



## **Web Notice**

### **Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna**

Reserve Bank of India, Patna invites tenders in two parts through e-tendering from eligible and willing firms for undertaking **"Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna"**. The work is estimated to cost **₹21.62 lakh** (including GST) only.

**2.** This is an Open Tender. Only those bidders/vendors, who qualifies the eligibility criteria stipulated in the tender, are eligible to participate in this tender. Further, only those firms, who are registered on MSTC portal will be able to take part in the Tender process. The tender document is available on RBI website <https://www.rbi.org.in/> for download.

**3.** E-Tender shall be submitted online in two parts. Part-I of the e-tender will contain the Bank's standard technical and commercial conditions for the proposed work, which must be agreed to by the tenderers. Part-II of the e-tender will contain the Bank's schedule of quantities and tenderer's price bid to be submitted online.

**4.** The firms fulfilling the eligibility criteria and desirous of being considered for award of the work should upload all the required documents at <https://www.mstcecommerce.com/eprocn/> on or before July 21, 2025 till 02.00 pm. **Firms which do not comply with the eligibility criteria and/or do not submit EMD by stipulated date and time will not be considered for opening of Part-II of their tender.**

**5.** Part-I of the e-tender will be opened on July 21, 2025, at 03.30 pm onwards on MSTC website. The timeline of the tender is as follows:

A	E-Tender No.	RBI/Patna Regional Office/Estate/7/25-26/ET/242 [Replacement of old 11 KV VCB]
B	Mode of Tender	e-Procurement System (Online Part I – Techno-Commercial Bid and Part II - Price Bid through MSTC Portal <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a> )
C	Estimated Cost	₹21.62 lakh (Rupees Twenty One Lakh Sixty Two Thousand only) (Including GST)
D	Date of availability of Tender Document for download on MSTC portal	July 01, 2025 from 02.00 pm
E	Starting date of E-Tender for submission of Part-I (Techno-Commercial Bid) and Part-II (Price Bid) at <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a>	July 01, 2025 from 02.00 pm onwards

F	Date and time of pre-bid meeting	July 08, 2025, at 12.00 pm <b>Venue:</b> 2 <sup>nd</sup> Floor, Estate Department, Reserve Bank of India, Patna – 800 001
G	Earnest Money Deposit (Only through NEFT)	₹43,240/- (Rupees Forty-Three Thousand Two Hundred Forty only) by NEFT to Beneficiary Name: RBI Patna  Beneficiary A/c No: 186003001  IFSC: RBIS0PTPA01 (5th and 10th being zero)  Note: Kindly mention Work Description and company name in the NEFT Transaction remarks.
H	Last date of submission of EMD	July 21, 2025 till 02.00 pm
I	Closing Date of e-tender for submission of Techno-Commercial Bid & Price Bid	July 21, 2025 till 02.00 pm
J	Date and Time of opening of Part-I (Techno-Commercial Bid)	July 21, 2025 from 03.30 pm onwards  The Part II will be opened on any other date which will be communicated to bidders through email.
K	Transaction fee	Payment of transaction fee through MSTC payment gateway / NEFT / RTGS in favour of MSTC Limited

The Bank is not bound to accept the lowest tender and reserves the right to accept either in full or in part any tender. The Bank also reserves the right to reject all the tenders without assigning any reason thereof. Further, any amendments / corrigendum to the tender, if any, issued in future will only be notified on the RBI Website and MSTC Website as given above and will not be published in the newspaper.

Regional Director  
Reserve Bank of India, Patna



**Reserve Bank of India  
Estate Department  
Patna**

**e-Tender for**

**Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in  
Substation Building of Bank's MOB at Patna**

**PART-I**

**Techno Commercial Bid**

**Name of the firm:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Pre-bid Meeting: 12:00 Hrs. on July 08, 2025**

**Venue: RBI, Estate Department, Patna-800001**

**Due Date for submission: 14:00 Hrs. on July 21, 2025**

**Opening of Part – I: 15:30 Hrs. on July 21, 2025**

**Note: This is an-e tender. Hence, signed & scanned Part I must be uploaded to MSTC website. Part II/rates will be directly filled at the MSTC site.**

**Bidder/Contractor/Tenderer means those who are participating in the tendering process. Successful bidder/contractor/Tenders mean who quote Lowest rates after evaluating the Part I and Part II of tender.**

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### **Disclaimer**

Reserve Bank of India, Estate Department, Patna (the Bank) has prepared this tender document. The information is provided to prospective Tenderers to enable them to bid for **Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna.** from the date specified in the contract as per the terms and conditions set out in this tender and any other terms and conditions related to such information.

This tender is neither an agreement with any party, nor invitation to any party to perform work of any kind. The purpose of this tender is to share requirements of the Bank with all interested parties in order to enable them to submit their Bid. **While the Bank has taken due care in the preparation of the information contained herein, the Bank does not claim that the information is exhaustive. Respondents to this tender are required to make their own inquiries and they should not rely solely on the information in tender. The Bank is not responsible if no due diligence is performed by the Respondents.** The Bank reserves the right not to proceed with this tender, to alter the timetable reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the tender further with any respondent. No reimbursement of cost of any type or on any account will be paid to persons or entities submitting their Bid.

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### **SCHEDULE OF TENDER (SOT)**

e-Tender name	<b>Tender for Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna.</b>
e-Tender no	RBI/Patna/Estate/7/25-26/ET/242 [Replacement of old 11 KV VCB]
Mode Of Tender	e-Procurement System (Online Part I - Techno-Commercial Bid and Part II - Price Bid through <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a> ) Instructions regarding e-tender has been provided as Annexure - 1.)
Date of NIT available to parties to download	14:00 p.m. onwards on July 01, 2025
Pre-Bid meeting	Estate Department, 2nd Floor, Reserve Bank of India, Patna at 12.00 p.m. on July 08, 2025.
Earnest Money Deposit	All bidder has to submit EMD of 2% of the estimated amount at the submission of Part-I of the tender.  <b>Details for NEFT:</b> Beneficiary Name: RBI Patna Beneficiary Ac No: 186003001 IFSC: RBIS0PTPA01 (0=zero)
Date of Starting of e-Tender for submission of online Techno-Commercial Bid and price Bid at <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a> .	14:00 p.m. onwards on July 01, 2025
Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid	14:00 p.m. on July 21, 2025
Date & time of opening of Part-I (i.e. Techno-Commercial Bid). Date of opening of Part II i.e. price bid shall be informed separately	15:30 p.m. onwards on July 21, 2025
Transaction fee	Payment of transaction fee through MSTC payment gateway / NEFT / RTGS in favour of MSTC Limited

### **Important instructions regarding e-tender**

This is an e-procurement event of Reserve Bank of India, Patna. The e-procurement service provider is MSTC Limited. You are requested to read and understand the Notice Inviting Tender and subsequent Corrigendum, if any, before submitting your online tender. Tenderers who do not comply with the conditions with documentary proof (wherever required) will not qualify in the Tender for opening of price bid.

1.	<p><b>Process of E-tender:</b></p> <p><b>A) Registration:</b> The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Techno-Commercial Bid as well as Price Bid over the internet will be done. The Vendor should possess Class III signing type digital certificate. Vendors are to make their own arrangement for bidding from a P.C. connected with Internet. MSTC/RBI, Patna is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).</p> <p><b>SPECIAL NOTE: The price bid and the commercial bid has to be submitted on-line only at <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a></b></p> <p>1). Vendors are required to register themselves online with <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a></p> <p>2). Vendors will receive a system generated mail confirming their registration in their email which has been provided while filling the registration form.</p> <p>In case of any clarification, please contact MSTC/RBI, Patna, (before the scheduled time of the e- tender).</p> <p><b>Contact person (RBI):</b></p> <p>i) Pankaj Kumar Sahu (Manager): 9919729441; (<a href="mailto:pk_sahu@rbi.org.in">pk_sahu@rbi.org.in</a>) ii) Abhisekh Saha (Assistant Manager): 8777024272; (<a href="mailto:abhisekhsaha@rbi.org.in">abhisekhsaha@rbi.org.in</a>) iii) Anshuman Tripathi (AM, Elect.) 9415015483, (<a href="mailto:anshumantripathi@rbi.org.in">anshumantripathi@rbi.org.in</a>). iv) Apoorva Singhal (JE-Electrical): 9100946714 (<a href="mailto:singhala@rbi.org.in">singhala@rbi.org.in</a>)</p> <p><b>Contact person (MSTC Ltd):</b></p> <p>i) Mr. Malay Mandal– <a href="mailto:bmpatna@mstcindia.in">bmpatna@mstcindia.in</a> Mobile-9831368791 ii) Mr. Amit Kumar Goutam – <a href="mailto:ptnopr1@mstcindia.in">ptnopr1@mstcindia.in</a> Mobile-9886624201 iii) Mr. Mayank Kumar- <a href="mailto:ptnopr3@mstcindia.in">ptnopr3@mstcindia.in</a> Mobile-8269000225 iv) Mr. Prashant Malviya- <a href="mailto:ptnopr2@mstcindia.in">ptnopr2@mstcindia.in</a> Mobile- 9899972556</p>
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	<p><b>B) System Requirement:</b></p> <p>i) Windows 7 Operating System &amp; above.</p> <p>ii) IE-7 and above Internet browser.</p> <p>iii) Signing type digital signature</p> <p>iv) Latest updated JRE 8 (x86 Offline) software to be downloaded and installed in the system.</p> <p>To disable “Protected Mode” for DSC to appear in The signer box following settings may be applied.</p> <ul style="list-style-type: none"> <li>• Tools =&gt; Internet Options =&gt;Security =&gt; Disable protected Mode If enabled- i.e., Remove the tick from the tick box mentioning “Enable Protected Mode”.</li> <li>• Other Settings:</li> </ul> <p>Tools =&gt; Internet Options =&gt; General =&gt; Click on Settings under “browsing history/ Delete Browsing History” =&gt; Temporary Internet Files =&gt; Activate “Every time I Visit the Webpage”.</p> <p>To enable ALL active X controls and disable ‘use pop up blocker’ under Tools Internet Options→ custom level (Please run IE settings from the page <a href="https://www.mstcecommerce.com">https://www.mstcecommerce.com</a> once).</p>
2.	<p>(A) The Techno-commercial Bid and the Price Bid shall have to be submitted online at <a href="https://www.mstcecommerce.com/eprocn/">https://www.mstcecommerce.com/eprocn/</a>. Tenders will be opened electronically on specified date and time as given in the Tender.</p>
3.	<p>All entries in the tender should be entered in online Technical &amp; Commercial Formats without any ambiguity.</p>
4.	<p><b><u>Special Note towards Transaction fee:</u></b> The vendors shall pay the transaction fee using “Transaction Fee Payment” Link under “My Menu” in the vendor login. The vendors have to select the particular tender from the event dropdown box. The vendor shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, the vendor shall generate a challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. On selecting Online Payment, the vendor shall have the provision of making payment using its Credit/ Debit Card/ Net Banking. Once the payment gets credited to MSTC’s designated bank account, the transaction fee shall be auto authorized and the vendor shall be receiving a system generated mail.</p> <p><b><u>Transaction fee is non-refundable.</u></b></p> <p>A vendor will not have the access to online e-tender without making the payment towards transaction fee.</p>



	<p><b>NOTE:</b> Bidders are advised to remit the transaction fee well in advance before the closing time of the event so as to give themselves sufficient time to submit the bid.</p> <p>Information about tenders /corrigendum uploaded shall be sent by email only during the process till finalization of tender. Hence the vendors are required to ensure that their corporate email I.D. provided is valid and updated at the time of registration of vendor with MSTC. Vendors are also requested to ensure validity of their DSC (Digital Signature Certificate).</p> <p>E-tender cannot be accessed after the due date and time mentioned in NIT.</p>
5.	<p><b><u>Bidding in e-tender:</u></b></p> <ol style="list-style-type: none"> <li>Bidder(s) need to submit necessary EMD, Tender fees (If any) and Transaction fees separately for the e-tender. Tender fees and Transaction fees are non-refundable. No interest will be paid on EMD. EMD of the unsuccessful bidder(s) will be refunded by RBI, Patna.</li> <li>The process involves Electronic Bidding for submission of Technical and Commercial Bid.</li> <li>The vendor(s) who have submitted transaction fee can only submit their Technical Bid and Commercial Bid through internet in MSTC website</li> <li>The vendor should allow running JAVA application. This exercise has to be done immediately after opening of Bid floor. Then they have to fill up Common terms/Commercial specification and save the same. After that click on the Technical 7 bid. If this application is not run, then the vendor will not be able to save/submit his Technical bid.</li> <li>After filling the Technical Bid, vendor should click 'save' for recording their Technical bid. Once the same is done, the Commercial Bid link becomes active and the same has to be filled up and then vendor should click on "save" to record their Commercial bid. Then once both the Technical bid &amp; Commercial bid has been saved, the vendor can click on the "Final submission" button to register their bid.</li> <li>Vendors are instructed to use Attach Doc button to upload documents. Multiple documents can be uploaded.</li> <li>In all cases, vendor should use their own ID and Password along with Digital Signature at the time of submission of their bid.</li> <li>During the entire e-tender process, the vendors will remain completely anonymous to one another and also to everybody else.</li> <li>The e-tender floor shall remain open from the pre-announced date &amp; time and for as much duration as mentioned above.</li> <li>All electronic bids submitted during the e-tender process shall be legally binding on the vendor. Any bid will be considered as the valid bid offered by that vendor and acceptance of the same by the Buyer will form a binding contract between Buyer and the Vendor for execution of supply.</li> <li>It is mandatory that all the bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.</li> </ol>

	<p>l) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.</p> <p>m) No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any vendor confirms his acceptance of terms &amp; conditions for the tender.</p> <p>n) Any order resulting from this tender shall be governed by the terms and conditions mentioned therein.</p> <p>o) The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of bid(s) without assigning any reason thereof.</p> <p>p) Vendors are requested to read the vendor guide and see the video in the page <a href="http://www.mstcecommerce.com/eprochome">www.mstcecommerce.com/eprochome</a> to familiarize them with the system before bidding.</p> <p>No deviation to the technical and commercial terms &amp; conditions are allowed.</p>
6.	All the above Eligibility criteria papers duly signed and sealed on all pages shall be uploaded on MSTC site and same will be downloaded at the time of opening Part-I of tender for examination by the Bank. Further, the contractor should submit the original of the documents to the Bank when demanded for further tendering process.
7.	The Bank will evaluate the said reports before evaluation of price bid of the tenders. If any tenderer is not found to possess the required eligibility for participating in the tendering process at any point of time, the Bank reserves the right to reject his offer even after opening of Part-I of the tender. The Bank is not bound to assign any reason for doing so.
8	The Bank is not bound to accept the lowest tender and reserves the right to accept either in full or in part any tender. The Bank also reserves the right to reject all the tenders without assigning any reason there for.

Regional Director  
Reserve Bank of India  
Patna

**Section I**  
**Form of Tender**

Place \_\_\_\_\_  
Date \_\_\_\_\_

The Regional Director  
Reserve Bank of India  
Estate Department  
Patna-800001

Dear Sir / Madam,

We have carefully examined the specifications, designs and schedule of quantities relating to the works specified in the memorandum hereinafter set out and have visited and examined the installation site of the works specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender. We hereby offer to execute the works specified in the said memorandum within the time specified in the said memorandum at the rates mentioned in the attached Schedule of Quantities and in accordance in all respects with specifications, designs and instructions in writing referred to in articles of agreement, general instructions to the tenderers and special conditions, conditions hereinbefore referred to, specifications, data sheet and schedule of quantities and with such materials as are provided for, by and in all other respects, in accordance with such conditions so far as they may be applicable.

**MEMORANDUM**

1	Description of work	Tender for Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna
2	Estimated Capital cost	₹21.62 Lakhs inclusive of GST.
3	Earnest Money	All bidder has to submit EMD of 2% (₹43,240.00) of the estimated cost at the time of Part-I submission.
4	Performance Bank Guarantee (PBG)	A Performance Bank Guarantee in addition to the EMD for an amount equal to 5% of the contract value has to be submit from the successful bidder/contractor within 14 days of receipt of work order, which will be valid for the entire period of currency of contract i.e. from the commencement of the work till the virtual completion of work for due fulfilment of the contractual obligations by the contractor.
5.	Retention Money (RMD)	Retention Money @ 5% will be recovered from each on-account bill till the total recovery amounts to 5% of the value of completed work. OR

		Firm may submit a Bank Guarantee for an amount equal to 5% of the value of completed work till the DLP (Defect Liability period)/ warranty period as per the <a href="#">Annexure-B</a> .
6	Time allowed for completion of work	04 months i.e. 120 days from the 14 <sup>th</sup> day of issue the work-order.
7.	Liquidity Damages (₹)	0.25% of the contract amount per week subject to a maximum of 10% of the contract amount

1. We also agree that our tender will remain valid for acceptance by the Bank for 90 days from the date of opening of Part I of the tender and this period of validity can be extended for such period as may be mutually agreed between the Bank and us in writing. We also agree to keep the earnest money valid during the entire period of validity of tender.
2. Should this Tender be accepted, I/we hereby agree to abide by and fulfil all the terms and Conditions of the Tender and in default thereof, to forfeit and pay to you or your successors, or assignees or nominees such sums of money as are stipulated in the conditions contained in the tender together with the written acceptance of the Contract.
3. I/We understand that you reserve the right to accept or reject any or all the tender either in full or in part without assigning any reason therefor. We will deposit the requisite EMD amount, as earnest money with the Reserve Bank of India, which amount is not to bear any interest. Should we fail to execute the Contract when called upon to do so, we do hereby agree that this sum shall be forfeited by us to the Reserve Bank of India.
4. The Tender is submitted in two parts in MSTC portal. Part I contains all commercial terms conditions and technical particulars and Part II contains only the price bid in the Bank's proforma.

Dated this \_\_\_\_ day of \_\_\_\_ 2025

For and on behalf of M/s

(Signature with seal)

Name \_\_\_\_\_

Designation: \_\_\_\_\_

Place \_\_\_\_\_

Date

---

Witnesses

(1)

Signature with name, address and date

(2)

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(2) Signature with Name, address and date

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## **Section – II**

### **General Instructions to tenderer(s) & Special Conditions**

E-tenders are invited for the work of “Design, Supply, Installation, Testing and Commissioning of 800A 3 Panels HT Vacuum Circuit Breaker (VCB) Switching Cubicle at Bank’s Office Building, RBI, Patna.” The work is estimated to cost ₹21.62 lakhs and is to be completed within 04 months i.e. 120 days from the 14<sup>th</sup> day of issue the work-order. The tenders shall be uploaded/submitted in online manner at MSTC ecommerce site.

### **Eligibility Criteria: -**

Only those firms who fulfil the following pre-qualification criteria are eligible to tender:

1. E-Tenders are invited in two parts for “Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank’s MOB at Patna” an estimated to cost of ₹21,62,000.00 and is to be completed within 120 days from 14<sup>th</sup> day of the issue of work order.
2. Only OEM or its authorized dealer of approved makes of VCBs / CPRI approved firms with valid authorization certificate having minimum 5 years of experience (cutoff date before May 30, 2020 for counting 5 year experience) in the field of undertaking similar works\*\* i.e. “Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank’s MOB at Patna” in large office buildings / residential buildings / commercial premises / industrial houses and have executed successfully similar works individually costing with

(a) Three works each costing not less than the amount equal to 40% of the estimated cost on or before May 30, 2025

or

(b) Two works each costing not less than the amount equal to 50% of the estimated cost on or before May 30, 2025

or

(c) One work costing not less than the amount equal to 80% of the estimated cost during last 5 years (works completed on or before May 30, 2025)

**(\*\* “similar works” here means work related to Design, Installation, Testing, Commissioning of 11 KV and above capacity Vacuum Circuit Breaker with Panels) and**

have a minimum annual turnover of **100 percent of estimated cost** during the last 3 financial years ending 31<sup>st</sup> March, 2025

**and**

having an authorized valid service set up in **Patna or nearby city where from required post installation services can be regularly provided** will only be eligible to e-Tender for the work.

**and**

The intending bidder must be having a Class A contractor license (HT/EHT) issued from respective State Electricity Regulatory Authority.

3. e-Tenders (Part-I & Part-II) should be submitted on MSTC Portal from July 01, 2.00 p.m. to July 21, 2.00 p.m.
4. **The firms should enclose copies of their valid authorized dealership of approved makes of VCBs/OEM/CPRI approved Certificate and Class A contractor license (HT/EHT) issued from respective State Electricity Regulatory Authority. Without such authorization certificates, no tenders will be considered.**
5. **Tendering firms/companies should have current account in ANY scheduled banks.**
6. The following information in writing/ documents to satisfy the Bank about their eligibility **should be attached** for participating in the E-tendering process- **Checklist**

(a)	Composition of the firm	Full particulars (whether contractor is an individual or a partnership firm or a company etc.) of the composition of the firm of contractors in detail should be submitted along with the name(s) and address(es) of the partners, copy of the Articles of association/ power of Attorney/ any other relevant document.	Tenderer Remarks
(b)	Work experience	Details of work experience as per the requirements in the pre-qualification criteria supported by work orders, documents, and certificates.	
		The details along with documentary evidence of previous experience if any, of carrying out works for the Reserve bank of India at any center should also be given.	
(c)	Details of the completed works	The client-wise names of work(s), year(s) of execution of work (s), awarded and actual cost(s) of executed work(s), names and full contact details of the officers/ authorities/ departments under	

		whom the work(s) was/were executed should be furnished.	
(d)	Service Setup Address	Address proof of service setup attached	
		Firm shall submit the documentary proof of the same. Firms shall upload scanned copy of the Documents required on <a href="http://www.mstcecommerce.com">www.mstcecommerce.com</a> along with the technical bid	
	Authorization certificates.	The firms should enclose copies of <b>authorized dealership of approved makes of VCBs / OEM /CPRI approved Certificate AND Class A contractor license (HT/EHT) issued from respective State Electricity Regulatory Authority.</b>	

7. In the event of intending tenderers' failure to satisfy the Bank, the Bank reserves the right to refuse issuance of tender forms/ documents to them.
8. After scrutiny, if any of the contractors are not found to possess the required eligibility, their tenders will not be accepted by the Bank for further processing.
9. The Bank may obtain reports on the past performance of the tenderer from their clients. The Bank shall evaluate the said reports before opening of the Part-II of the tenders. If any tenderer is not found to possess the required eligibility for participating in the tendering process at any point of time and/or his performance reports received from his client reports are found unsatisfactory, the Bank reserves the right to reject his offer even after opening of Part-I of the tender and his sealed cover containing Part-II of the tender shall be returned back to him as it is. The Bank is not bound to assign any reason for doing so.
10. The Bank is not bound to accept the lowest tender and reserves the right to accept either in full or in part any tender. The bank also reserves the right to reject all the tenders without assigning any reason therefore.
11. All the intending tenderers are advised to visit the site of installation and acquaint themselves of the site (existing HT panel at Substation) and all site conditions before quoting the rates and submit the proforma as per annexure.



## 12. Tendering process.

The tender documents can be downloaded from the Banks website [www.rbi.org.in](http://www.rbi.org.in) and MSTC website. All corrigendum, addendum and further communication shall be uploaded on these websites only. The tender for the above work is in two parts i.e. Part I contains technical specifications & commercial terms and conditions. Part II contains only rates of items.

13. **Tender submission:** The tender shall be uploaded/submitted at MSTC site in two parts, viz, "Part I – Technical and Commercial" and "Part II – Price bid", respectively **"Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna."** and any Courier/ Speed post/ e-mail tenders will not be accepted. The full name, postal address, e-mail address and telefax / telephone number of the tenderer shall be written on the tender (Part-I). Insertions, postscripts, additions and alterations shall not be valid unless confirmed by the tenderers signature. All copies of the tenders should be complete in all respects with all attachments/ enclosures/ annexures.
14. Tenderers are advised to use **only the forms (tender document) issued by the Bank**. In case the tenders are submitted from downloaded tender forms from the MSTC/RBI website, if any change/modification thereto is found subsequently, such tenders are liable for disqualification. However, if they desire to submit additional information, they may do so on their own letter head/paper. Each page of the forms shall be signed and submitted.
  - (a) The firm shall enclose the relevant catalogues/ leaflets/ brochures of the manufacturers of the equipment offered. Incomplete tenders are liable for rejection.
15. Tenders application for **"Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna"** as the case may be and addressed by name to Regional Director, Estate Department, Reserve Bank of India, Patna should be uploaded not later than 2.00 p.m. on July 01, 2025. No tender will be accepted after 2.00 p.m. on **July 21, 2025** under any circumstances whatsoever.
16. All bidders have to submit EMD of 2% of the estimated cost at the time of Part-I submission.
17. The Tenderers are advised to visit the site of installation and acquaint themselves of the site conditions before tendering.
18. The tenderers are advised to submit the tender based strictly on the General Conditions of the Contract and Technical Specifications contained in the tender documents, and not to stipulate any deviations. Any terms and conditions having price implication shall be

considered and included in the quoted price by the tenderer. Tender containing deviations from the terms and conditions is liable to be rejected.

The tenderers shall submit full details of the patent, trademark, registered design, intellectual property rights, copy rights, industrial property rights held by them or used by them of any third party about design or any part of the system.

## **19. Scope of Work**

The scope of work shall include the following.

- Design and Delivery of all equipment's materials to Bank's site at Patna including packing, handling, transporting, loading/unloading at site in Patna.
- Dismantling of the existing H.T. panel and erection, testing, commission of new H.T. panel and handing over to the Bank along with all necessary modification as required during the execution of work etc.
- Providing all-inclusive service including all spares, etc. during warranty period.
- The VCBs shall be inspected and checked by Bank's Engineer as per the catalogue and operational procedures before handing over of the same.

As regards makes of equipment's acceptable to the Bank the bidders are advised to refer to system requirements / description and to the list of approved make of materials/equipment's. This contract is neither a fixed lump sum contract nor a piece work contract but is a contract to carryout work in respect of the supply, installation, testing and commissioning of VCBs, to be paid for according to actual measured quantities at the rates contained in the schedule of rates and probable quantities or as provided in the said conditions.

20. Bidders to quote strictly as per BOQ. The schedule of quantities is based on probable estimates/quantities. The quantities for individual items may increase or decrease without any restriction depending upon the site conditions and requirements solely at the discretion of the Bank.

**21. Completion Period and Liquidated damages:** Time is the essence of the contract. The entire work of Design, supply, installation, testing and commissioning of the system shall be completed within a period of 4 months (120 days) from the 14<sup>th</sup> day of issue of work order failing which liquidated damages at a rate of 0.25% of the contract amount per week, subject to a maximum of **10%** of the contract value, of delay beyond the stipulated period will be levied.

**22.** The successful bidder shall execute an agreement with the Bank on stamped paper within **Fourteen days** of receipt of letter of acceptance. However, the issue of letter of acceptance by the Bank shall be construed as a binding contract as though such an agreement has been executed and all the terms and conditions shall apply on this contract. The cost of agreement must be borne by the bidder.

### **23. Warranty/Defect Liability period:**

The entire equipment/system supplied shall be guaranteed against all types of defects for a period of one year from the date of virtual completion of the work. Any defects in the system/sub-assemblies, found within the guarantee period, shall be rectified/ replaced by the bidder without any additional cost to the Bank. The rate should include for servicing at **quarterly interval or earlier**, as prescribed by the manufacturer and as mutually agreed to, during this period shall be carried out free of cost.

**24.** Bidders shall also indicate the service facility available at the place of installation and technical set up, the contact telephone number and address of their service centers. If the bidder has no existing service center at the place of work, the bidders shall indicate details of such service center from which the proposed system will be serviced, the staff strength at that center and the availability of spares for the system at that center. In case a firm has memorandum of understanding or agreement with a third party on behalf of the firm to carryout servicing at a center, **copy of the agreement or memorandum of understanding** shall be submitted along with the tender.

**25.** The bidder should impart training to the Bank's staff at the site of work for a period of 02 days on the system before handing over the system without any extra charges.

**26.** The bidders are advised to visit the site of installation and acquaint themselves of the site conditions before quoting. Bidders should be specific and offer comments only if their system differs from the Bank's detailed specifications/features in any manner. The successful bidder, on completion of work, shall furnish three sets of schematic and layout drawings and maintenance manuals to the Bank.

**27. Testing of the system:** Before dispatching the equipment to site, the equipment may, at the discretion of the Bank be inspected by the Bank's Engineer at the manufacturer's site factory and then cleared for shipment. The system will be tested in presence of the bidder and the OEM at OEMs premises/factory. The cost of arrangements for conducting the tests if any shall be borne by the bidder and shall be included in the quoted rates. This will however, not in any way absolve the contractor of his responsibility about proper performance of the system/components after erection & commissioning at the designated site.

### **28. Terms of Payment:**

The following terms of payment, subject to statutory deductions and **retention @ 5 % of value of work as retention money or will be in the form of Bank Guarantee**, will apply to the contract:

- a) 60% of the quoted rate, on pro rata basis, against delivery of all materials after checking at site, factory testing and submission of test certificates of the materials viz. VCBs, panels and all its components.
- b) 35% of quoted rate after completion of the whole work as per tender conditions.

- c) **Retention money @ 5 % of contract amount will be withheld by the Bank or Vendor should furnish the Bank Guarantee equal to @5% of the contract amount and the same shall be released after completion of warranty/defect liability period of 01-year subject to satisfactory performance of the whole system and services rendered during defect liability period.**

The payment for the system will be made by the office at which the system is supplied and installed. The dispute arising out of this contract will also be sorted out within the jurisdiction of courts situated in the same state where the said the system has been installed.

On completion of installation, testing and commissioning, the equipment will be tested for establishing their performance vis-à-vis the accepted specifications.

**29. The contractors shall submit/upload all technical details and technical brochures of all components offered for the system along with the Part I of tender.** The bidders are requested to use the enclosed proforma only for this purpose (and do not use their own formats and data sheets). However, if they wish to submit any additional information/ details, they may furnish the same on a separate sheet along with Part I of the tender.

30. The bidders shall give the full name, contact numbers, email id and postal addresses of clients to whom similar equipment has been supplied by them.

31. The bidders are requested to fill in the enclosed proforma on terms and conditions of the contract. They are advised to confirm whether they agree to the Bank's terms and conditions by indicating "YES" or "NO" only. If "NO" then only they shall list out the deviations proposed by them in the appropriate column.

### **32. Insurance:**

The contractor shall take all insurances at his cost to cover all kinds of risks from the time the equipment's/materials leave the manufacturer's works till handing over the said system to the Bank, in the joint names of the Bank and the contractor and it shall cover the following risks.

- Storage, erection, testing and commissioning policy.
- Workmen compensation policy for the employees of the contractor at site.
- Third party liability policy for a total of Rs.10.00 lakh and with a limit of Rs. 2 lakh per accident.

**Note:** These policies shall be valid till the completion of the work & in the joint name of RBI with RBI's name being the first one. If the contractor does not provide these policies, the Bank reserves the right to take the above insurance policies themselves and recover the cost thereof from the bill of the contractor or any other action.

### **33. Non-Disclosure Clause**

The contractor shall not disclose directly or indirectly any information, materials and of the Bank's infrastructure/ system/equipment's etc. which may come to the profession or knowledge of the contractor during the course of discharging its contractual obligations in connection with the agreement, to any third party and shall at all times hold the same in strictest confidence. The contractor shall treat the details of the contract as private and Confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the contractor and the Employer shall be entitled to claim damages and pursue legal remedies.

The contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied.

The contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

#### **34. Minimum wages to the workmen:**

The contractor shall ensure that minimum wages as per statutory requirement are paid to all the workmen.

#### **35. Labour License:**

The contractor shall adhere to various provisions of the Contract Labour (Regulation & Abolition) Act 1970, if applicable under the said contract, and fulfil all the statutory requirements.

#### **36. Sexual Harassment Clause:**

a) The contractor shall be solely responsible for full compliance with the provisions of "the Sexual Harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013. In case of any complaint of sexual harassment against its employee within the premises of the Bank, the complaint will be filed before the internal complaints committee constituted by the contractor/Agency or Local Complaints committee as the case may be and the contractor/ agency shall ensure appropriate action under the said Act in respect of the Complaint.

b) Any complaint of sexual harassment from any aggrieved employee of the service provider against any employee of the Bank or any employee of any other firm working in the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank.

c) The Contractor shall be responsible for any monetary compensation that may need to be paid in case the incident involves the employees of the contractor, for instance any monetary

relief to Bank's employee or other firm's employee, if sexual violence by the employee of the contractor is proved.

d) The Contractor shall be responsible for educating its employees about prevention of sexual harassment at work place and related issues.

e) The Contractor shall provide a complete and updated list of employees who are deployed within the Bank's premises.

**Date:**

**Place:**

**Seal and Signature of the Bidder**

### **Section III**

#### **Safety Code**

1. First aid appliances including adequate supply of sterilized dressings and cotton wool shall be provided in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all work that cannot safely be done from ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm (clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used an extra mazdoor shall be engaged for holding the ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of trench, whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.
6. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing; minimum height shall be one meter.
7. No floor, roof or other part of the structure shall be so overloaded with debris of materials as to render it unsafe.
8. Workers employed on mixing and handling material such as asphalt, cement mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand-gloves.
9. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
  - i) No paint containing lead or lead products shall be used except in the forms of paste or readymade paint.
  - ii) Suitable face masks shall be supplied for use by the workers when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
10. Overalls shall be supplied by the Contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the period of cessation of work.
11. Hoisting machines and tackle used in the works, including their attachments, anchorage and support shall be in perfect condition.
12. The ropes sued in hoisting or lowering material, or a means of suspension shall be of durable quality and adequate strength and free from defects.

13. The contractor shall provide all the safety gadgets to the workers for carrying out the work as per statutory norms.

14. During the work execution necessary fire safety measures shall also be taken.

15. The vendor shall take all COVID-19 related measure/precautions to the workers deployed by him for the work like issuing and wearing mask at all times, sanitising hands frequently etc., as per orders issued by MHA, Government of India / the state government/ the Bank time to time.



## **FIRE SAFETY**

- i. Cutting / drilling machine and other electrically operated equipment used at site shall be plugged into correctly rated electrical outlets.
- ii. Only ISI marked 3 pin plug and other appliances and equipment shall be used.
- iii. Electrical power cables/wires used shall not have any joints and shall be properly rated.
- iv. All electrical appliances i.e. welding, drilling, cutting machine etc. shall be safely and securely earthed to prevent leakage current while in operation.
- v. Before commencing the welding work for the first time on any day, fire section shall be informed and only after the site inspection by the Fire officers/Personnel, work shall be started.
- vi. Two buckets of water and sand shall be kept in an easily accessible area on the site.
- vii. Fire extinguishers recommended and issued by fire officers shall be kept on the site.
- viii. Used paint drums shall be stored in specified store only after closing them properly.
- ix. Personal protective equipment such as safety shoes, hand gloves, welder's mask, ear plug etc. depending upon the requirement of the work shall be provided by the contractor to the workmen to prevent occupational health hazards.
- x. The safety belt shall be provided by the contractor and used by the workmen while working from height for more than 10' from Ground level.
- xi. None of the passages near lift lobby and staircases shall be used for stacking / dumping any kind of materials/waste.
- xii. Both the staircase doors shall be normally kept closed.
- xiii. None of the fire extinguishers shall be removed/shifted from its designated location.
- xiv. Power supply shall be switched off from the mains when equipment is not in use.
- xv. Wood-shavings and saw-dust generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
- xvi. Any debris generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
- xvii. Battery operated emergency light/torches shall be provided by the contractor to the workmen while working beyond office hours.

**Section IV**  
**Special Conditions**

1. The workmen will not be allowed to stay within the premises.
2. The electric power required for the work can also be similarly drawn from the supply available at site free of cost.
3. Permission, if any, required from the local bodies shall be obtained by the Contractor.
4. The intending tenderer can obtain any clarifications regarding the Tender drawings, specifications etc. from the department on any Bank's working day
5. The tenderer may please note that, the work has to be carried out during the day time or as per the Bank's instructions. Therefore, the entire work involved shall be carried out with least disturbance to the staffs/occupants of the office/ colony and also day-to-day cleaning has to be done by the contractor. The wall/slab/column should be cut by chase cutter only
6. The entire materials for the work shall be brought to the working area through the staircase and no freight lift will be available for lifting materials.
7. The debris/dust or any wastage generated out of the above work shall be cleaned as frequently as required and as instructed by the Bank's Engineer.
8. All dismantling work and work generating noise shall be done during the day time and holidays and day time work shall have to be done on restricted hours. Contractor has to make availability of supply during the Evening & night time. Contractor shall take into account the above facts while quoting the rates.
9. The tenderer shall remove all the debris collected at site (from the Bank's premises) on everyday basis. The staircase and passages used by the labourers shall be cleaned properly, as per the entire satisfaction of Bank's Engineers.
10. The contractor shall depute qualified supervisor during execution of the work. No work shall be carried out at site in unsupervised manner.
11. The tenderer shall use only approved brands of materials.

12. The vendor shall take all COVID-19 related measure/precautions to the workers deployed by him for the work like issuing and wearing mask at all times, sanitising hands frequently etc., as per orders issued by MHA, Government of India / the state government/ the Bank time to time.

## **Section V**

### **Appendix Herein Before Referred To**

1.	Defects Liability Period	One year from the date of Virtual Completion date
2.	Time-Period for work completion	120 days from the 14 <sup>th</sup> day of issue the work-order.
2.	Duration for taking measurement for honoring bills	3 months from date of submission of bill.
3.	Date of Commencement	From the date of letter of acceptance.
4.	Date of Completion	Date of virtual completion date.
5.	Earnest Money	All bidder has to submit EMD of 2% (₹43,240.00) of the estimated cost at the time of Part-I submission.
6.	Performance Bank Guarantee (PBG)	A Performance Bank Guarantee in addition to the EMD for an amount equal to 5% of the contract value has to be submit from the successful bidder/contractor within 14 days of receipt of work order, which will be valid for the entire period of currency of contract i.e. from the commencement of the work till the virtual completion of work for due fulfilment of the contractual obligations by the contractor.
7.	Retention Money (RMD)	Retention Money @ 5% will be recovered from each on-account bill till the total recovery amounts to 5% of the value of completed work. OR Firm may submit a Bank Guarantee for an amount equal to 5% of the value of completed work till the DLP (Defect Liability period)/ warranty period as per the <a href="#">Annexure-B</a> .
8.	Liquidated damages at the rate of, for non-completion of work	0.25% of the contract amount per week subject to maximum of 10% of contract value.
9.	Interest for delayed payment	3% per annum

**Seal and signature of Contractor**

**Section VI**  
**Schedule of Commercial Deviations**

We confirm that all commercial terms and conditions and specifications of the Bank except for deviations listed below are acceptable to us.

<b>Sr. No.</b>	<b>Section No.</b>	<b>Clause No.</b>	<b>Deviation proposed</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

Date:

Seal and Signature of the Bidder

Place:

## **Section VII**

### **Schedule of Technical Deviations**

We confirm that all technical terms and conditions and specifications of the Bank except for deviations listed below are acceptable to us.

<b>Sr. No.</b>	<b>Section No.</b>	<b>Clause No.</b>	<b>Deviation proposed</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

Seal & Signature of company

Name

Designation

Date

## **SECTION VIII**

### **Technical Specification**

#### **Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna**

##### **Introduction:**

Reserve Bank of India (RBI) Patna is considering the replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank's MOB at Patna. The work covers Design, supply, installation, testing and commissioning of 800 Amps 3Nos. 11 KV Panels VCB with all necessary accessories, relays (over current-inverse-2nos earth fault-1No, Auxiliary-1No for each panel), battery charger with SMF battery having fire retardant casing, including dismantling and removal of existing equipment.

The equipment and systems proposed to be supplied shall be complete technically and any part not mentioned in this document but essential for proper operation of the system as a whole shall be included in the scope of work and offered as part of the complete package. The Tenderer shall clearly indicate in Part I such additional equipment/components if any with all technical details.

The total responsibility for the guaranteed operation of individual equipment and the system as a whole rest with the Tenderer as regards the ratings, performance and reliable, trouble free working. In this context, the Tenderer shall study the specifications carefully and critically and establish the correctness and workability of the system.

##### **Basic Requirements:**

The equipment covered under this specification shall be manufactured and installed in accordance with the practices outlined in relevant latest standards of the Bureau of Indian Standards. The equipment, systems and installation shall conform to the latest Indian Electricity Rules with respect to safety aspects, earthing and other essential features outlined therein, as well as fire safety aspects. The electrical installation shall conform to IE rules and regulations as interpreted by CEA and the standards laid down by local Electric supply authorities as well as requirements indicated in the National Building Code 2005. The relevant factory and site test report shall be furnished by the successful Tenderer.

The successful Tenderer shall obtain approval for the installation from the Electrical Inspectorate and/or any other statutory authority Local authority at Patna, Bihar as the case may be. For this purpose, he shall prepare all drawings submit the drawings for approval, follow-up to get the drawings approved, arrange for inspection, carryout all modifications and rectification as demanded by the authority. All costs for approvals have to be borne by the successful Tenderer and the bank shall not entertain any extra claim on this account except statutory fees payable which shall be reimbursable on production of documentary evidence. All modifications, rectification also shall have to be carried out without extra cost to Bank.

The installation has to be carried out by an agency holding a valid license issued by the Government for carrying out installation work of the voltage classes involved under the direct supervision of persons holding valid certificate of competency issued by the Government. The Tenderer shall furnish the particulars of the license held by him for carrying out the installation work along with particulars of certificates of competency held by his supervisory staff. Further, the contractor should comply with all the requirements of the contract labour Act. In addition, the contractor has to comply with all the requirements of the local electricity authorities as per their laws/bye-laws.

The Tenderer shall mandatorily visit the premises and ascertain site conditions, existing structures and other obstructions if any. The work has to be carried out in a working office building without causing inconvenience to the normal working of the Bank. No power shut down will be provided during office hours. Power shut down required for the work will be given on holidays/Saturdays/Sundays and after office hours which is at the discretion of the Bank. The tenderer will quote suitably to meet these exigencies in his offer. No extra claims will be admissible later on these grounds. All items and equipment covered under this specification have to be procured by the tenderer directly and no foreign exchange or import license will be arranged or provided by RBI.

### **Design Concepts:**

The Patna Office Building of RBI presently receives power supply at 11KV from Electric supply authorities (erstwhile Patna Electricity Supply Undertaking -PESU). There are 3 Nos. 11KV VCBs, 2 Nos. 1000KVA, 11KV/433V, ONAN, DYN11 Transformers inside the building to cater the lighting, air conditioning and all other loads of the building.

It is proposed to replace the existing HT 11 KV VCB panels with 800 Amps 3 nos cubicles. The successful tenderer shall mandatory visit the site to design the whole system and submit the drawings for approval.

### **Scope of Work:**

The scope of work of the Contractor shall cover procurement, fabrication, assembly, testing, packaging, and supply at site, storage, erection and installation of various equipment forming part of the specification. The scope of work shall also include testing of HT switchgears at manufacturers' works, carrying out of various pre commissioning checks on individual equipment and system, testing and commissioning and handing over of all equipment covered in the specification. In addition, the contractor shall carefully dismantle, remove and take away the existing equipment/materials on buy back as indicated in the specifications.

### **SYSTEM CONDITIONS:**

2.1. The switchboard shall be metal enclosed, floor mounting, single front self-supporting cubical type suitable for indoor. The switchgear shall be easily extendable in future.

2.2. The switchgear assembly shall be designed for the power system having the following parameters.

a) Nominal system voltage: 11KV



- b) Highest system voltage: 12KV
- c) Number of phases: 3
- d) Frequency: 50 Hz + 3%.
- e) System earthing: Solidly earthed neutral
- f) Short Current Rating: Minimum 26.3 kA

**SERVICE CONDITIONS:**

- i) Maximum altitude above sea level: 53m
  - ii) Maximum ambient air temperature: 47°C
  - iii) Maximum daily average ambient air temperature: 40° C
  - iv) Minimum ambient air temperature: 2° C
  - v) Maximum temperature attainable by an object exposed to the sun: 60° C
  - vi) Maximum yearly weighted average ambient temperature: 32° C
  - vii) Maximum relative humidity: 98%
  - ix) Average number of rainy days per annum 120
  - x) Average annual rainfall: 1166 mm
  - xi) Climatic condition moderately hot and humid tropical climate conducive to rust and fungus growth.
- B) The climatic conditions are prone to wide variations in ambient conditions and hence the Vacuum circuit breakers shall be of suitable design to work satisfactorily under these conditions.

**Contractor's Duties**

**Contractor's duties include the following:**

- a) Provide and pay for labour, materials and equipment, tools, construction equipment, machinery and other facilities and services necessary for the proper execution and completion of the specified works.
- b) Secure and pay for required permits, statutory workmen's compensation insurance and other insurance policies, fees and licenses necessary for proper execution and completion of required work.
- c) Enforce strict discipline and good order among employees. Not to employ persons unskilled in assigned task.

**Equipment:**

- The equipment shall have be indoor type, metal enclosed, floor mounted Series Trip, Triple pole, Metering switchgear with 3 Nos. Vacuum Circuit breakers, suitable isolation and horizontal draw out facility.
- The technical specification for the various items of the equipment under the tenderer's scope of work shall be as follows:

**11KV Switchgear Distribution Board:**

The substation shall comprise of one (1) set of 3Nos. HT VCB panels (1 Incoming & 2 Outgoing), indoor, factory assembled, 11KV, switchgear distribution board conforming to IS

3427, IS 2729 and IS 13118. The board shall be factory assembled and wired, totally enclosed, dead front, fully interlocked and compartmental design with the major components viz. vacuum circuit breaker (vertical/horizontal isolation type), tinned copper busbars, current/potential transformers, and cables, metering and control devices located in different metal/insulated partitioned compartments. Metal barriers shall be effectively earthed, and insulated barriers shall be arc proof to ensure operator safety, Porcelain Hollow support insulator etc.

**1.A) (i) The switchgear cubicle** shall be fabricated out of heavy gauge CRCA sheet steel having minimum thickness of 2.5 mm for load bearing members and 2 mm for non-load bearing members and as per type test design. The switchboard assembly shall be capable of withstanding stresses set up during severe short circuit conditions. The enclosure shall generally conform to IP 54 degree of protection.

ii) The switchgear boards shall have a single front, single tier, fully compartmentalized, metal enclosed construction, comprising of row of freestanding floor mounted panels. The adjacent panels shall be completely separated by steel sheets except in busbar compartments where insulated barriers shall be provided to segregate adjacent panels. The switchgear assembly shall be dust, moisture, rodent and vermin proof, with the truck in any position SERVICE, ISOLATED, TEST or removed, and all doors and covers closed. All doors, removable covers and glass windows shall be gasketed all round with synthetic rubber or neoprene gaskets. The switchboard panels should comply with relevant IS / IEC and revision thereof and shall be designed for easy operation maintenance and further extension. Each circuit shall have a separate vertical panel with distinct compartments. Bus bar, metering, circuit breaker chamber, cables and cable box chamber should have proper access for maintenance and proper interlocks should be provided. All instruments (Except the Relays) shall be non-draw out type and safe guard in every respect from damages and provided with mechanical indicator of connection and disconnection position. The switchgear shall be completed with all necessary wiring, fuses, auxiliary contacts, terminal boards etc.

iii) The arcing contacts and bus bar should be rated for 26.3 KA faults for 3 seconds for 11kV system. Bus bars shall be capable of connecting one switchgear panel to other through proper insulated arrangement. The panels shall be modular in design.

iv) The breakers should be able to be drawn out in horizontal position at ground level [with vertical/horizontal isolation]. When breaker is drawn out in horizontal position none of the live components inside the 11KV switchgear panel should be accessible. The safety shutters shall be robust and shall automatically cover the live components when the breaker is drawn out. The switchgear shall have complete interlocking arrangements at the fully inserted and fully drawn out and test positions. Withdrawal of the breaker should not be possible in ON position, it should not be possible to close the circuit breaker in service unless the entire auxiliary and control circuit are connected.

v) The circuit breaker compartment of the switchboard shall have a fixed and a moving portion, fixed portion being part of the switchboard. The moving portion shall contain the

circuit breaker of horizontal draw-out design mounted on a truck. The circuit breaker compartment shall have a front hinged door after opening of which the circuit breaker shall be accessible and shall be at the front. It shall be possible to withdraw the circuit breaker to 'Test' and "Isolated' position with the door closed. Door interlock shall be provided such that the door can only be opened after withdrawing the breaker to 'Isolated' position and the breaker cannot be racked into the 'Service' position unless the door is closed. A visual indication as to show when the breaker is in 'Service', 'Test' or 'Isolated' position shall be provided in front of the door.

The design of the board shall permit the moving portions to be withdrawn and provide for isolation of the main contacts by means of plug and socket connections. Automatic safety shutters shall be provided over the isolating contacts in the stationary portion and shall be so designed as to close firmly over the contacts when the circuit breaker is in drawn out position.

vi) Switchgear construction shall have a bushing or other sealing arrangement between the circuit breaker compartment and the busbar / cable compartments, so that there is no air communication around the isolating contacts in the shutter area with the truck in service position.

vii) The breaker and the auxiliary compartments provided on the front side shall have strong hinged doors, busbar and cabling compartments provided on the rear side have bolted compartment covers with self-retaining bolts. Breaker compartment doors shall have locking facility.

viii) Built-in / separate trolley mounted earth switches for incomer (busbar earth) and outgoing (feeder cable earth) shall be provided.

ix) All the high voltage compartments must have pressure discharge flap for the exit of gas due to internal arc to insure operator safety. All the HV compartment design shall ensure conformity to IEC-60298 and must be type tested at 26.3 kA for 1 second for IAC classification and duration as per IEC As per IEC 62271-200 clause A. 4.5 (AFLR).

**x) Two separate earthing terminals** shall be provided in each panel and shall be connected to the earth bus within the panel. The earth bus shall be of tinned copper and shall have equal cross sectional area of the phase busbar.(Phase R=Y=B=N=E)

xi) The bus PT/relay compartments shall have degree of protection not less than IP 52 in accordance with IS:2147. However, remaining internal compartments can have a degree of protection of IP:42. All louvers if provided shall have very fine brass or GI mesh screen, IPH-2 degree of protection as per IS: 3427 to all live parts shall (whether isolated or removed from panel) even when the breaker compartment door is open. Tight fitting garments / gaskets are to be provided at all openings in relay compartment.

xiii) Suitable base frames made out of steel channels shall be supplied along with necessary anchor bolts and other hardware, for mounting of the switchgear panels.

1. **B) The bus bars** shall be made of **Tinned copper** and shall be air-insulated and housed in a separate metal clad chamber at the top. The electrical clearances between live parts and earth shall not be less than 125mm or as per design of the manufacturer. The cross section of bus bars shall be adequate to limit the temperature rise to minimum 50 deg C while carrying rated current. The cross-section of the busbars should be designed to limit the current density to within 1.2Amp/sq.mm for Copper. (For copper busbar:  $I_{ccc} = 1.2 \times \text{busbar width} \times \text{bus bar thickness}$ .)

**The cable compartment** shall be located at the bottom and shall be accessible through bolted cover plates at the rear. The current transformers shall also be located in the cable compartment.

The metering and control devices, protective and auxiliary relays, indicating lamps etc. shall be located in a separate compartment in the front, above the circuit breaker compartment and the operating height of control devices and location of indicating instruments shall not exceed 2000mm.

For Earthing 11KV breakers, one draw out type earth truck with safety interlocks, suitable for use for all the circuit breakers, with facility for voltage monitoring and annunciation to prevent wrong insertion under live conditions shall be provided.

Low voltage internal wiring of the distribution board shall be of 1100V grade stranded copper conductor, PVC insulated and PVC sheathed wires of core size shall be 1.5 sq.mm / 2.5 sq.mm for control circuit wiring FRLS. All control cable terminations shall be provided with white/yellow grip type ferrules for identification numbering. The control cable terminals shall be located to facilitate easy accessibility. All control cables within the distribution board shall be carried in earthed metallic flexible conduits or metallic troughs, which shall be accessible for cable replacement and shall be fitted away from the electrical flash over zones in the board.

A copper earth bus shall be provided at the bottom of the switch board throughout its length. The switchboard, devices and terminal blocks shall be provided with legibly engraved inscription plates for identification. The switchboard shall be provided with caution notice boards conforming to IS 2551 in the front and rear.

Potential transformers of ratio 11000/110 V shall be installed connected to the line side and mounted on the draw out circuit breaker carriage. The draw out mechanism of the circuit breaker shall permit smooth operation without jerk. It shall be possible to engage and lock the breaker in "Service" i.e., fully drawn in and "Isolated" i.e., fully drawn out position without opening the cubicle front door. In the "test" position, the circuit breaker shall be drawn out with the low voltage circuit connected to permit testing. Suitable earthing connection of make first, break last design shall be provided between the circuit breaker truck and the switch board so that earth continuity is maintained in "Service" and "Test" positions.

All secondary connection between the fixed and moving portions of the equipment shall make positive pressure contacts without any possibility of loose connections. Flexible jumper connection with plugs and sockets shall be provided with the breaker for testing when in drawn out position.

**In the design of the switchgear the following positive inter locking shall be provided.**

- Interlock to prevent movement of truck to "Service" position without engaging secondary plug socket connections.
- Interlock to prevent disconnection of secondary plug socket connection in "Service" position.
- Interlock to prevent withdrawal of truck past "isolated" position without disconnecting secondary plug socket connection.
- Interlock to prevent switching ON of breaker unless truck is properly engaged in "Service" or "isolated" positions.
- Interlock to prevent movement of truck with breaker "ON". • Interlock to ensure that the breaker truck is in "Isolated" position before closing the integral earth switch if provided.
- Interlock to prevent insertion of truck to "Service" position with earth switch "ON".
- Interlock to prevent opening of cubicle door with the breaker "ON" while in "Service" position.
- It shall be possible to achieve "Service" and "Isolated" positions of breaker truck with compartment door closed.

The circuit breaker shall be 11KV, 800 A continuous and 26.3 KA for 3 seconds rated, fully interlocked horizontal draw out design. The circuit breaker shall be of vacuum design. The circuit breaker shall have shunt trip coil, motor operated spring charged closing mechanism.

The circuit breaker shall be of tested and proven design and the tenderer shall furnish type test certificates along with his offer for short circuit making and breaking capacities, electrical and mechanical endurance tests and power frequency and impulse voltage withstand tests for the circuit breaker panel.

The circuit breaker shall have contact wear indicator. The material and geometry of contacts shall ensure low chopping currents and the switching over voltages shall be minimum. The circuit breaker shall be capable of switching the magnetizing current of 2x1000 KVA transformers installed in the Premises. The circuit breakers shall be provided with necessary auxiliary switches for indication, control, interlocking, protection or other purposes. Four sets of spare auxiliary contacts, two normally closed and two normally open shall be left free wired up to the control terminal block.

#### **Auxiliary Power Supply:**

Low voltage DC source will be provided for protection relays, control of breakers, signaling etc. with the following specifications of the battery system.

Rated voltage of charger	24/30 V DC
Amp. Hour capacity	100 Ah, 10 hours rating discharge

Type of battery	SMF and Fire retardant casing
Battery charging equipment	Suitable for 1 ph, 230 volts +5% for feeding a DC load of 35A with DC output 30V. Ripple factor not to exceed 3%. Trickle charge suitable for working on 230 V AC supply complete with boost chargers, alarm communication failure, AC & DC fuse, ammeter, voltmeter, indicating lamps, HRC fuses, rotary switches. The DC supply cubicle will be made from sheet steel of 1.4 mm duly treated and painted with approved shades with louvers for ventilation with input and output terminals at the bottom of the panel.
<b>Technical particulars of the switch board shall be as follows:</b>	
<b>General</b>	
Type	Indoor
Nominal system voltage	11KV Phase 3 System frequency 50 Hz
Mounting	Floor
<b>Busbar</b>	Tinned Copper of adequate size to meet the tender specifications and requirements.
Earth Busbar	Tinned Copper of adequate size to meet the tender specifications
System earthing	Solidly Earthed
<b>Circuit breaker</b>	
Type of circuit breaker	Vacuum Circuit Breaker(VCB)
Isolation type	<b>Vertical/Horizontal</b>
No. of breakers	3Nos. (1 incomer and 2 outgoings)
Voltage rating(Ur)	11KV
Continuous current rating of circuit breaker in enclosure (Ir)	800 A
Rated short circuit interrupting capacity of circuit breaker (Isc)	26.3 KA

Rated insulation level Rated impulse/withstand voltage for one second	75KV
Degree of protection of enclosure	IP 54
Terminal arrangement.	Incoming and outgoing feeders shall be suitable for terminating, 1 run of 3C X 300 sq. mm XLPE insulated armoured PVC sheathed 11KV grade incoming cable and 2 runs of 3Cx185 sqmm XLPE insulated armoured PVC sheathed 11KV grade outgoing cables. The incoming and outgoing cables shall remain the same.
<b>Accessories</b>	
Potential transformer	11000 / 110V for measuring & protection for incoming panel rated at 100 VA 3 phase class 0.5.
Current transformer	1 set dual core, dual ratio winding rated 100/200/5+5A for incomer with protection class 5P10 with class 1.0 for metering and burden 15VA.
<b>Instruments and meters:</b>	
Voltmeter	0-15KV Digital with selector switch for incomer breaker and outgoing breakers
Ammeter	Digital with selector switch 1 No. 0-800 A (for incomer) and 2 Nos. 0- 800A (for outgoings).
PF meter	Digital for incomer.
Tri-vector meter	1 No. for incomer and 2 nos. for Outgoing breaker
Protective relay	3 Phase overcurrent + Earth Fault relay with High Set & RS-485 Port MC61CnX (50, 50N, 51, 51N).
Earthing switch	One draw out type earth truck with safety interlocks, suitable for use for all the three circuit breakers, with facility for voltage monitoring and annunciation to prevent wrong insertion under live conditions.
<b>Panel:</b>	
Front access	Hinged door

Rear access	Bolted cover
<b>Paint:</b>	
Material	Epoxy resin-based powder.
Shade (inside)	As per Standard.
Shade (outside)	As per Standard.
Procedure	Pre-treatment and powder coating.
<b><u>Name plate</u></b>	
Material.	Aluminium anodized with white letters on black background.
<b><u>Main Bus-bars</u></b>	
Material	Tinned Copper
Rated short circuit current	26.3 KA
Rated current	800 A
Cross section for each phase	Adequate size to meet the tender Specifications. (The cross-section of the busbars should be designed to limit the current density to within 1.2A/sq.mm for Copper. (For copper busbar: $I_{ccc} = 1.2 \times \text{busbar width} \times \text{bus bar thickness}$ .)
Colour coding	Colour polyester tape marked with L1, L2, L3 at suitable locations
<b><u>Earth busbar</u></b>	
Material	<b>Tinned Copper</b>
Rated short circuit current	<b>26.3 KA</b>
Rated current	<b>800 A</b>
Cross section for each phase	Adequate size to meet the tender Specifications. (R=Y=B=N=E)
Colour coding	Colour polyester tape marked with 'E' at suitable locations
<b><u>Feeder connections</u></b>	
Material	<b>Copper</b>
Cross section	Adequate size to meet the tender specifications
<b><u>Auxiliary supply</u></b>	



Circuit breaker motor operated spring charged closing/opening mechanism circuit voltage Metering circuit voltage	25/30 V DC or Voltage as per manufacturer design.
Metering circuit voltage & source	110 V AC from PT.
Tripping circuit, closing circuit and indication voltage	<b>25/30 V DC</b>
Amp Hour capacity	100 AH at 10 hour rating discharge
Type of battery	Sealed maintenance free fire-retardant casing
Accessories required	MS battery stand
<b><u>Sundry for each breaker</u></b>	
On/Off indicator	Red/Green
Phase	RYB
Trip Circuit Healthy	Amber
Auxiliary contacts	6 Nos. NO & 6 Nos. NC
Space heater	One
Cubicle lamps with switch	One
Multicore FRLS copper conductor For all protection including transformer cable	For all protection including transformer protection.
Indicating lamps	LED.

### **CODES AND STANDARDS:**

The design, manufacture and performance of the equipment shall comply with all currently applicable statutes, regulations and safety codes.

Nothing in this specification shall be construed to relieve the tenderer off his responsibilities.

The 11 kV switchgear shall conform to IS: 13118 as amended up to date or other International Standards for equal or better performance.

Unless otherwise specified, the equipment offered shall conform to the latest applicable Indian, IEC, British or USA Standards and in particular, to the following:

<b>A</b>	IS 13118/1991	High Voltage Alternative current circuit breaker
<b>B</b>	IEC 694	Common clauses for switchgear
<b>C</b>	IS : 3156/1992	Voltage transformers
<b>D</b>	IS : 2705/1992	Current transformers.
<b>E</b>	IS : 5621:1980	Hollow Insulators for use in electrical equipment

<b>F</b>	IS: 335/1993	New Insulating oil.
<b>G</b>	IS 9921/1981, 82,85	Alternating Current Disconnecter (Isolators.)
<b>H</b>	IS : 2544/1973	Porcelain Post Insulators
<b>I</b>	IS 12063/1987	Degree of protection provided for enclosures for Electrical equipment.
<b>J</b>	IS 5/2005	Colours for ready mixed paints and enamels.
<b>K</b>	IS 5578/1984	Marking of insulated conductor.
<b>L</b>	IS 1248/2003	Indicating instruments
<b>M</b>	IS 13779/1999 & CBIP-88	Energy meters
<b>N</b>	IS 6875 amended	Control switches
<b>O</b>	IS 3231/1986	Electrical Relays for Power System Protection
<b>P</b>	IS 8686/1977	Static protective relays
<b>Q</b>	IS 4794/68 & 86	Push button.
<b>R</b>	IS:9385/1979	High Voltage Fuses.

In the event of offered equipment conforming to Standards other than the above, the salient points of comparison between the Standard(s) adopted and the relevant IS/IEC shall be indicated in the technical offer to bring out clearly how the chosen standard is equal to or better than the ones stipulated in this specification. Copies of the Standard(s) adopted shall be furnished.

**Clearances and spacing as indicated below shall be provided as per following:**

<b>A</b>	Phase to phase (Electrical) clearance for Breaker poles	280 mm (minimum)
<b>B</b>	Phase to phase (Electrical) clearance for C.T.s & P.T.s	370 mm (minimum)
<b>C</b>	Phase to earth clearance (H.T. Terminal to nearest grounded metal part)	370 mm (minimum)
<b>D</b>	Height of 11 kV terminals from ground level	3100 mm (minimum)
<b>E</b>	Spacing between isolator poles (Centre to Centre)	1000 mm (fixed)
<b>F</b>	Height of lowest part of support insulator from ground level	2800 mm(minimum)

Tenderers shall confirm in their technical offer that all clearances and spacing as stated above will invariably be provided. Offers without such confirmation are liable to be rejected.

**List of drawings to be submitted are as under:**

- (i) General arrangement drawing for incomer bay & outgoing bay.
- (ii) General arrangement drawing for circuit breaker.
- (iii) General arrangement drawing for Isolator (a) with and (b) without earth blade.
- (iv) General arrangement drawing of current transformer.

- (v) General arrangement drawing of potential transformer.
- (vi) General arrangement drawing for control and relay panels
- (vii) Bill of material for complete switchgear and associated equipment, CTs, PTs, Isolators, Terminal connectors etc. (Annexure II & III).

Successful tenderer shall furnish all above drawings and following additional drawings for approval.

- (i) Schematic diagram of power control & protection circuit for incoming and outgoing feeder bay.
- (ii) Schematic diagram and sequence diagram of circuit breaker.
- (iii) Detailed drawings for every equipment showing Assembly, important cross sections, drawings of relevant parts, joints, gaskets, name plates and other informative drawings etc.

The drawings, technical literature and manuals submitted by the tenderer along with his offer shall be treated as purely and generally informative in nature and unless the details incorporated in them are clearly and specifically brought out in the various Schedules for Guaranteed Technical Particulars and Schedules of Deviations, the same shall not be binding upon the employer (a) for evaluation of the offer and (b) for the order, if placed.

#### **PACKING AND FORWARDING:**

The equipment shall be packed in crates suitable for vertical/horizontal transport as the case may be and the packing shall be suitable to withstand handling during the transport and outdoor storage 60 during transit. The supplier shall be responsible for any damage to the equipment during transit, due to improper and inadequate packing. The easily damageable materials shall be carefully packed and marked with the appropriate caution symbols. Wherever necessary, proper arrangement for lifting, such as lifting hooks etc. shall be provided. Any material found short inside the packing cases shall be supplied by the supplier without any extra cost. **Quoted rate shall be inclusive of packing and forwarding /transportation charges, transit insurance, loading, unloading charges etc., No extra payment will be made for the same.**

#### **TRAINING:**

All successful tenderers for switchgear shall provide training facilities for the Bank's Engineer & Technicians. The training shall be for not less than 8-man weeks. Boarding, lodging and traveling expenses for the deputed trainees will be borne by the successful contractor.

#### **List of Type Test Reports to be submitted: -**

The successful bidder shall have to submit complete Test reports of all tests (including Type Test), as stipulated in the relevant IS/IEC carried out in a CPRI/NABL accredited/Govt. recognized Test House or Laboratory on 11KV, 800A, 26.3KA, Floor mounted indoor type totally enclosed Series Trip metering switchgear with Vacuum circuit breaker unit of identical design. The submitted test report shall amply prove that the tests have been carried out within 5 years from the due date of tender.

**Circuit Breaker: IS: 13118/ IEC-56**

<b>Sr. No.</b>	<b>Description of Type Test</b>	<b>IS Clause No</b>
<u>1.</u>	Lightning Impulse Voltage withstand Test	
	Power Frequency Voltage Withstand Test	
<u>2.</u>	Dry	
	Wet	
<u>3.</u>	Temperature Rise Test of main circuit	
<u>4.</u>	Measurement of resistance of main circuit	
<u>5.</u>	Short Time Withstand Current and Peak Withstand Current Test	
<u>6.</u>	Mechanical Operation Test	
	Short Circuit Making and Breaking current Tests	
	a) No load operation before and after test	
<u>7.</u>	b) Basic test duties no. 1 to 5	
	c) Single Phase Short circuit test	
	d) Condition of breaker after short circuit test.- 6.102.8	
<b>Isolators (with and without E.B.) IS:9921 (Part IV)</b>		

<b>Sr. No.</b>	<b>Description of Type Test</b>	<b>IS Clause No.</b>
1.	Lightning Impulse Voltage withstand Test	
	Power Frequency Voltage Withstand Test	
2.	Dry	
	Wet	
3.	Temperature Rise Test	
4.	Short Time Withstand Current and Peak Withstand Current	
5.	Mechanical Endurance Test	
<b>Current Transformers IS:2705</b>		
<b>Sr. No.</b>	<b>Description of Type Test</b>	<b>IS Clause No.</b>
<u>1.</u>	Short Time Current Test	
<u>2.</u>	Lightning Impulse Voltage withstand Test	
<u>3.</u>	Temperature Rise Test	
<b>Potential Transformers IS:3156</b>		
<b>Sr. No.</b>	<b>Description of Type Test</b>	<b>IS Clause No.</b>
	Lightning Impulse Voltage withstand Test	
	Temperature Rise Test	
<b>Outdoor Relay &amp; Metering Panel</b>		
	Degree of protection test	
<b>Indoor Control &amp; Indication Panel</b>		
	Degree of protection test	

## **SECTION IX**

### **Details of type tests conducted for Circuit Breaker**

<b><u>S.No:</u></b>	<b>Description of Type Test</b>	<b>Type &amp; Make of Circuit Breaker &amp; its rating</b>	<b>IS/IEC Clause No.</b>	<b>Testing Lab. &amp; Date of Testing</b>	<b>Type test report No.,dt &amp; pages</b>	<b>Whether certificate of compliance with IS/IEC is enclosed with T.R.</b>
<b><u>1</u></b>	Lightning Impulse Voltage withstand Test					
<b><u>2</u></b>	Power Frequency Voltage Withstand Test Dry Wet					
<b><u>3</u></b>	Temperature Rise Test of main circuit					
<b><u>4</u></b>	Measurement of resistance of main circuit					
<b><u>5</u></b>	Short Time Withstand Current and Peak Withstand Current Test					
<b><u>6</u></b>	Mechanical Operation Test Short Circuit Making and Breaking current Tests a) No load operation before and 7.0 after test b) Basic test duties no. 1 to 5 c) Single Phase Short circuit test d) Condition of breaker after short circuit test.					

### **Details of type tests conducted for Control & Relay Panel**

<b><u>S.No:</u></b>	Description of Type Test	Type & Make of Circuit Breaker & its rating	IS/IEC Clause No.	Testing Lab. & Date of Testing	Type test report No.,dt & pages	Whether certificate of compliance with IS/IEC is enclosed with T.R.
<b><u>1</u></b>	Degree of protection					

Principal requirements of protective relays, metering equipment, auxiliary relays, breaker control switches etc. to be mounted on control & Relay Board are as follows:

#### **Triple pole combined non-directional 2 O/C + 1 E/F relay.**

Setting for O/C	50% to 200% of Base Current
Setting for E/F	10% to 40% of Base Current.
CT Secondary current	5 Amp
Characteristics	0-3 Sec.
Contacts	2 set of Self Reset N/O Contacts.
Mounting	Flush.
Type	APR31H OF ASHIDA or equivalent, as acceptable to the Bank.
Auxiliary voltage	30 V DC
Size	Cutout 138x138, Bezel: 160x160 mm
Operational indicator	Flags
IS reference	<b><u>3231</u></b>
<b>High Speed Master Trip Relay:</b>	
Type	High speed of operation.
General Design	Electromechanical
No of pole	3
C.T.Sec.current	5 Amp
Operation setting	50% to 120% of rated coil voltage
Coil Rating	30 V DC
Time setting	10-15 ms at nominal rated voltage
Frequency	50 Hz
Aux contacts	4 pair of Hand reset
Case size	Cut Out 92x92 mm, Bezel 110 x 110 mm

Aux voltage	30 V D.C
Operational indicator	Mechanical Flag in window : Hand Reset Type
Mounting	<b><u>Flush</u></b>
IS reference	<b><u>3231</u></b>

#### **Ammeter:**

Each circuit one ammeter and associated selector switch shall be provided:

Accuracy	0.5% of FSD + 5 Digits
Mounting	Flush
Size	48 x 96 sq. mm. case
Response Time	1 second
Operating Temperature	Up to 55°C
Dielectric Strength	2 kV RMS for 1 minute
Power Consumption	Less than 3 VA
Frequency	50 Hz
Operating Current	5 A from CT Secondary.
Type	Panel Mounting with 31 /2 Digital Display.

#### **Ammeter selector switch:**

Ammeter Selector switch shall be a four-position rotory type with R, Y, B and 'OFF' positions marked clearly on 48x48 mm brushed aluminium plate with black handle. Switch should be single hole mounting and not screw mounting.

	3 way with off
Type	CA 10 A048 621E of Kraus & Naimer make or equivalent or as approved by Bank
Rated Insulation Voltage	1100V
Rated Impulse withstand voltage	6 KV
Rated Operational Current	12 A

#### **Voltmeter:**

Accuracy	0.5% of FSD + 5 Digits
Mounting	Flush
Size	48 x 96 sq. mm. case
Response Time	1 second
Operating Temperature	Up to 55°C
Dielectric Strength	2 kV RMS for 1 minute
Power Consumption	Less than 3 VA
Auxiliary Supply	<b><u>110 V</u></b>
Frequency	<b><u>50 Hz</u></b>
Operating Current	110 V from PT Secondary
Type	Panel Mounting with 31 /2 Digital Display

make	AEL VRMS H 96 D or equivalent
------	-------------------------------

#### **Volt Meter selector switch:**

Voltmeter Selector Switch shall be seven-position type with 3 phase to phase and 3 phase to neutral position marked clearly on 48x48 brushed aluminium plate with black handle. Switch should be single hole mounting and not screw mounting.

	6 way & off
Type	CA 10 A007 622E of Kraus & Naimer make or equivalent or as approved by Bank
Rated Insulation Voltage	1100V
Rated Impulse withstand voltage	6 KV
Rated Operational Current	12 A

#### **Multifunction Electricity Meter:**

3 Phase 4 wire Static Tri-vector Meter having kWh element of class 0.5 accuracy with following parameters.

Class of accuracy	<b><u>0.5</u></b>
IS	<b><u>13779</u></b>
C.T. Ratio	i) 400/5A for feeder panels ii)600/5A for Transformer Panels
V.T. Ratio	11000/110V
Type	<b><u>Static</u></b>
Mounting	<b><u>Flush</u></b>
Measuring parameters	kWh, kVARh, kVAh, instantaneous P.F., kW, kVA, supply frequency, phase voltages and phase currents.
Make	SEMS/L&T/L&G/ Elster Metering
Display	Customized backlit liquid crystal display

#### **Circuit Breakers control switch:**

	Non- discrepancy type
	Trip-neutral-close, with pistol grip handle must be pushed in to spring return to either trip or close position from Neutral position for safety and not just turn to trip
	One contact to close in each position
	RBC 40 of recom or equivalent.

#### **Auxiliary contactor.**

ARR 2 N/O+2 N/C	
Auxiliary voltage	30V DC

#### **Tests and Pre-Dispatch Inspection (PDI):**

All equipment including under the supply scope of this specification shall be designed and manufactured to national and international standards. After manufacture, the various



equipment, panel etc., shall be subjected to inspection and testing in the manufacturer's works in the presence of the Bank's Engineers. The tenderer shall give adequate notice to enable the Bank to plan their visit for such tests/inspection. Any delay on this account shall not entitle the contractor to get extension of time. The expenses for travel, boarding and lodging will be borne by the Bank for the officials who are going to inspect. Various tests to be carried out on the major equipment shall be as follows:

### **11KV Switchboard**

1. Assembly Inspection
2. Operation test
3. Power frequency voltage test
4. Measurement of resistance of main circuit
5. Functional test on control circuit
6. Verification of type test reports for
  - \* Short circuit making and breaking currents
  - \* Peak withstand current and short time current
  - \* Small inductive breaking current
  - \* Impulse voltage withstand
  - \* Electrical endurance

### **Commissioning Checks and Tests:**

After completion of installation of various equipment at site, prior to commissioning, the following checks and tests shall be carried out on equipment and systems. These shall be carried out in accordance with relevant standards, codes of practices published by the Bureau of Indian Standards and manufacturers recommendations.

The following checks shall be made on all equipment as applicable.

- Physical inspection for damages and external defects.
- Check for proper fixing on foundation and tightness of foundation bolts.
- Check for free movement of operating and draw out mechanisms of circuit breakers.
- Check for proper tightness of cable, busbar and earth connections.
- Check for phase to phase and phase to earth electrical clearances.
- Check for proper operation of electrical and mechanical interlock and manual tripping of breakers.
- Check and calibrate meters, protective relays etc. After completing the above checks, the following tests shall be carried out on different equipment.

### **11KV and LV Switchboards**

- Insulation resistance tests on power and control circuits.
- CT polarity and ratio check.
- Relay operation by secondary injection method (for 11KV Switchgear only).
- Functional check of the control circuit.
- Functional check on the instruments and indication lamps
- ON/OFF operation of the circuit breakers, manually and electrically in "Test" and "Service" positions.

- Check on the functioning of the safety interlocks in the draw out mechanism and earth switch/earth truck.
- Testing of closing and tripping coil operation at the minimum voltage specified.
- PT ratio test and IR value test.
- Breaker functional Checks.
- Insulation resistance test
- DC winding resistance test at the various taps.

**Equipment Data Sheet:**

The Tenderer shall study the technical parameters carefully and furnish guaranteed technical particulars of the equipment as required in the technical data format for each item of equipment detailed in the following pages. If any additional information is also to be enclosed the same may be furnished in separate sheets with proper cross reference. The data sheets have to be duly signed on each page by the tenderer. Incomplete technical data format may cause rejection of the tender.

I/We hereby declare that I/We have read and understood the above instructions/scope of work for the guidance of the quotation/tender.

I/we hereby agree to abide and fulfill the above terms & conditions/instructions.

**Seal & signature of the contractor**

**11KV Switchgear Distribution Board:**

Make	
Model No.	
Standards followed	
Degree of protection of enclosure	
Continuous current rating of busbars at 45 deg. C	
ambient in enclosures	
Material and size of busbars	
Thickness of sheet steel for enclosure	
Make and type of circuit breaker	
Short time current rating, KA	
Rated voltage, KV	
1 minute power frequency withstand voltage	
Impulse voltage withstand capacity	
Continuous current rating of circuit Breaker. Rated symmetrical breaking capacity	
Rated low power factor, small inductive breaking current	
Break time, ms	
Make time, ms	
Type of operating mechanism	
Overall length, width and height of assembled switchboard (mm)	
Supporting documents for type tests Switchboard	
Earthing:	
(a) Arrangement of earthing (earth switch/earth truck)	
b.Material of earth bus	
c.Nominal section, sq mm, Size of Busbar.	
<b>Tri-vector meter :</b>	
Make:	
Type	
Microprocessor based Over current and earth fault relay:	
(a) Make	
(b) Model No	

**Seal & signature of the contractor**

## **Section X**

### **List of Approved Makes:**

The Tenderer shall indicate against each item of equipment/ cable/ accessories, the make or manufacturer's name from whom the equipment/ accessories will be procured. The make of equipment shall be from among those mentioned below only.

### **Description of Bank's approved makes:**

H T breaker (VCB)	Siemens, ABB, Areva, Crompton, LK (formally known as L & T), Merlin-Gerin,	Firm offered make-
Protective relays for VCBs	Areva, Ashida, Easun Reyrolle, LK (formally known as L & T), Crompton.	Firm offered make-
Control and selector switches	Kaycee, AE	Firm offered make-
CTs and PTs	Kappa, ECS, Pragati, AE	Firm offered make-
Indicating Lamps(LED) & Push Buttons	LK (formally known as L & T), Siemens, Technic.	Firm offered make-
Tri-vector meter	Enercon, Secure, AE, L& T, Siemens.	Firm offered make-
SMF and Fire retardant casing Battery	Exide, Panasonic or as approved by Bank.	Firm offered make-

Seal & signature of the contractor

**Check List****Schedule of Commercial Conditions**

<b>Sr. No.</b>	<b>Description</b>	<b>Bank's terms</b>	<b>Whether acceptable to the bidder or not (please indicate YES or NO)</b>
1.	Validity	90 days from the date of opening Part I.	
2.	EMD	Successful bidder (L1) has to submit EMD of 2% of the quoted amount within 14 days of receipt of work order.	
3.	Prices	Firm, inclusive of all taxes, duties, insurance, levies during the contract period.	
4.	Completion period	04 months from the 14 <sup>th</sup> day of issue the work-order.	
5.	Liquidated damages for delay in completion of work	0.25% of the contract amount per week subject to maximum of 10% of contract value.	
6	Penalty during warranty	₹1,000/- per day if defect is not rectified within 24 hours of intimation, subject to maximum of Rs.10 % of the contract amount.	
7	Guarantee	One year after the date of virtual completion.	
8	Factory & field tests	As per para 18, Section II of Commercial conditions	
9	Terms of payment	As per para 19, Section II of Commercial conditions.	
11	Insurance	As per para 22, Section II of Commercial conditions.	

**Place:****Date:****Seal and Signature of the Bidder**

**Proforma for Bank Guarantee in Lieu of Earnest Money Deposit/Retention Money**

(To be submitted on non-judicial stamp paper of appropriate value purchased in the name of the issuing Bank)

This deed of guarantee made this \_\_\_\_\_ day of \_\_\_\_\_ thousand \_\_\_\_\_ between \_\_\_\_\_ (Name of Banker) having its registered office at \_\_\_\_\_ (place) and one of its local offices at \_\_\_\_\_

(hereinafter referred to as the Surety), and Reserve Bank of India, a Corporation constituted by the Reserve Bank of India Act, 1934, having its Central Office at Central Office Building, Shahid Bhagat Singh Road, Mumbai - 400 001, India (hereinafter referred to as the Bank).

WHERE AS \_\_\_\_\_ (Tenderer's name hereinafter referred to as 'Tenderer') a Company registered under \_\_\_\_\_ and having its registered office at \_\_\_\_\_ is bound to deposit with the Bank by way of earnest money INR \_\_\_\_\_ (INR \_\_\_\_\_ only) in connection with its Tender for Design, Supply, installation, testing and commissioning of 800A 3 Panel HT VCB Switching Cubicle at Bank's office building, RBI, Patna and the specifications and terms and conditions enclosed therein. WHEREAS the tenderer as per clause No. \_\_\_\_\_ Section II of Instructions to tenderers and special conditions has agreed to furnish a Bank Guarantee valid up to \_\_\_\_\_ instead of deposit of earnest money in cash.

NOW THIS WITNESSETH:

1. That the Surety in consideration of the above Tender made by the Tenderer to the Bank hereby undertakes to guarantee payment on demand without demur to the Bank the said amount of INR \_\_\_\_\_ (INR \_\_\_\_\_ only) within one week from the date of receipt of the demand from the Bank on presentation of this deed of guarantee, which the Tenderer is bound to deposit with the Bank by way of earnest money in connection with his Tender.
2. This guarantee shall not be affected by any infirmity or irregularity on the part of the Tenderer or by the dissolution or any change in the constitution of the Bank, Tenderer or the Surety.

The Bank shall be eligible to make any claim under this guarantee if the Tenderer after submitting his Tender, rescinds from his offer or modifies the terms and conditions thereof in a manner not acceptable to the Bank or expresses his unwillingness to accept the order after the Bank has decided to place order with the Tender for Design, Supply, installation, testing and commissioning of 800A 3 Panel HT VCB Switching Cubicle at Bank's office building, RBI, Patna.

3. . The Banks' decision in this regard shall be final and binding.
4. The Surety shall not and cannot revoke this guarantee during its currency except with previous consent of the Bank in writing.
5. Notwithstanding anything contained in the foregoing, the Surety's liability under the guarantee is restricted to INR \_\_\_\_\_ (INR \_\_\_\_\_ only).
6. This guarantee shall remain in force and effective up to \_\_\_\_\_ and shall expire and become ineffective on intimation thereof being given to the Surety by the Bank in which event this guarantee shall stand discharged.
7. The Surety will make the payment pursuant to the demand notice issued by the Bank, notwithstanding any dispute that may exist or arise between the Tenderer and the Bank or any other person.
8. Any forbearance, act or omission on the part of the Bank in enforcing any of the conditions of the said tender or showing of any indulgence by the Bank to the tenderer shall not discharge the Surety in any way and the obligations of the Surety under this guarantee shall be discharged only on the intimation thereof being given to the Surety by the Bank.
9. Notwithstanding anything contained hereinabove, unless a demand or claim under this guarantee is made on the Surety in writing on or before \_\_\_\_\_, the Surety shall be discharged from all liabilities under guarantee thereafter.
10. The Surety has the power to issue this guarantee under its Memorandum and Articles of Association and the person who is hereby executing this deed has the necessary powers to do so under the Power of Attorney granted to him by the Surety.

SIGNED AND DELIVERED

(For & on behalf of the above named Bank)

For & on behalf of

(Banker's Name & Seal)

BRANCH MANAGER

(Banker's Seal)

Address \_\_\_\_\_

**Draft ARTICLES OF AGREEMENT**

**(On Non-Judicial Stamp Paper value of ₹1,000/-)**

ARTICLES OF AGREEMENT made the \_\_\_\_\_ day of \_\_\_\_\_ between the Reserve Bank of India, Patna (hereafter called “Employer”) of the one part and -----  
\_\_\_\_\_ (hereinafter called “the Contractor”) of the other part.

WHEREAS The Bank is desirous of carrying out the “**Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03nos.) in Substation Building of Bank’s MOB at Patna**” and has prepared drawing and Schedule of Quantities showing and describing the work to be done under the direction of Bank’s Engineer.

AND WHEREAS the said specifications, the Schedule of Quantities and drawings have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon the subject to the Conditions set forth herein and to the Conditions set forth in the Special Conditions and in the Schedule of Quantities and Conditions of Contract (all of which are collectively hereinafter referred to as “the said Conditions”) the works shown upon the said drawings and/or described in the said specification and included in the Schedule of Quantities at the respective rates therein set forth amounting to the sum as therein arrived at or such other sum as shall become payable thereunder (hereinafter referred to as ‘the said Contract Amount’)

**NOW IT IS HEREBY AGREED AS FOLLOWS:**

1. In consideration of said Contract Amount to be paid at the times and in the manner set forth in the said conditions, the Contractor shall upon and subject to the said Conditions execute and complete the work shown upon the said Drawings and described in the said Drawings and described in the said Specifications and the Schedule of Quantities.
2. The Bank shall pay the Contractor the said Contract Amount, or such other sum as shall become payable, at the times and in the manner specified in the said conditions.
3. The said Conditions and Appendix thereto shall be read and construed as forming part of this agreement and the parties hereto shall respectively abide by, submit themselves to the said Conditions and perform the agreements on their part respectively in the said Conditions contained.
4. The plans, agreement and documents mentioned herein shall form the basis of this Contract.



5. This Contract is neither a fixed Lump sum Contract nor a Piece work Contract but is a Contract to for the complete work to be paid for according to actual measured quantities at the rates contained in the Schedule of Rates and Probable quantities or as provided in the said Conditions.
6. The Contractor shall afford every reasonable facility for the carrying out of all works relating to electrical works and other ancillary works in the manner laid down in the said Conditions, and shall make good any damages done to walls, floors etc. after the completion of such works.
7. The Bank reserves to itself the right of altering the Drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.
8. Time shall be considered as the essence of this Contract, and the Contractor hereby agrees to commence the work soon after the site is handed over to him or from fourteenth day after the day of issue of formal works order as provided for in the said Conditions, whichever is later, and to complete the entire work within **04 months i.e. 120 days** subject nevertheless to the provisions for extension of time.
9. All payments by The Bank under this Contract will be made only at Patna.
10. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen at Patna and only Courts in Patna shall have jurisdiction to determine the same.
11. That the several parts of this Contact have been read by the Contractor and fully understood by the Contractor.

12. **Prevention of Sexual Harassment Clause:**

The Service Provider / Agency shall comply with the provisions of “the Sexual Harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013”.

a. The Service Provider agency shall be solely responsible for full compliance with the provisions of the “sexual harassment of women at workplace (prevention prohibition and Redressal) Act 2013” in case of any complaint of sexual harassment against its employee within the premises of the Bank, the complaint will be filed before the internal complaints committee constituted by the Service Provider/ agency and the Service Provider/ agency shall ensure appropriate action under the said act in respect of the complaint.

b. Any complaint of sexual harassment from any aggrieved employee of the Service Provider against any employee of the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank.

c. The Service Provider shall be responsible for any monetary compensation that may need to be paid in case the incident involves the employees of the Service Provider, for instance

any monetary relief to Banks employee, if sexual violence by the employee of the Service Provider is proved.

d. The Service Provider shall be responsible for educating its employee about prevention of sexual harassment at workplace and related issues.

e. The Service Provider shall provide a complete and updated list of its employees who are deployed within the Banks premises.

13. **Non- Disclosure Clause**: The Contractor shall not disclose directly or indirectly any information, materials and details of the Bank's infrastructure/systems/equipment etc., which may come to the possession or knowledge of the Contractor during the course of discharging its contractual obligations in connection with this agreement, to any third party and shall at all times hold the same in strictest confidence. The Contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The Contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the Contractor and the Employer shall be entitled to claim damages and pursue legal remedies.

The Contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied. The Contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason."

If the contractor is a Partnership or an IN WITNESS WHEREOF The Bank and the Individual Contractor have set their respective hands to these presents and two duplicate hereof the day and year first hereinabove written.

If the contractor is a Company IN WITNESS WHEREOF The Bank has set its hand to these presents through its duly authorized official and the Contractor has caused its common seal to be affixed hereunto and the said two duplicate/has caused these presents and the said two duplicates hereof to be executed on its behalf, the day and year first hereinabove written.

## Signature Clause

SIGNED AND DELIVERED BY THE

Reserve Bank of India by the hand of

Shri \_\_\_\_\_

(name and designation)

in the presence of

(1)

Address

(2)

Address

Witnesses

SIGNED AND DELIVERED BY

If the party is a partnership firm or

\_\_\_\_\_ in the presence of \_\_\_\_\_ an individual should  
be signed by

(1)

all or on behalf of all the partners.

Address

(2)

Address

Witnesses

THE COMMON SEAL OF

\_\_\_\_\_

was hereunto affixed pursuant to the  
resolutions passed by its Board of Directors at  
the meeting held on \_\_\_\_\_ in  
the presence of

(1)

(2)

Directors, who have signed these presents in  
token thereof in the presence of

(1)

(2)

If the Contractor signs under its  
common seal, the signature clause  
should tally with sealing clause in the  
Articles of

Association.

SIGNED AND DELIVERED BY

If the Contractor is signing by the hand  
of power of attorney, whether a  
company or individual.

The Contractor by the hand of

Shri

\_\_\_\_\_

**UNDERTAKING**

**(Regarding Site Visit by The Tenderer in Order to Understand the Work)**

To,  
The Regional Director  
Reserve Bank of India  
Estate Department  
Patna, 800001

Dear Sir,

Name of Work: **Tender for Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in Substation Building of Bank’s MOB at Patna**

We, \_\_\_\_\_, the tenderer for the above

work confirm that we have visited the site and understood the proper details of the existing air circuit breaker working presently and also the scope of work for the proposed VCB.

Yours faithfully,

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

Authorized signatory

(Name and address of the company with Company Seal)

Date

Note: The firm needs to visit the site and get this document signed by Bank’s Engineer before submission.

**Unpriced Bill of Quantity**

**Name of the Work: Tender for Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in substation building of Bank’s MOB at Patna**

S.No	Description	Qty
1	Design, Supply, installation, testing and commissioning of indoor cubical type 3 panels 11 KV switch board comprising of Supply & Fixing of 3 Nos. 800 Amp. Vacuum circuit breakers (one incomer and two outgoing) and individually complete with all CT, PT for protection and metering, protection devices, relays. i) Tinned copper Bus bar with heat shrink PVC sleeve /Interconnection cabling, ii) Laying of all required control/protection and multicore FRLS copper cabling for protective relays/controls etc., iii) supply of one set of additional VCB spouts for spare and all accessories with IP rating of IP5X, fault indicator-audio-visual alarm system on panel, necessary hardware, connection etc., to complete the job, dismantling and termination of all power cables to & fro transformer etc. & as per detailed specifications mentioned in Part I & as directed by Bank’s Engineer. (A) i) Tinned copper Bus bar with heat shrink PVC sleeve /Interconnection cabling, ii) SMF battery with charger equipment including supply, fixing and laying of all required control/protection and multicore FRLS copper cabling from both the transformer Buchholz/ protective relays/controls etc., not exceeding about 50 meters and all accessories with IP rating of IP5X, fault indicator-audiovisual alarm system on panel, necessary hardware, connection etc., to complete the job & as per detailed specifications & directed by Bank’s Engineer.	01 Job
2	Less: Rebate for dismantling and taking away under buy back scheme- the existing entire complete H.T. panel, Siemens VCB (3 Nos.) and associated accessories etc., except battery charger. (B)	<b>01 Lumpsum</b>

**Note:** All the intending bidders are advised to visit the site of installation and acquaint themselves of the site conditions before quoting the rates. The site visit annexure needs to be signed by Bank’s engineers and submit along with other tender documents. **(Mandatory)**

Place:

Signature of Tenderer

Date:



**Reserve Bank of India  
Estate Department  
Patna**

**E-tender for**

**Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in  
substation building of Bank's MOB at Patna**

**Price Bid - Part II**

Name of the firm: \_\_\_\_\_

Address: \_\_\_\_\_

Name of contact person: \_\_\_\_\_

Due Date for submission: 14:00 Hrs. on July 21, 2025

Opening of Part – II: to be intimated later

Venue: RBI, Estate Department, Patna-800001



**Reserve Bank of India**  
**Estate Department**  
**Patna**

**Price Bid - Part II**

**Replacement of old 11 KV VCB (Vacuum Circuit Breaker) Panels (03 nos.) in  
substation building of Bank's MOB at Patna**

**Bill of Quantities**

Sr. No.	Description of items	Qty	Unit	Rate (Rs.) Including GST	Amount (Rs.) Including GST
1	Design, Supply, installation, testing and commissioning of indoor cubical type 3 panels 11 KV switch board comprising of Supply & Fixing of 3 Nos. 800 Amp. Vacuum circuit breakers (one incomer and two outgoing) and individually complete with all CT, PT for protection and metering, protection devices, relays. i) Tinned copper Bus bar with heat shrink PVC sleeve /Interconnection cabling, ii) Laying of all required control/protection and multicore FRLS copper cabling for protective relays/controls etc., iii) supply of one set of additional VCB spouts and all accessories with IP rating of IP5X, fault indicator-audio-visual alarm system on panel, necessary hardware, connection etc., to complete the job, dismantling and termination of all power cables to & fro transformer etc. & as per detailed specifications mentioned in Part I & as directed by Bank's Engineer. (A) iii) Tinned copper Bus bar with heat shrink PVC sleeve /Interconnection cabling, iv) SMF battery with charger equipment including supply, fixing and laying of all required control/protection and multicore FRLS copper cabling from both the transformer Buchholz/ protective relays/controls etc., not exceeding about 50 meters and all accessories with IP rating of IP5X, fault indicator-audiovisual alarm system on panel, necessary hardware, connection etc., to complete the job & as per detailed specifications & directed by Bank's Engineer.	01	Job		
2	Less: Rebate for dismantling and taking away under buy back scheme- the existing entire complete H.T. panel, Siemens VCB (3Nos.) and associated accessories battery charger. (B)	01	Lumpsum		
3	Net Amount after Buyback(C) = A - B				

**Note:** Firms having Lowest cost in SI No. "3" will be L1(Lowest one). Work order will be placed on capital cost (A) of the work.



Place:

Signature of Tenderer

Date:

Name

Name of firm with Seal

Designation