



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

**REPLACEMENT OF 11/0.433 KV 2X1000 KVA TRANSFORMERS AND 11 KV OIL CIRCUIT BREAKERS(OCB) PANEL WITH VACUUM CIRCUIT BREAKERS(VCB) PANEL AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (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.  
1<sup>st</sup> Floor, Local Head Office,  
Motimahal Marg, Hazratganj,  
Lucknow : 226001**

*Phone : 0522-2295315*

*E-mail : [agmpne.lholuc@sbi.co.in](mailto:agmpne.lholuc@sbi.co.in)*

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**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/BHEL make OEM (Original Equipment Manufactures ) or their authorised channel partners/Dealers (Tender Specific Authorization) for the works at details given below:

<b>1. Name of Work</b>	<b>:</b>	<b>SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (U.P.),</b>
<b>2. Estimated Cost of work</b>	<b>:</b>	<b>Rs. 1,20,82,480.00+ GST</b>
<b>3. Time allowed for completion</b>	<b>:</b>	120 Days from the date of handing over of site
<b>4. Earnest Money Deposit (EMD)</b>	<b>:</b>	Rs. 1,21,000.00(Rs. One Lac Twenty One Thousand Only) in the form of Demand Draft or Banker's Cheque in favour of AGM(P&E), State Bank of India, LHO Lucknow. <i>(to be submitted in a sealed envelope)</i> . The bidders who have already submitted their EMD in previous bid can upload the same EMD in this bid also.
<b>5. a. Security deposit</b>	<b>:</b>	5% of contract value to be held till one year
<b>b. Additional Security deposit</b>	<b>:</b>	Additional Security deposit (ASD)/Additional performance Guarantee (APG) shall be applicable if the bid price is below 7.5 % of the estimated cost put to tender. The amount of such ASD/ APG shall be the difference between 92.5 % of estimated cost put to tender and the quoted price.
<b>6. Availability of tender documents :</b>		Tender documents to be downloaded from the Bank website <a href="https://bank.sbi">https://bank.sbi</a> under the "SBI in the News> Procurement News" and GeM portal <a href="http://www.gem.gov.in">www.gem.gov.in</a> from 13.02.2025 to 16:00 Hrs on 06.03.2025.
<b>7. Date and place of Pre-Bid Meeting:</b>		15:00 Hrs on 21.02.2025 at State Bank of India, Premise & 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 through email on <a href="mailto:agmpne.lholuc@sbi.co.in">agmpne.lholuc@sbi.co.in</a> and <a href="mailto:ramji.sharan@sbi.co.in">ramji.sharan@sbi.co.in</a> one day before the pre bid meeting.
<b>8. Address at which the hard copy of</b>		Technical bid, Authorisation letter, experience certificate, Signature and seal of the bidder

<p><b>Tender fee, Technical bid and EMD of tenders are to Be submitted :</b></p>	<p>copy of Balance sheet, PAN &amp; 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 06.03.2025 by 16:00 Hrs. Contact: Ramji Sharan, Dy. Manager(Electrical)-07408403577.</p> <p>Hard copy of original EMD and Authorization certificate should be submitted at State Bank of India, Premise &amp; Estate Dept., 1st Floor, Local Head Office, Motimahar Marg, Hazratganj, Lucknow : 226001</p> <p><b><u>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.</u></b></p>
<p><b>9. Last Date &amp; Time of submission of online tender on GeM portal/Price bid:</b></p>	<p>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 06.03.2025.</p>
<p><b>10. Date and time of opening of e-tender:</b></p>	<p><b>06.03.2025 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 will qualify in Technical Bid after scrutiny)</b></p>
<p><b>11. Defects liability Period :</b></p>	<p>12 month from the date of completion</p>
<p><b>12. Validity of tender :</b></p>	<p>03(Three) month from the date of opening of pride bid of tender.</p>
<p><b>11. Liquidated Damages :</b></p>	<p>0.5% per week subject to a maximum of 5% of contract value.</p>
<p><b>13. Eligible Taxes/Deductions :</b></p>	<p>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</p>
<p><b>14. Mode of Payment :</b></p>	<p>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.</p>

<b>15. Payment Terms:</b>	70% of total cost components against delivery of Transformers, VCB panel and cables at site with necessary documents and 25% of remaining contract amount after commissioning(as per measurement), 5% will be held with us as security deposit for 1 year or will be released on submission of performance Bank Guarantee from a any scheduled /commercial Bank.
<b>16. Any additional information :</b>	The quoted rate should be inclusive of materials, labour, wages, fixtures, transportation, installation, all taxes (including GST at applicable rates), wastage's, Octroi, statutory expenses machinery, temporary works such as scaffolding, cleaning, overheads, profit, incidental charges and all related expenses to complete the work. However, statutory expenses for NOC /License fee for Electrical Inspection and UPPCL will be reimbursed upon production of receipt or Bank will deposit the same.
<b>17. Factory Inspection :</b>	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, Local Head Office, Lucknow (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**

**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. No.	Eligibility Criteria	Documents to be submitted
1.	The bidder must have valid A- Class Electrical Contractors license issued by the Directorate of Electrical Safety, Uttar Pradesh.	Submit copy of A-Class license.
2.	Bidders shall be the either Original Equipment Manufacturers (OEM) or A Bid specific authorized Channel partner/dealer of Schneider/ABB/CG Power/Siemens/Lauritz Knudsen/GE on behalf of the Principal / OEM.  <b>If OEM's authorized partner submits bid on behalf of the principal /OEM, the same partner shall not submit a bid on behalf of another principal /OEM for this tender.</b>	1. If the applicant is Manufacturer (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 (Manufacturer's Authorization Form) as per the Bank's format Annexure 3.5 should be submitted.
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.	Copy of Self certification along with location and contact details of the said service center / office to be enclosed in this regard.
4.	The average annual turnover for financial year 2021-22, 2022-23, 2023-24 should not be less than Rs. 37.0 lacs.	Submit copies of audited balance sheets/ IT returns, form 26AS for the years as documentary evidence
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	A copy of satisfactory Performance Certificate from the client mentioning the HT substation/transformer/VCB capacity and date of installation to be submitted.
6.	The firm/entity should have successfully completed similar work (HT substation/Transformer/ VCB) as detailed below in the period starting 01/02/2018.  - Three similar single work order completed works each costing not less than Rs. 49.27 lacs. or - Two similar single work order completed works each costing not less than Rs. 61.59 lacs. or - One similar single work order completed works costing not less than Rs. 98.56 lacs.	Submit following details of only those works which are required to fulfill the above work experience PQ criteria :  a) Name, address and contact nos. of client. :  b) Work order reference and details (Submit copy of work order) :  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
8.	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.**

## **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 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (U.P).**

#### **1.1 Site and its Location**

The proposed work is to be carried out at **State Bank of India, Local Head Office, Moti Mahal Marg, Hazratganj Lucknow-226001.**

#### **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 e-tendering 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

Signature and seal of the bidder



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 Earnest Money**

4.1 The tenderers are requested to submit the Earnest Money of **1,21,000.00(Rs. One Lac Twenty One Thousand 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.

4.2 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.

4.3 No interest will be paid on the EMD.

4.4 EMD of unsuccessful tenderers will be refunded/ returned within 30 days of award of Contract.

4.5 EMD of successful tenderer will be retained as a part of security deposit.

#### **5.0 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 15 days of acceptance of tender.

#### **6.0 Security Deposit**

**6.1** Besides the ISD as deposited by the contractor in the above said manner the retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. the ISD plus Retention Money shall both together not exceed 5% of the contract value. The security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects in accordance with the conditions of contract including site clearance.

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

#### **6.3 Additionally Security Deposit (ASD)/ Additional Performance Guarantee (APG)**

Additional Security deposit (ASD)/Additional performance Guarantee (APG) shall be applicable if the bid price is below 7.5 % of the estimated cost put to tender. The amount of such ASD/ APG shall be the difference between 92.5 % of estimated cost put to tender and the quoted price.

#### **7.0 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 15 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.

#### **8.0 Completion Period**

The time period allowed for completion of the project shall be **120 Days** days from the date of commencement of work or 15 days from the date of issuance of work order, whichever is earlier.

Signature and seal of the bidder

## 9.0 Validity of Tender

Tenders shall remain valid and open for acceptance for a period of 03(Three) Months 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.

### 10.0 Liquidated Damages

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

### 11.0 Rate and Prices:

11.1.1 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.

11.1.2 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.

11.1.3 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.

The tenderer should not change or modify or delete the description of the item. If any discrepancy is observed he should immediately bring to the knowledge of the Engineer/Bank.

11.1.4 Each page of the BOQ shall be signed by the authorized person and cutting or over writing shall be duly attested by him.

11.1.5 Each page shall be totaled and the grand total shall be given.

**11.1.6 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.**

**12.0** 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 and statements required to be furnished to the appropriate authorities.

To

Assistant General Manager(Premises & Estate),  
State Bank of India,  
Local Head Office,  
1st Floor, Moti Mahal Marg,  
Hazratganj,  
Lucknow - 226001

Dear Sir,

**Reg.: SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (U.P.).**

1. I/ We refer to the tender notice issued by you for SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (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..... at the respective rates quoted in the schedule of quantities.

I undertake to submit in Hard copy the tender document along with all terms & Conditions, Specifications and subsequent annexure and corrigendum's duly signed and stamped by authorized representative/ signatory on becoming L1. However we accept all the terms and conditions along with the specifications, Drawings, Layouts etc defined in the tender documents.

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:

a. Abide by and fulfill all the terms and provisions of the said conditions annexed here to,

a. Complete the works within 120 **Days** as per the work program enclosed with the tender in two or three shifts if considered necessary by the Employer/ Engineers at no extra cost to the Employer.

I/ We have deposited **an Earnest Money of 1,21,000.00(Rs. One Lac Twenty One Thousand 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.

I. If our offer is withdrawn within the validity period of acceptance by the Employer.

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.

Signature and seal of the bidder

Or

I. If the work is not commenced within 3 days after issue of work order.

I / We understand that you are not bound to accept the lowest or any tender you receive.

The names of **DIRECTORS** of our Firm are:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

Yours faithfully,

Signature .....

Designation .....

Name of Partner/ Director of the Firm, authorized to sign or name of person having power of attorney to sign the contract. (Certified true copy of power of attorney should be attached)

Signature and address of witnesses:

a. Signature .....

Name .....

Address .....

b. Signature.....

Name .....

Address .....

## FORMAT FOR AGREEMENT

This agreement made on the \_\_\_\_\_ day of \_\_\_\_\_ Two Thousand \_\_\_\_\_ BETWEEN State Bank of India a corporation constructed under the State Bank of India Act, 1955 and having its **Local Head Office at Lucknow** and many other places, (hereinafter called “the Employer”) of the one part and M/s \_\_\_\_\_ through its \_\_\_\_\_ having its registered office at \_\_\_\_\_ (hereinafter called “the Contractor”) of the other part.

WHEREAS the Employer is desirous of executing **SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS** to be carried out **at Existing Premises of State Bank of India, Local Head Office, Lucknow(U.P)** as per Schedule-I, to this agreement and has caused Drawings, Bills of Quantities and Specification describing the work to be done, prepared by engineer.

AND WHEREAS the said Drawings, the Bills of Quantities marked pages \_\_\_\_\_ to \_\_\_\_\_ (inclusive) and the Specifications as stated have been signed by or on behalf of the parties hereto:

AND WHEREAS the Contractor has agreed to execute the work upon the Conditions of Tender and the Conditions of Contract and further subject to the Special Conditions set forth in Schedule-II hereto attached (hereinafter collectively referred to as “the said Conditions”) as per the said Drawings and as described in the said Specification and included in the said Bills of Quantities for the sum of Rupees \_\_\_\_\_

NOW IT IS HEREBY AGREED AS FOLLOWS:

- In consideration of the sum of Rupees \_\_\_\_\_ to be paid at the time and in the manner set forth in the said Conditions, the Contractor shall upon and subject to the said Drawings and described in the said Specification and Bills of Quantities.
- The Employer shall pay to the Contractor the said sum of Rs. \_\_\_\_\_

\_\_\_\_\_ or such other sum as shall become payable hereunder at the times and in the manner specified hereinafter.

3. The term “The Engineers” in the said conditions shall mean if appointed or in the event of their ceasing to be Engineers 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 Engineers under this Contract shall be entitled to disregard or overrule any decision or approval or direction given or expressed by the Engineers 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 **120 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 **1,21,000.00(Rs. One Lac Twenty One Thousand 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.

OR

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 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (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 Delivered by:

Authorised Representative of Employer

Authorised Representative of Contractor

SCHEDULE I

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (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:



## GENERAL CONDITIONS OF CONTRACT

### **1.0 Definitions:**

“Contract means the documents forming the tender and the acceptance thereof and the formal agreement executed between State Bank of India (client) and the contractor, together with the documents referred therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer/ Bank and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

1.1 In the contract the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

1.1.1 ‘SBI’ shall mean State Bank of India (client) having its Corporate Centre at State Bank Bhavan, Madame Cama Road, Mumbai-400 021 and includes the client’s representatives, successors and assigns.

‘Site Engineer’ shall mean an Engineer appointed by the Bank as their representative to give instructions to the contractors.

1.1.2 ‘The Contractor’ shall mean the individual or firm or company whether incorporated or not, undertaking the works and shall include legal personal representative of such individual or the composing the firm or company and the permitted assignees of such individual or firms of company.

The expression ‘works’ or ‘work’ shall mean the permanent or temporary work described in the “Scope of work” and/ or to be executed in accordance with the contract and includes materials, apparatus, equipment, temporary supports, fittings and things of all kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the contract.

1.1.3 ‘Engineer’ shall mean the representative of the Bank’s Engineer.

1.1.4 ‘Drawings’ shall mean the drawings prepared by the Engineers and issued by the Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time. ‘Contract Value’ shall mean the value of the entire work as stipulated in the letter of acceptance of tender subject to such additions thereto or deductions there from as may be under the deductions there from as may be made under the provision herein after contained.

1.1.5 ‘Specifications’ shall mean the specifications referred to in the tender and any modifications thereof as may time to time be furnished or approved by the Engineer/ Bank Engineer “Month” means calendar month.

1.1.6 “Week” means seven consecutive days.

1.1.7 “Day” means a calendar day beginning and ending at 00 Hrs. and 24 Hrs. respectively.

### **2.0 Total Security Deposit**

Total Security Deposit comprise of

Earnest Money Deposit

Initial Security Deposit

Retention Money

#### **a) Earnest Money Deposit:**

The tenderer shall furnish EMD of 1,21,000.00(Rs. One Lac Twenty One Thousand 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 on any Scheduled Bank. No tender shall be considered unless the EMD is so deposited in the required form. No interest shall be paid on this EMD. The EMD of the unsuccessful tenderer shall be refunded after the decision to award the contract is taken without interest. The EMD shall stand absolutely forfeited if the tenderer revokes his tender at any time the period when he is required to keep his tender open acceptance by the SBI or after it is accepted by the SBI the contractor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the work within the stipulated time.

**b) Initial Security Deposit (ISD)**

The amount of ISD shall be 2% of accepted value of tender including the EMD in the form of D/D drawn on any scheduled Bank and shall be deposited within 7 days from the date of acceptance of tender.

**c) Retention Money:**

Besides the ISD as deposited by the contractor in the above said manner the retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. the ISD plus Retention Money shall both together not exceed 5% of the contract value. The security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects in accordance with the conditions of contract including site clearance.

**d) Additionally Security Deposit (ASD)/ Additional Performance Guarantee (APG)**

Additional Security deposit (ASD)/Additional performance Guarantee (APG) shall be applicable if the bid price is below 7.5 % of the estimated cost put to tender. The amount of such ASD/ APG shall be the difference between 92.5 % of estimated cost put to tender and the quoted price.

**3.0 Language**

The language in which the contract documents shall be drawn shall be in English.

**3.1 Errors, Omissions and Discrepancies**

In case of errors, omissions and/ or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications etc., the following order shall apply.

- i) Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.
- ii) Between the written or shown description or dimensions in the drawings and the correspondence one in the specification the former shall be taken as correct.
- iii) Between written description of the item in the specifications and descriptions in bills of quantities of the same item, the former shall be adopted.
- a) In case of difference between rates written in figures and words, the rate in words shall prevail.
- b) Between the duplicate / subsequent copies of the tender, the original tender shall be taken as correct.

**4.0 Scope of Work:**

The contractor shall carryout complete and maintain the said work in every respect in strictly accordance with this contract and with the directions of and to the satisfaction of the Bank/ SBI to be communicated through the Engineer/ Bank Engineer. The Engineer/ Bank Engineer 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 Engineer'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 specifications. The removal from the site of any material brought thereon by the contractor and any substitution of any other materials therefore the removal and / or re-execution of any work executed by him. The dismissal from the work of any person employed / engaged thereupon.

## **2.0 i) Letter of Acceptance:**

Within the validity period of the tender the Bank shall issue a letter of acceptance either directly or through the Engineer by registered post or otherwise depositing at the address of the contractor as given in the tender to enter into a Contract for the execution of the work as per the terms of the tender. The letter of acceptance shall constitute a binding contract between the SBI and the contractor.

## **ii) Contract Agreement:**

On receipt of intimation of the acceptance of tender from the SBI/ Engineer the successful tenderer shall be bound to implement the contract and within **fifteen days** thereof he shall sign an agreement in a non-judicial stamp paper of appropriate value.

## **6.0 Ownership of Drawings:**

All drawings, specifications and copies thereof furnished by the SBI/ SBI through its Engineers / consultants are the properties of the SBI. They are not to be used on other work.

## **7.0 Detailed Drawings and Instructions:**

The SBI/ SBI through its Engineers/ consultants shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of 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 programmer schedule indicating therein the date of start and completion of various activities on receipt of the wok order and submit the same to the SBI through the Engineer / consultant.

## **8.0 Copies of Agreement**

Two copies of agreement duly signed by both the parties with the drawings shall be handed over to the contractors.

## **9.0 Liquidated Damages:**

If the contractor fails to maintain the required progress in terms of clause 30 of GCC or to complete the work and clear the site including vacating their office on or before the contracted or extended date or completion without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the SBI on account of such breach to pay a liquidated damages at the rate of 0.5% of the contract value per week which is subject to a maximum of 5% of the contract value.

## **10.0 Materials, Appliances and Employees**

Unless or otherwise specified the contractor shall provide and pay for all materials, labour, water, power, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work. Unless or otherwise specified all materials shall be new and both workmanship and materials shall be of best quality. The contractor shall

at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Workman whose work or behavior is found to be unsatisfactory by the SBI/ SBI/ Engineer/ Bank Engineer he shall be removed from the site immediately.

#### **11.0 Permits, Laws and Regulations:**

Permits and licenses required for the execution of the work shall be obtained by the contractor at his own expenses. The contractor shall give notices and comply with regulations, laws, and ordinances rules, applicable to the contract. If the contractor observes any discrepancy between the drawings and specifications, he shall promptly notify the SBI/ SBI in writing under intimation of the Engineer/ Bank Engineer. If the contractor performs any act which is against the law, rules and regulations he shall meet all the costs arising there from and shall indemnify the SBI any legal actions arising there from.

#### **12.0 Setting out Work:**

The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the Engineer/ Bank Engineer before proceeding with the work. If at any time any error in this respect shall appear during the progress of the works, irrespective of the fact that the layout had been approved by the Engineer/ Bank Engineer the contractor shall be responsible for the same and shall at his own expenses rectify such error, if so, required to satisfaction of the SBI/ SBI.

#### **13.0 Protection of Works and Property:**

The contractor shall continuously maintain adequate protection of all his work from damage and shall protect the SBI's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss, except due to causes beyond his control and due to his fault or negligence.

He shall take adequate care and steps for protection of the adjacent properties. The contractor shall take all precautions for safety and protections of his employees on the works and shall comply with all applicable provisions of Govt. and local bodies safety laws and building codes to prevent accidents, or injuries to persons or property on, about or adjacent to his place of work. The contractor shall take insurance covers as per clause 26.0 at his own cost. The policy may take in joint names of the contractor and the SBI and the original policy may be lodged with the SBI.

#### **14.0 Inspection of Work:**

The SBI /SBI/ Engineer/ Bank Engineer or their representatives shall at all reasonable times have free access to the work site and/ or to the workshop, factories, or other places where materials are lying or from where they are obtained and the contractor shall give every facility to the SBI/ SBI, Engineer / consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorised by the SBI/ Engineer / Consultant except the representative of Public authorities shall be allowed on the work at any time. The proposed work either during its ELECTRICAL WORKS stage or its completion can also be inspected by the Chief Technical Examiner's organization a wing of Central Vigilance Commission.

#### **15.0 Assignment and Subletting**

The whole of work included in the contact shall be executed the contractor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or

share thereof or interest therein without the written consent of the SBI/ SBI through the Engineer and no undertaking shall relieve the contractor from the responsibility of the contractor from active superintendence of the work during its progress.

## **16.0 Quality of Materials, Workmanship & Test**

All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Engineer/ Bank Engineer instructions and shall be subject from time to time to such tests as the Engineer/ Bank Engineer may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor shall provide such assistance, instruments, machinery, labour, and materials as are normally required or examining measuring sampling and testing any material or part of work before incorporation in the work before incorporation in the work or testing as may be selected and required by the Engineer / Consultant.

### **ii) Samples**

All samples of adequate numbers, size, shades and pattern as per specifications shall be supplied by the contractor with out any extra charges. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site detailed literature/ test certificate of the same shall be provided to the satisfaction of the Engineer/ Bank Engineer. Before submitting the sample / literature the contractor shall satisfy himself that the material/ equipment for which he is submitting the sample/ literature meet with the requirement of tender specification. Only when the samples are approved in writing by the Engineer / consultant the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by the Engineer / Consultant for identification and shall be kept on record at site office until the completion of the work for inspection / comparison at any time. The Engineer / Consultant shall take reasonable time to approve the sample. Any delay that might occur in approving the samples for reasons of its not meeting the specifications or other discrepancies inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment etc. shall be to the account of the contractor.

### **iii) Cost of Tests**

The cost / expenditure required for the tests shall be borne by the contractor if such test is intended by or provided for in the specification or BOQ.

### **iv) Costs of Tests not provided for**

If any test is ordered by the Engineer / Consultant which is either

If so intended by or provided for or (in the cases above mentioned) is not so particularized, or though so intended or provided for but ordered by the Engineer / Consultant to be carried out by an independent person at any place other than the site or the place of manufacture or fabrication of the materials tested or any Government / approved laboratory, then the cost of such test shall be borne by the contractor.

## **17.0 Obtaining Information Related to Execution of Work**

No claim by the contractor for additional payment shall be entertained which is consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the work nor any misunderstanding or the obtaining incorrect information or the failure to obtain correct information relieve him from any risks or from the entire responsibility for the fulfillment of contract.

## **18.0 Contractor's Superintendence**

Signature and seal of the bidder

The contractor shall give necessary personal superintendence during the execution of the works and as long, thereafter, as the Engineer / consultant may consider necessary until the expiry of the defects liability period stated hereto.

## **19.0 Quantities**

- i) The Bill of Quantities (BOQ) unless or otherwise stated shall be deemed to have been prepared in accordance with the Indian Standard Method of Measurements and quantities. The rate quoted shall remain valid for variation of quantity against individual item to any extent subject to maximum variation of the contract value by 25%. The entire amount paid under Clause 20, 21 hereof as well as amounts of prime cost and provisional sums, if any, shall be excluded.

**Variation exceeding 25%:** The items of work executed in relation to variation exceeding 25% shall be paid on the basis of provisions of clause 22 (e) hereof.

## **20.0 Works to be measured**

The Engineer / Consultant may from time to time intimate to the contractor that he required the work to be measured and the contractor shall forthwith attend or send a qualified representative to assist the Engineer in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them. Such measurements shall be taken in accordance with the Mode of measurements detailed in the specifications. The representative of the Engineer / Consultant shall take joint measurements with the contractor's representative and the measurements shall be entered in the measurement book. The contractor or his authorised representative shall sign all the pages of the measurement book in which the measurements have been recorded in token of his acceptance. All the corrections shall be duly attested by both representatives. No over writings shall be made in the M book should the contractor not attend or neglect or omit to depute his representative to take measurements then the measurements recorded by the representative of the Engineer / consultant shall be final. All authorised extra work, omissions and all variations made shall be included in such measurement.

## **21.0 Variations**

No alteration, omission or variation ordered in writing by the Engineer / consultant shall vitiate the contract. In case the SBI / Engineer / Consultant thinks proper at any time during the progress of works to make any alteration in, or additions to or omissions from the works or any alteration in the kind or quality of the materials to be used therein, the Engineer / Consultant shall give notice thereof in writing to the contractor or shall confirm in writing within seven days of giving such oral instructions the contractor shall alter to, add to, or omit from as the case may be in accordance with such notice, but the contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulations, specifications or contract drawings without previous consent in writing of the Engineer / Consultant and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Engineer / Consultant and the same shall be added to or deducted from the contract value, as the case may be.

## **22.0 Valuation of Variations**

No claim for an extra shall be allowed unless it shall have been executed under the authority of the Engineer/ Bank Engineer with the concurrence of the SBI as herein mentioned. Any such extra is herein referred to as authorised extra and shall be made in accordance with the following provisions.

- a)
  - i) The net rates or prices in the contract shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the

work priced herein.

- ii) Rates for all items, wherever possible should be derived out of the rates given in the priced BOQ.
- b) The net prices of the original tender shall determine the value of the items omitted, provided if omissions do not vary the conditions under which any remaining items of works are carried out, otherwise the prices for the same shall be valued under sub-clause (c) hereunder.
- c) Where the extra works are not of similar character and /or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items or works are carried out, then the contractor shall within 7 days of the receipt of the letter of acceptance inform the Engineer / consultant of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the Engineer / Consultant shall fix such rate or prices as in the circumstances in his opinion reasonable and proper, based on the market, rate.
- d) Where extra work cannot be properly measured or valued the contractor shall be allowed day work prices at the net rates stated in the tender of the BOQ or, if not, so stated then in accordance with the local day work rates and wages for the district; provided that in either case, vouchers specifying the daily time (and if required by the Engineer / Consultant) the workman's name and materials employed be delivered for verifications to the Engineer / consultant at or before the end of the week following that in which the work has been executed.
- e) It is further clarified that for all such authorised extra items where rates cannot be derived from the tender, the Contractor shall submit rates duly supported by rate analysis worked on the market rate basis" for material, labour, hire / running charges of equipment and wastage etc. plus 15% towards establishment charges, contractor's overheads and profit. Such items shall not be eligible for escalation.

### **23.0 Final Measurement**

The final measurement, valuation and payment in respect of the contract shall be completed within six months of the virtual completion of the work.

### **24.0 Virtual Completion Certificate (VCC)**

On successful completion of entire works covered by the contract to the full satisfaction of the Engineers/ SBI/ SBI, the contractor shall ensure that the following works have been completed to the satisfaction of the Engineers / SBI/ SBI.

- a) Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour, equipment and machinery.
- b) Demolish, dismantle, and remove the contractor's site office, temporary works, structures including labour sheds/camps and ELECTRICAL WORKS and other items and things whatsoever brought upon or erected at the site or any land allotted to the contractor by the SBI and not incorporated in the permanent works.
- c) Remove all rubbish, debris etc. from the site and the land allotted to the contractor by the SBI and shall clear, level and dress, compact the site as required by the SBI.
- d) Shall put the SBI in undisputed custody and possession of the site and all land allotted by the SBI.
- e) Shall hand over the work in a peaceful manner to the SBI.
- f) All defects / imperfections have been attended and rectified as pointed out by the SBI/ SBI to the full satisfaction of SBI/ SBI.

Upon the satisfactory fulfillment by the contractor as stated above, the contractor shall be

entitled to apply to the Engineer / consultant is satisfied of the completion of the work. Relative to which the completion certificate has been sought, the Engineer / consultant shall within fourteen (14) days of the receipt of the application for virtual completion certificate, issue a VCC in respect of the work for which the VCC has been applied.

This issuance of a VCC shall be without prejudice to the SBI's rights and contractor's liabilities under the contract including the contractor's liability for defects liability period nor shall the issuance of VCC in respect of the works or work at any site be construed as a waiver of any right or claim of the SBI against the contractor in respect of works or work at the site and in respect of which the VCC has been issued.

## **25.0 Work by other Agencies**

The SBI / Engineer / Consultant reserves the rights to use premises and any portion of the site for execution of any work not included in the scope of this contract which it may desire to have carried out by other persons simultaneously and the contractor shall not only allow but also extend reasonable facilities for the execution of such work, the contractor, however, shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI/ SBI. Such work shall be carried out in such manner as not to impede the progress of the works included in the contract.

## **26.0 Insurance of Works**

26.1 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 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 Engineer / consultant the policy if insurance and the receipts for payment of the current premiums.

## **26.2 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.

### **26.3 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.

### **26.4 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 Engineer / Consultant in this behalf.

### **26.5 Third Party Insurance**

- 26.5.1** Before commencing the execution of he work the contractor but without limiting his obligations and responsibilities under clause 26.0 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 mattes referred to in the provision to clause 26.0 thereof.

#### **26.5.2 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 Engineer / consultant the policy or policies of insurance cover and receipts for payment of the current premiums.

- 26.5.3** 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.

### **26.6 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.

### **26.6.1 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 Engineer / 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 Engineer / Consultant such policy of insurance and the receipt for the payment of the current premium.

### **26.6.2 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.

### **27.0 Commencement of Works:**

The date of commencement of the work will be reckoned as the date of handing over site or 15 days from the date of issue of letter of acceptance of the tender by the SBI which ever is earlier.

### **28.0 Time for Completion**

Time is essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within a period of **120 days** from the date of commencement. If required in the contract or as directed by the Engineer / Consultant. The contractor shall complete certain portions of work before completion of the entire work. However the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the contract.

### **29.0 Extension of Time**

If, in the opinion of the Engineer/consultant, the work be delayed for reasons beyond the control of the contractor, the Engineer/consultant may submit a recommendation to the SBI/ SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond the due date of completion as stipulated in the contract, the contractor shall apply to the SBI/ SBI through the Engineer / Consultant in writing in detail and his justification if any, for the delays. The Engineer/Consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of time. While granting extension of time the contractor shall be informed the period-extended time which will qualify for levy of liquidated damages. For he balance period in excess of original stipulated period and duly sanctioned extension of time by the SBI/

SBI the provision of liquidated damages as stated under clause 10.0 of Instructions to the Tenderers shall become applicable. Further the contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

### **30.0 Rate of Progress**

Whole of the materials, plant and labour to be provided by the contractor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the Engineer / Consultant should the rate of progress of the work or any part thereof be at any time be in the opinion of the Engineer / consultant too slow to ensure the completion of the whole of the work by the prescribed time or extended time for completion the Engineer / Consultant to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the Engineer / Consultant neither shall relieve the contractor from fulfilling obligations under the contract nor will he be entitled to raise any claims arising out of such directions.

### **31.0 Work during Nights and Holidays**

Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the Engineer/ Bank Engineer, save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the contractor shall immediately advise the Engineer/ Bank Engineer. However the provisions of the clause shall not be applicable in the case of any work which becomes essential to carry by rotary or double shifts in order to achieve the progress and quality of the part of the works being technically required/ continued with the prior approval of the Engineer/ Bank Engineer at no extra cost to the SBI/ SBI.

All work at night after obtaining approval from competent authorities shall be carried out without unreasonable noise and disturbance.

### **32.0 No Compensation or Restriction of Work.**

If at any time after acceptance of work order the SBI shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any part of the work to be carried out. The Engineer/ Bank Engineer shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work fully but which he did not derive in consequence of the foreclosure of the whole or part of the work.

Provided that the contractor shall be paid the charges on the cartage only of materials actually and bona fide brought to the site of the work by the contractor and rendered surplus

as a result of the abandonment, curtailment of the work or any portion thereof and then taken back by the contractor, provided however that the Engineer/ Bank Engineer shall have in such cases the option of taking over all or any such materials at their purchase price or a local current rate whichever is less.

“In case of such stores having been issued for SBI/ SBI stores and returned by the contractor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the contractor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of Engineer/ Bank Engineer shall be final.

### **33.0 Suspension of Work**

- i) The contractor shall, on receipt of the order in writing of the Engineer/ Bank Engineer (whose decision shall be final and binding on the contractor) suspend the progress of works or any part thereof for such time and in such manner as Engineer/ Bank Engineer may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of following reasons.
  - a) One account any default on the part of the contractor, or
  - b) for proper execution of the works or part thereof for reasons other than the default of the contractor, or for safety of the works or part thereof.
  - c) The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer/ Bank Engineer.
- ii) If the suspension is ordered for reasons (b) and (c) sub-para (i) above: the contractor shall be entitled to an extension of time equal to the period of every such suspension. No compensation whatsoever shall be paid on this account.

#### **34.0 Action when the whole Security Deposit is forfeited**

In any case in which under any clause or clauses of this contract, the Contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit the Engineer / consultant shall have the power to adopt any of the following course as they may deem best suited to the interest of the SBI/ SBI.

- a) To rescind the contract (of which rescission notice in writing to the contractor by the Engineer/ Bank Engineer shall be conclusive evidence) and in which case the security deposit of the contractor shall be forfeited and be absolutely at the disposal of SBI/ SBI.
- b) To employ labour paid by the SBI and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and materials (the cost of such labour and materials as worked out by the Engineer /Consultant shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same manner and at the same rates as if it had been carried out by the contractor under the terms of this contract the certificate of Engineer/ Bank Engineer as to the value of work done shall be final and conclusive against the contractor.
- c) To measure up the work of the contractor, and to take such part thereof as shall be unexecuted, out of his hands, to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess the certificates in writing of the Engineers/ Consultant shall be final and conclusive) shall be borne by original contractor and may be deducted from any money due to him by SBI/ SBI under the contract or otherwise, or from his security deposit or the proceeds of safe thereof, or sufficient part thereof. In the event of any of above courses being adopted by the SBI/ SBI the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any material or entered into any engagements or make any advances on account of, or with a view to the execution of the work or the

performance of the contract and in case the contract shall be rescind under the provision aforesaid, the contractor shall not be entitled to recover or to be paid any sum or any work thereto for actually performed under this contract, unless, and until the Engineer/ Bank Engineer will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

### **35.0 Employer Right to Terminate the Contract**

If the contractor being an individual or a firm commit any 'Act of Insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Govt. and of the Official Assignee of the liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him to do so, to show to the reasonable satisfaction of the Engineer/ Bank Engineer that he is able to carry out and fulfil the contract, and to give security therefore if so required by the Engineer/ Bank Engineer.

Or if the contractor (whether an individual firm or incorporated Company) shall suffer execution to be issued or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor.

Or shall assign or sublet this contract without the consent in writing of the SBI/ SBI through the Engineer / consultant or shall charge or encumber this contract or any payment due to which may become due to the contractor thereunder:

- a) Has abandoned the contract; or
- b) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for days after receiving from the SBI through the Engineer/ Bank Engineer written notice to proceed, or
- c) Has failed to proceed with the works with such diligence and failed to make such due progress as would enable the works to be completed with in the time agreed upon, or has failed to remove the materials from the site or to pull down and replace work within seven days after written notice from the SBI/ SBI through the Engineer/ Bank Engineer that the said materials were condemned and rejected out rightly by the Engineer/ Bank Engineer under these conditions; or has neglected or failed persistently to observe and perform all or any the acts, matters or things by this contract to be observed and performed by the contractor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to be determent of good workmanship or in defiance of the SBI's or Engineer's/ Consultant's instructions to the contrary subject any part of the contract. Then and in any of said cases the SBI/ SBI and or the Engineer/ Bank Engineer, may not withstanding any previous waiver, after giving seven days notice in writing to the contractor, determine the contract, but without thereby affecting the powers of the SBI or the Engineer/ Bank Engineer or the obligation and liabilities of the contractor the whole of which shall continue in force as fully as if the contract had not been so determined and as if the works subsequently had been executed by or on behalf of the contractor. And further the SBI/ SBI through the Engineer/ Bank Engineer their agents or employees may enter upon and take possession of the work and all plants, tools, scaffoldings, materials, sheds, machineries lying upon the premises or on the adjoining lands or roads use the same by means of their own employees or workmen in carrying on and completing the work or by engaging any other contractors or persons to complete the work and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractor or other persons employed for completing and finishing or using the materials and plant for the works.

When the works shall be completed or as soon thereafter as convenient the SBI or the Engineer / consultant shall give a notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within 14 days after receipt thereof by him the SBI/ SBI sell the same by public auction after due publication, and shall adjust the amount realized by such auction. The contractor shall have no right to question any of the act of the SBI/ SBI incidental to the sale of the materials etc.

### 36.0 Certificate of Payment

The contractor shall be entitled under the certificates to be issued by the Engineer / Consultant to the contractor within 14 working days from the date of certificate to the payment from SBI/ SBI from time to time. The SBI/ SBI shall recover the statutory recoveries towards Income tax, Work contract tax as per the prevailing bye laws and other dues including the retention amount from the certificate of payment.

Provided always that the issue of any certificate by the Engineer/ Bank Engineer during the progress of works or completion shall not have effect as certificate of satisfaction or relieve the contractor from his liability under clause.

The Engineer/ Bank Engineer shall have power to withhold the certificate if the work or any part thereof is not carried out to their satisfaction.

The Engineer/ Bank Engineer may by any certificate make any corrections required in previous certificate.

The SBI/ SBI shall modify the certificate of payment as issued by the Engineer/ Bank Engineer from time to time while making the payment.

The contractor shall submit interim bills only after taking actual measurements and property recorded in the measurement books

The contractor shall not submit interim bills when the approximate value of work done by him is less than **Rs.10 lacs** shall be submitted.

The final bill may be submitted by contractor within a period of one month from the date of virtual completion and Engineer/ Bank Engineer shall issue the certificate of payment within a period of two months. The SBI shall pay the amount within a period of three months from the date of issue of certificate provided there is no dispute in respect of rates and quantities.

The contractor shall submit the interim bills in the prescribed format with all details.

### 37.0 Settlement of Disputes and Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or those conditions or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

- ii) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Engineer or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to the **AGM (P&E), SBI PREMISES & ESTATE DEPARTMENT., 1st Floor, B- Wing, Moti Mahal Marg, Lucknow-226001** and endorse a copy of the same to the Engineer, within 30 days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the Bank be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to the **AGM (P&E), SBI PREMISES & ESTATE DEPARTMENT, 1st Floor, B- Wing, Moti Mahal Marg, Lucknow-226001** in the manner and within the time as aforesaid. The

contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the *AGM (P&E), SBI PREMISES & ESTATE DEPARTMENT., 1st Floor, B-Wing, Moti Mahal Marg, Lucknow-226001* in writing in the manner and within the time aforesaid.

- iii) *AGM (P&E), SBI PREMISES & ESTATE DEPARTMENT., 1st Floor, B- Wing, Moti Mahal Marg, Lucknow-226001* shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of the *AGM (P&E) , SBI PREMISES & ESTATE DEPARTMENT, 1st Floor, B-Wing, Moti Mahal Marg, Lucknow-226001* submit his claims to the conciliation authority namely the **Circle Development Officer, SBI, Lucknow** for conciliation along with all details and copies of correspondence exchanged between him and the Regional Manager.
- iv) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned **Chief General Manager of the Bank** for appointment of an arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.
- v) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the differences arising out of the notified claims of the contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the **Chief General Manager of the Bank**, If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the **Chief General Manager of the Bank**, Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by **Chief General Manager of the Bank**, as aforesaid should act as arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under.

It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be Lucknow. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof, shall be paid and fix or settle the amount of costs to be so paid.

### **38.0 Water Supply**

The contractor shall make his own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

That the water used by the contractor shall be fit for ELECTRICAL WORKS purposes to the

satisfaction of the Engineer / Consultant.

The contractor shall make alternative arrangements for the supply of water if the arrangement made by the contractor for procurement of water in the opinion of the Engineer/ Bank Engineer is unsatisfactory.

The contractor shall construct temporary well / tube well in SBI land for taking water for ELECTRICAL WORKS purposes only after obtaining permission in writing from the SBI. The contractor has to make his own arrangement for drawing and distributing the water at his own cost. He has to make necessary arrangements. To avoid any accidents or damages caused due to ELECTRICAL WORKS and subsequent maintenance of the wells. He has to obtain necessary approvals from local authorities, if required, at his own cost. He shall restore the ground to its original conditions after wells are dismantled on completion of work or hand over the well to the SBI without any compensation as directed by the SBI/ Engineer/ Bank Engineer.

### **39.0 Power Supply**

The contractor shall make his own arrangements for power and supply / distribution system for driving plant or machinery for the work and for lighting purpose at his own cost. The cost of running and maintenance of the plants are to included in his tender prices. He shall pay all fees and charges required for the power supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approval from the appropriate authorities, if required.

### **40.0 Treasure Trove etc.**

Any treasure trove, coin or object antique which may be found on the site shall be the property of SBI and shall be handed over to Bank immediately.

### **41.0 Method of Measurement**

Unless otherwise mentioned in the schedule of quantities or in mode of measurement, the measurement will be on the net quantities or work produced in accordance with up to date. Rules laid down by the Bureau of Indian Standards. In the event any dispute / disagreement the decision of the Engineer / consultant shall be final and binding on the contractor.

### **42.0 Maintenance of Registers**

The contractor shall maintain the following registers as per the enclosed Performa at site of work and should produce the same for inspection of SBI/ SBI/ Engineer/ Bank Engineer whenever desired by them. The contractor shall also maintain the records / registers as required by the local authorities / Govt. from time to time.

- i) Register for Cement / Paint / Lead / Specific Materials
- ii) Register for Steel
- iii) Register for Secured Advance
- iv) Register for Bulkage of Sand
- v) Register for Silt Test
- vi) Register for Sieve Analysis for Fine Aggregate
- vii) Register for Sieve Analysis for Course Aggregate
- viii) Register for Slump Test.
- ix) Register for Concrete Cube Test.
- x) Register for Hindrance to Work.
- xi) Register for Consumption of Cement
- xii) Register for Running Account Bill
- xiii) Register for Labour

Signature and seal of the bidder



### **43.0 Force Majeure**

- 43.1 Neither contractor nor EMPLOYER shall be considered in default in performance of their obligations if such performance is prevented or delayed by event such as to war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of god or for any other cause beyond the reasonable control of the party affected or prevented or delayed. However a notice is required to be given within 30 days from the happening of the even with complete details, to the other party to the contract, if it is not possible to serve a notice, within the shortest possible period without delay.
- 43.2 As soon as the cause of force majeure has been removed the party whose ability to perform its obligations has been affected, shall notify the other such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.
- 43.3 From the date of occurrence of a case of force majeure obligations of the party affected shall be suspended during the continuance of any inability so caused. With the cause itself and inability resulting there from having been removed, the agreed time of completion of the respective obligations under this agreement shall stand extended by a period equal to the period of delay occasioned by such events.
- 43.4.1 Should one or both parties be prevented from fulfilling the contractual obligations by a state of force majeure lasting to a period of 6 months or more the two parties shall each other to decide regarding the future execution of this Agreement.

### **44.0 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.

- i) Minimum wages Act 1948 (Amended)
- ii) Payment of wages Act 1936 (Amended)
- iii) Workmen's compensation Act 1923 (Amended)
- iv) Contract labour regulation and abolition act 1970 and central rules 1971 (Amended)
- v) Apprentice act 1961 (Amended)
- vi) Industrial employed (standing order) Act 1946 (Amended)
- vii) Personal injuries (Compensation insurance) act 1963 and any other modifications
- viii) Employees' provided fund and miscellaneous provisions Act 1952 and amendment thereof.
- ix) Shop and establishment act
- x) Any other act or enactment relating thereto and rules framed there under from time to time.

### **45.0 Accidents**

The contractor shall immediately on occurrence of any accident at or about the site or in connection with the execution of the work report such accident to the Engineer / consultant. The contractor shall also such report immediately to the competent authority whenever such report is required to be lodged by the law and take appropriate actions thereof.

**Signature of Contractor & Seal**

## **SPECIAL CONDITIONS OF CONTRACT**

### **1.0 Scope of Work**

The scope of work is to carry out **SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) of 02 nos. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC + 2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (U.P.).**

### **2.0 Address of Site**

The site is located at **STATE BANK OF INDIA, LOCAL HEAD OFFICE, MOTI MAHAL MARG, HAZRATGANJ, LUCKNOW (U.P.).**

### **3.0 Dimension and Levels**

All dimensions and levels shown on the drawing shall be verified by the contractor on the site and he will be held responsible for the accuracy and maintenance of the entire dimension and the levels. Figured dimensions are in all cases to be accepted and no dimension shall be scaled. Large-scale details shall take precedence over small – scale drawing. In case of discrepancy the contractor shall ask for clarification from the Architect/ Bank Engineer before proceeding with the work.

### **4.0 Notice of Operation**

The contractor shall not carryout any important operation without the consent in writing from the Architect/ Bank Engineer.

### **5.0 ELECTRICAL WORKS Records**

The contractor shall keep and provide to the Bank Engineer full and accurate records of the dimension and positions of all new work and any other information necessary to prepare complete drawings recording details of the work as constructed.

### **6.0 Safety of adjacent Structures and Trees**

The contractor shall provide and erect to the approval of the Architect / Consultant such supports as may be required to protect effectively all structures and protective guards to trees which may be endangered by the execution of the works or otherwise take such permanent measures as may be required by the Architect to protect the trees and structures.

### **7.0 Temporary Works**

Before any temporary works are commenced, the contractor shall submit at least 7 days in advance to the Architect/ Bank Engineer for approval complete drawings of all temporary works he may require for the execution of the works. The contractor shall carry out the modifications relating to strength, if required by the Architect/ Bank Engineer may require in accordance with the conditions of contract at his own cost. The contractor shall be solely responsible for the stability and safety of all temporary works an unfinished works and for the quality of the permanent works resulting from the arrangement eventually adopted for their execution.

### **8.0 Temporary Roads**

The contractor shall provide access roads to the site from the nearest main road at no extra cost and as directed by the Architect/ Bank Engineer. The contractor shall also responsible for proper maintenance of this access road and would take all care to see that existing services, if

any, are maintained in working order at his own cost. The laying and maintaining the temporary roads within the site area shall be the contractor's responsibility and the contractor shall take such measures that are necessary and as directed by the Architect/ Bank Engineer.

#### **9.0 Water, Power and Other Facilities**

The rate quoted by the contractor shall include all expenses that are required for providing all the water required for the work and the contractor shall make his own arrangements for the supply of good quality water suitable for the ELECTRICAL WORKS and good quality drinking water for their workers. If necessary, the contractor has to sink a tube well / open well and bring water by means of tankers at his own cost for the purpose. The SBI/ SBI will not be liable to pay any charges in connection with the above.

The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges.

The contractors for other trades directly appointed by the SBI/ SBI shall be entitled to take power and water connections from the temporary water and power supply obtained by the contractor. However, the concerned contractor shall make their own arrangements to draw the supply and pay directly the actual consumption charges at mutually agreed rates between them. All municipal charges for drainage and water connection for ELECTRICAL WORKS purposes shall be borne by the contractor and charges payable for permanent connections, if any, shall be initially paid by the contractor and the SBI will reimburse the amount on production of receipts.

a) The SBI as well as the Architect / Consultant shall give all possible assistance to the contractors to obtain the requisite Permission from the various authorities, but the responsibility for obtaining the same in time shall be of the contractor.

#### **10.0 Office Accommodation**

- a) The contractor shall provide and maintain all necessary offices, workshops, stores, shelters, sanitary facilities, canteens and other temporary structures for themselves in connection with the work at the site own cost after getting the approval from the architect / consultant.
- b) All temporary buildings and facilities as mentioned above shall be removed on completion of the work or at any other earlier date as directed by the architect / consultant.

All the expenses for obtaining statutory approvals and maintenance of the above facilities as well as running expense shall be borne by the contractor at no extra cost. It is also the responsibility of the contractor to obtain statutory approvals for providing the above facilities.

#### **11.0 Facilities for Contractors' Employees**

The contractor shall make his own arrangement for the housing and welfare of his staff and workmen including adequate drinking water facilities. The contractor shall also make his arrangements at his own cost for transport where necessary for his staff and workmen to and from site of work at his own cost.

#### **12.0 Lighting of Works**

The contractor shall at all times provide adequate and approved lighting as required for the proper execution and supervision and inspection of works.

#### **13.0 Fire Fighting Arrangements**

- i) The contractor shall at all times provide suitable arrangements for the fighting at his own cost. For this purpose he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are of be always kept filed with sand and some with water. These

equipment shall be provided at suitable prominent and easily accessible places and shall be properly maintained.

- ii) Any deficiency in the fire safety or unsafe conditions shall be corrected by the contractor at his own cost and to the approval of the relevant authorities. The contractor shall make the following arrangements at his own cost but not limited to the following :
- a) Proper handling, storage and disposal of combustible materials and waste.
  - b) Worked operations which can create fire hazards.
  - c) Access for the firefighting equipment's.
  - d) Types, number and location of containers for the removal of surplus materials and rubbish.
  - e) Type size, number and location of fire extinguishers or other fire fighting equipment.
  - f) General house keeping.

#### **14.0 Site Order Book**

A site order book shall be maintained at site for the purpose of quick communication between the Architect/ Bank Engineer. Any communication relating to the works may be conveyed through Records in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract. Each site order book shall have machine numbered pages in triplicate and shall carefully maintained and preserved by the contractor and shall be made available to the Architect/ Bank Engineer as and when demanded. Any instruction which the Architect/ Bank Engineer may like to issue to the contractor or the contractor may like to bring the Architect/ Bank Engineer may like to issue to the Contractor or the Contractor may like to bring to the Architect/ Bank Engineer two copies of such instructions shall be taken from the site order book and one copy will be handed over to the party against proper acknowledgment and the second copy will be retained for their record.

#### **15.0 Site Meetings**

Site meetings will be held to review the progress and quality evaluation. The contractors shall depute a senior representative along with the site representative staff of approved sub-contractors and suppliers as required to the site meetings and ensure all follow up actions. Any additional review meetings shall be held if required by the Architect/ Bank Engineer.

#### **16.0 Disposal of Refuse**

The contractor shall cart away all debris, refuse etc. arising from the work from the site and deposit the same as directed by the Architect/ Bank Engineer at his own cost. It is the responsibility of the contractor to obtain from the local authorities concerned to the effect that all rubbish arising out of contractor's activities at the ELECTRICAL WORKS site or any other off-site activities borrow pits has been properly disposed off.

#### **17.0 Contractor to Verify Site Measurement**

The contractor shall check and verify all site measurements whenever requested by other specialists contractors of other sub contractors to enable them to prepare their own shop drawings and pass on the information with sufficient promptness as will not in any way delay the works.

#### **18.0 Displaying the Name of the Work**

The contractor shall put up a name board of suitable size as directed by the Architect/ Bank Engineer indicating therein the name of the project and other details as given by the Architect/ Bank Engineer at his own cost remove the same on completion of work.

## **19.0 Bar Bending Schedule**

The contractor shall prepare a detailed bar bending schedule for all reinforced concrete works and get them approved by the Architect/ Bank Engineer well in advance.

## **20.0 As Built Drawings**

- i) For the drawing issued to the contractor by the Architect/Consultant. The Architect / Consultant will issue two sets of drawings to the contractor for the item for which some changes have been made. From the approved drawings as instructed by the SBI / SBI/ Architect / Consultant. The Contractor will make the changes made on these copies and return these copies to the Architect/ Bank Engineer for their approval. In case any revision is required or the corrections are not properly marked the Architect/ Bank Engineer will point out the discrepancies to the contractor. The contractor will have to incorporate these corrections and /or attend to discrepancies either on the copies as directed by the Architect/ Bank Engineer and resubmit to him for approval. The Architect / Consultant will return one copy duly approved by him.
- ii) For the drawings prepared by the Contractor, the Contractor will modify the drawing prepared by him wherever the changes are made by the SBI/ SBI Architect/ Bank Engineer. And submit two copies of such modified drawings to the Architect/ Bank Engineer for approval. The Architect/ Bank Engineer will return one copy of the approved drawing to the Contractor.

## **21.0 Approved Make**

The Contractor shall provide all materials from the list of approved makes at his own cost. The Architect/ Bank Engineer may approve any make / agency within the approved list as given in the tender after inspection of the sample / mock up.

## **22.0 Procurement of Materials**

The Contractor shall make his own arrangements to procure all the required materials for the work. All wastage's and losses in weight shall be to the contractors account.

## **23.0 Excise Duty, Taxes, Levies etc.**

The contractors shall pay and be responsible for payment of all taxes including GST, duties, levies, royalties, fees cess, or charges in respect of the works including but not limited to sales tax, tax on works contract excise duty, and octroi, payable in respect of materials, equipment plant and other things required for the contract. All of the aforesaid taxes including GST, duties, levies, fees and charges shall be to the contractors account and the SBI shall not be required to pay any additional or extra amount on this account. Variation of taxes, duty fees, levies etc if any, till completion of work shall be deemed to be included in the quoted in the quoted rates and no extra amount on this account. Variation of taxes, duties, fees, levies, etc if any till completion of work shall be deemed to be included in the quoted rates and no extra claim on this account will in any case be entertained. If a new tax or duty or levy or cess or royalty or octroi is imposed under any state or law during the currency of contract the same shall be borne by the contractor.

## **24.0 Acceptance of Tender**

The SBI shall have the right to reject any or all tenders without assigning any reason. They are not to bound to accept the lowest or any tender and the tenderer shall have no right to question the acts of the SBI. However, the adequate transparency would be maintained by the SBI.

## **BID FORM, PRICE SCHEDULES AND OTHER FORMATS**

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  - 3.1.1 Technical Specifications and Bill of Material (Bill of Quantity) and Compliances
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- 3.3 Bank Guarantee
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  - 3.3.2 Performance Bank Guarantee Format
- 3.4 Manufacturer's Authorisation Form
- 3.5 Certificate of Successful Commissioning

**ANNEXURE – 3.1.1**  
**Technical & Functional Specifications**

**NAME & SCOPE OF WORK:**

“SITC OF Transformers, VCB panel and cable works at SBI, Local Head Office, Lucknow, 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 equipment, 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 / equipment 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:

Signature and seal of the bidder

**TECHNICAL SPECIFICATIONS**

S · N o ·	Item Description	U n i t	Q t y
	<b>VACUUM CIRCUIT BREAKER AND TRANSFORMERS</b>		
	<b>(A)- VACCUM CIRCUIT BREAKER</b>		
<b>1</b>	<b>800A, 11KV26.3kA HT Vacuum Circuit Breaker(VCB)</b>		
	HT SECTION:		
	Supply, Design, Testing, Transportation, Installation and Commissioning of 11kV 800Amps 26.3kA HT VCB Panel (1Incomer + 2Outgoing) with Al Bus Bar consisting of following components :		
<b>A</b>	<b>HT SWITCHGEAR</b>	<b>Rating:</b>	
	11KV 800A, 26.3KA Truck mounted Horizontal Isolation & Horizontal Drawout type Vacuum Circuit Breaker Incomer : 800A- 01 Nos. Outgoing : 800A: 02 nos. consisting of <b>(D) One number direct module for incoming cable</b> and Vacuum Circuit Breakers in <b>SF6 insulated robotically welded non ferrite non magnetic stainless steel enclosure of thickness 2.5mm having IP67</b> with series trip, <b>Self powered</b> microprocessor based numerical over current and Earth Fault (IDMT+Inst.) relay protection. Interconnection between HT switchgear and transformer shall be using 1C x 3 x 240 sq.mm Al armorured XLPE HT Cable.(Make: <b>Schneider/ABB/Crompton/CG Power/Seimens/LK/GE</b> )		
<b>B</b>	<b>Fabricated Housing :</b>		
<b>B 1</b>	Housing with Al 800A Interconnections Incomer : 800A- 01 Nos. Outgoing : 800A: 02 nos.		
<b>B 2</b>	<b>800A Al Bus Bar</b> with 11KV Grade Sleeving (Extension for future 4th VCB) <b>Incomer : 800A- 01 Nos. Outgoing : 800A: 02 nos.</b>		
<b>B</b>	<b>CT &amp; PT DETAILS :</b>		
<b>B 1</b>	DUAL CORE CT CTR : 150/5/5A 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 <b>Incomer : 03 Sets Outgoing : 06 Sets</b>		

B 5	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		
<b>C BREAKER PANEL INDICATION LAMPS :</b>			
C 1	Breaker On / Off / Trip / Spring Charge ( As required)	Incomer : 05 Sets	Outgoing : 10 Sets
C 2	R-Ph. / Y-Ph. / B-Ph	Incomer : 03 Sets	Outgoing : 00 Sets
<b>D SWITCHES AND OTHER ACCESSORIES :</b>			
D 1	DC ON/OFF Switch	Incomer : 01 Sets	Outgoing : 02 Sets
D 2	AC ON/OFF Switch	Incomer : 01 Sets	Outgoing : 02 Sets
D 3	Local Remote Switch	Incomer : 01 Sets	Outgoing : 02 Sets
D 4	T-N-C Switch	Incomer : 01 Sets	Outgoing : 02 Sets
D 5	15A, 230V, 3 pin plug plug & socket	Incomer : 01 Sets	Outgoing : 02 Sets
D 6	Mech. ON-OFF push button	Incomer : 01 Sets	Outgoing : 02 Sets
D 7	Heater with heater switch & thermostat	Incomer : 01 Sets	Outgoing : 02 Sets
D 8	Cubicle illumination lamp	Incomer : 01 Sets	Outgoing : 02 Sets
<b>E METERS :</b>			
E 1	MFM EM6400	Incomer : 01 Sets	Outgoing : 02 Sets
E 3	Ammeter with Selector Switch	Incomer : 01 Sets	Outgoing : 02 Sets
E 4	Voltmeter with Selector Switch	Incomer : 01 Sets	Outgoing : Sets
<b>F RELAYS :</b>			
F 1	Numerical Non -Directional 3 Over Current/ 1 Earth Fault Protection- P1F1	Incomer	
	: 01 Sets	Outgoing : 02 Sets	
F 1	Trip Ckt Supervision	Part of Main Numerical Relay	
F 2	Antipumping	Incomer : 01 Sets	Outgoing : 02 Sets
F 3	Master Trip	Part of Main Numerical Relay	
F 4	Auxillary Relay for Trafo Fault (VAA33 or Equiv.)	Incomer : Sets	Outgoing : 02 Sets
F 5	Power Pack	Incomer : 01 Sets	Outgoing : 00 Sets

F 6	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		
	<b>Incoming and Outgoing modules of the RMU shall be suitable for 3C x 400 sq.mm HT 11 KV Cable termination Incoming Cable termination kits shall be in Purchaser Scope</b>		
	<b>Sub Total( A)- Supply, Design, in house Testing of 11kV 800Amps 26.3kA HT VCB Panel (1Incomer + 2Outgoing) as Described as Above.</b>	<b>S E T</b>	<b>1</b>
2	<b>(B)- TRANSFORMERS</b>		
	Supply, Installation, Testing and Commissioning of 1000 KVA 11/0.433 KV Delta-Star DYn11 COPPER Wound (HV and LV), ONAN Oil immersed type transformer with On Load Tap change(OLTC) tap links of range +5% to - 15% @ 2.5% each. Insteps of 2.5% each total 8 steps. Class of Insulation: A, Temperature Rise: 98 Deg. C, Losses (As per ECBC 2017) (Subjected to IS Tol.). Minimum 3 Star rated. <b>(Make: Schneider/ABB/Crompton/CG Power/Seimens/LK/GE/BHEL)</b>		
	1. Type of Cooling : ONAN		
	2. Class of insulation Class A		
	3. No of phase and rated frequency : 3, 50 Hz		
	4. Winding		
	a) HV Copper		
	b) LV Copper		
	5.. Insulation level ( Impulse withstand )(kVpeak)		
	a) HV 75		
	b) LV		
	6. Insulation level ( power frequency withstand ) (kVrms)		
	a) HV 28		
	b) LV 3		
	7. Tapping		
	a) Range +5% to -15% @ 2.5% Each		
	b) No of Steps 8		
	c) On HV yes		
	d) Tap changer type OLTC		
	8. Temperature rise of oil/winding over design ambient temperature of 50°C : 40/45( °C)		
	9. Hot spot temperature rise over a maximum yearly weighted : 98 °C		

	10. Short circuit Thermal withstand time (secs) : 2		
	11. % Impedance at 75°C , rated current & Frequency % (subject to IS tol) : 5		
	12. Total losses @ 50% Load at rated voltage & frequency kW (MAX) : 2.79		
	13. Total losses @ 100% Load at rated voltage & frequency kW (MAX) : 7.7		
	14. Bushings : HV		
	a) Reference standard : IS 2099 & IS 3349		
	b) Type of bushing : Porcelain		
	c) Voltage Rating (kV) : 17.5		
	d) Current Rating Amps : 250		
	15. Bushings : LV & LVN		
	a) Reference standard		
	b) Type of bushing : Epoxy		
	c) Voltage Rating (kV) : 1		
	d) Current Rating Amps : 2000		
	16. Weight in Kgs (Approximate)		
	a) Core and winding : 2350		
	b) Tank & Fittings : 1800		
	c) Oil : 1200		
	d) Total weight : 5350		
	17. Approximate Overall dimension (in mm)		
	a) Overall Length : 3300		
	b) Overall breadth : 3100		
	c) Overall Height : 2500		
	18. Approximate Weight of Heaviest package (KG) : 4100		
	19. Approximate transport dimensions LxBxH (mm) : 3300 X 2000 X 1800		
	20. Fitting & 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 : (4 Run / Phase) B2B		
	c) Orientation : 182 Degree		
	<b>Sub Total (B) : 11/0.433 KV, 1000 KVA ONAN Type Transformer Described as Above.</b>	<b>S</b>	<b>2</b>
		<b>E</b>	
		<b>T</b>	
	<b>(C)- HT Cabling</b>		
<b>3</b>	<b>11 KV END TERMINATION:</b>		
	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 :		
<b>3</b>	<b>3C x 240 Sqmm, 11KV XLPE</b>	<b>S</b>	<b>4</b>

· 1			<b>E</b>	
			<b>T</b>	
<b>4</b>	<b>11 KV H.T. CABLE:</b>			
	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.			
<b>4</b>	<b>3C x 240 Sqmm, 11 KV XLPE</b>			
· <b>1</b>			<b>M</b>	<b>80</b>
<b>5</b>	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 dismantling of existing cable, protective covering and refilling as required the trench etc as required.			
<b>5</b>	<b>Above 120 sq. mm and upto 400 sq. mm</b>			
· <b>1</b>			<b>M</b>	<b>80</b>
	<b>Sub Total (C ) HT Cabling</b>			
	<b>(D) -LT Cabling</b>			
<b>6</b>	<b><u>DISTRIBUTION CABLE:</u></b>			
	<b><u>SUPPLY AND LAYING OF LT CABLE:</u></b>			
	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/ Engineer / consultant).			
<b>6</b>	<b>3.5 core, 400 sq.mm.</b>		<b>M</b>	
· <b>1</b>			<b>e</b>	<b>3</b>
			<b>t</b>	<b>2</b>
			<b>e</b>	<b>0</b>
			<b>r</b>	
<b>7</b>	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, including sand cushioning, protective covering.			
<b>7</b>	<b>Above 185 sq. mm and upto 400 sq. mm</b>		<b>M</b>	
· <b>1</b>			<b>e</b>	<b>3</b>
			<b>t</b>	<b>2</b>
			<b>e</b>	<b>0</b>
			<b>r</b>	

8	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.		
8 · 1	3½ X 400 sq. mm	E a c h	1 6
<b>Sub Total (D ) LT Cabling</b>			
<b>(E )- Earthing and other works</b>			
7	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.	E a c h	4
8	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 specification with 300 mmX300mmX300mm(inside) finished masonry chamber with 8 mm thick MS sheet hinged, lockable cover and MS frame on top of chamber.	E a c h	4
9	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 e t e r	7 0
1 0	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 e t e r	1 2 0



1 1	Dismantling, shifting at suitable place in same premises and safekeeping of existing 02 nos. 1000KVA 11/0.433 KV old transformer and Oil Circuit Breaker(OCB) (1 Incoming and 02 Outgoing)	L . S .	1
1 2	Charges for liaisoning with power supply and other statutory authorities like Directorate of electrical Safety for obtaining necessary clearances/ approvals including preparation of drawings, filling up norms, follow-up on behalf of Employer etc. in connection with the subject installation. And getting power supply off and on from UPPCL.	L . S .	1
	<b>Sub Total (E )- Earthing and other works</b>		

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 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 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (U.P.).**

**Ref: Tender No. GEM/2025/B/5946045 Dated 13.02.2025**

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.

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, we agree to take back the material(VCB and transformer) 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.

Dated this ..... day of ..... 2025

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(In the capacity of)

Duly authorised to sign Bid for and on behalf of

\_\_\_\_\_

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

Date: \_\_\_\_\_

To

Assistant General Manager(Premises & Estate),  
State Bank of India,  
Local Head Office,  
1st Floor, Moti Mahal Marg,  
Hazratganj,  
Lucknow - 226001

Dear Sir,

**Ref: Tender No. GEM/2025/B/5946045 Dated 13.02.2025**

We have examined the Tender, the receipt of which is hereby duly acknowledged and subsequent pre-bid clarifications/ modifications / revisions, if any, furnished by the Bank and we offer to supply, Install, test, commission and maintain the equipment 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:

- i. The undersigned is authorized to sign on behalf of the VENDOR and the necessary support document delegating this authority is enclosed to this letter.
- ii. We declare that we are not in contravention of conflict of interest obligation mentioned in this tender.
- iii. Indicative prices submitted by us have been arrived at without agreement with any other Bidder of this tender for the purpose of restricting competition.
- iv. The indicative prices submitted by us have not been disclosed and will not be disclosed to any other Bidder responding to this tender.
- v. We have not induced or attempted to induce any other Bidder to submit or not to submit a bid for restricting competition.
- vi. 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".

Signature and seal of the bidder

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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 hereby undertakes that its name does not appear in any “Caution” list of RBI / IBA or any other regulatory body for outsourcing activity.

Dated this ..... day of ..... 2025

\_\_\_\_\_  
(Signature) (Name) (In the capacity of)

Duly authorised to sign Bid for and on behalf of  
\_\_\_\_\_

ANNEXURE - 3.3.1

**BANK GUARANTEE FOR EARLY RELEASE OF 5.0 % RETENTION MONEY**

To:

Assistant General Manager (P&E),  
State Bank of India,  
1<sup>st</sup> Floor, Local Head Office,  
Lucknow

Dear Sir,

**BANK GUARANTEE FOR EARLY RELEASE OF 5.0 % RETENTION MONEY AS SET OUT IN THE SBI TENDER No. GEM/2025/B/5946045 Dated 13.02.2025**

**GUARANTEE NO:** \_\_\_\_\_  
**AMOUNT: Rs.** \_\_\_\_\_  
**GUARANTEE COVER FROM** \_\_\_\_\_ **TO** \_\_\_\_\_  
**LAST DATE OF LODGEMENT OF CLAIM** \_\_\_\_\_  
**(2 months after expiry of warranty)**

(On non-judicial stamp paper of Rs.100/-)

BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT

B.G.No. \_\_\_\_\_ Value Rs. \_\_\_\_\_

State Bank of India,

(Address)

Sub: Bank Guarantee of Rs.....towards Security Deposit for the work offer State Bank of India.

(Name of Branch/Office)

Dear Sir,

WHEREAS (Name and address of contractor/ vendor) (hereinafter called the Contractor) have entered into contract for (Name of Work) with State Bank of India (SBI) as mentioned in the letter of SBI's Consultants (Name & address of consultants) vide their letter No..... dated .....and the correspondence and tender relating thereto which is hereinafter referred to as "the said contract" the Contractor has now agreed to produce a Bank Guarantee amounting to 2% of the contract value less earnest money deposit of Rs.....(Rupees only), to State Bank of India for performing their part of the contract obligations.

AND WHEREAS in terms of said contract, the contractor is required to furnish to State Bank of India a Guarantee of a Scheduled Bank for a value of Rs..... to be valid upto (date).

AND WHEREAS (Name of Bank and its branch) having their office at (address) the Guarantor, at the request of the contractor hereby furnishes a PBG in favour of State Bank of India and Guarantees in the manner hereinafter appearing.

In consideration of the premise, we (name of Bank and its branch) having our office at (address) here after called the "Guarantor" (which expression shall include its successors and assigns) here by expressly, irrevocably & unreservedly undertake and guarantee under that if the Contractor fails to execute the work according to his obligations under the said contract, then notwithstanding any dispute between State Bank of India and the contractor the Guarantor shall, on demand without demur and without reference to the contractor pay to State Bank of India immediately any sum claimed by State Bank of India under the said contract up to a maximum amount of Rs. \_\_\_\_\_ (Rupees only).

Signature and seal of the bidder

In case the amount demanded by State Bank of India is not paid within 48 hours of receipt of demand, the Guarantor agrees to pay the aforesaid amount of Rs. \_\_\_\_\_/- (Rupees \_\_\_\_\_) only

- (i) Such payment shall be notwithstanding any right the contractor may have directly against State Bank of India or any disputes raised by the Contractor with State Bank of India or any suits or proceedings pending in any competent court or before any arbitrator. State Bank of India's written demand shall be conclusive evidence to the Guarantor that such payment is payable under the terms of the Contract and shall be binding in all respect on the guarantor.
- (ii) The Guarantor shall not be discharged or released from the the undertaking and Guarantee, by any arrangement, variations made between SBI and the Contractor and or indulgence shown to the contractor by SBI, with or without the consent and knowledge of the guarantor or by alterations in the obligations of the contractor by any forbearance, whether as to payment, time performance or otherwise.
- (iii) This guarantee shall remain valid until or as may be caused to be extended by the contractor or until discharged by SBI in writing whichever is earlier.
- (iv) This guarantee shall be a continuing guarantee and shall not be revocable during its currency except with the previous written consent of SBI.
- (v) This guarantee shall not be affected by any change in the constitution of the contractor, 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.
- (vi) 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 or surety ship.
- (vii) This guarantee shall continue to be in force notwithstanding the discharge of the contractor by operation of law and shall cease only on payment of the full amount by the Guarantor to SBI of the amount hereby secured.
- (viii) This guarantee shall be in addition to and not in substitution for any other guarantee or security for the contractor given or to be given to SBI in respect of the said contract.
- (ix) Any notice by way of request and demand or otherwise here under may be sent by post or any other mode or communication to the guarantor addressed 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 of post and in providing 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.
- (x) These presents shall be governed by and constructed in accordance with Indian Law.

Notwithstanding anything contained hereinbefore the liability of the guarantor under this guarantee is restricted to a sum of Rs. \_\_\_\_\_.

This guarantee will remain valid upto \_\_\_\_\_ unless a demand or claim under this guarantee is made in writing on or before \_\_\_\_\_ the guarantor shall be discharged from all liability under the guarantee thereafter.

Dated the .....

For (Name of Bank)

(Signature/s with designation/s of signatory/ies)

(Name and Stamp of Bank)

**ANNEXURE - 3.3.2**  
**PERFORMANCE BANK GUARANTEE FORMAT**  
**(TO BE STAMPED AS AN AGREEMENT)**

**THIS PERFORMANCE BANK GUARANTEE AGREEMENT** executed at .....this.....day of ..... 2025 by ..... (name of the Bank)..... having its Registered Office at .....and its Branch at .....(hereinafter referred to as "the Guarantor", which expression shall, unless it be repugnant to the subject, meaning or context thereof, be deemed to mean and include its successors and permitted assigns) **IN FAVOUR OF** State Bank of India, a Statutory Corporation constituted under the State Bank of India Act, 1955 having its Corporate Centre at State Bank Bhavan, Nariman Point, Mumbai and one of its offices at State Bank of India, Local Head Office, Lucknow hereinafter referred to as "**the Bank**" which expression shall, unless repugnant to the subject, context or meaning thereof, be deemed to mean and include its successors and assigns). WHEREAS

The State Bank of India, having its Corporate Office at State Bank Bhavan, Madam Cama Road, Mumbai - 400021 (hereinafter called the 'Bank') has invited tender for SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF 02 NOS. 11/0.433 KV 1000 KVA TRANSFORMERS, 01 no. 11KV 800Amps 26.3kA HT VCB Panel (1IC +2OG) AND HT/LT CABLING WORKS AT STATE BANK OF INDIA, LOCAL HEAD OFFICE LUCKNOW (U.P.),

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...../- (Rupees .....only) 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 .....only)

**NOW THIS GUARANTEE WITNESSETH AS FOLLOWS WITHOUT ANY DEMUR**

1. We \_\_\_\_\_ (bank), the Guarantors, do hereby irrevocably & unconditionally agree and 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 .....only)
2. We also agree to undertake to and confirm that the sum not exceeding Rs...../- (Rupees .....only) as aforesaid shall be paid by us without any demur or protest, merely on demand from the State Bank of India on receipt of a notice in writing stating the amount is due to them and we shall not ask for any further proof or evidence in this regard. The notice from the State Bank of India shall be conclusive and binding on us and shall not be questioned by us in any respect or manner whatsoever.

We undertake to pay the amount claimed by the State Bank of India within **24 hours** from the date 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-

- (a) Any forbearance or omission on the part of the State Bank of India in enforcing the conditions of the said agreement or in compliance with any of the terms and conditions stipulated in the said tender and / or hereunder or granting of any time or showing of any indulgence by the Bank of India to the vendor or any other matters in connection therewith shall not discharge us in any way our obligation under this guarantee. This guarantee shall be discharged only by the performance by the vendor of their obligations and in the event of their failure to do so, by payment by us of the sum not exceeding Rs...../-(Rupees .....only)
- (b) Our liability under these presents shall not exceed the sum of Rs...../-(Rupees .....only)
- (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...../-  
(Rupees .....only)
- (e) This Bank Guarantee shall be valid upto.....
- (f) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before ..... (date which is 3 months after date mentioned at (b) above.

Yours faithfully,

For and on behalf of Bank.

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Authorised official

**ANNEXURE- 3.4**

**MANUFACTURERS'/PRODUCERS' AUTHORIZATION FORM**

No.

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/5946045 Dated 13.02.2025**

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 - 3.5**

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

Date:

M/s.

Sub: Certificate of commissioning of Solution

1. This is to certify that the products / equipment as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para No. 2) in accordance with the Contract/Specifications. The same has been installed and commissioned.

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:

<u>S.No.</u>	<u>Description</u>	<u>Amount to be recovered</u>
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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.

Signature and seal of the bidder

5. The amount of recovery on account of failure of the Vendor to meet his contractual obligations is as indicated in endorsement of the letter.

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**

<b>S.N.</b>	<b>MATERIALS</b>	<b>APPROVED MANUFACTURERS</b>
1	Transformers	i) Schnieder
		ii) ABB
		iii) Siemens
		iv) CG Power
		v) Siemens
		vi) Lauritz Knudson
		vi) GE
		vii) BHEL
2	Vacuum Circuit Breakers	i) Schnieder
		ii) ABB
		iii) Siemens
		iv) CG Power
		v) Siemens
		vi) Lauritz Knudson
		vi) GE
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
		ii) Siemens
		iii) ABB
		iv) Schneider
		v) Legrand
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	CTS / 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	Contactora / 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 SBI Engineer

**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-axial 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 Engineer/ 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 / Engineers.

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 lightning.
- 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.
- IS : 4237 : ) and fuses for voltages not exceeding 1000 Volts.
- IS : 6875 : )
- Control switches
- IS : 2208 : ) HRC cartridge fuse domestic and similar purpose.
- IS : 5133(I) : ) Boxes for enclosures of electrical accessories.

- IS : 3854 : ) Heavy duty air-break switches and
- IS : 3452 : ) Switches for domestic and similar purpose.
- 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.
- IS : 1913 : ) Luminaires, ballasts, maintenance and safety requirements.
- IS : 10322 : )
- IS : 2713 : Tubular poles for overhead power lines & street lights.
- IS : 2551 : Danger notice plates.
- IS : 2509 : )
- ) Rigid PVC conduits for electrical wiring.
- IS : 3419 : )
- IS : 9537, Part II : Rigid M.S. conduits.
- IS : 3480 : Flexible steel conduits for electrical wiring.
- 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- : )
- 113B, ) PVC insulated, colour coded, twisted into pairs,
- BS : 6746 : ) laid-up taped and overall.
- CBL : 7000 : )
- BS : 6746 : ) PVC sheathed telephone cables.

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 System Voltage	:	250 Volts, 1 – Phase, 2 Wire and earth, 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 be 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 terminations 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 consist of switch units quick-make, quick-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 from 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 inhibited through a process of degreasing, acid pickling, phosphating 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, test 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 meggered at phase and phase to Neutral using 1000 V megger with all outgoing feeders in closed position. The megger value should not be less than 2.50 megohms between phases and 1.50 megohm 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 meggered phase to phase and phase to Neutral, using 1000 V megger with all the switchgear in closed position. The megger 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

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. D.B.S. should be factory made from the standard "approved" manufactures and not fabricated by the tenderer. 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 steel armoring 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 site and obtain the approval of the Engineer/Bank/Engineer / 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 armoring 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 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 conduits for Electrical wiring (Part II)
- 4) IS : 2667 : Fittings for rigid steel conduits 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 the bending 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. These 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 consultation 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>	<u>Colour of Wires</u>
R	Red
Y	Yellow
B	Blue
N	Black
Earth	Green (insulated) (if any) Grey.

All wires shall be with ISI Mark.

**Installation :**

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 Cross Section & Area (Sq.mm.) of wire.	20 mm.	25 mm.	32 mm.	40 mm.	No. of Strands Dia. in mm.
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 concreting 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 resin, 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 upto cct. 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 Engineer'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 for 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 colour Hylam 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  
Signature and seal of the bidder

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 lightning.

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. Wher-

ever adequate distance cannot be maintained due to site constraints. The decision of the Engineer 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 / strokes.
- 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 Engineer.
- 8) Contractor shall use the layout drawing issued by the Engineer / Consultant for guidance only. He shall submit working drawings for approval of the Engineer 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 after executing the work.
- 9) Contractor shall use the schematic layout drawings for the quantity and route of the conductor issued by Engineer / 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 of 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 plate 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 drilled 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 150 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.

### **Simple Pipe Electrode for earthing individual Street Light Poles etc. with chamber :**

- 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 drilled 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.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.

Copper

Galvanized Iron

Minimum 2.5 Sq.mm.  
Minimum 6.5 Sq.mm.

6 Sq.m..  
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 or 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 :**

Signature and seal of the bidder

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 (nuts 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) **Push Buttons** : The push buttons shall be of the momentary contact 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" and "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 plates 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 knurled handles.

- 16) **Name Plates** : 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) **Internal Wiring** : 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 auxiliary 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 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 :**

Public 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, Siemens English Electric, Hevels, 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 rupturing 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.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.
3. 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 ENGINEER.
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 ENGINEER.
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 ENGINEER.
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 Receipt	Received from/Issued to (with Ret. to So/Indent)	Receipt	Issue	Balance	Initials of Contractor	Initial of Bank's/Engineer's representative	Remark
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 Material	Qty. outstanding from previous Bill	Deduct Qty. utilised in works measured since previous bill	Qty. outstanding & Qty. brought to site since previous bill	Signature of Site Engineer	Signature of Contractor	Initial of Bank's/ Engineer's representative	Remark
1	2	3	4	5	6	7	8

**PROFORMA FOR HINDRANCE TO WORK**

Name of Work :

Date of Start of work :

Name of Contractor :

Period of Completion :

Agreement No. :

Dt. of Completion of work :

S.No.	Nature of Hindrance	Date of Occurrence of Hindrance	Date of which Hindrance was removed	Period of which Hindrance existed	Signature of Site Engineer	Signature of Bank / Engineers Representative
1	2	3	4	5	6	7

**PROFORMA FOR RUNNING A/C BILL**

- i. Name of Contractor / Agency :
- ii. Name of Work :
- iii. Sl.No. of this Bill :
- iv. No. & Date of previous Bill :
- v. Reference to Agreement No. :
- vi. Date of Written order to commence :
- vii. Date of Completion as per Agreement :

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

Upto Previous R.A. Bill		Up Date (Gross		Present Bill		Remarks
Quantity	Amount (Rs.)	Quantity	Amount (Rs.)	Quantity	Amount (Rs.)	
6		7		8		9

Note: 1. If part rate is allowed for any items, it \_\_\_\_\_ should be indicated with reasons for \_\_\_\_\_ allowing such a rate. Net Value since previous bill

2. If ad-hoc payment is made, it should be mentioned specifically.

**CERTIFICATE**

The measurements on the basis of which the above entries for the Running Bill No. \_\_\_\_\_

Signature and seal of the bidder

----- were made have been taken jointly on ----- and are recorded at pages  
----- to ----- of measurement book No. -----.

-----  
Signature and  
date of Contractor

-----  
Signature and  
date of Engineers  
Representative (Seal)

-----  
Signature and  
date of Site  
Engineer

The work recorded in the above mentioned measurements has been done at the site satisfactorily as per tender drawings, conditions and specifications.

-----  
Engineer

-----  
Signature and  
date of Site Engineer

**ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ON MATERIALS HELD AT SITE BY THE CONTRACTOR**

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

Total value of materials at Site.

Secured Advance @ ----- of above value - B  
=

CERTIFIED:

- (i) That the materials mentioned above have actually been brought by the Contractor to the site of the work and on advance on any quantity of any of this item is outstanding on their security.
- (ii) That the materials (are of imperishable nature) and are all required by the Contractor for use in the work in connection with the items for which rates of finished work have been agreed upon.

Dated Signature of  
Site Engineer  
Preparing the bill  
Rank -----

Date signature of  
Banks Engineers----- (Name of  
the Engineers)

-----  
Dated Signature of the Contractor



TABLE - IX  
**MEMORANDUM FOR PAYMENT**

R/A BILL NO.

1. Total value of work done since previous bill (A)	Rs. -----
2. Total amount of secured advance due since Previous Bill (B)	Rs. -----
3. Total amount due since Previous Bill (C) (A+B)	Rs. -----
4. PVA on account of declaration in price of Steel, Cement and other materials and labour as detailed in separate statements enclosed.	Rs. -----
5. Total amount due to the Contractor	Rs. -----

**OBJECTIONS:**

i) Secured Advance paid in the previous	Rs. -----	R/A
ii) Retention money on value of works as tenders upto date amount Rs.	Rs. -----	per accepted
Less already recovered	Rs. -----	
Balance to be recovered	Rs. -----	
iii) Mobilization Advance, if any		
1. Outstanding amount (principal interest) as on date	+ Rs. -----	
2. To be recovered in this bill	Rs. -----	
iii. Any other Departmental materials cost to be recovered as per contract, if any	Rs. -----	
iv. Any other Departmental service charges to be recovered if any, as per contract (water, power etc.) enclose statement.	Rs. -----	
Total Deduction as per contract (F)	Rs. -----	

Adjustments, if any ----- Amount less  
received by Contractor in ----- R/A Bill  
(as per statement of  
Contractor) Rs. -----

P.V.A. Rs. -----

Total amount payable as per contract (E+F+G) Rs. -----  
(Rupees ----- in words)

The bill amount to Rs. ----- certified by Consultants has been scrutinized by me after  
due test checking of measurements of works as required and is recommended for payment  
for an amount of Rs.....

Date : -----

Signature of Owners Engineer

**STATUTORY DEDUCTION:**

i) Total Amount due (E) Rs. -----

ii) Less I.T. Payable Rs. -----

iii) Less S.T. Payable Rs. -----

Net Payable Rs. -----

This figures given in the Memorandum for payable has been verified and bill passed for  
payment ----- (in words and figures)

Date: -----

-----  
Signature of the Premises Officer.