2.14 Contract Amendments:** No variation in or modification of the terms of the Contract shall be made, except by written amendment, signed by the parties.
- 2.15 **Assignment:** The Vendor shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Bank's prior written consent.

2.16 Delays in the Vendor's Performance

- 2.16.1 Delivery installation, commissioning of the Products/Solution and performance of Services shall be made by the Vendor within the timelines prescribed.
- 2.16.2 If at any time during performance of the Contract, the Vendor or its subcontractor(s) should encounter conditions impeding timely delivery of the Products and performance of Services, the Vendor shall promptly notify the Bank in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Vendor's notice, the Bank shall evaluate the situation and may, at its discretion, extend the Vendors' time for performance, with or without liquidated damages, in which case, the extension shall be ratified by the parties by amendment of the Contract.
- 2.16.3 Except as provided in the above clause, a delay by the Vendor in the performance of its delivery obligations shall render the Vendor liable to the imposition of liquidated damages, unless an extension of time is agreed upon without the application of liquidated damages.
- **2.17 Liquidated Damages:** If the Vendor fails to deliver any or all of the Products or perform the Services within the time period(s) specified in the Contract, the Bank may, without prejudice to its other remedies under the Contract, and unless otherwise extension of time is agreed upon without the application of Liquidated Damages as mentioned in clause 2.16.3 above, deduct from the Contract

Price, as liquidated damages, a sum equivalent to 0.5 percent per week or part thereof of contract price subject to maximum deduction of 5% of the delivered price of the delayed Products or unperformed services for each week or part thereof of delay, until actual delivery or performance or for any loss is suffered by the Bank due to Acts attributable to the Service Provider. Once the maximum deduction is reached, the Bank may consider termination of the Contract.

2.18 <u>Conflict of Interest:</u>

Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification. The Bank shall be entitled to forfeit and appropriate the Bid Security and/or Performance Security (Performance Bank Guarantee), as the case may be, as mutually agreed upon genuine estimated loss and damage likely to be suffered and incurred by the Bank and not by way of penalty for, inter alia, the time, cost and effort of the Bank, including consideration of such Bidder's proposal (the "Damages"), without prejudice to any other right or remedy that may be available to the Bank under the Bidding Documents and/ or the Concession Agreement or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

- (a) the Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, has less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 4A of the Companies Act, 1956. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows:
- (i) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and
- (ii) subject always to sub-clause (i) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or
- (b) a constituent of such Bidder is also a constituent of another Bidder; or
- (c) such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or
- (d) such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
- (e) such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a Signature and seal of the bidder

- position to have access to each others' information about, or to influence the Bid of either or each other; or
- (f) such Bidder or any Associate thereof has participated as a consultant to the Bank in the preparation of any documents, design or technical specifications of the Project.

2.19 <u>Fraud & Corrupt Practices:</u>

- 2.19.1 The Bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, the Bank shall reject an Application without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt/fraudulent/coercive/undesirable or restrictive practices in the Bidding Process.
- 2.19.2 Without prejudice to the rights of the Bank under Clause 21.1 hereinabove, if a Bidder is found by the Bank to have directly or indirectly or through an agent, engaged or indulged in any corrupt/fraudulent/coercive/undesirable or restrictive practices during the Bidding Process, such Bidder shall not be eligible to participate in any EOI/tender issued by the Bank during a period of 2 (two) years from the date if such Bidder is found by the Bank to have directly or indirectly or through an agent, engaged or indulged in any corrupt/ fraudulent/ coercive/ undesirable or restrictive practices, as the case may be.
- **2.19.3** For the purposes of this Clause , the following terms shall have the meaning hereinafter, respectively assigned to them:
- (a) "corrupt practice" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Bank who is or has been associated in any manner, directly or indirectly with the Bidding Process or the Letter of Authority or has dealt with matters concerning the Concession Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Bank, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or (ii) engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the Letter of Authority or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the Letter of Authority or the Agreement, who at any time has been or is a legal, financial or technical adviser of the Bank in relation to any matter concerning the Project;
- (b) "Fraudulent practice" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
- (c) "Coercive practice" means impairing or harming or threatening to impair or harm, directly

or indirectly, any person or property to influence any person's participation or action in the Bidding Process;

- (d) "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by the Bank with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- (e) "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

2.20 Termination for Default

- **2.20.1** The Bank, without prejudice to any other remedy for breach of Contract, by a written notice of default sent to the Vendor, may terminate the Contract in whole or in part:
 - (a) If the Vendor fails to deliver any or all of the Products and Services within the period(s) specified in the Contract, or within any extension thereof granted by the Bank:

or

- (b) If the Vendor fails to perform any other obligation(s) under the Contract.
- **2.20.2** In the event the Bank terminates the Contract in whole or in part, it may procure, upon such terms and in such manner as it deems appropriate, Products and Services similar to those undelivered, and the Vendor shall be liable to the Bank for any excess costs for such similar Products or Services. However, the Vendor shall continue performance of the Contract to the extent not terminated.

2.21 Force Majeure

- **2.21.1** Notwithstanding the provisions of TCC, the Vendor shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that the delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- **2.21.2** For purposes of this clause, "Force Majeure" means an event beyond the control of the Vendor and not involving the Vendor's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Bank in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- **2.21.3** If a Force Majeure situation arises, the Vendor shall promptly notify the Bank in writing of such condition and the cause thereof. Unless otherwise directed by the Bank in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

- 2.21**Termination for Insolvency:** The Bank may, at any time, terminate the Contract by giving written notice to the Vendor if the Vendor becomes Bankrupt or insolvent *or any application for bankruptcy, insolvency or winding up has been filed against it by any person.* In this event, termination will be without compensation to the Vendor, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Bank.
- 2.22 **Termination for Convenience:** The Bank, by written notice sent to the Vendor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Bank's convenience, the extent to which performance of the Vendor under the Contract is terminated, and the date upon which such termination becomes effective.

2.23Resolution of Disputes:

- 2.23.1 The Bank and the Vendor shall make every effort to resolve amicably by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.
- 2.23.2 If, the Bank and the Vendor have been unable to resolve amicably a Contract dispute even after a reasonably long period, either party may require that the dispute be referred for resolution to the formal mechanisms specified herein below. These mechanisms may include, but are not restricted to, conciliation mediated by a third party and/or adjudication in an agreed national forum.
- 2.23.3 The dispute resolution mechanism to be applied shall be as follows:
 - (a) In case of Dispute or difference arising between the Bank and the Vendor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. Where the value of the Contract is above Rs.1.00 Crore, the arbitral tribunal shall consist of 3 arbitrators, one each to be appointed by the Purchaser and the Vendor. The third Arbitrator shall be chosen by mutual discussion between the Purchaser and the Vendor. Where the value of the contract is Rs.1.00 Crore and below, the disputes or differences arising shall be referred to a Sole Arbitrator who shall be appointed by agreement between the parties.
 - (b) Arbitration proceedings shall be held at Mumbai, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English;
 - (c) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc., of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself; and
- 2.24Governing Language: The governing language shall be English.
- 2.25**Applicable Law:** The Contract shall be interpreted in accordance with the laws of the Union of India and shall be subject to the exclusive jurisdiction of courts at Mumbai.

2.26Addresses for Notices

2.26.1 The following shall be the address of the Bank and Vendor.

Bank's address for notice purposes:

Asstt. General Manager (P&E) State Bank of India, Local Head Office, Lucknow-226001

Vendor's address for notice purposes

<To be filled in by the Vendor)>

2.26.2 A notice shall be effective when delivered or on effective date of the notice whichever is later.

2.27 Taxes and Duties

- 2.27.1 All duties, cess and taxes including local taxes /cess, Octroi charges, license fees, <u>road permits</u>, etc. in connection with delivery of products at site including any incidental services and commissioning (including GST at applicable rates), if any, which may be levied, shall be borne by the Service Provider and Bank shall not be liable for the same.
 - All expenses, stamp duty and other charges/expenses in connection with the execution of the Agreement as a result of this tender process shall be borne by Service Provider
- 2.27.2 Income / Corporate Taxes in India: The Vendor shall be liable to pay all corporate taxes and income tax that shall be levied according to the laws and regulations applicable from time to time in India and the price bid by the Vendor shall include all such taxes in the contract price.
- 2.27.3 Tax deduction at Source: Wherever the laws and regulations require deduction of such taxes at the source of payment, the Bank shall effect such deductions from the payment due to the Vendor. The remittance of amounts so deducted and issuance of certificate for such deductions shall be made by the Bank as per the laws and regulations in force. Nothing in the Contract shall relieve the Vendor from his responsibility to pay any tax that may be levied in India on income and profits made by the Vendor in respect of this contract.
- 2.27.4 The Vendor's staff, personnel and labour will be liable to pay personal income taxes in India in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Vendor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

2.28 Vendor's obligations

2.28.1 The Vendor is responsible for and obliged to conduct all contracted activities in accordance with the contract using state-of-the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.

- 2.28.2 The vendor will be responsible for arranging and procuring all relevant permissions / Road Permits etc. for transportation of the equipment to the location where installation is to be done. The Bank would only provide necessary letters for enabling procurement of the same.
- 2.28.3 The Vendor is obliged to work closely with the Bank's staff, act within its own authority and abide by directives issued by the Bank and implementation activities.
- 2.28.4 The Vendor will abide by the job safety measures prevalent in India and will free the Bank from all demands or responsibilities arising from accidents or loss of life, the cause of which is the Vendor's negligence. The Vendor will pay all indemnities arising from such incidents and will not hold the Bank responsible or obligated.
- 2.28.5The Vendor is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanors.
- 2.28.6The Vendor will treat as confidential all data and information about the Bank, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Bank.
- 2.29 Patent Rights/Intellectual Property Rights: In the event of any claim asserted by a third party of infringement of trademark, trade names, copyright, patent, intellectual property rights or industrial design rights arising from the use of the Products or any part thereof in India, the Vendor shall act expeditiously to extinguish such claim. If the Vendor fails to comply and the Bank is required to pay compensation to a third party resulting from such infringement, the Vendor shall be responsible for the compensation including all expenses, court costs and lawyer fees. The Bank will give notice to the Vendor of such claim, if it is made, without delay.
- 2.30 **Right to use defective product:** If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the product is found to be unsatisfactory, the Bank shall have the right to continue to operate or use such product until rectification of defects, errors or omissions by partial or complete replacement is made without interfering with the Bank's operation.
- 2.31 Limitation of Liability: For breach of any obligation mentioned in this agreement, subject to obligations mentioned in this clause, in no event Service Provider shall be liable for damages to the Bank arising under or in connection with this agreement for an amount exceeding the total cost of the project. Service provider will ensure Bank's data confidentiality and shall be responsible for liability arising in case of breach of any kind of security and/or leakage of confidential customer/Bank's related information to the extent of loss so caused.

The limitations set forth herein shall not apply with respect to:

- (i) claims that are the subject of indemnification pursuant to IPR infringement,
- (i) damage(s) occasioned by the gross negligence, fraud or willful misconduct of Service Provider,
- (i) damage(s) occasioned by Service Provider for breach of Confidentiality Obligations,
- (i) When a dispute is settled by the Court of Law in India.
- (i) Loss occasioned by Non-compliance of Statutory or Regulatory Guidelines.

PART 3 : BID FORM, PRICE SCHEDULES AND OTHER FORMATS

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ANNEXURE – 3.1.1 Technical & Functional Specifications

NAME & SCOPE OF WORK:

- "SITC OF Transformers, VCB panel and cable works at SBI, Gorakhpur Main Branch, U.P."
- . The New Transformers, VCB panel should be latest in technology, most energy efficient, and easy to maintain and operation.
- The Make of Transformers, VCB panel and cable should be as per tender specifications.
- The technical support team should be available in the location / city to take care of any specific technical problem arises in system.
- The L1 vendor shall prepare the necessary layout and related drawings for the Transformers, VCB panel and got approved from the Bank.
- As the Transformers, VCB panel is to be installed in the commercial area, while supply, installation, testing and commissioning of the units all the local authorities / RWA protocol should be take care by the L1 vendor.
- All necessary drawings / manuals etc related to the Transformers, VCB panel and cables should be provided to the location and to the bank.
- All necessary approval, if any related to installation etc from local authorities to be taken care by the L1 vendor.
- The works should be performed in such a manner that not to disturb any of the other stakeholders / Office.
- As the dismantling involves dismantling of existing transformers, OCB and HT & LT cables, L1 vendors must ensure that there should not be any structural damages / any other damages to the property, if any thing happens due to the same, the all necessary repair / replacements to be born by the L1 bidder and no any payments shall be made by the bank.
- All other accessories / materials to be used for installation / maintenance of the same should be as specified for the OEM machine units.
- The L1 vendors shall also arrange for the Shut down from the UPPCL/Water supply / Electrical connections, if any required at his own cost.
- The L1 vendors shall be liable for all their material / manpower and their safekeeping at their end.
- The L1 vendors should keep all insurance / bonds as desired for their Material / manpower at their cost. The L1 vendor shall take all necessary insurance to their workmen staff. If, any injuries / casualties arises to their workmen / supervisors etc the Bank will not be liable for the same and all claims to be settled by the L1 bidders only.
- The L1 bidder shall follow all safety precautions / labour laws / Government guidelines / local laws related for the said work etc as specified by time to time.
- All necessary safety precautions as specified by the Central govt/ state govt / local authorities related to Covid-19 should be followed by the L1 vendors.
- The L1 vendors must follow the proper SOP as per CPWD guidelines while installation of the units, cable etc.
- If any deviation, the L1 vendors must get the approval from the Bank.
- The L1 bidder must complete the work within the specified timelines and the within the tender quantities. If any deviation arises, the L1 vendor must take prior approval from the Bank to execution of the said work.
- No deviation in the rates are allowed / no conditional tenders are allowed.
- The L1 vendor have to follow all necessary instructions / guidelines issued by bank for execution of the work.
- The Bank have all rights to terminate any related / all works, at any stage of time, without assigning any reason to the bidder.

- The transformers, VCB (types as stated above) and other related equipment's should be serviced properly so that the availability of the equipment can be maintained.
- Checking and rectification of all leakages and their repair.
- Checking of controller/PCB for its proper functioning and repair/ replacement of the same if found necessary.
- Attending unlimited numbers of emergency call/ complaints/ Breakdown calls within 2-4 hours of lodging of complaint by any means of communication. The faults must be rectified within 24 Hours and in case of major break down maximum within 5 days. If the complaint is not resolved within the stipulated period as above the same will be treated as unsatisfactory service until proper justification of same is not provided. The penalty of Rs.5000/- per day may be levied in way of liquidated damages upto rectification of faults /unit. The liquidated damages may be recovered in subsequent bills / PBG.
- The contractor shall carry out preventive maintenance / checks as per CPWD specification, respective trade practice and maintenance instruction manuals for installation and the maintenance is to be carried out as per instructions of Engineer -in-charge and CPWD specification. The contractor shall record the entries and complaint details in the proper register along with the time schedule of lodging of the complaint to the rectification of the issue apart from day to day maintenance of equipment's.
- All the materials required for carrying out operation and day-to-day maintenance services will be supplied by the contractor.
- The contractor shall take over the HT substation before commencement of the work and make over the same as the time of completion of contract in original condition. However, normal wear and tear will not be the responsibility of the contractor.
- The contractor will assess the requirement of materials for preventive maintenance and breakdowns and will have in stock the same for smooth functioning of the HT substation system.
- The L1 contractor has to deposit 5% of the total contract value as security deposit in the form of in the form of FDR in joint name for the entire period of contract. First name will be SBI and will be discharged in favour of Bank by the contractor. The EMD submitted with tender shall be released thereafter.
- Bank reserves the right to reject any or all the tenders / quotations without assigning any reason.
- For warranty period, The service provider shall depute at-least one team at a time from (each team having one skilled technician and one helper) in all working days and if required on any other days as desired by bank, attend and rectify the faults on priority basis for the stated location, though the clause 9 of name & scope of work states the timelines for attending the faults, but In case of urgency and priority calls the L1 vendor has to attend the same on highest priority and rectify the same as the earliest.
- All taxes, as prevalent on date and as per rules, shall be deducted at source from all bills.
- Irrespective of the fact, whether the Minimum Wages Act is applicable or not. The payment of the labour charges to the laborers, highly skilled, skilled or unskilled shall be made by the contractor as per the notification issued from time to time by the appropriate Government under the Minimum Wages Act.
- The liability of the contractor, if any, under various laws is emphasized, in case Bank suffers in any manner due to non-compliance of any law on the part of the contractor, the contractor shall indemnify the Bank in all respects.
- That the contractor shall be responsible for the behaviour of the workers engaged / appointment by him. In case any such worker misbehaves with any staff then the Bank can direct the contractor to remove such worker from the Bank's Complex and Bank shall be within its right to forbid the entry of such workman or any other person there being and on behalf of the contractor, in the Complex in question.
- In case the contractor or any their employee fails to fulfill their obligations for any day or any number of days to the satisfaction of the bank, for any reason whatsoever, they shall pay way of liquidated damages up to at the rate of 0.5% of the Contract Value per week, subject to a maximum of 5% of the accepted Contract Value and the bank shall without prejudice to their other right and remedies, be entitled to deduct such damages from the money, if any payable to the contractor.

- Complaint register, demand register, workman's diaries, log book for all kind of preventive maintenances, periodical inspection books on CPWD format are to be maintained and every work is to be recorded in the respective register. The log books / registers shall be provided by the contractor at his cost.
- The CONTRACTOR shall carry out preventive maintenance checks as per program given by the Bank's engineer or as per CPWD specifications of respective trade practice and maintenance instruction. Normally information of break down faults, defects etc. noticed by the contractor shall be recorded by them and action be initiated immediately. It should also be brought to the notice of the Bank.
- The CONTRACTOR shall have required number of caution boards such as 'Man on line". Don't switch on" for displaying on the controlling switch gears, while undergoing repair work.
- The CONTRACTOR will follow all safety rules as per tender documents and also required safety precautions while doing work on the equipment's as notified by the local & government authorities.
- Local security rules shall be observed and followed by the Contractor and his staff.
- The CONTRACTOR shall arrange to render efficient service as outlined in these specifications. In case he fails to maintain the satisfactory service and if the Bank and the department have to incur any expenditure to maintain the installation by itself or from the alternate arrangement, the same will be recovered, from the vendor.
- The bank has reserved its right to discontinue the contract at any time without assigning any reason.
- The CONTRACTOR shall employ qualified / trained persons for maintenance of transformers, VCB panel and cable as stated in the tender document and shall be fully responsible to obtain such licenses for taking up the above work as are prescribed by the state/local bodies / government /CPWD both for maintenance and helping staff. They shall also be responsible for any periodic statutory inspections to be carried out on the equipments, rectification of defects pointed out during such inspections etc. A failure of contractor to comply with all penalties imposed by the state/ local bodies and the inspection and subsequent rectification will be carried out by the Bank at his risk and cost.
- The contract can be terminated by the SBI, Assistant General Manager (P&E) / without assigning any reasons by giving a notice period of 30 days at any time during the period of contract. No claim for any compensation will however be entertained due to such termination prior to the expiry of stipulated period of contract.
- In case of any accident during the maintenance of the equipment leading to injuries / damages to human beings / equipment, the contractor will settle all claims and indemnify the department against any claims arising out of such accident consequent damages to other system will however be not recoverable from the contractor. The fair wages will be paid by the contractor to the staff as per the prevailing govt. Labour Laws in force and as may be amended from time to time during this contract and nothing extra shall be paid by the Bank in this regard P.F.ESIC Bonus etc. as per prevailing Labour Laws will be paid by the contractor, if applicable to the employees.
- The CONTRACTOR will provide technical advices for proper maintenance of the system and their safety and when it is sought by the department.
- The CONTRACTOR shall visit the premises and ascertain himself with all the working conditions, conditions of the transformers, VCB panel and cables, before quoting. No excuses regarding the same will be entertained by the Bank after the tender opening and award of work to the L1 Vendor
- As per terms of the contract, extra manpower will have to be procured/ provided by the contractor as and when required and nothing extra for about shall be paid by us for the same. No overtime shall be paid.
- The CONTRACTOR shall obtain adequate insurance policy in respect of his workmen to be engaged for the work towards meeting the liability of compensation arising out of death / injury / disablement at work etc.
- The CONTRACTOR shall provide two sets of uniform (Colour will be decided by Bank) including shoes for summer and in winter one set of woolen sweater and one set of blazer to his employees at its own cost as per approved colour and specification of the Bank and ensure their cleanliness and use. Identity cards shall be issued by the contractor to all its employees and they will wear it in the Bank.

- The CONTRACTOR /Contractor's engineer shall visit the site/ office in a week and also as and when required. Please note that no residential accommodation shall be provided by the Bank.
- The Contractor will have to agree for the lowest approved rates for miscellaneous job to be executed at the site.
- All the taxes which the Bank may be liable to deduct or called upon to so deduct, during the currency of the arrangement which are liable to be payable by the contractor and paid to the respective Government Departments or authorities as may be required under law and the contractor shall have no claim against the Bank in respect of any or all such payments.
- The contractor should possess, for the entire duration the licenses and registrations as may be required under any law and shall be responsible to register himself and obtain a valid license under Contract Labour (Regulation and Abolition) Act 1950 and rules there under. The contractor shall comply with all rules and regulations in force under the said Act and rules. The contractor shall comply with all applicable laws, rules and regulations relating to Provident Fund, Payment of Bonus, Minimum wages or any Statutory / Regulatory requirements. Any dispute regarding such dues shall and be settled by the contractor.
- Nothing contained in these presents is intended nor shall be construed to be a grant, demise or assignment in law of the premises or the articles / equipments or any part thereof by the Bank to the Contractor and or its personnel and they shall vacate and handover the same in good working condition and order upon termination of these presents either by efflux of time or otherwise.
- The contractor shall not assign or sublet the benefits of this contract to any person or entity and in the event of any violation or breach thereof, the Bank at its discretion but without prejudice to its other rights and remedies terminate this contract.
- The contractor shall be responsible for any loss due to theft / pilferage and/or damage to the Bank's property, when such image is, in the opinion of the Bank caused due to negligence, carelessness or any fault on the part of the Contractor or his Workmen / employees engaged for the services. The contractor shall ensure that the character and antecedents of the personnel engaged by him are duly verified before such engagement.
- Local Laws, Acts, Regulations. The contractor shall strictly adhere to all prevailing labour laws inclusive of contract labour (regulation and abolition act of 1970) and other safety regulations. The contractor shall comply with the provision of all labour legislation including the latest requirements of all the Acts, laws, any other regulations that are applicable to the execution of the project and as stated below:
 - ➤ Minimum Wages Act, 1948 (Amended)
 - Payment of Wages Act 1936 (Amended)
 - ➤ Workmen's Compensation Act 1923 (Amended)
 - Contract Labour Regulation and Abolition Act 1970 and Central Rules 1971 (Amended)
 - > Apprentice Act 1961 (Amended)
 - ➤ Industrial Employment (Standing Order) Act 1946 (Amended)
 - Personal Injuries (Compensation Insurance) Act 1963 and any other modifications.
 - Employees' Provident Fund and Miscellaneous Provisions Act 1952 and amendment thereof
 - ➤ Shop and Establishment Act
 - Any other Act or enactment relating thereto and rules framed there under from time to time.

Agreed and accepted all the above Terms and Conditions

Signature of Contractor Date:

TECHNICAL SPECIFICATIONS

S. No			
•	Item Description	Unit	Qty
	VACUUM CIRCUIT BREAKER AND TRANSFORMERS		
	(A)- VACCUM CIRCUIT BREAKER		
	(A)- VACCUM CIRCUIT BREAKER 630A, 11KV 18.4kA HT Vacuum Circuit Breaker(VCB) panel		
1	HT SECTION:		
	Supply, Design, Testing, Transportation, Installation and Commissioning of 11kV 630 Amps 18.4kA HT VCB Panel (Single VCB-ICOG) with Al Bus Bar consisting of following components:		
A	HT SWITCHGEAR Rating:		
	Supply, Design & manufacturing of 11 KV Incoming VCB Panel with 630 Amp., 18.4kA/1Sec, 100/50 Amp. CT ratio, PT & associated material, VCB panel conforming to IS/IEC 62271-200 & IS/IEC 62271-100 as approved by Engineer in charge having with VCB VI, relay shall be of same principal manufacturer make and all are original factory fitted panels. Not a system house makes panels. The bus bar and connectors should be made from copper with proper cross section area, tinned and insulated properly with HT insulation compound/sleeves.		
	Interconnection between HT switchgear and transformer shall be using 1C x 3 x 240 sq.mm Al armorured XLPE HT Cable.(Make: Schneider/ABB/Crompton/CG Power/Siemens/LK/GE/Kirloskar)		
В	Fabricated Housing:		
B1	Housing with Al 630A Interconnections Incomer: 630A-01 Nos.		
B2	630A Al Bus Bar with 11KV Grade Sleeving (Extension for future 4th VCB) Incomer: 630A- 01 Nos. Outgoing: 630A: 01 nos.		
В	CT & PT DETAILS:		
В1	DUAL CORE CT CTR: 100/50A Core 1: Class 1, BURDEN 15 VA Core 2: Class 5P10, BURDEN 15 VA (CT need to be >50 A) CT Position shall be in Cable Chamber of Panel Incomer: 03 Sets Outgoing: 03 Sets		
B5	3 No. Single Phase Potential Transformer (To be mounted at the rear end of the Panel and position will be above breaker position) Ratio: 11KV/rt3/110V/rt3 Class 1, BURDEN - VA Material - Cast Resin type Incomer: 01 Sets Outgoing: 00 Set		
C	BREAKER PANEL INDICATION LAMPS:		
C1	Breaker On / Off / Trip / Spring Charge (As required) Incomer: 05 Sets Outgoing: 10 Sets		

C2	R-Ph. / Y-Ph. / B-Ph Incomer: 03 Sets Outgoing: 00 Sets		
D	SWITCHES AND OTHER ACCESSORIES:		
D1	DC ON/OFF Switch Incomer: 01 Set Outgoing: 01 Set		
D2	AC ON/OFF Switch Incomer: 01 Set Outgoing: 01 Set		
D3	Local Remote Switch Incomer: 01 Set Outgoing: 01 Set		
D4	T-N-C Switch Incomer: 01 Set Outgoing: 01 Set		
D5	15A, 230V, 3 pin plug plug & socket Incomer: 01 Set Outgoing: 01 Set		
D6	Mech. ON-OFF push button		
D7	Heater with heater switch & thermostat		
D8	Cubicle illumination lamp		
E	METERS:		
E1	MFM EM6400 Incomer: 01 Set Outgoing: 01 Set		
E3	Ammeter with Selector Switch Incomer: 01 Set Outgoing: 01 Set		
E4	Voltmeter with Selector Switch Incomer: 01 Sets Outgoing: 01 Set		
F	RELAYS:		
F1	Numerical Non -Directional 3 Over Current/ 1 Earth Fault Protection- P1F1 Incomer: 01 Set Outgoing: 02 Sets		
F1	Trip Ckt Supervision Part of Main Numerical Relay		
F2	Antipumping Incomer: 01 Sets Outgoing: 02 Set		
F3	Master Trip Part of Main Numerical Relay		
F4	Auxillary Relay for Trafo Fault (VAA33 or Equiv.) Incomer: Sets Outgoing: 02 Sets		
F5	Power Pack Incomer: 01 Set Outgoing: 00 Set		
F6	8 Window Annunciator with Hooter Incomer: 01 Sets Outgoing: 00 Sets		
	Relay shall be with communication port		
	Protection CT shall be 40/1A 2.5VA 5P10.		
	Mechanical ON-OFF-TRIP mimic diagram		
	Fault Passage Indicator		
	Manometer		
	Terminal Protectors (BOOTS)		
	Operating Handle		
	Incoming and Outgoing modules of the panel shall be suitable for 3C x 120 sq.mm HT 11 KV Cable termination. Outgoing modules should have provision to connect another cable of size 3C x 120 sq.mm, if required.		
	Sub Total(A)- Supply, Design, in house Testing of 11kV 630Amps 18.4 kA HT VCB Panel (ICOG) as Described as Above.	SET	1
2	(B)- TRANSFORMER		
	Supply, Installation, Testing and Commissioning of 400 KVA 11/0.433 KV Delta-Star DYn11 COPPER Wound (HV and LV), ONAN Oil immerged type transformer with Off Circuit Tap Change(OCTC) tap links of range +5% to -10% @ 2.5% each. Insteps of 2.5% each total 6 steps. Class of Insulation: A, Temperature Rise: 98 Deg. C, Losses (As per ECBC 2017) (Subjected to IS Tol.). Minimum 3 Star rated. (Make: Schneider/ABB/Crompton/CG Power/Siemens/LK/GE/BHEL/Kirloskar)		

		1
• •	of Cooling : ONAN	
	of insulation Class A	
	phase and rated frequency: 3, 50 Hz	
4. Windi		
a) HV Co		
b) LV Co		
	ation level (Impulse withstand)(kVpeak)	
a) HV 75	j	
b) LV		
6. Insula	tion level (power frequency withstand) (kVrms)	
a) HV 28	3	
b) LV 3		
7. Tappir	ng- On HV yes	
	e +5% to -10% @ 2.5% Each	
b) No of	Steps 6	
c) Tap ch	nanger type OCTC	
8. Tempe	erature rise of oil/winding over design ambient temperature of 50°C:	
	oot temperature rise over a maximum yearly weighted : 98 °C	
10. Short	t circuit Thermal withstand time (secs): 2	
11. % Im	npedance at 75°C, rated current &Frequency % (subject to IS tol):	
4.50	losses @ 50% Load at rated voltage & frequency kW (MAX): 1.225	
	losses @ 100% Load at rated voltage & frequency kW (MAX): 3.450	
14. Bush		
	ence standard : IS 2099 & IS 3349	
	of bushing : Porcelain	
	ge Rating (kV) : 17.5	
	nt Rating Amps : 250	
15. Bush		
	ence standard	
	of bushing : Epoxy	
	ge Rating (kV) : 1	
	nt Rating Amps : 630	
·	tht in Kgs (Approximate)	
	and winding : 1440	
b) Oil	: 505	
c) Total v		
	ng & Accessories as per specification Yes, IS: 2026 & CBIP	
	ll Length*Breadth*Height(in mm) +/- 10% : 2350*2150*2150	
	roximate Weight of Heaviest package (KG): 4100	
	roximate transport dimensions LxBxH (mm): 3300 X2000 X 1800	
20. Fittir	ng & Accessories as per specification Yes, IS: 2026 & CBIP	

	21. Reference standard : IS 1180 & IS:2028			
	22. Termination			
	a) HV Cable Box : (1 Run / Ph)			
	b) LV Cable Box : (2 Run / Phase) B2B			
	c) Orientation : 180 Degree			
	23. % Efficiency at 75degC/Unity P.F.			
	a) At 100% load/75%/50%/25% : 99.14/99.29/99.39/99.34			
	24. % Efficiency at 75degC/0.8 P.F.			
	a)At 100% load/75%/50%/25% : 98.93/99.11/99.24/99.17			
	25. Maximum efficiency at unity P.F : 99.40			
	26. % Regulation at full load : at Unity PF 0.84 and at 0.8 PF			
	3.30 Sub Total (B):11/0.433 KV, 400 KVA ONAN Type Transformer Describes Above.		SET	1
2	(C) MAINLY TO DANIEL			
3	(C)- MAIN L.T. PANEL Design, Manufacturing, Supply, Receiving, Unloading, Shifting, Installation	_		
a)	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, Installation Testing & commissioning of new fully compartmentalised, wall/ Floor mounted, if floor mounted than stand should be made of MS channel/angle grouted to floor with the panel 450 mm above ground level, bottom/top cable entry, front operating, indoor duty, dust & vermin proof, dead back main electrical panel made of 16g CRCA sheet steel painted with one coat of red oxide primer and two coat of outdoor type synthetic enamel paint (spray painted) after de greasing, de rusting and phosphading, with two earth studs, 30x6 mm G.I. Earth bus, SMC/DMC insulator, the panel shall have changeo facility & interlocking through PLC to achieve electrical interlocking, as required and comprising of the following:	e ver		
	(Each Incomming MCCB shall have thermal magnetic release and variable current setting from front, adjustable overcurrent, short circuit & earth fault protection, front extended lockable handle, pad lockable in off position, shrouding on incomer side, termination shall be suitable for aluminium bus			
	bars / cables and as per specification.) Incomer: 1 No. 630 Amp FP Moulded Case Circuit Breaker with thermal magnetic based adjustable over current, short circuit. (For 1 x 630 KVA Incomer) (50 KA)			
	Outgoing: I One 415V, 4P, 400A, 35KA breaking capacity MCCB with adjustable thermal and fixed magnetic release outgoing(Gorakhpur Main Branch).			
	ii. Three nos. 415V, 4P, 250A, 35KA breaking capacity MCCB(one for PB branch, Capacitor panel and one for SCB)			
	ii. One nos. 415V, 4P, 160A, 25KA breaking capacity MCCB (spare)			
	Iii. Two nos. 415V, 4P, 125A, 25 KA breaking capacity MCCB with adjustable thermal and fixed magnetic release out going. (One for DGM Bungalow and one spare)	ole		
	iv. One nos. 415V, 4P, 63A, 10 KA breaking capacity MCB with adjustable thermal and fixed magnetic release out going. (light Dbs and one spare) iv. Two no. 230V, DP, 63A, 10 KA breaking capacity MCB with adjustable thermal and fixed magnetic release out going.			
	thermal and fixed magnetic release out going.			
	v. One spare compartment for 4P, 100A MCCB and 4P 63 MCB(With fixing MCCB and MCB).	of		

	Bus bar chamber with R,Y,B and N bus bars made of 25x10 mm Aluminium(Indal, Hindalco, Balco).		
	Digital Ammeter with CT Set and selector switch, RYB LED LAMP		
	ON/OFF Indicating Lamp		
	1 set 3 phase digital ammeter with CT		
	1 set 3 phase digital voltmeter		
	Danger plate should be provided. All MCCB should be with external rotary handle, separator sheet and spreader terminals. Minimum phase to phase distance 32 mm, phase to neutral and earth 26 mm. Metallic partition should be provided between adjacent cubical/compartment. Cubical should be made of vermin and dust proof by means of suitable gasket around all door/covers removable gland plates to be provided. All bus bar should be sleeved by heat shrinkable PVC red, yellow, blue and black coloured. All wiring to be done by PVC insulated 1100V grade copper flexible conductor wire of following size. CT circuit: 2.5 sq. mm PT circuit: 1.5 sq. mm all wires to be provided with appropriate crimping type lugs/ferrules for termination. Protection shrouds to be provided on incoming side of incomer and on normally live parts when cubical door is opened. Bakelite barriers of 4 mm thickness shall be provided on incoming and outgoing side of incomer. Approval of general layout, manufacturing and single line diagram drawings from consultant/Bank's Engineer is required before commencing manufacture and the panel should be tested in the presence of Consultant/Bank's Engineer at manufacturer's premises before dispatch to site along with HV withstand and insulation resistance test reports.		
	Sub Total(C) for Main LT panel as described above	Set	1
	(D)- HT Cabling		
4	11 KV END TERMINATION:		
-	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:		
4.1	3C x 120 Sqmm, 11KV XLPE	SET	4
	11 KV H.T. CABLE:		
5	Supply of 11 KV grade aluminium conductor, cross linked polyethylene (XLPE) insulated individual core screened, flat steel/strip armoured PVC sheathed cable complete as required.		
	3C x 120 Sqmm, 11 KV XLPE		
5.1		M	50
6	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in existing trench including excavation and dismanteling, safe keeping of existing cable at at, protective covering and refilling as required the trench etc as required.		
6.1	Upto 120 sq. mm	M	50
0.1	Sub Total (D) HT Cabling	141	30
	(E) -LT Cabling		
7			
	DISTRIBUTION CABLE:		

	SUPPLY AND LAYING OF LT CABLE:		
	Supply of following sizes of 1.1KV grade aluminium conductor XLPE insulated and FRLS PVC sheathed armoured cable conforming to relevant IS.		
	(Cable shall be purchased only after approval of cable schedule by Engineer In charge/ architect / consultant).		
7.1	3.5 core, 300 sq.mm.	M	50
	3.5 core, 150 sq.mm.	M	30
	3.5 core, 95 sq.mm.	M	40
	3.5 core, 70 sq.mm.	M	50
	3.5 core, 50 sq.mm.	M	40
	3.5 core, 35 sq.mm.	M	60
	3.5 core, 25 sq.mm.	M	70
8	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, excluding sand cushioning, protective coverin.		
8.1	Above 185 sq. mm and upto 400 sq. mm	M	50
	Above 95 sq. mm and upto 185 sq. mm	M	30
	Above 35 sq. mm and upto 95 sq. mm	M	130
	upto 35 sq. mm	M	130
9	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.		
9.1	3.5 Core X 300 sq. mm	Each	12
	3.5 core, 150 sq.mm.	Each	8
	3.5 core, 95 sq.mm.	Each	8
	3.5 core, 70 sq.mm.	Each	10
	3.5 core, 50 sq.mm.	Each	12
	3.5 core, 35 sq.mm.	Each	14
	3.5 core, 25 sq.mm.	Each	12
	Sub Total (E) LT Cabling		
	(F)- Earthing and other works		
10	Earthing with G.I. plate 600mmx600mmx6mm thick, top of the plate placed at least 3 mt. below ground level with 20 mm Class-B, G.I. pipe for watering, as per IS 3043, with 32x6 mm GI earthing lead in 50mm B class GI pipe from plate to masonry inspection pit, with salt and charcoal and providing 12 mm diax 80mm long GI bolt, nut and double washers for connecting earth lead including restoring the surface duly rammed as per specification with 300 mmX300mmX300mm(inside) finished masonry chamber with 8 mm thick MS sheet hinged,lockable cover and MS frame on top of chamber.	Each	3
11	Earthing with copper plate 600mmx600mmx3mm thick, top of the plate placed at least 3M below ground level with 20 mm Class-B, G.I. pipe for watering as per IS 3043-1987 with 32x6 mm Cu earthing lead in 40 mm B class GI pipe from plate to masonry inspection pit, with salt and charcoal including passivated 2 mm diax80 mm long brass bolt, nut and double washers for connecting earth lead including restoring the surface duly rammed as per	Each	3

	specification with 300 mmX300mmX300mm(inside) finished masonry chamber with 8 mm thick MS sheet hinged,lockable cover and MS frame on top of chamber.		
12	Providing and fixing earth bus of 40 mm X 6 mm copper strip on surface or underground as required for connections etc. as required.	M	40
13	Providing and fixing 40 mm X 6 mm G.I. strip on surface or in recess or underground as required for connections etc. as required.	M	60
14	Dismantling, shifting at suitable place in same premises and safekeeping of existing 01 nos. 250KVA 11/0.433 KV old transformer	L.S.	1

This quantity is considered for all building and the work should be done as per site conditions.

We confirm that we comply with all the specifications mentioned in this tender & the terms & conditions mentioned in the tender Document are acceptable to us. The bill of material offered by us include all the hardware, software, licenses, cabling and other associated material to meet the tender scope, technical and functional requirement, warranty and post warranty AMC support for 3 years, if applicable and on site resource requirement during warranty (1year) and post warranty i.e. AMC period of 3years.

Dated this day of	2025	
(Signature)	(Name)	(In the capacity of)

Duly authorised to sign Bid for and on behalf of

ANNEXURE – 3.1.2 Undertaking of Authenticity

To

Assistant General Manager(Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow - 226001

Sub: Undertaking of Authenticity for Supply, Installation, Testing and Commissioning (SITC) of 01 nos. 11/.433 KV 400 KVA Transformer, 01 no. 11KV 630Amps 18.4kA HT VCB Panel (ICOG) and HT/LT Cabling works at State Bank of India, Gorakhpur Main Branch Campus, Bank Road, Gorakhpur (U.P.).

Ref: Tender No. **GEM/2025/B/6421345** Dated 09.07.2025

With reference to the equipment being quoted to you vide our Tender No:______ dated _____, we hereby confirm that all the components /parts /assembly / software etc. used in the equipment to be supplied shall be original new components / parts / assembly / software only, from respective OEMs of the products and that no refurbished / duplicate / second hand components /parts/ assembly / software shall be supplied or shall be used. We also undertake to produce certificate from the Original Equipment Manufacturers (if required by you) in support of the above statement at the time of delivery / installation

- 2. We also confirm that in respect of licensed operating systems and other software utilities to be supplied, the same will be procured from authorized sources and supplied with Authorised License Certificate (eg Product keys on Certification of Authenticity in case of Microsoft Windows Operating System)
- 3. In case of default and the Bank finds that the above conditions are not complied with, we agree to take back the equipment supplied and return the money paid by you, in full within seven days of intimation of the same by the Bank, without demur or any reference to a third party and without prejudice to any remedies the Bank may deem fit.
- 4. In case of default and we are unable to comply with above at the time of delivery or during installation, for the IT Hardware / Software already billed, we agree to take back the Desktops and Servers without demur, if already supplied and return the money if any paid to us by you in this regard.
- 5. We also take full responsibility of both parts & Service SLA as per the content even if there is any defect by our authorised Service Centre / Reseller / SI etc.

(Signature)	(Name)	(In the capacity of
Ouly authorised to sign	Bid for and on behalf of	
, 8		

ANNEXURE – 3.2.1 BID FORM (TECHNICAL BID) (to be included in Technical Bid Envelope)

Date:	
Date.	

To

Assistant General Manager(Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow - 226001

Dear Sir,

Ref: Tender No. GEM/2025/B/6421345 Dated 09.07.2025

We have examined the Tender, the receipt of which is hereby duly acknowledged and subsequent prebid clarifications/ modifications / revisions, if any, furnished by the Bank and we offer to supply, Install, test, commission and maintain the equipments detailed in Annexure-3.1.1, as per the terms and conditions spelt out in the tender. We shall participate and submit the commercial bid through online auction to be conducted by the Bank's authorized service provider, on the date advised to us.

- 2. While submitting this bid, we certify that:
 - The undersigned is authorized to sign on behalf of the VENDOR and the necessary support document delegating this authority is enclosed to this letter.
 - We declare that we are not in contravention of conflict of interest obligation mentioned in this tender.
 - Indicative prices submitted by us have been arrived at without agreement with any other Bidder of this tender for the purpose of restricting competition.
 - The indicative prices submitted by us have not been disclosed and will not be disclosed to any other Bidder responding to this tender.
 - We have not induced or attempted to induce any other Bidder to submit or not to submit a bid for restricting competition.
 - The rate quoted in the indicative *price bids are as per the tender* and subsequent pre-bid clarifications/ modifications/ revisions furnished by the Bank, without any exception.
- 3. If our offer is accepted, we undertake to complete the formalities for supply, installation, testing and commissioning of the equipment within a period of 2 weeks from date of Purchase Order.
- 4. We agree to abide by the Bid and the rates quoted therein for the orders awarded by the Bank up to the period prescribed in the Bid, which shall remain binding upon us.
- 5. Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.
- 6. We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".
- 7. We certify that we have not made any changes from the contents of the tender/EOI document read with its amendments/clarifications provided by the Bank submitted by us in our Bid

document. It is further certified that the contents of our bid are factually correct. We also accept that in the event of any information / data / particulars proving to be incorrect, the Bank will have the right to disqualify us from the bid.

- 8. We understand that you are not bound to accept the lowest or any Bid you may receive.
- 9. The vendor herby undertakes that its name does not appear in any "Caution" list of RBI / IBA or any other regulatory body for outsourcing activity.
- 10. We certify that the items offered by us in response to the bid conform to the Technical specifications stipulated in the bid with the following deviations:

Sr. No.	Page Number	Section	Relevant	Bidder's
		Clause	Section/	deviation
		Number	Clause	details

<u>Note</u>: Any deviation not declared above with respect to tender compliance shall not be considered by the Bank for review (If left blank it will be construed that there is no deviation from the specification given in this tender)

Dated this day of	2025	
(Signature)	(Name)	(In the capacity of)
Duly authorised to sign Bio	d for and on behalf of	

ANNEXURE -3.3

SLA Terms & Conditions

for Maintenance Services for HT Substation Systems

- 1. The Vendor warrants that the products supplied under the Contract are new, unused, of the most recent or current model and they incorporate all recent improvements in design and / or features. The Vendor further warrants that all the Products supplied under this Contract shall have no defect, arising from design or from any act of omission of the Vendor, that may develop under normal use of the supplied products in the conditions prevailing in India.
- 2. Warranty for Components: Onsite comprehensive warranty for all the components including free replacement of spares, parts, kits as and when necessary will be 12 months from date of installation.
- 3. Warranty for the System Software/off-the-shelf Software will be provided.
- 4. The Vendor shall in addition comply with the performance guarantees specified under the Contract. If, for reasons attributable to the Vendor, these guarantees are not attained in whole or in part the Vendor shall make such changes, modifications and / or additions to the Products or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests.
- 5. On-site comprehensive warranty: The warranty would be on-site and comprehensive in nature and back to back support from the OEM. The vendor will warrant all the components including, outdoor units, indoor units, leakage, panels etc against defects arising out of faulty design, materials and media workmanship etc. for a period of tone years from the date of commissioning/hand over whichever is later. The Vendor shall repair or replace worn out or defective parts including all plastic parts of the equipment at his own cost including the cost of transport.
- 6. During the term of the contract, the VENDOR will maintain the equipment in perfect working order and condition and for this purpose will provide the following repairs and maintenance services:
- a) Free maintenance services during the period of warranty. Professionally qualified personnel who have expertise in the hardware and system software supplied by the vendor will provide these services.
- b) The Bidder shall rectify any defects, faults and failures in the equipment and shall repair/replace worn out or defective parts of the equipment during working hours i.e. from 8.00 A.M. to 8.00 P.M. on all working days (viz. Monday to Saturday). In case any defects, faults and failures in the equipment could not be repaired or rectified during the said period, the engineers of the VENDOR are required to accomplish their duties beyond the said schedules in case of any situation if it warrants. In cases where unserviceable parts of the equipment need replacement, the VENDOR shall replace such parts, at no extra cost to the BANK, with brand new parts or those equivalent to new parts in performance For this purpose the VENDOR shall keep sufficient stock of spares at Bank's premises and at the premises of The VENDOR.
 - c) The maximum response time for a maintenance complaint from the site of installation (i.e. time required for Vendor's maintenance engineers to report to the installations after a request call / fax /e-mail is made or letter is written) shall not exceed 4 (four) hours.
 - d) The VENDOR shall ensure that faults and failures intimated by Bank as above are set right within 6 (six) hours of being informed of the same. In any case the equipment should be made workable and available not later than the Next Business Day.
 - e) The VENDOR shall ensure that the full configuration of the equipment is

- available to the BANK in proper working condition viz. uptime of 95% of the time on a 24x7x365 basis.
- f) In the event of the equipment not being repaired or a workable solution not provided during Warranty period, a penalty of one (1) percent of the total consideration for each week or part thereof the delay, subject to maximum amount of ten (10) percent of the total consideration will be charged to vendor. The vendor may provide temporary equivalent replacement as a workable solution to avoid the above penalty.
- g) Any penalty due during the Warranty period will be adjusted against the 2.5% retention money retained by the Bank. For purpose of calculating penalty, uptime is calculated as under:

Uptime(%)= Sum of total hours during month - Sum of downtime hours during month X 100 Sum of total hours during the month

Total hours during the month = No. of working days $x \ 8$

- h) The VENDOR shall ensure that the meantime between failures (including any malfunctioning, breakdown or fault) in the equipment or any part thereof, as calculated during any and every quarter (period of three consecutive months) is not less than 90 days.
- i) Preventive maintenance: The VENDOR shall conduct Preventive Maintenance during warranty (including but not limited to inspection, testing, satisfactory execution of all diagnostics, cleaning and removal of dust and dirt from the interior and exterior of the equipment, and necessary repair of the equipment) once within first 15 days of the installation once within the first 15 days of every alternate month during the currency of this agreement on a day and time to be mutually agreed upon. Notwithstanding the foregoing the VENDOR recognizes Bank's operational needs and agrees that Bank shall have the right to require the VENDOR to adjourn preventive maintenance from any scheduled time to a date and time not later than 15 working days thereafter.
 - j) All engineering changes generally adopted hereafter by the VENDOR for equipment similar to that covered by this AGREEMENT, shall be made to the equipment at no cost to the Bank.
 - k) Qualified maintenance engineers totally familiar with the equipment shall perform all repairs and maintenance service described herein.
 - 1) The Bank shall maintain a register at its site in which, the Bank's operator / supervisor shall record each event of failure and / of malfunction of the equipment. The VENDOR's engineer shall enter the details of the action taken in such register. Additionally every time a preventive or corrective maintenance is carried out, the VENDOR'S engineer shall make, effect in duplicate, a field call report which shall be signed by him and thereafter countersigned by the Bank's official. The original of the field call report shall be handed over to the Bank's official.
 - m) The VENDOR shall provide replacement equipment if any equipment is out of the premises for repairs.
- 7. Any worn or defective parts withdrawn from the equipment and replaced by the VENDOR shall become the property of the VENDOR and the parts replacing the withdrawn parts shall become the property of Bank.
- 8. The VENDOR's maintenance personnel shall, be given access to the equipment when necessary, for purpose of performing the repair and maintenance services indicated in this agreement.
- However if Bank desires to shift the equipment to a new site and install it thereof urgently, the VENDOR shall be informed of the same immediately. THE Bank shall bear the charges
 Signature and seal of the bidder

for such shifting and the VENDOR shall provide necessary arrangement to Bank in doing so. The terms of this agreement, after such shifting to the alternate site and reinstallation thereof would continue to apply and binding on the VENDOR.

- 10. Bank shall arrange to maintain appropriate environmental conditions, such as those relating to space, temperature, power supply, dust within the acceptable limits required for equipment similar to that covered by this Agreement.
- (d) NO term or provision hereof shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to or waiver of a breach by other, whether express or implied, shall not constitute a consent to or waiver of or excuse for another different or subsequent breach.
- 11. If, in any month, the VENDOR does not fulfill the provisions of clauses (b), (c),(d), (e) and (h) only the proportionate maintenance charges for that period during the month will be considered payable by Bank without prejudice to the right of the Bank to terminate the contract. In such event the VENDOR was credited without deducting the proportionate maintenance charges for that month, the Bank can deduct the same from future payments payable or the VENDOR shall refund the amount forthwith to Bank on demand by Bank.
- 12. On account of any negligence, commission or omission by the engineers of the VENDOR and if any loss or damage caused to the Equipment, the VENDOR shall indemnify/pay/reimburse the loss suffered by the BANK.

13. Future additions of ACs:

- 14.1 The Bank would have the right to:
 - a) Shift supplied systems to an alternative site of its choice.
 - b) Disconnect / connect / substitute Indoor/Outdoor such as printers, etc. or devices or any equipment / software acquired from another vendor.
 - c) Expand the capacity / enhance the features / upgrade the AC system supplied, either from the vendor, or another vendor, or developed in-house.

Provided such changes or attachments do not prevent proper maintenance, from being performed or unreasonably increase the VENDOR cost of performing repair and maintenance service.

- 14.2 The warranty terms would not be considered as violated if any of (a), (b) or
 - (c) above takes place. Should there be a fault in the operations of the system, the vendor, would not unreasonably assume that the causes lie with those components / software not acquired from them.

15. **CONFIDENTIALITY:**

15.1 The VENDOR acknowledges that all material and information which has and will come into its possession or knowledge in connection with this agreement or the performance thereof, whether consisting of confidential and proprietary data or not, whose disclosure to or use by third parties may be damaging or cause loss to Bank will all times be held by it in strictest confidence and it shall not make use thereof other than for the performance of this agreement and to release it only to employees requiring such information, and not to release or disclose it to any other party. the VENDOR agrees to take appropriate action with respect to its employees to ensure that the obligations of non-use and non-disclosure of confidential information under this agreement are fully satisfied. In the event of any loss to the Bank in divulging the information by the employees of the VENDOR, the bank shall be indemnified. The VENDOR agrees to maintain the

- confidentiality of the Bank's information after the termination of the agreement also.
- 15.2 The VENDOR/Bank will treat as confidential all data and information about the VENDOR/Bank/Contract, obtained in the execution of this tender including any business, technical or financial information, in strict confidence and will not reveal such information to any other party.
- 15.3 In the event of failure of the Service Provider to render the Services or in the event of termination of agreement or expiry of term or otherwise, without prejudice to any other right, the Bank at its sole discretion may make alternate arrangement for getting the Services contracted with another vendor. In such case, the Bank shall give prior notice to the existing Service Provider. The existing Service Provider shall continue to provide services as per the terms of contract until a 'New Service Provider' completely takes over the work. During the transition phase, the existing Service Provider shall render all reasonable assistance to the new Service Provider within such period prescribed by the Bank, at no extra cost to the Bank, for ensuring smooth switch over and continuity of services. If existing vendor is breach of this obligation, they shall be liable for paying a penalty of 10% of the contract value on demand to the Bank, which may be settled from the payment of invoices for the contracted period.

ANNEXURE - 3.4.1

BANK GUARANTEE FOR EARLY RELEASE OF 2.5% RETENTION MONEY

To:
Assistant General Manager (P&E), State Bank of India, 1st Floor, Local Head Office, Lucknow
Dear Sir,
BANK GUARANTEE FOR EARLY RELEASE OF 2.5 % RETENTION MONEY AS SET OUT IN THE SBI TENDER No. GENI/2025/B/6421345 Dated 09.07.2025
GUARANTEE NO: AMOUNT: Rs GUARANTEE COVER FROM TO LAST DATE OF LODGEMENT OF CLAIM (2 months after expiry of warranty)
Whereas, a company registered under the Companies Act 1956 having its Registered Office at (hereinafter referred to
as `vendor' which expression shall include its successors and assigns) entered into a agreement dated with State Bank of India (SBI) for supply, installation, testing, commissioning &
maintenance of the following hardware, software & services at State Bank of India site in (hereinafter referred to as `the said agreement')
<details be="" equipment="" filled="" in="" of="" supplied="" table="" that="" to=""></details>
and it has been agreed that a payment of Rs. (Rupees only) will be made to the vendor representing balance 5% of the consideration amount against the security of a Bank Guarantee from a Scheduled Commercial Bank. Now this deed of guarantee witnessed that in consideration of SBI agreeing to release a sum of Rs. (Rupees Only) representing balance 5% of the consideration amount payable to the vendor in terms of, the said agreement,
we(Bank) having our head office
at and amongst other places, a branch at (hereinafter referred to as the guarantor) do hereby expressly, irrevocably and
unreservedly agree and undertake that: a) In the event of vendor committing breach of any of the under takings or committing default in fulfilling any obligation arising out of said agreement, we
(bank) shall on demand, pay SBI without any demur
Rs(Rupees
guarantee by any agreement, variations made between SBI and the vendor, indulgence shown to the vendor by SBI, with or without the consent and knowledge of the Guarantor or by any alterations in

the obligations of the vendor by any forbearance whether as to payment, time performance or

otherwise.

- 4. (a) This guarantee shall remain valid until (date which is 2 months after expiry of warranty period), or until discharged by SBI in writing.
- (b) This guarantee shall be a continuing guarantee and shall not be revocable except with the previous written consent of SBI and save as aforesaid it will be in force until the vendor complies with its obligations hereunder.
- (c) This Guarantee shall not be affected by any change in the constitution of the vendor by absorption with any other body or corporation or dissolution or otherwise and this guarantee will be available to or enforceable against such body or corporation.
- 5. In order to give effect to this guarantee, SBI will be entitled to act as if the guarantor were the principal debtor and the guarantor hereby waives all and any of its rights of suretyship.
- 6. This guarantee shall continue to be in force notwithstanding the discharge of the vendor by operation of law and shall cease only on payment of the full amount by the guarantor to SBI of the amount here by secured.
- 7. This Guarantee shall be in addition to and not in substitution for any other guarantee or security for the vendor given or to be given to SBI in respect of the said contract.
- 8. Any notice by way of request and demand or otherwise here under may be sent by post or any other mode of communication to the guarantor's address as aforesaid, and if sent by post, it shall be deemed to have been given at the time when it would be delivered in due course by post and in proving such notice when given by post it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of SBI that the envelope was so posted shall be conclusive.
- 9. These presents shall be governed by and construed in accordance with Indian Law. Notwithstanding anything contained herein:

a) Our liability under this Bank Guarantee shall not exceed Range (Rupees only)	s
b) This Bank Guarantee shall be valid up to (date which is 2 morperiod) and	nths after expiry of warranty
c) We are liable to pay the guaranteed amount or any part ther only and only if you serve upon us a written claim or demand on or months after the date of expiry of the warranty)	
d) The guarantor has under its constitution powers to give this g (signatories) Officials/ Managers of the Bank who has/l	
has/have powers to do so.	
Dated this day of 2025 at	
For and on behalf of(Bank).	
Authorised Signatory in favour of the Bank	
Designation	
An amount is to be inserted by the Bank or financial institution r the Advance Payment.	representing the amount of

ANNEXURE - 3.4.2 PERFORMANCE BANK GUARANTEE FORMAT

(TO BE STAMPED AS AN AGREEMENT)

	PERFORMANCE BANK GUARANTEE AGREEMENT executed atthisday
of	2025 by
	g its Registered Office atand its Branch at
which to mea Statute at Stat Head ((hereinafter referred to as "the Guarantor", expression shall, unless it be repugnant to the subject, meaning or context thereof, be deemed an and include its successors and permitted assigns) IN FAVOUR OF State Bank of India, a bry Corporation constituted under the State Bank of India Act, 1955 having its Corporate Centre to Bank Bhavan, Nariman Point, Mumbai and one of its offices at State Bank of India, Local Office, Lucknow hereinafter referred to as " the Bank " which expression shall, unless repugnant subject, context or meaning thereof, be deemed to mean and include its successors and assigns). REAS
Mumb	tate Bank of India, having its Corporate Office at State Bank Bhavan, Madam Cama Road, pai - 400021 (hereinafter called the 'Bank') has invited quotations for supply of hardware, are and services,
1.	It is one of the terms of invitation of applications that the applicant shall furnish a Performance Bank Guarantee for a sum of Rs/- (Rupeesonly) as a Bid Security Performance Bank Guarantee.
2.	M/s, our constituent, intend to submit the Bid Security Performance Bank Guarantee for the said empanelment and requested us to furnish guarantee to the 'Bank' in respect of the said sum of Rs/- (Rupees)
NOW	THIS GUARANTEE WITNESSETH AS FOLLOWS WITHOUT ANY DEMUR
1.	We (bank), the Guarantors, do hereby irrevocably & unconditionally agree an undertake to the State Bank of India, their Successors, Assigns that in the event of the State Bank of India coming to the conclusion that the vendor (pl. mention the name in bracket) have not adhered to the terms and conditions of the 'Bank' or committed a breach thereof, which conclusion shall be binding on us as well as the said vendor, we shall on demand by the State Bank of India, pay without demur to the State Bank of India, a sum of Rs/-(Rupees
	only) or any lower amount that may be demanded by the State Bank of India. Our guarantee shall be treated as equivalent to the Security Deposit for the due performance of the obligations of the vendor under the said Conditions, provided, however, that our liability against such sum shall not exceed the sum of Rs/- (Rupees/-)
2.	We also agree to undertake to and confirm that the sum not exceeding Rs/- (Rupees

of receipt of the notice as aforesaid.

3. We confirm that our obligation to the State Bank of India under this guarantee shall be independent of the agreement or other understandings, whatsoever, between the State Bank of India and the vendor.

This guarantee shall not be revoked by us without prior consent in writing of the State bank of India.

We hereby further agree that-

- (c) Our liability under this agreement shall not be affected by any infirmity or irregularity on the part of our said constituents in tendering for the said work or their obligations there under or by dissolution or change in the constitution of our said constituents.
- (d) This guarantee shall remain in force upto provided that if so desired by the State Bank of India, this guarantee shall be renewed for a further period as may be indicated by them on the same terms and conditions as contained herein.
- (e) Our liability under these presents/guarantee shall remain in force till unless these presents are renewed as provided hereinabove on the or on the day when our said constituents comply with their obligations, as to which a certificate in writing by the State Bank of India alone is the conclusive proof whichever date is later. Unless a claim or suit or action is

filed against us within four months from the date or any extended period, all the rights of the State Bank of India against us under this guarantee shall be forfeited and we shall be released and discharged from all our obligations and liabilities hereunder.

(f) The Guarantee shall be a continuing Guarantee and liability of the Guarantor under this Security Performance Bank Guarantee shall not be affected by -

- (i) Insolvency or winding up of the Bidder or absorption, merger, acquisition or amalgamation of the Bidder with any other Company, Corporation or concern; or
- (ii) Insolvency or winding up of the Guarantor or absorption, merger, acquisition or amalgamation of the Guarantor with any other Company, Corporation or concern; or change in the constitution structure or management of the Guarantor
- (iii) any change in the management of the Bidder by takeover of the management of the Bidder by the Central or State Government or by any other authority; or
- (iv) any change in the constitution/structure or management of the Bank

or

- (v) any dispute between the Bidder and the Bank.
- (g) This guarantee shall be governed by Indian Laws and the Courts at Lucknow, India alone shall have the jurisdiction to try & entertain any dispute arising out of this guarantee.

Notwithstanding anything contained herein:	
(d) Our liability under this Bank Guarantee shall not exceed Rs/-(Rupeesonly)	
(e) This Bank Guarantee shall be valid upto	
(f) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarant only and only if you serve upon us a written claim or demand on or before	
Yours faithfully,	
For and on behalf of Bank.	
Authorised official	

ANNEXURE-3.5

MANUFACTURERS'/PRODUCERS' AUTHORIZATION FORM

No.	Date:
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To

Assistant General Manager(Premises & Estate), State Bank of India, Local Head Office, Ist Floor, Moti Mahal Marg, Hazratganj, Lucknow - 226001

Dear Sir:

Ref: tender No. GEM/2025/B/6421345 Dated 09.07.2025

We who are established and reputable manufacturers / producers of having factories / development facilities at (address of factory / facility) do hereby authorise M/s

(Name and address of Agent) to submit a Bid, and sign the contract with you against the above Bid Invitation.

- 2. We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation.
- 3. We also undertake to provide any or all of the following materials, notifications, and information pertaining to the Products manufactured or distributed by the Vendor:
 - (a) Such Products as the Bank may opt to purchase from the Vendor, provided, that this option shall not relieve the Vendor of any warranty obligations under the Contract; and
 - (a) in the event of termination of production of such Products:
- (i) Advance notification to the Bank of the pending termination, in sufficient time to permit the Bank to procure needed requirements; and
- (2) Following such termination, furnishing at no cost to the Bank, the blueprints, design documents, operations manuals, standards, source codes and specifications of the Products, if requested.
 - 4. We duly authorize the said firm to act on our behalf in fulfilling all installations, Technical support and maintenance obligations required by the contract.

Yours faithfully,

(Name of Manufacturer / Producers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. The Bidder in its Bid should include it.

ANNEXURE - 3.6

PROFORMA OF CERTIFICATE TO BE ISSUED BY THE BANK AFTER SUCCESSFUL COMMISSIONING AND ACCEPTANCE OF THE HARDWARE / SOFTWARE / SERVICES

	Date:		
M/s	3.		
Sub	c: <u>Certificate of commissioning of Solution</u>		
1. This is to certify that the products / equipment as detailed below has/have been received in condition along with all the standard and special accessories (subject to remarks in Para in accordance with the Contract/Specifications. The same has been installed and commissions.			
	a) Bid No dated		
	b) Description of the Solution		
	c) Quantity		
	d) Date of commissioning		
	e) Date of acceptance test		
2.	Details of products not yet supplied and recoveries to be made on that account:		
	S.No. Description Amount to be recovered		
3.	The acceptance test has been done to our entire satisfaction and Staff have been trained to operate the Product.		
3.	The Vendor has fulfilled his contractual obligations satisfactorily*		
	or The Vendor has failed to fulfill his contractual obligations with regard to the following:		
	(a) (b)		
	(c)		
5.	The amount of recovery on account of non-supply of Products is given under Para No. 2.		

The amount of recovery on account of failure of the Vendor to meet his contractual

obligations is as indicated in endorsement of the letter.

5.

Signature	
Name	
Designation with stamp	

- * Explanatory notes for filling up the certificates:
- (a) The Vendor has adhered to the time schedule specified in the contract in dispatching the Products / Manuals pursuant to Technical Specifications.
- (b) The Vendor has supervised the commissioning of the solution in time i.e., within the period specified in the contract from the date of intimation by the Purchaser in respect of the installation of the Product.
- (c) Training of personnel has been done by the Vendor as specified in the contract.
- (d) In the event of Manuals having not been supplied or installation and commissioning of the Solution having been delayed on account of the Vendor, the extent of delay should always be mentioned.

	LIST OF APPROVED MANUFACTURERS FOR LT ELECTRICAL WORKS		
S.N.	MATERIALS	APPROVED MANUFACTURERS	
1	Tuescanta visa a vin	i)Colorio dos	
1	Transformers	i)Schnieder	
		ii) ABB	
		iii)Siemens	
		iv)CG Power	
		v)Siemens	
		vi) Lauritz Knudson	
		vi) GE	
		vii) BHEL	
		viii) Kirloskar	
2	Vacuum Circuit Breakers	i)Schnieder	
		ii) ABB	
		iii)Siemens	
		iv)CG Power	
		v)Siemens	
		vi) Lauritz Knudson	
		vi) GE	
		vii)Kirloskar	
3	Moulded Case Circuit Breaker (MCCB)	i) Legrand	
		ii) Schneider	
		iii) Hager	
		iv) Siemens	
		v) ABB	
		vii)L&T	
4	Switch Fuse Unit (SFU)	i) L & T	
•	CAMBIAL GOOD CAME (C. C.)	ii) Siemens	
		iii) ABB	
		iv) Schneider	
		v) Legrand	
		v) Legiana	
5	Power Contactors	i) L & T	
		ii) Siemens	
		iii) Schneider	
		iv) ABB	
		v) Legrand	
6	Meters	i) HPL	
_		ii) Secure	

		iii) L & T
		iv) Schnieder
		v) Rishabh
		vi)ABB
		vii)AE
5	Armoured HT/LT cable	i) Polycab
		ii) Finolex
		iii) National
		iv)NICCO
		v)KEI
		vi) Gloster
6	Cable Termination	i) Dowells
		ii) Comet
		iii) Frontier Technologies
7	Cable Tray	i) Profab
		ii) Metalemms
		iii) Asian Ancillary Corporation
8	PVC Conduit & Accessories	i) BEC
		ii) AKG
		iii)CAP

9	Wires (FRLS only)	i) RR Kabels
		ii) Havells
		iii) Finolex
		iv) Polycab
10	MS Conduit & Accessories (ISI Mark).	i) BEC
	Medium - 1.6 mm thick.	ii) AKG
	Heavy - 2 mm thick.	iii) NIC
10	Modular Switches & Sockets with PVC Box	i) Legrand - (Arteor model)
		ii) MK - (Blenz model)
		iii) Schneider - (Zencelo model)
		iv) ABB
11	Distribution Board, MCB, RCCB & RCBO	i) Legrand
		ii) Schneider
		iii) Hager
		iv)ABB
20	Capacitors	i) Siemens

		ii) L& T
		iii) GE
		iv) ABB
		iii) Universal
21	CT'S / PT'S	i) AE
		ii) Kappa
		iii) Ricco
		iv) Rishabh
22	APFC Relay.	i) HPL
		ii) Emercon
		iii) Alstom
		iv) Beluk
		v) L & T
23	Contactor / Timer	i) Schneider
		ii) Hager
		iii) L & T
		iv) Siemens
		iv) Legrand

- NB. 1) The contractor should obtain prior approval from Employer / Consultants before placing order for any specific materials. Employer may / delete any of the makes or brands out of the above list.
 - 2). All materials should conform to relevant standards and codes of BIS.
- . 3) Materials with I.S.I. mark shall be used duly approved by the SBIIMS Engineer / Architect

Note: - If any material is found to be not up to the mark, the contractor will have to produce original bills/certificate from the manufacturer or his authorised Distributor for authenticity and genuineness of the material for consideration and as per make approved by the SBIIMS. The same will not be considered for payment.

TECHNICAL SPECIFICATIONS FOR ELECTRICAL INSTALLATION WORK

SCOPE OF WORK:-

The Electrical Contractor's scope of work covers the following:-

Supply, testing prior to installation, testing after installation of Transformers, VCB, cabling, earthing and electric meter/s and other installation and commissioning the complete Electrical Installation work associated with power supply system, lighting and domestic appliances, concealed wiring network as directed, earthing and lightning protection system, installing Heavy Gauge PVC / Black enamelled H.G. threaded conduits suitable for heavy mechanical stresses, concealed / open in slabs, walls / shafts, as required for Electrical wiring, telephones network and TV cable system for distribution in flats, basement, stilts etc., installing telephone and T.V. outlet boxes as required including fish wire. Telephone wires and co-oxial

cable for T.V. outlets from the shafts as directed, alternate Emergency Power Panel including stand-by Diesel Generator Set and power supply network from this alternate stand-by D.G.Set, installation of fixtures and fittings issued by the Client or as ordered in B.O.Q. after testing, including holding their safe custody until handing over of the installation to the Clients, power supply to Domestic water pumps, fire pumps and any other related works for completion of the Building for its occupancy, Liaisoning with Electric Supply Company and / or Concerned Authorities and getting the installation approved by them and installation of electric meter/s is also included in the scope of Contractors work. The works shall be completed as per CPWD specifications.

DRAWINGS, SPECIFICATION AND DEVIATIONS:-

The drawings and specification lay down minimum standards of equipment and workmanship. Should the tenderer wish to depart from the provision of the specification and drawings either on account of manufacturing practice or for any other reasons, he should clearly draw attention in his tender to the proposed points of departure and submit such information, drawings and specifications as will enable the relative merits of the deviations to be fully appreciated. In the absence of such information on the deviations, it will be deemed that the tenderer is fully satisfied with intents of the specification and drawings and their compliance with the statutory requirements, all the relevant I. S. Codes, I.E. Rules, Local Codes as governed by the Concerned Electric Supply Company, N.E.C. Electrical Inspector, etc.

The Contractor shall prepare fabrication and working drawings as well as concealed / open conduits layout drawings which will be got approved from the Architect / Clients / Consultants prior to execution and all work shall be to the approved working drawings. Approval of these drawings does not relieve the Contractor of his responsibility to meet the intents of specifications. All such drawings for approval are to be submitted in triplicate to the Owner / Consultants / Architects.

After virtually completing the work, the Contractors should submit AS BUILT drawings of all systems in triplicate along with his Final Bill.

SCOPE:-

The Scope of work shall cover the supply, installation and commissioning of all the power panels, Transformers, incorporating circuit breakers, switch fuse units, busbars, interconnections, Cables, earthing etc., meeting the requirements shown in equipment schedule and the drawings.

Entire works shall comply with the latest issue of following standards, rules, codes of practice, unless specified otherwise in the specific requirements.

STANDARDS:-

The following standards and rules shall be applicable:-

IS: 2026: Specification for transformers.

IS: 2516: Specification for A.C. circuit breakers.

IS: 4047: Specification for heavy duty air breaker switch gear and fuses for

Voltage not exceeding 1000 V.

IS: 3072: Code of practice for installation and Maintenance of Switch gear.

IS: 3106: Code of practice for selection, installation and maintenance of

fuses (Voltage not exceeding 650 V).

IS: 4237: General requirements for switch gear and control gear for voltage

not exceeding 1000 V.

IS: 2607 : Air break isolators for voltage not exceeding 1000 V.

IS: 8623 : Specification for factory built assemblies of switch gear and

Control gear for voltage upto and including 1000 V. A.C. and

1200 V. D.C.

IS: 375 : Marking arrangement of switch gear bus-bars main connections

and auxiliary wiring.

IS: 694 : PVC insulated copper wires for 650 / 1100 Volts grade.

IS: 1554 : PVC insulated (heavy duty) electric cables for working voltages

upto and including 1100 Volts.

IS: 3961 : Recommended current rating for cables.

IS: 732 : Codes of practice for electrical wiring.

IS: 2274 : Installation (system voltage not exceeding 650 Volts).

IS: 12360 : Voltage bands for electrical installation.

IS: 2309 : Protection of building and allied structures against lighting.

IS: 4648 : Guide for electrical layout in Residential Building.

IS: 1646 : Fire Safety of Buildings.

IS: 5216 : Guide for Safety Procedures and Practices in Electrical Work.

IS: 3043 : Code of practice for earthing.

IS: 3202 :) Climate proofing of electrical equipment.

IS: 2147:) Heavy duty air-break switches and

IS: 4064:) Composite units of air-break switches.

and fuses for voltages not exceeding

IS: 4237) 1000 Volts.

IS:6875:)

Control switches IS: 2208:)

HRC cartridge fuse domestic and similar purpose.

IS: 5133(I):) Boxes for enclosures of electrical accessories.

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IS:3854:)
                    Heavy duty air-break switches and
                    Switches for domestic and similar purpose.
    IS: 3452 :)
IS: 371
         :)
                Three terminals ceiling roses.
    IS:4615 :)
   IS:1293:)
                    Switch socket outlet.
    IS:4160 :
)
    IS:4343 :
)
    IS:8828 :
                    Miniature air-break circuit breaker for A.C. circuits.
    IS:2312 :
                    Exhaust Fans.
    IS: 374
                    Ceiling fans and regulators.
    IS:2082 :)
    IS: 3725 :
                    Storage types electrical water heaters.
)
    IS:2266 :
                    Call bells and buzzers for indoor use.
                    Luminaires, ballasts, maintenance and safety requirements.
    IS:1913 :)
    IS: 10322:)
    IS:2713 :
                    Tubular poles for overhead power lines & street lights.
                    Danger notice plates.
    IS: 2551 :
    IS:2509 : )
                    Rigid PVC conduits for electrcial wiring.
    IS:3419 : )
IS: 9537, Part II: Rigid M.S. conduits.
                    Flexible steel conduits for electrical wiring.
    IS:3480 :
   TD-S-113-18
                    Code of practice by India Telephone – Department.
    ITD-S/WS-: )
    144C,
                    Insulation and conductor resistance of telephone
    BS:6746:)
                    wires and cables.
  IS:4984 :)
                    HDPE pipe and fittings.
    ITD-S/WS-: )
                    PVC insulated, colour coded, twisted into paris,
    113B,
    BS:6746:)
                    laid-up taped and overall.
    CBL:7000:)
    BS:6746 :)
                    PVC sheathed telephone cables.
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IS: 1554:) Electrical cables and wires including PVC insulated heavy duty cables

IS: 7098:) Cross-linked polyethylene insulated PVC sheathed cables

IS: 10810:) Methods for testing of cables, including annealing, tensile, and wrapping tests.

Revised code of practice for telephone wiring of multistoreyed Buildings – 1985.

Codes of practice of Indian Standards or relevant British Standards in the absence of Indian Electricity Act and Rules National Electrical Code, Local Regulation prevalent in UP. or the state which work-site exists, Regulations of Fire Insurance – Tariff Advisory Committee, Regulations and Standards of Telephone Nigam Ltd., etc.

SYSTEM DETAILS:

Entire electrification work and its associated accessories shall be designed for the system data given hereunder.

Rated System Voltage : 415 Volts (+/-) 10%, 3 – Phase, 4 Wire.

Rated System Frequency : 50 Hz (+/-) 3%

Rated System Fault level : 35 MVA at 415 Volts symmetrical.

Highest System Voltage : 456 Volts r.m.s. line to line at 415 Volts.

Rated Lighting Control : 250 Volts, 1 – Phase, 2 Wire and earth,

System Voltage 50 Hz

System Earthing : Effectively earthed neutral.

All material and its associated accessories shall also be designed to withstand for the desired services due to fluctuations in supply voltage and variation in frequency as permissible under Indian Electricity Act and Rules.

Meter Room Works:

150 mm. dia. R.C.C. pipe/s shall be provided for laying of Electric Supply Company's power cables from outside of plinth protection upto a chamber in the meter room. In case the distance from the outer edge of the plinth protection upto the chamber in meter room is more than 2 meters additional pipes shall be laid and all the pipes shall be properly laid and jointed with collars etc. the pipe at the end of the plinth protection shall at the level of 600 mm. below the ground level.

One end of the R.C.C. pipe inside the meter room shall open in a brick masonry chamber of size 300 mm. x 600 mm. and 300 mm. deep.

One no. 8 SWG G.I. Wire shall be laid in the R.C.C. pipe for pulling the power cables.

One / two / three / four light point/s shall be provided in the meter room, the control switches for which shall be near the door but inside, from the wiring provided for the staircase lights. A teak wood plank of 20 mm. thick and varnished (with two coats) on all sides shall be provided in the meter room for fixing of Electric Supply Co s Bus System, Cutouts, I.C. cutouts for individual meters and ELMCBs for flats, cable end box to terminate main incoming supply cables shall be provided for the S.F. unit with suitable cable glands. On the outgoing side of S.F. unit a 3 phase and neutral busbar chamber shall be provided. The busbars rating shall be 50% more than the capacity of the S.F.U. controlling it.

The lead wired to individual meters and cutouts shall be taken out from this busbar chamber. Each load distribution on all phases and the proper colour code is to be observed for lead wire. Lugs shall be crimped at both ends of these lead wires for termination.

Wherever the energy meters are to be fixed in the wooden meter box / cabinet, the same shall me made out of 50 mm. x 25 mm. wooden frame and 20 mm. thick wooden planks on all sides and metal grill shall be fixed on the front door (side). The door shall have locking arrangement and lock with keys shall be provided. The meter box shall be fixed to the wall and before polishing / painting, anti-termite treatment shall be given to it. Polishing / painting, has to be done to all the sides of the box / cabinet.

The meter box shall accommodate main S.F.U. for terminating incoming cable, T.P.N. Bus chamber and other switch gears like I.C. cutouts main switches, ELMCBs energy meters etc. All meters, switches etc., shall be interconnected with wires of size suitable for the connected load / meter capacities as directed.

All wiring in the meter room related to metering etc. shall be carried out with single core PVC stranded copper wires of adequate size, fixed on the T.W. Plank with brass clips and brass takes. Earth wire shall be provided with the lead wires for connecting earth terminates of meters, main switches etc.

The Contractor shall submit the layout drawing of the meter room wherein all the above items shall be shown. This layout shall be got approved by the Contractor from the Clients as well as from the Electric Supply Co. In the meter room, outgoing from the meters will be taken to the main switch, ELMCB, the outgoing from which either cables or copper wires, as specified, will lead to the respective destinations as specified.

All codes and standards mean the latest, wherever not specified otherwise, the installation shall generally follow the I.S. codes of practice of the relevant Standard Codes of Practice in the absence of corresponding Indian Standard.

Switch fuse units and disconnects:

Switch fuse units shall have quick-make, quick-break silver plated preferable double break contacts, with operating mechanism suitable for rotary operation in the case of cubical mounting. All switches shall be rated according to equipment schedule or drawings, and shall withstand the system prospective fault current let through. Cam operated rotary switches with higher rating S.F. units shall be heavy duty type conforming to IS: 4047.

Fuses shall be HRC cartridge type conforming to IS:2208 with a breaking capacity corresponding to system fault level. Fuses shall be line type with visible indication. Screw type diazed fuses are not acceptable for any rating.

All disconnects shall consists of switch units quick-make, quake-break type with silver plated

contacts. The switches shall preferably have double breaks. All switches shall be mounted in sheet steel enclosures, which in turn is mounted on suitable angle iron frame work. In wet location switches shall have cast iron enclosures Disconnects shall have minimum breaking capacity.

Cubical Boards:

All boards shall be combination of 14 & 16 SWG sheet steel, free standing, extensible totally enclosed. Dust-tight, vermin-proof cubical, flush dead front and modular construction suitable for 3 phase, 415 V, 4 Wire, 50 Hz system. All boards shall be accessible form the front for the maintenance of switches, Bus-bars, cable terminations, meters etc. Cables shall be capable of entering the board both from top as well as from bottom. All panels shall be machine pressed, with punched openings for meters etc. All sheet steel shall be rust infibited through a process of degreasing, acid pickling, phasephating etc. The panels shall be finished with two coats of synthetic enamel paint of approved colour over one coat of red oxide primer. Engraved plastic labels shall be provided indicating the feeder details including the size of the incoming / outgoing cables, capacity and danger signs.

Earthing:

All switches panels shall be provided with an earth bar as specified earthing of the switch boards shall be through the equipment earthing system provided in the building.

All meters shall be calibrated and tested through secondary injection tests.

All field tests shall be witnessed by Clients representatives, lost certificates shall be furnished by the Contractors.

Installation:

All panels shall be supported on MS Channels incorporated in the panel during the fabricating. All such supports shall be coated with primer followed by two coats of approved synthetic enamel colour paint. After completion of the work, all panels shall be touched up for damaged painting. All work shall be carried out as per IS: codes, I.E. Rules, NEC.

All panels shall be meggared at phase and phase to Neutral using 1000 V meggar with all outgoing feeders in closed position. The meggar value should not be less than 2.50 megohms between phases and 1.50 megohme between phase and neutral.

Fabrication drawings of all panels shall be submitted by the Contractor to the Clients in triplicate and they shall proceed for fabrication after Clients approval.

Testing and Inspection:

All switch boards shall be factory inspected before finishing and dispatch, with the Clients representatives.

Certificate for all routine and type tests for circuit-breakers in accordance with IS:2516-1963 shall be furnished from the manufactures. In addition, all panels shall be meggared phase to phase and phase to Neutral, using 1000 V meggar with all the switchgear in closed position. The meggar value should not be less than 2.50 megohms between phases and 1.50 megohms between phase and Neutral.

Distribution Board:

Scope:

The scope of work shall cover supply, installation, testing and commissioning of lighting and Signature and seal of the bidder

power distribution boards. Associated civil work required for the erection of the D.B.S. is also included in the scope of this contract.

Standards:

The following standards and rules shall be applicable:

1) IS: 2675 – 1983 : Enclosed distribution fuse boards and cutouts for

Voltage not exceeding 1000 V

2) IS: 375 – 1963 : Marking and arrangement of switchgear busbars

main connections and auxillary wiring.

3) IS: 8828 – 1978 : Miniature circuit-breakers.

4) IS: 2607 – 1976: Air-break isolators for Voltage not exceeding 1000 V.

5) IS: 9926 – 1981 : Fuse wire used in rewirable type Elec. fuses upto

650 V.

6) Indian Electricity Act 1910 and Amendments issued there under.

All codes and standard mean the latest, where not specified otherwise, the installation shall generally follow Indian Standards Codes of Practice and the relevant British Codes of Practice in the absence of Indian Standard.

Distribution boards along with the controlling M.C.B.s, Fuse or Isolator as shown be fixed in an M.S. Box, suitable for recessed mounting and in wall. <u>D.B.S. should be factory made from the standard "approved" manufactures and not fabricated by the tenderer.</u> D.B.S. shall be made of 16 SWG sheet duly rust inhibited through a process of degreasing, acid pickling, phosphating and spray painted or powder coated to an approved colour over a coat of red oxide primer. Three phase boards shall have phase barriers and wire channel on three sides. Neutral bars shall be solid tinned copper bars with tapped holes and chase headed screws. For three phase D.B.S. 3 Nos. independent neutral bars shall be provided.

There shall be earth busbar of adequate size provided separately to terminate all outgoing circuit earth wire conduit knockouts shall be provided as required / shown on drawings and entire board shall be rendered dust and vermin proof and shall have conduit knockout entry.

MCBs shall have quick make and break non-welding self wiping alloy contacts both on the manual and automatic operation. Each pole of the breaker shall be provided with inverse time thermal overload and instantaneous over current tripping elements, with tripping must be on all the poles and operating handle must be common. Breakers must conform to MBS 3871 with facility for locking in off position. Pressure clamp terminals for stranded / solid conductor insertion are acceptable upto 4 sq.mm. aluminium of 2.5 sq.m.. copper conductors and for higher conductor sizes the terminal shall be suitably shrouded. Wherever MCB isolators are specified they are without tripping elements.

Distribution Boards shall have MCBs as shown on the drawing / schedule. D.B.S. shall meet with the requirements of IS:2675 and marking arrangement of Bus-bars shall be accordance with IS: 375, Bus-bars shall be suitable for incomer switch rating and sized for a temperature rise of 35 Centigrade over the ambient temp. circuit diagram indicating the distribution shall be pasted on the inside of the DB s instructed. One earthing terminal for single phase and two terminals

for 3 phase D.B.S. shall be provided with an earth strip connecting these earthing studs / terminals and the outgoing ECC earth bar. All MCBs shall be with a minimum short circuit rating of 10 Kamps. All outgoing feeders shall terminate or by means of insulated single conductor copper wires.

All termination shall be carried out by using crimping type ferrules or reducer type terminal lugs.

Installation and Testing:

All distribution boards shall mounted as directed either recessed or on adequate size of angle iron frame work in case they are to surface mounted. All mounting frames shall be coated with one coat of red oxide primer followed by two coats of synthetic enamel paint of approved colour, after installation. All D.B.S. shall touched up for damaged painting. All work shall be carried out as per NEC.

All boards shall be meggard phase to phase and neutral, using 1000 V meggar with all switchgear in close position. The meggar value should be not less than 2.50 megohms between and 1.50 megohms between phase and neutral.

E.L.C.B. (Earth Leakage Circuit Breaker):

The E.L.C.B.s shall have leakage sensitivity of 30 ma / 30 Secs and shall have a short circuit current rating equal to that of MCB i.e. mini. of 10 KA. Current rating and No. of poles shall be as described in the B.O.Q. / Drawing. A test push knob facility shall be provided to periodically test the operation of E.L.C.B.s.

Medium Voltage Cabling:

Scope:

The scope of work shall be cover supply, laying, connecting, testing and commissioning of medium voltage power cables inclusive of all labour.

Standards:

The following standards and rules shall be applicable:

1) IS: 1554 (P-I) : PVC insulated electric cables (heavy duty)

2) IS: 1753 : Aluminium conductors electric cables (heavy duty)

3) IS: 3961 : Recommended current ratings for cables.

4) Indian Electricity Act and Rules.

5) NEC.

All codes and standards mean the latest. Whereas not specified otherwise, the installation shall generally follow Indian Standard Codes of Practice and the relevant British Codes of Practice in the absence of Indian Standard.

Cables:

All cables shall be 1100 Volt Grade, PVC insulated and extruded inner sheath with or without Signature and seal of the bidder

steel armouring as specified and with an outer PVC Protective sheet. Cables shall have high conductivity stranded aluminium or copper conductor as specified. Cores shall be colour coded as per Indian Standard.

All cables shall be new without any kind of visible damages. The manufactures name, insulating material, conductor size, voltage class and ISI mark shall be embossed on the surface of the cable at every 600 mm. centres.

Installation:

Cables shall be laid in the routes marked in the drawings, where the route is not marked, the Contractor shall mark it out on the drawing and also on the sire and obtain the approval of the Architect / Consultant before laying the cable. Procurement of cables shall be on the basis of actual site measurements and the quantities shown on the schedule of work shall be regarded as a guide. Payment shall be restricted to the quantity of cable installed (and measured jointly as per unit stated) at site. Cables rising indoors shall laid on walls, ceiling, shafts or trenches. Cables shall be fixed to walls or ceiling with supports saddles. Cables trays will be used wherever directed / necessary. All supports shall be at not more than 500 mm. apart. Plastic identification tags shall be provided at every 20 M in general at every floor in the rising shaft in particulars. Oversize M.S. Sleeves shall be used for cables passing through the walls. Cables shall be bent to a radius not less than 12 times the recommendations, whichever is higher, in case of direct buried cables the cable route shall be parallel or perpendicular to roadways, walls cushion to provide cushion against abrasion. Width of excavated trenches over sand cushion shall be covered with a mini. of excavated trenches will be as per drawings or as directed. The laid cables in protective layer of bricks on both sides and top. Backfill of the trench shall be with a minimum earth cover of 600 mm. to be properly rammed and consolidated. At road / pathway crossings cables have a pulled through R.C.C. pipe of 150 mm. dia. to be laid for each cable by the Electrical Contractor. A mini.of 100 mm. thick concrete bed has to be spread before laying the RCC pipes, topped by 150 mm. thick concrete to avoid any damage to the RCC pipe.

The cables shall be provided with cable route markers at every 20 meters and also at every in the direction of the route.

All cables shall be full runs from panel to panel without any joints or splices. A minimum of Eight (8) M loop shall be provided at each end of every cable. Cables shall be identified at end terminations indicating the feeder number and the Panel / Distribution

Board from where it is being laid. All cable terminations shall have tinned copper compression lugs. Cable terminations shall have necessary Brass glands. The Brass glands and armouring shall be earthed at both the ends of the cable. The end terminations shall insulated with a minimum of six half lapped layers of PVC taps.

Testing:

MV cables shall be tested before and upon installations with a 1000 V meggar and the following established.

- 1) Continuity on all phases.
- 2) Insulation Resistance a) Between conductors.
 - b) Between all conductors and ground.

All test reading shall be recorded. Cables will be charges only after the above reading are
Signature and seal of the bidder

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found to be satisfactory.

Mode of Measurement:

Cables will be measured on the basis of unit length and shall include the following:

- 1) Cables, clamps, supports and spacers.
- 2) Installation, testing and commissioning.
- 3) Cable marking.

Each cable termination will be measured as one unit for payment.

- 1) Cable glands, lugs, bolts, nuts.
- 2) All joining materials.
- 3) Installation, testing and commissioning.
- 4) Earthing of glands and armour.

Cables buried underground will be measured on the basis of unit length and paid for unit rates and shall includes.

- 1) Excavated and backfilling as described above.
- 2) Sand for cushioning and protective bricks.
- 3) Cable route markers.

C.T.S. Wiring:

Scope:

The scope of work shall cover supply, installation, testing and commissioning of all C.T.S. wiring work.

All size of teak-wood battens should be varnished before fixing on the wall. The batten should be from good teakwood battens and should not have any knot in between, varnishing of batten is to be done on all sides. As far as possible overlapping of the battens should be avoided by providing the bridge. The wires should be fixed with appropriate types of tinned brass joint clips at every 2" to 2.5 distance. The teak-wood wires shall be fixed nettlefold screws and not by nails. Earthing wires shall be stranded copper conductor with Green / Yellow – Green colour insulation of 440 V Grade.

Conduits Wiring:

Scope:

The scope of work shall cover supply, installation, testing and commissioning of all conduit wiring. All works shall be carried out as per NEC.

Standards:

The following standards and rules shall be applicable:

1) IS: 732 : Code of Practice for Electrical Wiring installation (System voltage not exceeding 650 V)

2) IS: 1646 : Code of Practice for fire safety of buildings

(General Electrical installation (Part II).

3) IS: 9537 : Rigid steel conducts for Electrical wiring (Part II)

4) IS: 2667 : Fittings for rigid steel conducts for Electrical

Wiring.

5) IS: 3480 : Flexible steel conduits for Electrical Wiring.

6) IS: 3837 : Accessories for rigid steel conduit for Electrical

Wiring.

7) IS: 694 : PVC insulated cables.

8) IS: 9537 : Rigid non-metallic conduits for Electrical Wiring.

9) IS: 6946 : Flexible (pliable) non-metallic conduits for

Electrical Wiring.

10) IS: 1293 : 3 – Pin plugs and sockets.

11) IS: 8130 : Conductors for insulated electric cables and

flexible cods.

12) IS: 5133 : For switch boxes and other conduit accessories.

13) Indian Electricity Act 1910 and Amendments issued thereunder.

14) Regulations for the electrical equipment in buildings issued by the Mumbai Regional

Council of Insurance Association of India.

15) NEC.

Rigid and Flexible conduits.

All conduits shall be heavy gauge black enamelled mild steel or galvanised steel or as specified in schedule of works. Conduits shall be with ISI mark.

Flexible conduits shall be formed from a conditions length of spirally wound inter locked strip steel with a fused zinc coating on both sides. The conduit shall be terminated in brass adaptors.

Accessories:

Conduit fittings such as bends, elbows, reducers, chase, nipples, split couplings, plug, etc., shall be specifically designed and manufactured for their particular application. All conduit fittings shall conform to IS: 2667 – 1964 and IS: 3887 – 1966. Conduit bends and elbows shall not be used. Instead, wherever bending is required, the conduit shall be properly bent using thebending machine. Only in unavoidable conditions, use of bends and elbows may be permitted.

Cast iron round junction boxes used for light and fan points shall be normally 75 mm. deep in case of slabs and 50 mm. deep in case of walls. Bottom of the junction boxes shall be flush with wall / bottom of the slab. The fabricated junction boxes shall be 1.60 mm. thick and of suitable

dimension and minimum 75 mm. deep. Other dimensions shall be as per IS:5133. These boxes may be used for light / bell point in walls. Theses boxes shall be galvanised M.S. boxes. Checknuts shall be used on either side of the box for conduits. At conduit entry, bushes shall be provided to avoid cutting of insulation of wires.

Notes of Concealed Conduiting:

- 1) Routing of concealed conduits Location of conduit drop or rise in walls, location of junction boxes, vertical surface conduit runs in shafts etc. Wherever shown on the drawing is schematic only. Adjustments / Re-routing of the same shall be carried out by the Contractor to suit layout of lighting fixtures, ceiling fans, receptacles, telephone outlets, TV outlets room switch boards etc., shown on relevant drawings and to suit site conditions.
- 2) Passing of embedded conduit through columns for any reason whatsoever is totally prohibited, except in any of the really unavoidable situation, where Structural Consultants express permission in wiring will be a must before so doing.
- 3) Cross over of embedded conduit in slab, except at locations unavoidable should not be done, in case of cross-over of conduits where it is a must, the contractor shall obtain the specific permission for the location of cross-overs from the Consultant prior to concerning the slab.
- 4) Conduits droppers in columns shall not be permitted.
- 5) Concealed conduit running along the length of beam is to be avoided. Suitable conduit sleeves shall be provided in lintel beams where conduit droppers are required to be extended through such beams.
- 6) Standard typical details shall be referred for concealed conduit routing through sunk slab through staircase, walls, etc., and for provision of junction boxes, wherever required.
- 7) Conduit routing at Lift Machine Rooms and at Lift Wells shall be installed in consulation with Elevator Contractor.
- 8) The Contractor shall select the routes of surface conduiting in such a way that embedded conduits laid during civil works need not be punctured. In case embedded conduits get damaged, it shall be the responsibility of the Contractor to rectify the defective work at his own cost.
- 9) All conduit shall be of 25 mm. nominal bore except specified otherwise.
- 10) Bending radius of concealed conduit shall not be less than ten times the outside diameter of the conduit. Maximum distance between two junction boxes shall not be more than four meters.
- 11) Cast iron junction box for fan hooks shall be at appropriate location so as to avoid interference.
- 12) Conduit sleeves with threaded projections (50 mm.) shall be provided at suitable locations in Auxillary Beams, Lintel Beams to facilitate extension of conduits in walls.

- 13) Junction boxes, conduits etc., shall be suitably tied to reinforcing bars in slabs to avoid displacement and misalignment. Minimum 25 mm. thick concrete cover around conduit / junction box shall be ensured.
- 14) To facilities pulling of wires / cables, pull-out wires shall be provided in each length of conduit to be concealed. Also all open faces of junction boxes and open ends of conduits shall be suitably plugged or covered by the Contractor with care to avoid ingress of stones / sand / concrete mix etc. into junction boxes / conduits during pouring of concrete. Similar care must be taken at the locations where couplers etc., are used for extension of conduit.
- 15) During civil works, Contractor shall arrange to provide conduit sleeves (of adequate size and adequate in number) at ceiling level or walls for the passage of surface conduits so as to avoid routing of conduits along the beam contours at a later stage. Co-ordination in this regard shall be Contractor's responsibility.
- 16) Supply and installation of 150 mm. / 250 mm. dia. Hume pipes for main power cable, for earthing conductors and for direct line telephone cables shall be in Contractors scope. These pipes shall be laid in typical standard details as directed to avoid damage to these pipes.
- 17) Two Nos. earth electrode stations shall be provided for general earthing system of the buildings to be located to suit site conditions. Distance between two earth electrode stations shall not be less than 3.5 meters and that between the outer edge of plinth protection of the building and earth electrodes shall not be less than 2.00 meters.

Wiring:

All wires shall be single core stranded copper PVC insulated to IS: 694 and shall be 1100 V Grade. All wires including earth wire shall be terminated using crimping type ferrules or lugs. Earthing shall be of stranded copper conductor with Green or Yellow Green insulation of 440 V Grade with ISI Mark.

All wires shall be colour coded as follows:

	<u>Phase</u>		Colour of Wires
	R		Red
	Υ		Yellow
	В		Blue
	Ν		Black
Earth	Green (insulated)	(if any)	Grey.

All wires shall be with ISI Mark.

<u>Installation</u>:

All works shall be carried out as per National Electrical Code. The size of conduits shall selected in accordance with the number of wires permitted table given below:

Note: Even though 20 mm. dia. conduit is indicated in the table.

Contractor has to use minimum size of the conduit of 25 mm. dia. unless otherwise indicated. Size of wires shall be not less than 1.5 sq.mm.

Nominal C	Cross	20 mm.	25 mm.	32 mm.	40 mm.	No. of Strands Dia. in
Section & Area	a					mm.
(Sq.mm.) of w	ire.					
1.50		6	10	14		3/0.80
2.50		5	10	14		3/1.04
4.00		3	6	10	14	7/0.85
6.00		2	5	9	11	7/0.04
10.00			4	7	9	7/1.35
16.00			2	4	5	7/1.70

The above table is applicable for both straight as well as deviated runs.

Conduits shall be kept at a minimum of 100 mm. from the pipes of other Services such as T.V., Telephones etc., Pull / Junction Boxes shall be provided for straight conduit runs of more than 10 meters and also for deviated runs with more than 3 Nos. of 90 bends.

Separate conduits / raceways shall be used for

- 1) Normal lights, and 5 A 3 pin sockets on lighting circuits.
- 2) Power outlets: 15 A 3, 20/A 30 A 2 pin + scraping earth metal clad socket.
- 3) Separate conduit runs shall be used for incoming and outgoing circuits. 4) Wires of various circuits but of different phases.

Conduits runs in the slab shall be properly laid, fixed to the reinforcement bars, before concerning of the slab all conduit entries shall be properly blocked or sealed to avoid ingress of concrete slurry.

For vertical conduits drops in the wall proper chasing shall be carried out and conduit laid and fixed, chase restoration shall be done after installing the 24 SWG G.I. wiremesh over the chase and after which plastering shall be carried out to give a neat smooth finish.

As far as possible horizontal chase in the wall shall be avoided. If unavoidable, it shall not exceed 300 mm.

All final branch circuits for lighting and appliances shall be single core stranded copper conductor cable run inside conduits. The conduits shall be properly threaded and screwed into sockets junction boxes etc. or fixed properly, using epoxy soin, in case of PVC pipe. The exposed threading shall be given a coat of rust inhibiting chemical / paint.

Branch circuit conductor sizes shall be as shown in schedule of quantities and / or drawings.

Final branch circuits shall preferably be kept in a separate conduit uptocct. Branch distribution boards. No other wiring shall be bunched in the conduit except those belonging to the same phase. Each lighting branch circuit shall not having more than ten (10) outlets or 800 watts whichever is lower.

Flexible cords for connections to appliance, fans and pendants shall be 650 / 1100 V Grade (three or four cores i.e. with insulated neutral and earth wires of the same size) with stranded copper wires insulated twisted and sheathed. Colour of the sheath shall be subject to Architect's approval.

Looping system of wiring shall be used. Wires shall not be jointed. Where joints are unavoidable they shall be made through approved mechanical connection. Earth wire shall be provided fir all light, fan, bell and socket points, control switches having marking for light or fan as required shall be connected in the phase conductors only and shall be ON when knob is down. Unless otherwise stated, switches shall be fixed in 3 mm. white colourHylam sheet on M.S. Boxes with cover plate as specified. Chromium plated brass screws shall be used. M.S. switch boxes for switch board shall be of sufficient dimensions to accommodate required no. of choke type fan regulators for flush mounting or electronics regulators as the case may be.

M.S. Boxes shall be fabricated from 1.6 mm. thick M.S. sheet and shall be galvanized. Switch boards accommodating 3 or more than 3 switches shall be provided with slide-in fuse holder of 10 Amps. Rating and proper rating fuse-wire.

Power wiring shall be distinctly separate from lighting circuit, M.S. conduits not less than 2.5 mm. and wires not less than 2.5 sq.mm. shall be used for power wiring. Wire size for circuits will be as per schedule of quantity.

Testing:

The entire installation shall be tested for:

- A) Insulation resistance.
- B) Earth continuity.
- C) Polarity of single pole switches.

A test certificate shall be submitted in the Format, in triplicate as required / specified by the Electric Supply Company / M.S.E.B.

Point wiring rates shall include, but not limited to supply and installation of the following items.

PVC heavy gauge or M.S. conduiting embedded CONCEALED type or exposed SURFACE type as called for, branch and sub-circuit wiring with all items such as fabricated junction boxes, conduit fittings and accessories such as couplers, bends, tees, nipples, spacers, saddles, pull-out wires (2 mm. G.I. Wire), hardware, ceiling fan boxes to be embedded in the ceiling etc. Supports for exposed surface conduits shall be at an interval of 750 mm. for vertical run and at the interval of 450 mm. for horizontal run.

Recessed type M.S. covers as specified for various items such as room switch boards, receptacle board or light switch board etc. Housing with knock outs shall be tailor made or as specified to accommodate all switches, sockets, outlets, fan regulators, etc., as necessary for a particular location.

PVC insulated, unsheathed, stranded copper wires for phase, neutral and earth for branch circuits, for sub-circuits and for point wiring, cable, / wire upto lamp holder.

SP or DP or TPN / MCBs / ELCBs individual switches and accessories.

All consumables such as insulation tape, hardware, pipe sleeves and any other item not specified but required for completion of point wiring.

All work in complete wiring of a switch circuit of any length from the D.B. to the following via the switch board.

- 1) 3 Plate ceiling rose.
- 2) Connector.
- 3) Blank Plate.
- 4) Socket.
- 5) Lamp holder Angle / Straight.
- 6) Fan boxes, hooks.
- 7) Any other terminal outlet.

All metal boards and boxes sunk or surface mounted.

Supply and installation of this item of work shall comply with all above requirements in co-ordination with the construction of civil works for provision of sleeves in walls / beams / slab and for laying embedded junction boxes / inspection boxes / pull out boxes / pull out wire etc. as required.

Earthing:

Scope:

This item of work is required for providing the earth-pits for electrical power network and also for lighting protection network. Earth pits for power network and lighting protection network shall be separate from each other without any interconnection. However, all Earth pits for power supply shall be interconnected with each other through buried earth conductors, similarly all earth pits for lighting protection shall be connected with each other through buried earth conductors. Spike earthing for St. Light poles is also covered. Each down common conductor of lighting protection network shall be terminated to a separate earth electrode pit through testlink.

Standards:

The following Standards and rules shall be applicable

- 1) IS: 3043 1987 Code of Practice for earthing.
- 2) Indian Electricity Act and Rules Electric Supply Co.'s Rules. 3) NEC.
- 4) IS: 2309 Protection of building and allied structures against lighting.

All codes and standards mean the latest. Where not specified otherwise, the installation shall generally follow the Indian Standard Code of Practice. In the absence of Indian Standards, the relevant British Standard Codes shall be followed.

General Requirements:

- 1) The earthing shall generally carried out in accordance with the requirements of I.E. Rules as amended from time to time and relevant regulations of B.E.S.T / Electric Supply Company, If Rules No. 32, 51, 61, 62, 67, 69, 88(2) and 90 are particularly applicable.
- 2) All earth connections shall be carefully made visible for inspection and testing of individual earth electrode shall be possible.
- 3) The earthing electrode shall be away at a minimum distance of 2 mt. From the outer surface of plinth protection / Diaphragm wall in case of basements. A minimum clearance of twice the depth of electrode shall be maintained between two earth stations. Wherever adequate distance cannot be maintained due to site constraints. The decision of the Architect / Consultant will be final and binding.

- 4) A brick masonry chamber cement plastered from both inside and outside shall be provided on the top of the each earth station to house the funnel for watering and the earth connection. The size of this chamber will be 300 mm. x 300 mm. deep. The
 - chamber will be provided with a lockable cast iron cover hinged to the C.I. frame embedded in the top portion of the masonry wall, by providing spikes for grouting. Lock with key shall be supplied for each pit. The top of the masonry chamber shall be 50 mm. above the surrounding G.L.
- 5) The earth conductor from electrode shall be taken out of the masonry chamber through a protecting pipe embedded in the masonry laid atleast 250 mm. below the ground level.
- 6) Earthing system shall be mechanically robust and the joints shall be capable of retaining low resistance even after passage of fault currents / strockes.
- 7) Joints shall be welded / soldered / tinned and double rivetted. All the joints shall be mechanically, electrically continuous and effective, joints shall be protected against corrosion by giving suitable treatment duly approved by Architect.
- 8) Contractor shall use the layout drawing issued by the Architect / Consultant for guidance only. He shall submit working drawings for approval of the Architect prior to execution of the work. He will thereafter submit as built drawings for conductor route showing locations of earth pits etc., for final records and reference alter executing the work.
- 9) Contractor shall use the schematic layout drawings for the quantity and route of the conductor issued by Architect / Consultant for guidance only. He shall work out the exact quantity of earth conductors with its associated accessories required for the job.

Earth Electrodes:

- 1) The materials of earth electrode and earth conductors shall be galvanised iron unless specified otherwise in the bill if quantities, specifications or drawings.
- 2) The earth electrode shall be free from paint, enamel, grease etc.
- 3) The earth electrode shall be embedded as far as possible in the moist soil and below permanent moist level.
- 4) Earth electrode shall not be installed in the proximity of a metal fence.

Types of Earth Electrodes:

The earth electrode shall be either a pipe electrode or plat electrode, as detailed in schedule of quantities. Plate electrodes shall be used for sub-stations and large medium voltage network and pipe electrodes for small medium voltage network and installations.

Pipe Electrode:

- 1) Pipe Electrode shall consist of 2.50 meter long single piece heavy duty G.I. pipe of minimum 40 mm. N.B. and shall be cut tapered at the bottom. 12 mm. dia. holes in a staggered manner shall be frilled on the pipe as per IS: 3034.
- 2) This Electrode shall be buried vertically in a specially prepared earth pit of size 30 cm. x 30 cm. and the earth pit shall be filled with alternate layers of charcoal, salt and fine washed sand with a minimum thickness of 150 mm. for each layer. A funnel with wiremesh inside shall be fixed to the top of G.I. pipe for watering purpose.
- 3) The earth conductor of 50 mm. x 6 mm. G.I. strips shall be connected to the electrode just below the funnel with proper terminal lugs, check nuts the other end of this 50 mm. x 6 mm. strip shall be terminated through a removable test-link, on the earth bus at meter room. Test link is to be provided in masonry chamber.
- 4) Details of chamber etc., have been already give below.

Plate Electrode:

- 1) The plate electrode shall consist of G.I. Plate of size 600 mm. x 600 mm. x 6.3 mm. as per B.O.Q. or drawings.
- 2) The electrode plate shall be buried vertically in a specially prepared earth pit which shall be dug up 2.50 M. deep from the ground level. The earth plate shall be placed in the earth pit with its faces vertical and embedded in the alternate layers of coal fine washed sand and salt with a minimum thickness of 1.50 mm.
- 3) The earth conductor of 50 mm. x 6 mm. G.I. strip shall be connected to the earth electrode plate with terminal lugs, the other end of this 50 mm. x 6 mm. G.I. strip shall be terminated through a removable test link provided in the masonry chamber, on the earth bus at meter room.
- 4) A 20 mm. G.I. pipe heavy gauge, shall be provided from the masonry chamber upto the top earth late for watering purpose. The G.I. pipe shall be provided with a funnel having wiremesh inside for watering.
- 5) Details of masonry chamber etc. have been already give above.

<u>Simple Pipe Electrode for earthing individual Street Light Poles etc. with chamber</u>:

- 1) Pipe Electrode shall consist of 2.50 meter long single piece heavy duty G.I. pipe of minimum 40 mm. N.B. and shall be cut tapered at the bottom. 12 mm. dia. holes in a staggered manner shall be frilled on the pipe as per IS: 3034.
- 2) This Electrode shall be buried vertically in a specially prepared earth pit of size 300 mm. x 300 mm. and 3 M. deep. The pit shall be filled with alternate layers of salt, charcoal, salt and fine washed sand, with a minimum thickness of 150 mm. for each layer.
- 3) The earth conductor of 25 mm. x 5 mm. G.I. strips shall be connected to the electrode just below the top with G.I. nuts and bolts and spring and flat washers with check-nuts. Other end of this earth strip shall be connected to the equipment to be earthed using suitable lugs for termination at both ends, etc.

Sub-Station Earthing:

In case of Sub-Stations, large installations and wherever specified earth electrode shall be 600 mm. x 600 mm. x 3.15 mm. copper plate. The earth lead shall be connected to earth plate, using termination lugs and brass nuts, bolts and washers, masonry chamber details being as given above, including heavy duty 40 N.B. G.I. Pipe, funnel for watering etc.

Earth leads and connections:

Earth lead shall be either bare copper or aluminum or galvanized steel as specified with sizes in the B.O.Q. Copper lead shall have a phosphor content of not over 0.15% aluminum and galvanized steel buried in ground shall be protected with bitumen and hessian wrap or polythene faced hessian and bitumen coating. At road crossings necessary hume pipes shall be laid. Earth lead run on surface of wall or ceilings, columns, beams etc., using G.I. spacers of minimum 6 mm. thick and saddles. The complete earthing system shall be mechanically and electrically continuous and robust and should provide an independent return path to the earthing source.

Testing of Earth-Stations / Pits:

After the erection of Earth-Stations is complete, Contractor should arrange for an earth-tester, carry out earth-resistance test (- average of 4 – readings -) in the presence of the Clients representative and records the results.

For substation earth-stations, the resistance of each earth station should not exceed 0.5 ohms.

For other earth-station, it shall be less than 0.2 ohms.

In case of higher resistance values, either the electrode shall be driven of more depth or to construct additional earth-pit assesblies at a distance minimum three meter apart to achieve the combined resistance less than or equal to the desired results as stated above.

Sizes of the G.I. Strips to be used:

- 1) 50 mm. x 6 mm. G.I. earth strip shall be used for connecting the earth-bus at meter room / meter box of chamber to be earth electrode pit.
- 2) 40 mm. x 6 mm. G.I. strip shall be used for interconnection of earth pits by directly buried underground system to a minimum depth of 600 mm. to form an earth grid.
- 3) 20 mm. x 3 mm. G.I. earth strip shall be used for connections between earth-bus and S.F. / M.C.B. / M.C.B. / E.L.C.B. units at meter room. Two pole units shall be connected with one such earth strip and three or four pole units shall be connected by two such earth strips.
- 4) 32 mm. x 6 mm. G.I. strip shall be used for horizontal air-termination network at terrace / roof level and for down covers to bond with earth-electrode pit through test-link.
- 5) The overlapping of strips at joints where necessary, shall be 75 mm. (minimum). The joints will be double riveted and then welded and painted with silver paint.

Equipment Earthing:

All apparatus and equipment transmitting or utilizing electric power shall be earthed in the following manner. Copper earth wires / strips shall be used where specified in B.O.Q.

1) Power transmission apparatus:

a) Metallic conduits shall not be accepted as an earth continuity conductor. A separate insulated earth continuity conductor or bar of the size 50% of the size of the phase conductor subject to the maximum as given below shall be provided.

<u>Copper</u> <u>Galvanized Iron</u>

Minimum 2.5 Sq.mm. 6 Sq.m.. Minimum 6.5 Sq.mm. 200 Sq.m..

The earth continuity conductor may be drawn inside the conduit in which case it should be insulated.

- b) Armour of the cables shall be earthed by two distinct earth connections at both the ends to the armouring, the size of the connection being as for the metallic conduit.
- c) In case of unarmoured cable, an earth continuity conductor shall either be run outside along the cable or should form a separate core of the cable.
- d) 3 phase power panels and distribution boards shall have two distinct earth connections of the size co-related to the incoming cable size. In case of single phase D.B.'s and isolating switches 1 earth connection and in case of 3 phase, two distinct earth connections shall be provided, sizes being co-related to the sizes of incoming cables.

Testing:

The following earth resistance shall be measured with an approved earth-tester and recorded.

- 1) Earth resistance of each earth station.
- 2) Earthing system as a whole.
- 3) Earth continuity conductors.

Prohibited Connections:

Use of following as earth conductor is strictly prohibited for earthing an installation or ever as a link in the earthing system.

Neutral conductor, sprinkler pipes, gas pipes, water pipes, structural steel work, metallic enclosures or armour of cables and conductors, metallic conduits lighting protection system conductors are all prohibited to be used earth conductor.

Mode of measurement – as per schedule of quantity. However, the cost of earthing the following items shall become part of the item itself and no separate payment / rate of earthing these items shall be made.

- a) Motors earthing forming part of cabling / wiring for the motors.
- b) Isolating switches and starters shall form part of mounting frame, switch starter etc.

- c) Fan lightings, Exhaust fan fittings Light fittings These shall form part of installation of these fittings only.
- d) Conduit wiring cabling shall form part of the wiring or cabling.
- e) Street Lighting should form that of the street light pole.

External Lighting:

The scope of the work covered the supply, installation and testing and commissioning of lighting poles, wiring to the fixtures, cable laying as specified and shown on drawings / B.O.Q. etc. All work shall be carried out as per NEC.

Standards:

The following standards and rules shall be applicable:

1) IS: 1913 – 1969 : General and safety requirements for light fittings.

2) IS: 1944 – 1981 : Code of Practice for Lighting Public through fares.

3) IS: 3528 – 1966 : Water Proof Electric Lighting fitting.

4) IS: 2713 – 1978 : Swaged type tubular poles.

5) IS: 2149 – 1970 : Luminaries for street lighting.

650 V.

6) Indian Electricity Act & Rules.

7) N.E.C.

All codes and standards mean the latest. Where not specified otherwise, the installation shall generally follow the Indian Standards Codes of Practice or the British Standard Codes of Practice in the absence of Indian Standards.

Lighting Poles:

The lighting poles shall be fabricated from heavy duty cold rolled street tubes to IS:2713 and hot dip galvanized of painted as specified. The pole shall have M.S. base plate and Junction Box a large access panel shall provide easy access to multiway porcelain connector and fuse board to be mounted inside the Junction Box. The access shall be specially fabricated with adequate reinforcement and weather gasket to prevent ingress of moisture and vermin proofed. Poles shall have large diameter entries for incoming and outgoing cables and two earth studs. The contractor shall make a drawing and have it approved before fabricated.

Cable Laying:

Cable shall be generally laid as specified in section "Cabling" cable shall be terminated in a 4way terminal block inside the pole of attached therewith. Contractor shall mark out the cable route and got it approved before laying the cables.

Earthing:

All street lighting fixtures and poles shall be earth as specified under section "Earthing" **Mode of Measurement**:

Each light fitting with lamp, control gear, earthing etc., shall be considered as one unit for measurement and payment. Each lighting pole, concreting, coping, base plate, earthing etc., shall be considered as one unit for measurement and payment. Wiring from terminal block to the light fitting shall be considered as one unit for measurement and payment. All cabling work shall be measured on the basis of unit length for supply and installation. The excavation and backfilling of cable trench, cable-termination in Junction Boxes or Terminal Box of the pole etc., shall not be measured separately.

Power Panel Boards:

The salient features of construction of power panel boards shall be as follows:

- 1) Construction: Totally enclosed, dust and vermin proof conforming to IP-54 of IS:2147, free standing, floor mounting, single front compartment, cubicle extensible type at both ends.
- 2) Welded shall be fabricated with shipping sections bolted together. All such joints to be gaskets. Lifting lugs shall be provided.
- 3) Panel shall be fabricated out of CRCA Sheets 1.6 mm. thick for front and rear doors and cover. Bottom and top of the panel for cable glands and component, mounting plates shall be fabricated out of 2 mm. thick CRCA Sheets. Frame work 2 mm. thick.
- 4) All doors to be hinged type except bus-bar chamber which shall be bolted type. Panel shall be flush door design suitable for access from front.
- 5) Fabricated panel shall undergo seven tank process and two coats of primer before giving Epoxy resin paint finish. Final colour shall be Shade No. 631 of IS:5. No welding or drilling shall be done on the panel after final painting.
- 6) Vertical bus-bars will be red from main horizontal bus-bars located at top. Panel compartment, bus-bar chamber and cable alley will be operated from, front. Depth of MCCB panel shall be 1000 mm. and the width of it shall be 7000 mm. The depth of the other section shall be minimum 500 mm. and width shall be 500 mm. vertical bus-bar chamber and cable alley width shall be 300 mm. Height of earth bus-bar chamber at the bottom shall not be less than 150 mm. Total height of the panel shall not exceed 2400 mm. Foundation channel shall be provided at the bottom and shall be of type MC 1000.
- 7) Bus-bars shall be electrolytic grade aluminum suitable for the current capacity as per BOQ and shall be supported by high quality FRP insulator of SMC type, to withstand short circuit of 500 KA at 415 Volts. Bus-bars shall be provided with heat shrinkable PVC sleeving with R, Y, B and neutral colour coding for identification. All bus-bar connections (huts and bolts) shall be accessible so that they can be checked with normal tools.
- 8) In a blank compartment provided at the bottom, G.I. earth bus-bar of 50 mm. x 6 mm. run through entire length shall be provided and project outside in vertical. Formation with facility for connection earth strip at either terminals on opposite sides to connect external earth conductor. All accessible live terminals / portion of components shall be provided with shrouds.

- 9) Separate compartment shall be provided for each three phase feeder. Each feeder compartment shall be provided with three pilot lamps with red lens on each for indication of power supply.
- 10) Indicating lamps shall be panel mounting type with filament or Neon lamps. Filament type lamps shall be provided with series resistors to prevent short circuiting of control supplies on fusing of lamps filaments. The lens shall be easily replaceable from the front.

11) Indication Instruments and Meters:

These shall be provided as per BOQ and shall be 96 mm. square size suitable for flush mounting and zero adjustment from outside. All meters except KWN meter shall be AE make. KWN meter shall be GEC / IMP make.

- 12) Current transformers shall be bar primary cast type or dry type, and shall have short-circuit-time withstand rating equal to that of associated switchgear for 1 sec.
- 13) <u>Push Buttons</u>: The push buttons shall be of the momentary contract to actuate for 10 Amp. At 240 V AC and 2200 V.D.C., provided with integral inscription plates engraved with their functions. They shall have required "NO' ass "NC" contacts. Only "Siemens" or E.E. Push Buttons shall be used.
- 14) All HRC switch Fuse Units, Contactors, single phase preventive and O/L relays, indicating lamps will be only "Siemens", "English Electric" or "Havells" Brands only.

15) Control and Selector Switches:

The control switches and selector switches shall be of rotary type having enclosed contacts, adequately rated for application but with a minimum rating of 10 Amps, at 2400 V AC and at 220 V.D.C. the plats shall have clear position markings, control switches shall have momentary contacts, spring return to centre, with pistol grip handles, instrument and selector switches shall have stay-out contacts with oval knuried handles.

- 16) <u>Name Plates</u>: Main name plate shall be fixed at the top centre, name plate giving feeder details shall be provided and are to be fixed by screws. All labels / name plates shall be black plastic with white engravings of letters or minimum 6 mm. size.
- 17) <u>Internal Wiring</u>: All internal power wiring shall be done either stranded PVC Copper wire 2.5 sq.mm. size 1000 V Grade or strips of insulated copper conductor of adequate size.

Small wiring for control circuit shall be done with stranded Copper wire PVC conductor 1100 V Grade

Each end of control cable shall be provided with identification Ferrules Yellow in colour with black letters.

All wiring shall be terminated on stud type terminal blocks through crimping sockets. Not more than 2 connection shall be made on any one terminal block. All spare auxiliar contacts of contactors shall be wired to terminal block.

18) **Terminal Blocks**:

Terminal blocks for power and control wiring shall be of reputed make stud type, with washers, nuts, and lock nuts, and identification mark. All adjacent terminals shall have insulating barriers. All power terminal blocks shall be rated for a minimum current of 300 Amps. Terminal blocks for controls and instrument circuit shall be rated for minimum 115 Amps., and shall be suitable to Signature and seal of the bidder

receive 100 Sq.mm. conductor. All sets of power control power terminal blocks shall be identified with engraved plastic labels, black background and white letters.

19) Cable Terminators:

Dublic compression type of brass cable glands mounted on gland plates shall be provided to receive and support all power and control cables entering the switchgear. Size of the cable gland shall be suitable for cables entering the switchgear. Cable gland shall have earthing facilities for earthing armour of the cable.

20) Tariff Advisory Committee and CPRI Tested:

The switchgear shall be approved by the TAC for fire insurance and CPRI tested for shortcircuit test and enclosures test.

21) **Tests**:

Following tests shall be performed before shipped the switchgear panels to Site:

- 1) high Voltage Test at 2.5 KV.
- 2) Insulation Resistance test before and after H.V. test, using 1000 V Meggar.
- 3) Operational Test.
- 4) Three sets of Test Certificates to be submitted.

22) Documentation:

Contractor shall arrange to get from Manufacturers and shall supply following drawings in quadruplicate for approval before starting manufacturing operations within 4 weeks from the LOI / date of order.

- a) General Agreement Drawings.
- b) Scheme and Wiring Diagram Drawings.
- c) Instructions and Service manual for all the Components.

Approval of drawings by Clients / Consultant does not relieve the contractor of the "Performance" of the panels.

After supply and installation and commissioning of the panels and switches Contractor shall submit 6 sets of the above documents of as built in panels.

23) Air-Break Switches:

For all places in this project: Metal Clad.

- 1) The air-break switches shall be of AC 23, heavy duty, quick make-quick break type as per IS: 4047.
- 2) Switches shall be capable of withstanding the mechanical and thermal stresses produced by overloads and short-circuits.
- 3) All switches of all rating shall have interlocks with the compartment doors. Switches 250 A and above shall be lockable in "OFF" position. All live parts shall shrouded. It shall be possible to intentionally defeat the interlocks if required.
- 4) Red indicating lamps shall be provided for "ON" indication.

5) Brands: Only L & T, Siemensm English Electric, Hevells, controls and switchgear brands to be used.

The switches shall have the following standards rating: 32, 63, 100, 125, 200, 250, 300, 400 and 600 Amps.

24) Fuses:

The fuses shall comply with the following:

- 1) HRC Cartridge Fuse: Link type with carriers.
- 2) Certified reputing capacity not less than 46 KA at 415 Volts A.C .as per IS: 2000.
- 3) All fuses shall have visible indication to indicate "Blown" condition.
- 4) Pressure clamp terminals for wires upto 4 sq.mm. and bolted lugs for higher ratings.
- 5) HRC Fuses:Make: E.E., L & T, Siemens, Havells.
- 6) Fuse Puller: Contractor shall supply 3 sets of Fuse Pullers.

25) Moulded case circuit breakers:

M.C.C.B.

- 1) The M.C.B.C.B.'s shall be 4 pole construction wherever specified and shall have independent Manual opening and closing mechanism of quick make, quick break type and they shall be trip free in operation. "ON", "OFF" and "TRIP" mechanism shall be clearly indicated.
- 2) They shall conform to IS: 2516.
- 3) Bolted type neutral link will be provided with T.P. M.C.C.B. only.
- 4) It shall be possible to mount accessories on the M.C.C.B's like shunt trip, U.V. release, alarm contacts etc.
- 5) The M.C.C.B.'s shall have adjustable thermal / static trip devices.

26) Contactors:

- 1) The Motor starter contactors shall be of electro-magnetic type double break, non-gravity type rated for uninterrupted duty suitable for operation under AC 3 utilization category of as per IS: 2959. The contacts shall be silver plated.
- 2) 2 Nos. and 2 NC auxiliary contacts shall be included.
- 3) The operating coils shall have Class "E" insulation of wire and shall be suitable for operation of any specified control supply systems.

27) Thermal overload Relays:

1) These shall be 3 elements, positive action, ambient, temperature compensated with a time lag and adjustable settings.

- 2) The setting range shall be selected according to the ratings of the motor.
- 3) The relay shall be self reset type / hand reset type. The reset button in case of hand reset type shall be fixed on the compartment door.
- 4) The relay shall have atleast on "NO" and one "NC" or changeover contact or as per requirements.

BILL OF QUANTITY

PREAMBLE:- TO BE READ ALONG WITH DRAWINGS.

- 1. RATES TO BE QUOTED BOTH IN FIGURES AND WORDS.
- 2. ALL PAGES TO BE SIGNED AND STAMPED BY THE TENDERER.
- THE RATE OF THE ITEMS SHALL BE APPLICABLE FOR ANY FLOOR LEVEL/ ANY NUMBER OF FLOORS, OR ANY QUANTITY.
- 4. THE SPECIFICATION OF THE ITEMS SHALL BE AS PER LATEST INDIAN STANDARD CODES UNLESS OTHERWISE SPECIFIED.
- 5. ALL MATERIALS SHALL BE AS PER APPROVED LIST AND SHOULD BE OF 1st QUALITY UNLESS OTHERWISE SPECIFIED.
- 6. THE RATES ARE INCLUSIVE OF ALL DUTIES AND TAXES OF ALL GOVERNMENT, MUNICIPAL OR ANY OTHER STATUTORY BODY APPLICABLE FROM TIME TO TIME.
- 7. RATES SHALL BE FOR ITEMS COMPLETE IN ALL RESPECTS AS PER DRAWING, INSTRUCTIONS AND APPROVAL OF THE ARCHITECT.
- 8. THE QUANTITIES ARE APPROXIMATE AND TENTATIVE WHICH MAY VARY DURING COURSE OF EXECUTION. THE RATES QUOTED AGAINST PARTICULAR ITEM SHALL NOT BE CHANGED WITH VARIATION IN QUANTITIES.
- 9. MAKING OF ANY CUTOUT / OPENING FOR ELECTRICAL / AIR CONDITIONING WIRING / FITTING IN ANY OF THE ITEM OF FALSE CEILING, PARTITIONS, PANELING MASONRY WORK ETC. AND FINISHING EDGES JAMBS / CILLS / SOFFITS OF THE OPENING SHALL NOT BE PAID EXTRA.
- 10. THE TENDERER SHALL VISIT THE SITE AND SHALL SATISFY HIMSELF AS TO CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. HE SHALL ALSO CHECK, ASCERTAIN THE LOCATIONS OF ANY EXISTING STRUCTURES OR EQUIPMENT OR ANY OTHER SITUATION WHICH MAY AFFECT THE WORK. NO EXTRA CLAIM AS A CONSEQUENCE OF IGNORANCE OR ON GROUND OF INSUFFICIENT DESCRIPTION WILL BE ALLOWED AT A LATER DATE.
- 11. THE QUOTED PRICE FOR ITEMS SHALL INCLUDE ALL ACCESSORIES, CONSUMMABLES ETC. AS REQUIRED TO MAKE THE ITEM COMPLETE IN ALL RESPECTS, COMPATIBLE WITH OTHER RELATED / ASSOCIATED ITEMS AND FULLY FUNCTIONAL.
- 12. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY ERROR, DIFFICULTY IN EXECUTION / DAMAGES INCURRED OWING TO DISCREPANCY IN DRAWINGS WHICH HAS BEEN OVERLOOKED BY HIM AND HAS NOT BEEN BROUGHT TO THE NOTICE OF THE ARCHITECT.
- 13. THERE ARE NUMBER OF ITEMS GIVEN IN THE TENDER WHERE IN BASIC RATES INCLUDING ALL TAXES EXPECTED HAS BEEN MENTIONED IN THE TENDER. THESE ITEMS SHALL BE PURCHASED BY THE CONTRACTOR FROM THE MARKET ONLY AFTER THE APPROVAL OF QUALITY AND RATES BY THE ARCHITECT.

14. ALL HIDDEN SURFACES OF BOARD / PLY / WOOD WORK TO BE PAINTED WITH ANTI BACTERIAL PAINT FROM NAV AIR INTERNATIONAL FR 881 (VIPER) (WHITE COLOUR AS PER MANUFACTURER'S SPECIFICATIONS ON WOOD / BOARD).

CONTRACTOR SHALL APPOINT TECHNICALLY QUALIFIED FULL TIME SITE SUPERVISOR TO MONITORING THE DAY TO DAY PROGRESS.

PROFORMA FOR REGISTER OF MATERIAL AT SITE ACCOUNT

Name of Work : Name of Article :

Name of Contractor: Estimated Requirement: Agreement No.: Issue Rate:

Date of	Received	Receipt	Issue	Balanc	Initials of	Initial of	Remar
Receipt	from/Issued			е	Contract	Bank's/Architect	k
'	to				or	's	
	(with Ret.					representative	
	to						
	So/Indent)						
1	2	3	4	5	6	7	8

PROFORMA FOR REGISTER OF MATERIAL AT SITE ACCOUNT

Name of Work :

Name of Contractor :

Agreement No. :

Description of Materia I	standin g from previous Bill	Deduct Qty. utilised in works measured since previous bill	outstanding & Qty. brought to site since previous bill	Engineer	e of Contract or	representative	
1	2	3	4	5	6	7	8

PROFORMA FOR HINDRANCE TO WORK

Name of Work Date of Start of work: Period of Completion: Name of Contractor: Dt. of Completion of work :

Agreement No.

0) !	 ,	-))		٠:	

S.No.	Nature of Hindrance	Date of Occurrenc e of Hindrance	Date of which Hindrance was removed	Period of which Hindrance existed	Signatu re of Site Engine er	Signature of Bank / Architects Representa tive	
1	2	3	4	5	6	7	•

PROFORMA FOR RUNNING A/C BILL

i .	Name of Contractor / Agency :	
ii.	Name of Work :	
iii.	SI.No. of this Bill	:
iv.	No. & Date of previous Bill	:
٧.	Reference to Agreement No. :	
٧i.	Date of Written order to commence	:
vii.	Date of Completion as per Agreemen	t :

S.No.	Item Description	Unit	Rate (Rs.)	As per Tender	
				Quantity	Amount (Rs.)
1	2	3	4		5

Upto Previou	ıs R.A. Bill	Up Date (Gross		Present Bill		Remarks
Quantity	Amount	Quantity	Amount	Quantity	Amount	
	(Rs.)		(Rs.)		(Rs.)	
6	5	7		8	3	9

Note: 1. If part rate is allowed force	any items, it	<u> </u>	should be indicated with
reasons for	allowing s	uch a rate. Ne	et Value since previous bill
2. If ad-hoc payment is made, it s	should be	mentioned sp	pecifically.

CERTIFICATE

The measurements on the basis of which the above entries for the Running Bill No
were made have been taken jointly on and are recorded at page:

to	of measurement book No	
Signature and	Signature and	Signature and
date of Contractor	date of Architects Representative (Seal)	date of Site Engineer
	bove mentioned measurem drawings, conditions and spe	nents has been done at the site ecifications.
Architect		Signature and date of Site Engineer

ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ONMATERIALS HELD AT SITE BY THE CONTRACTOR

S.No.	Item	Quantity	Unit	Amount	Remarks
1	2	3	4	5	6

Total	value of n	naterials at Site.					
Secui = CERT		nce @	of above val	ue -	В		
(i)		materials ment of the work and security.		•			
(ii)	for use in	materials (are on the work in congreed upon.	•	•	•	•	
			F	Dated Signature Site Engineer Preparing the b Rank	ill		
			Bar	Date signature onks Architects Architects)		me of	
			Dated Signa	ture of the Con	itractor		

TABLE - IX **MEMORANDUM FOR PAYMENT**

R/A BILL NO.

	1.	Total value of work done since previous bill (A)	R	'S				
	2.	Total amount of secured advance since Previous Bill (B)	e due			Rs		
	3.	Total amount due since Previous (C) (A+B)	Bill		Rs			
	4.	PVA on account of declaration in of Steel, Cement and other mate labour as detailed in separate steenclosed.	erials and			Rs		
	5.	Total amount due to the Contrac	ctor			Rs		
		OBJECTIONS:						
i)		Secured Advance paid in the pre	evious		Rs		R/A	
ii)		Retention money on value of worders upto date amount Rs.	rks as Rs	s		oer acc	epted t	en-
		Less already recovered		Rs.				
	В	Balance to be recovered		Rs.				
iii)		Mobilization Advance, if any						
1.		Outstanding amount interest) as on date	(principo	al	+	Rs		
2.		To be recovered in this bill	R	'S				
iii.		Any other Departmental material to be recovered as per contract,			Rs			
iv.	Т	Any other Departmental charges to be recovered if any, contract (water, power etc.) encestatement. otal Deduction as per contract (F)	close		Rs	 Rs		

Adj	ustments, if any received by Contractor i (as per statement of Contractor)		Rs
	P.V.A.		Rs
	ıl amount payable as per c pees		Rs
			ls) has been scrutinized by us after and is recommended for payment.
Date	:	_	of Architect th Seal
due 1		nents of works as required	ts has been scrutinized by me after and is recommended for payment
Date	:		nature of Owners gineer
	STATUTORY DEDUCTION	<u>i</u>	
i)	Total Amount due (E)	Rs	
ii)	Less I.T. Payable	Rs	
iii)	Less S.T. Payable	Rs	
	Net Payable	Rs	
	gures given in the Memorc		een verified and bill passed for words and figures)
Date	:		f the Premises Officer.