

**TENDER DOCUMENT FOR**

“ SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V OUTDOOR DRY TYPE TRANSFORMER & ALLIED ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET Delhi-110001”.

PART – 1

Through electronic mode only

TECHNICAL BID

IB/FGM/ETENDER/01/2024-25

Date: 20/05/2024

This Tender has 80 pages

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FORM OF E-TENDER

To,
Deputy General Manager ,
FGM Office,
1st floor, FGMO Delhi –
17, Parliament Street, New Delhi- 110001

Dear Sir/s,

Sub: “ SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V OUTDOOR DRY TYPE TRANSFORMER & ALLIED ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET Delhi-110001”.

Having duly examined the tender documents including the drawings, specifications, designs bill of quantities relating to the works specified in the under written memorandum and having visited / inspected the site of the said works and having acquired all the requisite information relating there to as affecting this tender, I/We hereby offer to execute the works specified therein at the rates specified in the Bill of quantities **(while submitting Price Bid)** and in accordance, in all respects, with the specifications, designs, drawings and instructions in writing referred to in the conditions of tender, the Articles of Agreement, Special Conditions, if any, the Bill of quantities and Conditions of Contract and with such materials are as specified, by and in all other respects in accordance with such conditions in the Bill of quantities and conditions of contract so far as applicable.

Thanking You,

Tenderers Name & Signature

Date and Company Seal:

NOTICE INVITING TENDER (E-tender)

Indian Bank, FGMO Delhi invites e-tender under 2 bid system from reputed and resourceful bidders for executing “ **SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V OUTDOOR DRY TYPE TRANSFORMER & ALLIED ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET DELHI -110001**”.

1.	Name of Work	“ SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V DRY TYPE TRANSFORMER & ALLIED ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET DELHI - 110001”.
2.	Estimated cost of work	Rs. 145 Lakhs (excluding all taxes)
3.	Period of completion	90 days reckoned from the 7 th day of issue of the work order or handing over of site whichever is later.
4.	Validity of e-Tender	90 days from the date of opening of Technical Bid
5.	Earnest Money Deposit (EMD)	Rs.2.90 Lakhs/- (Rupees Two Lakhs and Ninety Thousand only) BY NEFT. Bank/Branch: Indian Bank,Parliament Street Branch IFSC : IDIB000P582 A/c Name : FGM OFFICE (NORTH) NEW DELHI A/c Number : 50209980864 UTR details to be submitted along with Technical Bid.
6.	Initial Security Deposit (ISD)	2% of the Bid Amount (Including EMD amount)
7.	Retention Money (RM)	5% against each RA bill
8.	Total Security Deposit EMD+ISD+RM	7% of the cost. (50% will be released after 15days of payment of the final bill and the balance 50% will be released after the Defect liability Period of One year).

9.	Value of work for Interim Payment	Rs 50,00,000/- (Rupees Fifty Lakhs Only)
10	Tender Documents	The Tender Documents can be downloaded from the Bank's website www.indianbank.in & e-procurement portal: https://www.tenderwizard.com/indbank
11.	Cost of Tender documents	Rs. 1,000/- (Rupees One Thousand only) by NEFT.
12.	Liquidated Damages	1% for delay per week of the contract value subject to maximum of 10% of contract value.
13.	Pre-bid Meeting	On 03.06.2024 , 16.00 hrs, at FGM Office, 1 st floor, FGMO Delhi – 17, Parliament Street, New Delhi- 110001
14.	Last date of submission of Tenders (Through Online Mode only)	10.06.2024- 15.00hrs , through online mode only, at Indian Bank, FGM office, Premises dept., 1 st floor, 17, Parliament street, Delhi- 110001
15.	Date of Opening of Technical bid	10.06.2024- 17.00 hrs, through Online mode at FGM Office, 1 st floor, FGMO Delhi – 17, Parliament Street, New Delhi- 110001
16.	Date of Opening of Financial bid	Will be intimated later to the qualified Tenderers only.
17.	Defect Liability Period	12 Months from the date of Virtual Completion of work.

Note:

1. The Final Financial price bid will be decided through **Online mode.**
2. The bank reserves the right to reject any or all tenders/bids without assigning any reason.
3. The rates quoted by the Tenderer shall be based only on the specifications and conditions of the tender documents.
4. Bank is not liable to make any payment to tenderers either for inspection of site or for preparation to submit the tender/bid, regardless of the conduct or outcome of the bidding process.
5. Bank reserves the right to cancel the tender of the bidder who fails to submit their tender in the prescribed format of bank.

6. The bidding will be done through online mode only.

Deputy General Manager ,
FGM Office,
1st floor, FGMO Delhi –
17, Parliament Street, New Delhi- 110001 Email: fgmo.newdelhi@indianbank.co.in

PRE QUALIFICATION DOCUMENT

**“ SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF
1000 KVA, 11 KV/433V OUTDOOR DRY TYPE TRANSFORMER & ALLIED
ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET
DELHI - 110001”.**

Sub: “ SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V OUTDOOR DRY TYPE TRANSFORMER & ALLIED ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET DELHI - 110001”.

The intending bidders shall fulfill the following minimum **Criteria for pre-qualification** bidding for the above jobs: -

1.0 The bidder should hold valid Electrical Contractor grade license issued by the Electrical Licensing board of Delhi for carrying out HT & LT works. The copy of the license with expiry date shall be submitted along with tender.

2.0 EXPERIENCE

S.no	Eligible Work	Value – Rs. In Lakhs
1	Three similar completed works each costing not less than	58
2	Two similar completed works each costing not less than	73
3	One similar completed work each costing not less than	116

In the Last five years ending 31.03.2024.

Similar work shall mean “ **SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V TRANSFORMER & ALLIED ELECTRICAL WORKS**” executed in India.

3.0 **TURNOVER:** Average annual turnover from the works for the last three years ending 31st March 2024 should not be less than **Rs. 1.44 crores** as per the audited balance sheet.

4.0 **Profit / Loss:** - Tenderer should be a Net Profit making firm and should not have made losses in the last three continuous financial years.

Certificate(s) from Chartered Accountant / Statutory auditors specifying the net worth of the Applicants, as at the close of the preceding financial year.

- 5.0 **Solvency Certificate:** - The contractor should have a solvency of the amount of Rs. **58 Lakhs** duly certified by any Scheduled Bank **obtained on or after 01.04.2023.**

Other conditions

- 1.0 Interested parties meeting the above Tender criteria can download the tender document from banks website www.indianbank.co.in/tenders/etender or <https://www.tenderwizard.com/indbank> and submit experience profile, proof of meeting the above criteria, attested copies of completion/ work in progress certificates from the clients, audited certified balanced sheet for the last 3 (three) years, EPF /GST, Registration as Contractor with various PSUs, State PWDs, CPWD, MES, Railways and Autonomous Bodies (if any), details of Technical and Administrative employees, etc., through online mode <https://www.tenderwizard.com/indbank> - Application not accompanied by any of the above documents and EMD will be rejected at the discretion of Indian Bank.
- 2.0 No Joint Venture or consortium of firms shall be allowed.
- 3.0 Indian Bank reserves the right to verify the authenticity of the documents submitted by the contractors. Indian Bank also reserves the right to reject any or all applications, split the works or cancel the process without assigning any reason whatsoever may be.
- 4.0 The Panel of pre-qualified contractors shall be initially valid for three year. However Indian Bank reserves the right to curtail or extend at its sole discretion.
- 5.0 The bidder should possess the necessary testing instruments like Megger, clip on meter, earth resistance tester etc for carrying out the tests at any time.

SECTION I

INSTRUCTIONS TO TENDERERS

General

1.0 SCOPE OF TENDER BID

- 1.1 The Employer, as defined in the Tender document, hereinafter called "the Owner," wishes to receive tender documents.
- 1.2 Throughout these bidding documents, the terms "bid" and "tender" and their derivatives ("bidder"/"tenderer"), "bided /tendered", "bidding"/"tendering", etc. are Synonymous. Day means calendar day. Singular also means plural.
- 1.3 The approximate Estimated Value of the works is as indicated in the tender document

2.0 ELIGIBLE TENDERERS

2.1 This Invitation to Tender bid is open to all experienced and reputed contractors involved in “ **SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 2 Nos OF 1000 KVA, 11 KV/433V DRY TYPE TRANSFORMER & ALLIED ELECTRICAL WORKS AT INDIAN BANK, 17, PARLIAMENT STREET DELHI - 110001**

whether Individual or Sole Proprietor, Partnership firm, Private limited, or Public limited Company who satisfy the qualifying criteria. Joint ventures are not accepted.

2.2 The tenderers are required to forward the documents as indicated in the tender documents.

3.0 QUALIFYING CRITERIA

As given in Page No. 7,8 & 9 of this tender document.

Additional Requirement : Even though the tenderers meet the above qualifying criteria, they are liable to be disqualified if they have

- (a) Made misleading or false representation in the forms, statements and attachments in proof of the qualification requirements;

- (b) Records of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.
 - (c) Their business banned by any Central Govt. Department/Public Sector Undertakings or Enterprises of Central Govt.
 - (d) Not submitted all the supporting documents or not furnished the relevant details as per the prescribed format.
 - (e) Any one of the partners (in case of partnership firm) or any Directors in case of pvt ltd., or public ltd firm being convicted by a Court of law.
- 3.1 Tenderer shall submit the general information about them as per ProformaNo-I
- 3.2 Tenderer shall submit the list of major plant & machinery available with the firm as per Proforma No.- II
- 3.3 Tenderer should be in possession of 'A' Grade license or respective license issued by competent Authority (Respective state govt. Inspectorate).
- 3.4 Successful Tenderer should do all the liasoning works with NDMC for completion of works and certification.

4.0 SITE VISIT

- 4.1 The tenderer is advised to visit **(upon prior approval)**, and examine the Site of Works and its surroundings and obtain for itself on its own responsibility and cost all information that may be necessary for preparing the bid and entering into a contract for construction of the Works.
- 4.2 The tenderer and any of its personnel or agents will be granted permission by the Employer /Owner to enter upon its premises and lands for the purpose of such visit **(upon prior approval)**, but only upon the express condition that the tenderer, its personnel, and agents, will release and indemnify the Employer/Owner and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 4.3 Before submitting a Bid, the Tenderer shall be deemed to have satisfied himself by actual inspection of the site and locality of the works, Traffic conditions/restrictions, Availability of parking space, Transportation of materials that all conditions liable to be encountered during the execution of the works are taken into account and that the rates entered in the Price Bid document are adequate and all inclusive for the completion of work to the entire satisfaction of the Employer/Owner.

5.0 BID OPENING

5.1 Part-I of the Bid (Technical Bid) will be opened through Online mode and (the date and time intimated in the Notice Inviting tender (NIT)) mentioned in "Tender document" in presence of Tenderers or authorized representatives of Tenderers who wish to attend the opening of Bids. **Advance intimation will be given to all qualifying bidders of Technical Bid about the date, time. The bidders have to register their company in the e-Procurement portal <https://www.tenderwizard.com/indbank> obtain Digital Signature for participating in the online tender.**

6.0 PROCESS TO BE CONFIDENTIAL

6.1 Information relating to the examination, clarification, evaluation and comparison of bids, and recommendations for Tender shall not be disclosed to tenderers or any of their persons not officially concerned with such process until the Tender process is finalized.

7.0 EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

7.1 The Employer shall examine the bids to determine whether they are complete, whether the documents have been properly signed and whether the bids are generally in order, and all documents as per tender document have been submitted.

7.2 Prior to the detailed evaluation, Employer shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the tender documents. For purposes of this determination, a substantially responsive bid is one that confirms to all the documents as specified in the Tender document without material deviations, objections, Conditionality or reservation, material deviation, objection, conditionality or reservation is one;

- a) That affects in any substantial way the scope, quality or performance of the contract.
- b) That limits in any substantial way, inconsistent with the bidding documents, the Employers' rights or the successful Tenderer's obligations under the tender document or
- c) Whose rectification would unfairly affect the competitive position of other Tenderers who are presenting substantially responsive bids.

7.3 If a bid is determined to be not substantially responsive, it shall be rejected by the Employer.

8.0 EVALUATION OF TENDER BIDS

8.1 The bids, which are determined as substantially responsive, shall be evaluated based upon the criteria as given in qualifying criteria.

8.2 No Tenderer is permitted to canvass to Employer on any matter relating to this Bid. Any Tenderer found doing so is liable to be disqualified and his/their bid is liable to be rejected.

8.3 The Employer may visit few of the works completed by the tenderers, whom they claim satisfying the eligibility criteria (As a part of tender process).

9.0 The application should be type-written. The applicant should sign and stamp each page of the application.

10.0 Overwriting should be avoided. Correction, if any should be made by neatly crossing out, initialing, dating and rewriting. Pages of the Tender documents are numbered. Additional sheets, if any, added by the contractor, should also be numbered by him.

11.0 Any information furnished by the applicant found to be incorrect either immediately or at a later date, would render him liable to be debarred from Tender / tendering / taking up of work in Indian bank. If such applicant happens to be pre-qualified/enlisted contractor, his name shall be removed from the pre-qualified list of contractors.

12.0 All information called for in the enclosed forms should be furnished against the relevant columns. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant column. Even if no information is to be provided in a column, a 'NIL' or 'NO SUCH CASE' entry should be made in that column. If any particulars! Query is not applicable in case of the applicant, it should be stated as "not applicable". The applicants are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the applicant being rejected. Applications / Tender document submitted through Email. The Application / Tender document received after the due date and time of submission shall not be considered.

eProcurementSupport Desk Contact Details

M/s. Antares Systems Limited
#24, Sudha Complex, 3rd Stage, 4th Block
Basaveshwaranagar, Bangalore - 560 079.
Support Contact No. 9943277499/080-40482100/9731967722
Support Email: gunaseelan.m@antaressystems.com

2.3. SUBMISSION OF BIDS THROUGH E-TENDERING PORTAL

The Bid documents, to be uploaded as part of online bid submission, are as follows:

- a. Eligibility Criteria, along with all supporting documents required.
- b. All Annexure as per this tender on Bidder's letter head with authorizing person's signature and Bidder seal on all pages.
- c. All supporting documents and product literature in support of Technical specifications.
- d. Relevant brochures
- e. Compliance to Technical Specifications as per Technical Bid.
- f. Any other information sought by the Bank with relevant to this tender. Bidder should upload all the copies of relevant documents without fail in support of their bid and as per the instructions given in tender documents. If the files to be uploaded are in PDF format, ensure to upload it in "Searchable" PDF Format. After filling data in predefined forms bidders need to click on final submission link to submit their encrypted bid.

Please take care to scan documents so that total size of documents to be uploaded remains minimum. **All documentation evidence provided to the Bank shall be in PDF Format. The Scanned Documents shall be OCR enabled for facilitating "search" on the scanned document.** Utmost care may be taken to name the files/documents to be uploaded on e-tendering portal.

2.4. BID RELATED INFORMATION

Bidders must ensure that all documents uploaded on e-tendering portal as files or zipped folders, contain valid files and are not corrupt or damaged due to any processing at bidder PC system like zipping etc. It shall be the responsibility of bidder themselves for proper extractability of uploaded zipped files.

Any error/virus creeping into files/folder from client end PC system cannot be monitored by e-tender software/server and will be bidder's responsibility only.

In addition to uploading the documents in our e-Tendering portal, Bidders should also submit the following in a sealed envelope, super scribing with the tender Reference number, due date, Name of the Bidder, etc.

- a) Earnest Money Deposit/Bid Security
- b) DD towards Cost of bid document (Bidders may also remit the amount in the account number mentioned in Schedule 9)

OTHER INSTRUCTIONS

For further instructions like system requirements and manuals, the bidder should visit the e-tendering portal (<https://www.tenderwizard.com/indbank>), click on System Requirement Manual/ User Manual.

The following 'Four Key Instructions' for bidders must be assiduously adhered to

- a.** Obtain individual Digital Signing Certificate (DSC or DC) well in advance before tender submission deadline on e-tendering portal.
- b.** Register your organization on e-tendering portal well in advance before tender submission deadline on e-tendering portal
- c.** Get your organization's concerned executives trained on e-tendering portal well in advance before tender submission deadline on e-tendering portal
- d.** Submit your bids well in advance of tender submission deadline on e-tendering portal (Bank will not be responsible any problem arising out of internet connectivity issues).

Note: While the first three instructions mentioned above are especially relevant to first-time users of the e-tendering portal, the fourth instruction is relevant at all times.

Proforma – I

General Information

All Individual /Sole Proprietor/Partnership firm/Private limited/Public limited Company applying for pre-qualification are requested to complete the information in this form.

1	Name of Tenderer	
2	Head Office Address	
3	Address on which Correspondence should be done.	
	Tel. No.	
	Mobile no.	
	Fax No.	
	E-mail address	
4	Place of incorporation / registration	
5	Constitution of tenderer	
i)	Specify, if the tenderer is	
	a) An individual	
	b) A proprietary firm	
	c) A firm in partnership	
	d) A Limited Company or Corporation	
ii)	Attach a copy of Proprietorship or Partnership Deed or Article of Association or Incorporation of Company as the case may be .	
6	Bank solvency	
7	Turn Over for the years given below	
	2020 - 2021	
	2021 - 2022	
	2022 - 2023	
8	Give particulars of registration with Govt. / Semi Govt. / Public Sector Undertakings / Local Bodies.	
9.	Other details: a) EPF No. b) Labour license no c) PAN No. d) GST Registration No. (Copies to be enclosed)	
10.	Any other information considered necessary but not included above	



11.	Names and Titles of Directors and officers with designation to be concerned with this work with Designation of individuals authorized to act for the organization	
12.	Was the applicant ever required to suspend works for a period of more than six months continuously after commencement of works. If so, give the name of the project and give reasons thereof.	
13.	Has the applicant or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give the name of the project and give reasons thereof.	
14.	Has the applicant or any constituent partner in case of partnership firm, ever been debarred / black listed for tendering in any organization at any time? If so, give details	
15.	Has the applicant or any constituent partner in case of partnership firm, ever been convicted by a court of law? If So, give details	
16.	Detailed description and value of works successfully completed during the last five years as mentioned in Page no. 8	
17.	Furnish names and address of previous organization for which you have executed similar work in the recent past (At least three)	

Note: Only self attested copies to be furnished.

Date & Place

Signature & seal of the applicant

PROFORMA – II

List of major Plant and Machinery in possession of the firm

S.No.	Name of Plant & Machinery / equipment	Nos. Available Owned	*Other than col. No. C
A	B	C	D
1			
2			
3			
4			
5			
6			

Signature & seal of the applicant

Date & Place

Note:

- * In case of any arrangement for getting the equipment on lease, etc., authenticated proof of the same is to be submitted. Use separate sheets for providing more information.

PROFORMA II(a)

**DETAILS OF KEY TECHNICAL AND ADMINISTRATIVE PERSONNEL EMPLOYED BY
THE FIRM / COMPANY**

S.no	Designation	No of staffs	Names	Qualification	Professional Experience	Years of Experience in this firm

Seal and Signature of the applicant

Date and Place

FINANCIAL INFORMATION

I Financial Analysis – Details to be furnished duly supported by figures in Balance Sheet/Profit and Loss Account for the last three years ended 31.03.2024 duly certified by the Chartered Accountant, as submitted by the applicant to the Income-Tax Department (Copies to be attached). If the audited statement as of 31.03.2024 is not available, preceding 3 years statements may be furnished. Statement as on 31.03.2024 may be submitted immediately on finalization.

FINANCIAL YEARS	21-22	22-23	23-24
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(i) Gross Annual turn-over in
Works: mentioned in the NIT

(ii) Profit
or
Loss

(iii) Financial position:

(a) Cash

(b) Current Assets

I Current Liabilities

IV) Net Working capital (b-c)

(b)Current Ratio:

Current Assets/Current Liabilities (b/c)

I Acid Test Ratio:

Quick Assets/Current Liabilities (a/c)

V. Income Tax clearance Certificate

VI. Solvency certificate from Bankers (Scheduled Bank) of Applicant.

VII. Financial arrangements for carrying out the proposed work

Date and Place

SIGNATURE OF APPLICANT(S)

Signature of Chartered Accountant with seal of the Applicant

PROFORMA IIIA

**LIST OF SIMILAR WORKS SATISFYING QUALIFICATION CRITERIA
COMPLETED DURING THE LAST 5 YEARS**

S.No	Clients Name & Address	Name of the work & Location	Scope of work carried out by the bidder	Agreement/ Letter of Award No. & Date	Contract Value	Date of start	Date of completion	Reasons for delay in Completion, if any	Ref. Or Document (with page no.) in support of meeting Qualification Criterion

PROFORMA IIIB

LIST OF WORKS ON HAND

S.No	Clients Name & Address	Name of the work & Location	Scope of work	Agreement/ Letter of Award No. & Date	Contract Value	Date of start

PROFORMA – IV

**Certificate of Credit Facility
(Solvency) (On Bank's letter Head)**

This is to certify that M/s _____, is a reputed firm / company with a good financial standing.

The firm / company is enjoying a fund based credit facility of Rs. _____ to meet its working capital requirements.

Signature

Name, Designation &

Address of Bank

BANK'S SEAL

NOTE: The above certificate shall be from Scheduled Bank.

PROFORMA V

PERFORMANCE REPORT FOR WORKS REFERRED TO IN PROFORMA III (A)

1. Name of the work / Project & Location.
2. Scope of work.
3. Agreement No.
4. Estimated Cost
5. Tendered Cost
6. Value of work done
7. Date of Start
8. Date of completion
 - a. Stipulated date of completion.
 - b. Actual date of completion.
9. Amount of compensation levied for delayed Completion if any.
10. Performance report based on quality of work, Time Management, and Resources :
Very Good/Good/Fair/Poor

Date and Place

**SUPERINTENDING ENGINEER /
CHIEF PROJECT MANAGER
OR EQUIVALENT.**

SPECIAL INSTRUCTIONS TO E-TENDERERS

Time of Completion, Extension of Time & Progress Chart

Time of Completion:

The entire work is to be completed in all respects within the stipulated period of **90** days. The work shall be deemed to be commenced within seven days from the date of issue of Work order or date of handing over of site, whichever is later. Time is the essence of the contract and shall be strictly observed by the Tenderer.

The work shall not be considered as complete until the Consultants have certified in writing that this has been completed and the Defects Liability Period shall commence from the date of such certificate.

The contractor may plan and execute all the works around the clock.

Extension of Time:

If in the opinion of the Indian Bank/Consultants / Project Management Consultants the works be delayed (a) by reason of any exceptionally inclement weather, or (b) by reason of instructions from the Indian Bank in consequence of proceedings taken or threatened by or disputes, with adjoining or neighboring owners or (c) by the works, or delay, of other Tenderers or tradesmen engaged or nominated by the Indian Bank and not referred to in the specification or (d) by reason of authorized extra and additions or (e) by reason of any combination of strikes or lock-out affecting any of the building trades of (1) from other causes which the Indian Bank may consider being beyond the control of the Tenderer, the Indian Bank at the completion of the time allowed for the contract shall make fair and reasonable extension of time for completion in respect thereof. In the event of the Indian Bank failing to give possession of the site upon the day specified above the time of completion shall be extended suitably.

In case of such strikes or lockouts, as are referred to above, the Tenderer shall, immediately give the Indian Bank, written notice thereof. Nevertheless the Tenderer shall use his best endeavors all that to prevent delay, and shall do all that may be reasonably required to the satisfaction of the Indian Bank to proceed with the works and on his doing so, it will be ground of consideration by the Indian Bank for an extension of time as above provided. The decision of the Indian Bank as to the period to be allowed for an extension of time for completion hereunder (which decision shall be final and binding on the Tenderer) shall be promulgated at the conclusion of such strike or lock-out and the Indian Bank shall then, in the event of an extension being granted, determine and declare the final completion date. The provision in clause 5 with respect to payment of liquidated damages shall in such case, be read and construed as

if the extended dated fixed by the Indian Bank were substituted for and the damage shall be deducted accordingly.

Progress of Work:

During the period of construction, the Tenderer shall maintain proportionate progress on the basis of a Programme Chart submitted by the Tenderer immediately before commencement of work and agreed to by the Indian Bank / Consultants. Tenderer should also include planning for procurement of scarce material well in advance and reflect the same in the Programme Chart so that there is no delay in completion of the project.

2. Defects Liability Period (DLP)

- a) It must be realized that this period is for exposure of "latent defects" such as settlements, shrinkages or expansion cracks, undue weathering and wear due to faulty material and workmanship.
- b) The DLP commences from the certified date of Virtual Completion issued by the Consultants. DLP – 1 year from the Date of issue of Virtual Completion Certificate for the work by Consultants.
- c) Whenever the Indian Bank is of the view that the defects in the workmanship and/or materials used are likely to be apparent only over a long period, the Defect Liability Period may be extended as deemed fit.

3. Date of Commencement

Normally, Date of commencement shall be either 7 Days from the Work order issued to the Tenderer or the day on which Tenderer is instructed to take possession of the site, Whichever is earlier.

4. Date of Completion

Date of completion shall be arrived at after adding the time allowed for the execution of the work to the date of commencement of work.

5. Period of Final Measurement

The period of final measurement after completion shall be made taken into account the complexity of the work and staff available for carrying out measurements.

All hidden works shall have already been measured as the work progressed in presence of Tenderers, Indian Bank, Consultant and respective specialized consultants to check up the quality and method of installation. It should be noted that unless a longer period is stipulated, the condition of contract generally lays down three months (maximum) from

the date of completion of the contract as the period of final measurement. Even though the maximum period of three months is mentioned, it shall be endeavored to complete the measurements as expeditiously as possible.

6. Period of Honoring Interim Certificate

The period shall be ten days from the date of receipt of the certificate from the Consultant along with M Book only signed by the Tenderer consultants & Consultant.

7. Period of Honoring Final Certificate

The period shall be one month from the date of receipt of the final bill certificate from the Consultant along with M book duly signed by Tenderer, Consultant and Consultants and statutory Certificates wherever necessary along with as built drawings of the works executed. No due certificate from self as well as from the sub agencies involved by the main contractor should be produced to the bank at the time of submitting final bill by the main contractor.

8. Retention Money

The retention percentage (I.e. deduction from interim bill) shall be 5% of the Gross value of each interim bill. The maximum amount of retention money shall be the balance amount of the Total Security Deposit. 50% of the retention amount will be refunded to the Tenderer on completion subject to the following:

- Issue of Virtual Completion Certificate by the Consultant.
- Tenderer's removal of his materials, equipment, labour force, temporary sheds/stores etc. from the site. (excepting for a small presence required if any for the Defect Liability Period and approved by the Indian Bank) The remaining 50% of the amount may be refunded 14 (Fourteen) days after the end of defects liability period provided he has satisfactorily carried out all the works and attended to all defects in accordance with the conditions of the Contract, including site clearance.

9. Receiving, Opening and Recording of Tenders

Part-A tender will be opened at **17.00** hours on the same day as the last day of the receipt (through online mode only).

After technical evaluation, intimation will be given to all qualifying bidders about the date, time of opening of e- Price bid.



GENERAL CONDITIONS OF CONTRACT

Except where provided for in the description of the individual items in the schedule of quantities and in the specifications and conditions laid down hereinafter and in the Drawings, the work shall be carried out as per standard specifications and under the direction of Consultants.

1. Interpretation

In construing these conditions, the specifications, the schedule of quantities, tender and Agreement, the following words shall have the meaning herein assigned to him except where the subject or context otherwise requires:

- i. Indian Bank: The term Indian Bank shall denote Indian Bank with their FGM Office at 17, Parliament street Delhi – 110001 and any of its employees representative authorized on their behalf.
- ii. Tenderer: - The Term Tenderer shall mean (to the firm the contract is awarded) and his / their heirs, legal representatives, assigns and successors.
- iii. Site: The site shall mean the site where the works are to be executed as shown within boundary in red border on the site plan including any building and erections thereon allotted by the Indian Bank for the Tenderer's use.
- iv. Drawings: The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the Indian Bank during the execution of the work.

All drawings relating to work given to the Tenderer together with a copy of schedule of quantities are to be kept at site and the Consultants shall be given to such drawings or schedule of access whenever necessary.

In case any detailed Drawings are necessary Tenderer shall prepare such detailed drawings and or dimensional sketches there for and have it confirmed by the Indian Bank/ Consultants/PMC as case may be prior totaking up such work.The Tenderer shall ask in writing for any clarifications.

- v. “The Works” Shall mean the work or works to be executed or done under this

contract.

- vi. “Act of Insolvency” shall mean any act as such as defined by the Presidency Towns Insolvency act or in Provincial Insolvency Act or any amending Statutes.
- vii. “The Schedule of Quantities” shall mean the schedule of quantities as specified and forming part of this contract.
- viii. “Priced Schedule of Quantities” shall mean the schedule of quantities duly priced with the accepted quoted rates of the Tenderer.

2. Tenders

a) Technical Bid

The entire set of e-tender issued to the tenderer should be submitted fully signed on every page. Signature will indicate the acceptance of the tender papers by the tenderer. Signed copy of Technical Bid to be uploaded in the website.

b) Price Bid - **the price should be quoted in the Price Bid format attached to this bid through on-line mode only.**

The Indian Bank reserves the right to reject the lowest or any tender and also to discharge any or all of the tenders for each section or to split up and distribute any item of work to any specialist firm or firms, without assigning any reason.

The tenderers should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self-supporting. If called upon by the Indian Bank/ Consultants detailed analysis of any or all the rates shall be submitted. The Indian Bank/ Consultants shall not be bound to recognize the Tenderer's' analysis.

The works will be paid for as "measured work" in the basis of actual work done and not as "lump sum" contract, unless otherwise specified. All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly, related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump-sum charges in the tender in respect of any item of works, the payment of such items of work will be made for the actual work done on the basis of lump-sum charges as will be assessed to be payable by the Indian Bank.

The Indian Bank has power to add to, omit from any work as shown in drawings or described in specifications or included in schedule of quantities and intimate the same in



writing but no addition, omission or variation shall be made by the Tenderer without authorization from the Indian Bank. No variation shall vitiate the contract. Please also refer to para 9 hereinafter.

The tenderer shall note that his tender shall remain open for consideration for a period as specified in General rules and Instructions under Item no 10. from the date of opening of the price of the tender.

3. Agreement

The successful Tenderer is required to sign agreement as may be drawn up to suit local conditions and shall pay for all stamps and legal expenses, incidental thereto.

4. Permits and Licenses

Permits and licenses for release of materials which are under Government control will be arranged by the Tenderer. The Indian Bank will render necessary assistance, sign any forms or applications that may be necessary.

The Indian Bank/ Consultant / PMC shall be indemnified against all Government or legal actions for theft or misuse of cement M.S. rods and any controlled materials in the custody of the Tenderer.

It may be clearly understood that no compensation or additional charges can be claimed by the tenderer for non-availability of such materials in due time on this account or according to his own requirements.

5. Government and Local Rules

The Tenderer shall conform to the provisions of all local Bye-laws and Acts relating to the work and to the Regulations etc., of the Government and Local Authorities and of any company with whose system the structure is proposed to be connected. The Tenderer shall give all notices required by said Act, Rules, and Regulations and Bye-laws etc., and pay all fees / fines payable to such authority / authorities for execution of the work involved. The cost, if any, shall be deemed to have been included in his quoted rates, taking into account all liabilities for licenses, fees for footpath encroachment and restorations etc., and shall indemnify the Indian Bank against such liabilities and shall defend all actions arising from such claims or liabilities.

6. Taxes and Duties

The tenderers must include in their tender prices quoted for all duties royalties, cess and Sales tax or any other taxes or local charges if applicable. GST will be payable extra as applicable. No extra claim on this account will in any case be entertained.



The tenderer shall keep necessary books of A/C & other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by duly authorized representative of the Indian Bank and or the Engineer-in-charge and further shall furnish such other information / document as the Indian Bank may require from time to time.

7. Quantity of Work to be executed

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the Indian Bank reserves the right to execute only part or the whole or any excess thereof without assigning any reason therefore. Variation in the value is however not expected to be more than 25%.

8. Persons Engaged by the Indian Bank

The Indian Bank reserves the right to execute any part of the work included in this contract or any work which is not included in this contract by other Agency or persons and Tenderer shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The main Tenderer shall extend all cooperation in this regard.

9. Earnest Money and Security Deposit

The tenderer will have to deposit an amount of Rs. 2.90 Lakhs (Rupees Two Lakhs and Ninety Thousand Only) through NEFT / RTGS at the time of submission of tender as an Earnest Money. The Indian Bank is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the acceptance of the selected tenderer after award of work or after the expiry of the validity period of the tender.

Apart from the EMD, retention money shall be deducted from progressive running bills @ 5% of the gross value of each running bill until the Total Security Deposit, i.e., EMD and the retention money equals 7% of the project cost. 50% of the total security deposit shall be released on successful completion of the works and after obtaining Virtual completion certificate from the Consultant and No Claim certificate by the tenderer to the Indian Bank.

The balance retention amount 50% will be refunded after the end of defects liability period as mentioned in point no.2 of this special condition of contract provided he has satisfactorily carried out all the work and attended to all defects in accordance with the conditions of the contract. No interest is allowed on retention money. A part of the Security Deposit if and as decided by a constituent Indian bank can also be furnished in the form of a Indian bank guarantee on a Indian bank other than that of the constituent Indian bank.

10. Tenderer to provide everything necessary

The Tenderer shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Tenderer finds any discrepancies therein he shall immediately and in writing, refer the same of the Indian Bank/ Consultant whose decision shall be final and binding.

The Tenderer shall provide himself for ground and fresh water for carrying out of works at his own cost. The Indian Bank shall on no account be responsible for the expenses incurred by the Tenderer for hired ground or fresh water obtained from elsewhere.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplation of the contract, and beyond the unit price no extra payment will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents.

The Tenderer shall supply, fix and maintain at his own cost, for the execution of any work, all tools, tackles, machineries and equipments and all the necessary centering, scaffolding, staging, planking, timbering, strutting, shoring, pumping, fencing, boarding, watching and lighting by night as well as by day required not only for the proper execution and protection of the said work but also for the protection for the public and safety of any adjacent roads, streets, walls, houses, buildings, all other erections, matters and things and the Tenderer shall take down any remove any or all such centering, scaffolding, planking, timbering, strutting, shoring, etc., as occasion shall be required or when ordered so to do, and shall fully reinstate and make good all matters and things disturbed during the execution of the works to the satisfaction of the Indian Bank/ Consultants.

The Tenderer shall also provide such temporary road on the site as may be necessary for the proper performance of the contract, and for his own convenience but not otherwise. Upon completion, such roads shall be broken up and leveled where so required by the drawings unless the Indian Bank shall otherwise direct. The Tenderer shall at all times give access to workers employed by the Indian Bank or any men employed on the buildings and to provide such parties with proper sufficient and if required, special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc., in any work, where directed by the Indian Bank as may be required to enable such workmen to lay or fix pipes, electrical wiring, special fittings etc. The quoted rates of the tenderers shall accordingly include all these above mentioned contingent works.

11. Tools, Storage of Materials, Protective Works and Site Office Requirements

The Tenderer shall maintain a site engineer/ supervisor to receive instruction notices or



communications etc.

All drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants, and other insects.

The Tenderer shall provide at his own cost all artificial light required for the work and to enable other Tenderers and sub-Tenderers to complete the work within the specified time.

The Tenderer shall use the toilets identified by the Indian bank for use of their workmen and keep the same in a clean and sanitary condition to the satisfaction of the Indian bank / Public Health Authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall make good all the works disturbed by these conveniences.

Every precaution shall be taken by the Tenderer to prevent the breeding of mosquitoes on the works during the construction, and all receptacles; cisterns, water tanks etc., used for the storage of water must be suitably protected against breeding of mosquitoes.

The Tenderer shall indemnify the Indian Bank against any breach of rules in respect of anti-malarial measures.

The Tenderer shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed in or upon any boarding, gantry, building structure other than those approved by the Indian Bank.

Protective Measures: The Tenderer from the time of being placed in possession of the site must make suitable arrangements for watching, lighting and protecting the work, the site and surrounding property by day, by night, on Sundays and other holidays.

Tenderer shall indemnify the Indian Bank against any possible damage to the building, roads, or members of the public in course of execution of the work.

The Tenderer shall provide necessary temporary enclosures, gates, entrances, etc., for the protection of the work and materials and for altering and adopting the same as may be required and removing on completion of the works and making good all works disturbed.

Storage of materials: The Tenderer shall provide and maintain proper sheds for the proper storage and adequate protection of the materials etc. and other work that may be executed on the site including the tools and materials of sub-Tenderers and remove same on completion. Cement should be stored one feet above the ground level and have raised floor.

Tools: The theodolite levels, steel and metallic tapes and all other surveying instruments found necessary on the works shall be provided by the Tenderer for the due performance of this contract as instructed by the Site Engineer. All measuring tapes shall be of steel and

suitable scaffolding and ladders that may be required for safely taking measurement shall be supplied by the Tenderer.

The masteries and the supervisors on the works shall carry with them always a one meter or two meter steel tape, a measuring tape of 3 meters, a spirit level, a plumb bob and a square and shall check the work to see that the work is being done according to the drawing and specifications. The Site Engineer will use any or all measuring instruments or tools belonging to the Tenderers as he chooses for checking the works executed or being executed on the contract. The Tenderer should cover in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc. by sub-Tenderers for their work.

12. Notice and Patents of Appropriate Authority and Owners

The Tenderer shall confirm and adhere to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye- laws of any authorities, and/or any water, lighting and other companies, and/or authorities with whose systems the structures were proposed to have connection and shall before making any variations from the drawings or specification that may be associated to so conform, give the Indian Bank/ Consultants written notices specifying the variations proposed to be made and the reasons for making them and apply for instruction thereon. The Indian Bank/ Consultants on receipt of such intimation shall give a decision within a reasonable time.

13. Clearing Site and Setting out Works

The site shown on the plan shall be cleared of all obstructions, loose stone, and materials rubbish of all kinds. All holes or hollows whether originally existing or produced by removal or loose stone or materials shall be carefully filled up with earth well rammed and leveled off as directed at his own cost. The Tenderer shall set out the works and shall be responsible for the true and perfect setting out of the work and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of the work, the Tenderer shall at his own expenses rectify such error, if called upon to the satisfaction of the Indian Bank. The Tenderer shall further set out the works to the alternative positions at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

14. Tenderer Immediately to Remove All Offensive Matters

The Tenderer shall keep the foundations and works free from water and shall provide and maintain at his own expenses electrically or other power driven pumps and other plant to the satisfaction of the Indian Bank for the purpose, until the building is handed over to the Indian Bank. The Tenderer shall arrange for the disposal of the water so accumulated to the satisfaction of the Indian Bank and local authority and no claims will be entertained afterwards if he does not include in his rates for the purpose.

15. Access

Any authorized representative of the Indian Bank shall at all reasonable times have free access to the works and/or to the, workshops, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained, and the Tenderer shall give every facility to the Indian bank or their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Indian Bank no person shall be allowed at any time without the written permission of the Indian Bank.

16. Materials, Workmanship, Samples, Testing of Materials

All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workmanlike manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by the Indian Bank/ Consultants during the execution of the work, and to his entire satisfaction.

If required by the Indian Bank/ Consultants the Tenderer shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Indian Bank/ Consultants at his own cost to prove that the materials etc. Under test conform to the relevant I.S. Standards or as specified in the specifications. The necessary charges for preparation of mould (in case of concrete cube) transporting, testing etc., shall have to be borne by the Tenderer. No extra payment on this account should in any case be entertained.

All works to be carried out generally as per BIS Specifications.

Branded items, i.e., BIS compliant items specified in the tender shall not be tested separately. However the other items if approved by Indian bank are subjected to testing as per tender specifications.

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales tax, octroi and other charges and must be the best of their kind available and the Tenderers must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best workmanlike manner. Samples of all materials to be used must be submitted displayed to the Indian Bank/ Consultants when so directed by the Engineer/ Consultants and written approval from Indian Bank/ Consultants must be obtained prior to placement of order.

During the inclement weather the Tenderer shall suspend concreting and plastering for such time as the Indian Bank/ Consultants may direct and shall protect from injury all work

when in course of execution. Any damage (during constructions) to any part of the work for any reasons due to rain, storm, or neglect of Tenderer shall be rectified. by the Tenderer in an approved manner at no extra cost.

Should the work be suspended by reason of rain, strike, lock -o-ts or any other cause, the Tenderer shall take all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these causes.

The Tenderer shall cover up and protect from damage, from any cause, all new work and supply all temporary doors, protection to windows, and any other requisite protection for the execution of the work whether by himself or special tradesmen or sub-Tenderer and any damage caused must be made good by the Tenderer at his own expenses.

The contractor shall prepare for approval of Consultant the “Co-ordinated services drawings” for pre-planned openings so that the alterations are reduced to the minimum.

17. Removal of Improper Work

The Indian Bank shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Indian Bank / Consultants are not in accordance with specification or instructions, the substitution or proper re-execution of any work executed with materials or workmanships not in accordance with the drawings and specifications or instructions. In case the Tenderer refuses to comply with the order the Indian Bank shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Indian Bank/ Consultants shall be borne by the Tenderer or may be deducted from any money due to or that may become due to the Tenderer. No certificate which may be given by the Consultants shall relieve the Tenderer from his liability in respect of unsound work or bad materials.

18. Bank Engineer/Consultant:

The term "Site Engineer/PMC" shall mean the person/agencies appointed and paid by the Indian Bank to superintend the work. The Tenderer shall afford the BankEngineer/consultant every facility and assistance for examining the works and materials and for checking and measuring work and materials. The Site Engineer/PMC shall have no power to revoke, alter, enlarge or relax any requirements of the Tenderer or to sanction any day work, additions, alterations, deviations or omissions or any extra work whatever, except in so far as such authority may be specially conferred by a written order of the Indian Bank.

The Bank Engineer/Consultant shall have power to give notice to the Tenderer or to his foreman, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Indian Bank is obtained.



The work will from time to time be examined by the consultant, Engineer from the Premises Department of the Indian Bank and the Site Engineer if any. But such examination shall not in any way exonerate the Tenderer from the obligation to remedy any defects which may be found to exist at any stage of the work or after the same is complete. Subject to the limitations of this clause the Tenderer shall take instructions only from the Consultant/Indian Bank or his representative.

19. Tenderer's Employees

The Tenderer shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Indian Bank/ consultant. The Tenderer shall engage at least one experienced Engineer as site-in-charge for execution of the work. The Tenderer shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently. The Tenderer shall employ local labourers on the work as far as possible. No labourer below the age of eighteen years and who is not an Indian National shall be employed on the work.

Any labourer supplied by the Tenderer to be engaged on the work on day-work basis either wholly or partly under the direct order or control of the Indian Bank or his representative shall be deemed to be a person employed by the Tenderer.

The Tenderer shall comply with the provisions of all labour legislation including the requirements of

- a) The Payment of Wages Act 1936
- b) Indian Bank's' Liability Act 1938
- c) Workmen's' Compensation Act Contract Labour (Regulation & Abolition) Act, 1970 and Central Rules 1971 and subsequent amendments.
- d) Apprentices Act 1961
- e) Minimum Wages Act 1948
- f) Any other Act or enactment relating thereto and rules framed there Under from time to time.

The Tenderer shall keep the Indian Bank saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Indian Bank in connection with any claim that may be made by any workmen.

The Tenderer shall comply at his own cost with the order of requirement of any Health Officer of the State or any local authority or of the Indian Bank regarding the maintenance of proper environmental sanitation of the area where the Tenderer's' laborers are housed or accommodated, for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The Tenderer shall provide, maintain and keep in good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all times for the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the Tenderer to prevent nuisance of any kind on the works or the lands adjoining the same.



The Tenderer shall arrange to provide first-aid treatment to the laborers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works, report such accident to the Indian Bank and also to the Competent Authority where such report is required by law. Compliance of labour regulations:

20. Dismissal of Workmen

The Tenderer shall on the request of the Indian Bank immediately Withdrawal / remove from works any person employed thereon by him, who may in the opinion of the Indian Bank be unsuitable or incompetent or who may misconduct himself. Such Withdrawal / Remove shall not be the basis of any

claim for compensation or damages against the Indian Bank or any of their officer or employee.

21. Assignment

The whole of the works included in the contract shall be executed by the Tenderer and the Tenderer shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take a new partner, without written consent of the Indian Bank and no subletting shall relieve the Tenderer from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

22. Damage to Persons and Property Insurance Etc.

The Tenderer shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-Tenderer or of any of his or a sub-Tenderer's' employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include inter-alia, any damage to buildings whether immediately adjacent or otherwise, and any damage to roads, streets, foot paths or ways as well as damages caused to the buildings and the works forming the subject of this contract by rain, wind or other inclemency of the weather. The tenderer is also responsible for the damages/injury/accidents caused to any public in general / vehicles in general and pay necessary compensation or settlement or whatsoever in this regard.

The Tenderer shall indemnify the Indian Bank and hold harmless in respect of all and any expenses arising from any such injury or damages to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of compensation or damage consequent upon such claim.



The Tenderer shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damages to the property or third parties.

The Indian Bank shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sums due or to become due to the Tenderer.

23. Insurance

The Tenderer shall arrange to take “Tenderers all risk insurance policy including third party liability”, covering the entire period of contract right from the time the material sent out of factory, transportation and till virtual completion of the contract (including extended period if any) for the entire scope of works for a risk cover not less than the contract value. The third party insurance shall be for a sum of Rs. 5 Lakh per accident.

The Tenderer shall effect the insurance necessary and indemnify the Indian Bank entirely from all responsibility in this respect. The insurance must be placed with a company approved by the Indian Bank and must be effected jointly in the name of the Tenderer and the Indian Bank and the policy lodged with the latter. The scope of insurance is to include damage or loss to the work and workman due to carelessness accident, including fire, earthquake and floods etc., damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be effected from the very initial stage.

The Tenderer shall also be responsible for anything which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

Unless otherwise instructed the Tenderer shall insure the works and keep them insured until the virtual completion of the contract against loss or damage by fire and /or earthquake, flood. The insurance must be placed with a company approved by the Indian Bank, in the joint names of the Indian Bank and the Tenderer for such amount and for any further sum if called to do so by the Indian Bank, the premium of such further sum being allowed to the Tenderer as an authorized extra.

The Tenderer shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as though the fire has not occurred and in all respects under the conditions of the contract. The Tenderer in case of rebinding or reinstatement after fire shall be entitled to extension of time for completion as the Indian Bank may deem fit.

24. Accounts, Receipts & Vouchers



The Tenderer shall, upon the request of the Indian Bank furnish them, with all the invoices, accounts, receipts and other vouchers that they may require in connection with the works under this contract. If the Tenderer shall use materials less than what he is required under the contract, the value of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the Indian Bank shall be final and binding on the Tenderer as to the amount of materials the Tenderer is required to use for any work under this contract.

25. Measurement

All the Measurements should be taken in the presence of Bank officials/ Consultants. And the measurements shall be countersigned by the Bank officials.

26. Payments

All bills shall be prepared by the Tenderer in the form prescribed by the Indian Bank / Consultants. **Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents.** The bills in proper forms must be duly accompanied by detailed measurements in support of the quantities of work done and must show deductions for all previous payments, retention money, etc.

The Indian Bank/ Consultants shall issue a certificate after due scrutiny of the Tenderers' bill stating the amount due to the Tenderer from the Indian Bank and the Tenderer shall be entitled to payment thereof, within the period of honoring certificates named in these documents. In case of delay due to some reasons in the processing of such bills for payment, an advance of 75% of the billed Amount may be paid on the request of the Tenderer for the smooth progress of the work. The amount stated in an interim certificate shall be the total value of work properly executed and 75% of invoiced value of material brought to site for permanent incorporation into the work up to the date of the bill less the amount to be retained by the Indian Bank as retention money vide clause 11 of the general conditions of contract, less TDS, and less installments previously paid under these conditions, provided that such certificate shall only include the value of said material and goods as and from such time as they are reasonably, properly and not prematurely brought to or placed adjacent to the work and then only if adequately protected against weather or other casualties.

The Indian Bank will deduct retention money as per tender conditions.

If the Indian Bank has supplied any materials or goods to the Tenderer, the cost of any such materials or goods will be, progressively deducted from the amount due to the Tenderer in accordance with the quantities consumed in the work.

All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually, done and completed, and shall not preclude the Requiring of bad, unsound, and- imperfect or unskilled work to be; removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall, it conclude, determine or affect in anyway the power of the Indian Bank under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the Tenderer within one month of the date fixed for completion of the work or of the date of certificate of completion furnished by the Site Engineer and payment shall be made after checking the work completely. Payment will be made 75 % against supply of materials & 25 % against erection and commissioning, less statutory deductions.

27. Final Payment

The final bill shall be accompanied by a certificate of completion from the Consultants & Consultants. Payments of final bill shall be made after deduction of Retention Money, which sum shall be refunded after the completion of the Defects Liability Period after receiving the Indian Bank's' consultant's' 'certificate that the Tenderer has rectified all defects to the satisfaction of the Indian Bank/ Consultants. The acceptance of payment of the final bill by the Tenderer would indicate that he will have no further claim in respect of the work executed.

The contractor has to submit 2 copies of “As built drawings” of A2 or A1 size and in soft copy duly certified by the Consultant to the Bank along with final bill documents. Along with Every bill the contractor has to submit the photographs of the work executed.

28. ENHANCEMENT IN RATES AND QUANTITY VARIATION

The tender rates shall be fixed, firm and applicable for any increase or decrease in the tendered quantities. The Employer / consultant can increase or decrease any quantities to any extent or even delete particular item as per the site requirements and the contractor shall not be paid anything extra on this account. Nothing extra will be paid by the Indian Bank on account of omission /deletion of items or decrease in the quantity of items. The Bank shall not entertain any claim whatsoever from the contractor on this account. The price of all additional items / non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing. If similar items are not available, the rates for such items will be derived as per standard method of rate analysis based on prevalent fair price of labour, material and other components as required with 15% towards contractor's profit and overheads.

29. UNQUOTED ITEMS

The bidders to offer their competitive rates for each and every item listed in the Schedule of rates, the bidders who have not quoted for all the items as required in the SORs shall be liable for rejection. In case a bidder who has left certain items unquoted and if they happen to be overall lowest on evaluation, then their offers shall be considered subject to the unquoted items being taken as NIL cost. The bidder shall also give a clear undertaking to the effect that they shall execute the said items (unquoted) free of cost. In the event the bidder refuses the above conditions and insists on additional cost for the unquoted items, then such an offers shall be rejected as invalid.

For Extra works at the time of work in progress the contractor should submit the reasonable rate with the rate analysis and after approval given by the Consultant/ Bank that amount will be given.

30. ABNORMAL RATES

The Contractor is expected to quote rate for each items after careful analysis of costs involved for the performance of the complete item consisting all specifications and conditions of the contract. If it is noticed that the rates quoted by the tenderer for any items are unusually high (or) unusually low it will be sufficient cause for rejection of the tender unless the owner is convinced about the reasonableness of the rate on scrutiny of the analysis for such rate to be furnished by the tenderer on demand. Not with standing anything there in stand, the rate once accepted by the owner shall be final and shall not be subject to any claim either on account of un-workability of rates or on any other ground whatsoever.

31. Substitution

Should the Tenderer desire to substitute any materials and workmanship, he/they must obtain the approval of the Indian Bank/ Consultants in writing for any such substitution well in advance. Materials designated in this specification indefinitely by such term as "Equivalent" or "Other approved" specific approval of the Indian Bank/ Consultants has to be obtained in writing.

32. Preparation of Building Works for Occupation and Use on Completion

The whole of the work will be thoroughly inspected by the Tenderer and deficiencies and defects put right. On completion of such inspection the Tenderer shall inform the Indian Bank that he has completed the work and it is ready for inspection. On completion the Tenderer shall clean all windows and doors including the cleaning and oiling if necessary, of all hardware, inside and outside, all floors, stair-cases, and every part of



the building. He will leave the entire building neat and clean and ready for immediate occupation and to the satisfaction of the Indian bank.

33. Clearing Site on Completion

On completion of the works the Tenderer shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workman like condition to the satisfaction of the Indian Bank/ Consultants.

The main /Principal contractor is only responsible for the cleanliness of the site/building irrespective of numbers of sub agencies deployed by them to carryout various other works in the tender.

34. Defects after Completion

The Tenderer shall make good at his own cost and to the satisfaction of the Indian Bank all defects, shrinkage, settlements or other faults which may appear within 12 months after completion of the work. In default the Indian Bank may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the Tenderer and such damages, loss and expenses shall be recoverable from him by the Indian Bank or may be deducted by the Indian Bank, in lieu of such amending and making good by the Tenderer, deduct from any money due to the Tenderer a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the Tenderer from the amount retained under General Rules and instruction Special Instruction Clause 5 together with any expenses the Indian Bank may have incurred in connection therewith.

35. Concealed Work

The Tenderer shall give due notice to the Indian Bank/ consultant whenever any work is to be buried in floor / earth, concrete, ceilings or in the bodies of walls or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the opinion of the Indian Bank/ Consultant be either opened up for measurement at the Tenderer's'expense or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the notes of the Indian Bank/ Consultants shall be accepted as correct and binding on the Tenderer.

36. Escalation

The rate quoted shall be firm throughout the tenure of the contract (including extension of time, if any, granted) and will not be subject to any fluctuation due to increase in



cost of materials, labour, sales tax, octroi, etc. unless specifically provided in these documents.

37. Idle Labour

Whatever the reasons may be no claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

38. Suspension

If the Tenderer except on account of any legal restraint upon the Indian Bank preventing the continuance of the work or in the opinion of the Indian Bank shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default, the Indian Bank shall have the power to give notice in writing to the Tenderer requiring the work to be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be a notice under this clause.

After such notice shall have been given the Tenderer shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with. If the Tenderer fails to start the work within seven days after such notice has been given to proceed with the works as therein prescribed, the Indian Bank may proceed as provided in clause 40 (Termination of Contract by Indian Bank).

39. Termination of Contract by Indian Bank

If the Tenderer being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater Para, in number of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the Official Assignee in insolvency, or the Receiver of the Tenderer in insolvency, shall repudiate the contract, or if a Receiver of the Tenderer's firm appointed by the court shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Indian Bank that he is able to carry out and fulfill the contract, and if so required by the Indian Bank to give reasonable security therefore. or if the Tenderer shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the Tenderer, or shall assign, charge or encumber this contract or any payments due or which may become due to the Tenderer, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the Tenderer within three clear days after the notice shall have been given to the Tenderer in manner hereinafter mentioned requiring the Tenderer to observe or perform the same or shall use improper materials or workmanship in carrying on the works, or shall in the opinion of

the Indian Bank not exercise such due diligence and make such due progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the Indian Bank after three clear days notice requiring the Tenderer so to do shall have been given to the Tenderer as hereinafter mentioned, or shall abandon the contract, then and in any of the said cases, the Indian bank may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the Indian Bank of the obligations and liabilities of the Tenderer the whole on which shall continue in force as fully as if the Contract, had not been so determined and as if the works subsequently executed had been executed by or on behalf of the Tenderer (without thereby creating any trust in favour of the Tenderer) further the Indian Bank or his agent, or servants, may enter upon and take possession of the work and all plants, tools, scaffolding, sheds, machinery , steam and other power, utensils and materials lying upon premises or the adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Tenderers or other persons or person to complete the works, and the Tenderer shall not in any way interrupt or do any act, matter of thing to prevent or hinder such other Tenderers or other persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be, the Indian Bank shall give notice in writing to the Tenderer to remove his surplus materials and plants and should the Tenderer fail to do so within a period of 14 days after receipt by him the Indian Bank may sell the same by Public Auction and shall give credit to the Tenderer for the amount so realized. Any expenses or losses incurred by the Indian Bank in get the works carried out by other Tenderers shall be adjusted against the amount payable to the Tenderer by way of selling his tools and plants or due on account of work carried out by the Tenderer prior to engaging other Tenderers or against the Security Deposit.

40. Arbitration

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contract or the construction remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or branch of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Indian Bank hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, the Indian Bank will



send within thirty days of receipt of the notice, to the Tenderer a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed.

The Tenderer shall on receipt of the names as aforesaid, select anyone of the persons name to be appointed as a sole Arbitrator and communicate his name to the Indian Bank within thirty days of receipt of the names. The Indian Bank shall there upon without any delay appoint the said person as the Sole Arbitrator. If the Tenderer fails to communicate such selection as provided above within the period specified, the competent Authority shall make the selection and appoint the selected person as the Sole Arbitrator.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another Sole Arbitrator shall be appointed as aforesaid.

The work under the Contract shall, however, continue during the, arbitration proceedings and no payment due or payable to the Tenderer shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both the parties fixing the date of the first hearing.

The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

The Arbitrator shall give a separate award in respect of each dispute or difference referred to him. The Arbitrator shall decide each dispute, in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be in Delhi only as may be fixed by the Arbitrator in his sole discretion.

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award including the fees, if any, of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix or settle and amount of costs to be so paid. The award of the Arbitrator shall be final and binding on both the parties. Subject to aforesaid the provisions of the "Arbitration and Reconciliation Act 1996" or any statutory modification or re-enactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause.

The Indian Bank and the Tenderer hereby also agree that arbitration under clause shall be a condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

The arbitration proceedings will not preclude the right of approaching legal forum by the parties.

SAFETY CODE AND MODEL RULES FOR PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

Safety Measures

All people working shall be provided with safety helmets, safety shoes, goggles, gloves, Safety belts etc., which shall be worn by the workmen while performing work and people working at elevation more than 10 feet shall be always provided with safety belts at contractor's cost. The safety belts shall be properly fixed to a lifeline always while at work. The Contractor shall provide safe means of access to any working place including provisions of suitable and sufficient scaffolding at various stages during all operations of the work for the safety of his workmen. Contractor shall ensure deployment of appropriate equipment and appliances for adequate safety and health of the workmen and protection of surrounding areas. The Contractor shall ensure that all their staff and workers including their sub-contractor (s) shall wear Safety Helmet and Safety Shoes. Contractor shall also ensure use of safety belt, Protective goggles, gloves etc. by the personnel as per job requirements.

Contractor shall ensure that a proper Safety Net System and shall be used at appropriate locations. The safety net shall be located not more than feet (9.0 meters) below the working surface at site to arrest or to reduce the consequences of a possible fall of persons working at different heights.

Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.

Personal Safety Equipments:

All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the Tenderer should take adequate steps to ensure proper use of equipment by those concerned.

- a) workers employed on mixing asphalt materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- b) Those engaged in white washing and mixing or stacking of cement bags or any material that is injurious to the eyes shall be provided with protective goggles.
- c) Those engaged in welding works shall be provided with welder's protective eyesight lids.
- d) The Tenderer shall not employ men below the age of 18 years and women on the work of painting with products containing lead or any toxic material in any form. Wherever men above the age of 18 are employed on the work of precautions should be

taken:

iii. Overalls shall be supplied by the Tenderer to the workers and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

iv. When the work is done near any public where there is risk of necessary equipments should be provided and kept ready for use and all necessary steps take for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

First Aid

At every work place, there shall be maintained in readily accessible place, first aid appliance including an adequate supply of sterilized dressings and sterilized cotton wool. The appliance shall be kept in good order and in large work place, they shall be placed under the charge of a responsible person who shall be readily available during working hours.

Electricity & Water

Construction water shall be provided by Bank at one point at the cost of Rs.10000/- per month. The tenderer has to make his own arrangements for electrical power to carry out the work, in view of the Power restrictions imposed by State Electricity Board. If the contractor need power, the same will be provided at one / two points on chargeable basis by having separate energy meters at Rs.10/- per Unit.

Before starting the work the contractor has to submit the Scaffolding drawings and it is to be approved by the Consultant/Client. The Contractor is directly responsible for any accident, injury, disability and other such things that may happen to his workmen during working hours or outside working hours if they happen to be in the work site and that he will pay adequate compensation to such people. And the contractor has to take the full responsibility for these disabilities. The Contractor will be responsible for any accident or untoward incident that may happen to any person in the work site or near about due to inadequate safety measures, carelessness, negligence, incorrect procedures, inadequate supervision, improper methods, and that he will attend to all related police enquiry, court attendance and will bear the cost for all such expenses including compensation, if any, to be paid.



ARTICLES OF AGREEMENT

THIS AGREEMENT is made on this day ofmonth of between Indian Bank and having its Field General Manager Office at (hereinafter referred to as the "Employer") which expression shall include its successor, legal heirs and assignees of the one part.

AND M/s. having its office at
.....

(hereinafter referred to as the "Contractor") which expression shall include its successor, legal heirs and assignees of the second part.

WHEREAS the Employer has caused drawings and tender documents for **AND** whereas the Employer has called for tender vide ref. no. dated.....

AND whereas the contractor has submitted the tender ref. no. dated to the Employer on

AND whereas the Employer has issued the work order ref dated..... to the contractor to do the work.

AND whereas the Contractor has agreed to execute the work as per drawings, specifications, conditions of contract and Work Order.

AND whereas the Employer has accepted the Contractor's tender as aforesaid and whereas the tender submitted by the contractor has been accepted for such sum as may be ascertained to be payable in terms of the Bill of Quantities and which sum is estimated to be Rs. (Rupees) hereinafter referred to as the said "Contract Agreement".

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:-

- 1) consideration of the said Contract Sum to be paid at the times and in the manner set forth in the said Conditions the Contractor shall carry out and complete the Repair & Painting Works in terms and conditions herein contained and according to the general conditions of the contract, notice inviting tender, special conditions of contract, general scope of work,



technical specifications, schedule of rates and instructions to be given by and the supervision of and to the entire satisfaction of the Employer.

Contract Price, Taxes and Payment Terms :

Total contract price is Rs. which is inclusive of cost of materials, equipment, installation charges and tools and tackles required for execution of the job. Above price is exclusive of all taxes (GST) in respect of this contract.

Interim payment will be made as per the site measurements on Item Rate basis.

2) **Completion Period:**

Time is the essence of the Contract. The work is to be completed in all respects within **90 days reckoned from 7th day from the date of issue of the Work Order or handing over of site whichever is later.** If the Contractor fails to complete the job within the agreed time period the Contractor will have to bear liquidated damages as per the relevant clause mentioned in the Tender Documents.

3) **Earnest Money:**

The Contractor has deposited an amount of Rs. 2.90 Lakhs (Rupees Two Lakhs and Ninety Thousand only) as earnest money.

4) **Inspection of Site:**

The Contractor has inspected the site before submitting his tender and has satisfied himself as to the nature of the work to be executed on the site. Any difficulties which the Contractor may come across in the course of the work shall in no way relieve the contractor to claim or receive extra payment unless the Employer is of the opinion that such difficulties could not have been foreseen and the Employer consents in writing.

5) **Supply of Material and Labour:**

The Contractor shall arrange all labour, materials, equipments, tools, tackles and everything necessary for the completion of the work. The Contractor will assume all responsibility for the safety, protection and accounting of all material and equipment and the work during construction. All materials used by the Contractor shall be of the best

quality conforming to the required specification mentioned in the tender document and will be subject to the approval of the Employer. All such materials not approved by the Employer shall be removed at once by the Contractor at his own expense. The Contractor shall also at his own expense arrange for carrying out any test of materials which the Employer may from time to time require or if so desired by the employer.

6) **Defective Work / Materials:**

If any part of the work done by the Contractor is found defective in workmanship or if bad or inferior materials have been used the Contractor shall at his own risk and cost demolish all such defective work and rebuild the same and / or replace the bad or inferior materials used within a time frame mentioned to the satisfaction of the Employer. The decision of the Employer in this regard shall be final and binding on the Contractor. In case of default of the contractor to remove the defective work and rebuild the same or replace bad or inferior



materials as directed by the Employer, the Employer shall be entitled to employ anyone else to carry out the same at risk and cost of the Contractor and recover all expenses incurred in this regard from the contractor.

7) **Inspection of Work:**

During progress of the work the Employer shall be entitled at all times to have access to and inspect the work.

8) **Supervision:**

The Contractor shall provide one or more competent and technical qualified engineers duly and fully authorized to act on his behalf in all matters relating to the works to be carried out under or any other matter concerning this agreement and who shall at all times be present at the works while any work is in progress as per directions, explanations & instructions of Employer.

9) **Compliance with Statutory Regulations & Work Rules:**

The Contractor shall be responsible for complying with the applicable laws / bye laws / Regulations in force from time to time and shall have to bear all statutory liabilities to the workers / personnel engaged for the job. Nothing will be paid extra in this regard. If any amount is paid by the Employer with this regard the same amount shall be deducted from the Contractor's dues. The Contractor shall have to arrange insurance cover for the workers / personnel engaged by him for the job.

10) **Determination of Contract:**

In the event of Contractor failing to keep / adhere to agreed schedule of work, or in the event of the Contractor failing to comply with the provisions of this contract by default and / or negligence and / or suspension of work or in the event of Contractor failing to complete the work within the stipulated period, the Employer may terminate this Agreement forthwith and employ, at the Contractor's risk and cost, another contractor or sufficient number of workmen to complete the work.

11) **Force Majeure:**

This clause will be operative only if the work is delayed by

- a) Acts of God
- b) Earthquake or floods or similar natural calamities.
- c) Serious loss or damage by fire or lightning.

In case any Force Majeure condition herein mentioned occurs and continues for a period exceeding 15 days the parties here to undertake to sit together and devise ways for expeditious and proper performance of the obligations of the parties under this order.

12) **Arbitration:**

" In the event of any dispute or difference relating to interpretation and application of provisions of the contract and all disputes/claims whatsoever which shall either during the



continuance of the contract or afterwards either between the parties to the contract or the respective representatives touching the construction/application of any provision/clause mentioned in the contract or any account or liability between the parties to the contract or as to any act or deed or omission of any party to the contract, in any way relating to these presents, shall be first at the discretion of the Bank attempted to be resolved in good faith by mutual discussion within 30 days of the dispute or question being raised failing which the same shall be settled by arbitration in accordance with provisions of Indian arbitration and Conciliation act 1996.

The Parties concerned shall designate an arbitrator on mutual consent/consensus. In the event of no consensus being arrived, an Arbitral Tribunal shall be constituted comprising three Arbitrators, each party appointed one arbitrator and a third arbitrator to be appointed by the two arbitrators so appointed by the parties. The venue of the arbitration shall be exclusively at Delhi and any award passed by arbitrator or the arbitral Tribunal shall be final, conclusive and binding upon the parties and shall be deemed to have been made between parties themselves. The parties to the dispute shall share equally the cost of arbitration as intimated by the arbitrator".

The arbitration proceedings will not preclude the right of approaching legal forum by the parties.

IN WITNESS whereof the said contracting parties have set their hands and seals on the day and year first hereinabove witness.

Witness Address

Employer

Witness Address

Contractor

GENERAL SPECIFICATIONS

To be read in along with particular specifications and bill of quantities

These specifications are for work to be done, item to be supplied and materials to be used in the works as shown and defined on the drawings and described herein, to the satisfaction of the Employer / Consultant.

- 1). The workmanship is to be the best possible and of a high standard. The contractor shall take all steps immediately to make up deficiency if any noticed by the Employer/ Consultant. Use must be made of special tradesman in all aspects of the work and allowance must be made in the rates for the same.
- (ii). The materials to be provided by the contractor shall be in accordance with the samples already got approved from the Employer/ Consultant by the contractor and in conformity with specification and approved list of manufactures and brand. The contractor shall produce all invoices, vouchers or receipts for any materials if called upon to do so by the Employer/ Consultant.
- (iii). Samples of materials are to be submitted to the Employer/ Consultants for their approval before the contractor orders or delivers the materials to the site. Samples together with their packing are to be provided free of charge by the contractor and should any materials be rejected they will be removed from the site at the contractors expense. All samples will be retained by the Employer/ Consultants for comparison with materials which will be delivered at site. Also the contractor will be required to submit specimen finishes of colors, fabrics, etc. for the approval of the Employer/ Consultants before proceeding with the works.
- (iv). The contractor shall be responsible for providing and maintaining temporary coverage required for the protection of finished work. He is also to clean out all wood shavings, cuts ends and other waste from all parts of the works before covering or in fillings is constructed.
- (v). The contractor shall maintain uniform quality and consistency in workmanship throughout the execution of the work.

ANNEXURE-I

Technical Specifications for 1000 KVA 11 KV/433V Cast Resin transformer

SCOPE

Design, manufacture, testing and supplying of 1000 KVA, 11KV/433 V indoor step down, transformer complete with all the accessories and fittings as per the following.

CODES & STANDARDS

Transformer shall conform to Indian Standard IS: 11171

RATING

Transformer shall be suitable for continuous operation and maximum rating of 52A on 11 KV side and 1391A on the LV side

CONNECTIONS AND VECTOR GROUP

Delta on High Voltage side and star on low voltage side with neutral terminal brought out for solid earthing corresponding to the Vector Symbol Dyn - 11.

SYSTEM OF SUPPLY

3 phase, 50 Cycles, 11 KV

TAPPINGS

ON load tap changing on HV side. The tapplings to be provided for variation on HV side from +5% to -15% in steps of 1.25 % each. External air breaks on -load tap changing gear shall be provided for changing the taps. A circuit diagram shall be fixed on the taps to indicate the tapping positions. The same will be motor operated working on 415V 3-phase 50Hz system. A remote tap changing switch control shall be provided fitted with tap position switch, electronic tap position indicator, and other control elements and relays.

TEMPERATURE RISE

Continuously rated for full load, temperature rise not to exceed 90o C corresponding to Class "F" insulation.

TYPE

Indoor type.

TERMINALS

The cable box on 11 Kv side and LV sides

COOLING

A N Cooled. Forced cooling with fans as per tender requirements

INSULATION

Glass fiber reinforced epoxy cast resin type and class 'F'.

EARTHING

Two earthing terminals shall be provided at the bottom on both sides.

FITTINGS AND ACCESSORIES

A. The following fittings and accessories shall be provided for transformer:

- a. Transformer shall be provided with 4 Nos bi-directional rollers fitted on cross channels to facilitate the movement of the transformer in both directions.
- b. Lifting lugs
- c. Diagram and rating plate shall be provided indicating the details of transformer, connection diagram, Vector group, tap changing diagram etc.
- d. HV Cable terminating facility for XLPE aluminium cable.
- e. LV Cable terminating facility for XLPE aluminium cable
- f. Winding Temperature indicator electronic type with alarm/ trip contacts mounted in a marshalling box with wired external terminals for external cable connections.
- g. Disconnecting chamber shall be provided for cable termination.

B. Construction

IRON CORE

The core shall consist of grain oriented laminations which shall be insulated on both sides for minimizing the losses.

WINDING

High Voltage and Low Voltage windings shall be made of copper and insulation shall be of class F. Both the windings shall be completely cast under vacuum into moulds. This

process shall form the insulation system of uniform glass fibre epoxy laminate of highest electrical and mechanical quality, into which windings shall be embedded without the formation of any voids.

Both the high voltage and low voltage windings of each phase shall be separately cast as one rigid tubular coil.

ENCLOSURE

The transformer shall be housed in 2 mm thick CRCA sheet steel enclosure mounted on bi-directional rollers. Enclosure shall be provided with metal screen at top and bottom for ventilation. Degree of protection of enclosure shall be IP-23. Transformer enclosure/doors shall be openable type and shall be provided with limit switches and wired to trip the 11 Kv Breaker if the same is opened when the transformer is ON.

DRAWINGS AND LEAFLETS

Three copies of manual giving complete instructions for the installation, operation and maintenance with circuit diagram, foundation and trenching details shall be provided with the transformer.

TESTS

All routine tests as per IS-1180 which is applicable shall be carried out at the factory in presence of the consultant/ client and copies of test reports shall be submitted for approval and records.

Type tests: The manufacturer should have type tested the similar rating transformer at CPRI for the following tests. 2 sets of all these type test reports shall be submitted for our approval

- a) Temperature rise test
- b) Zero sequence test for all taps
- c) Audible sound level test
- d) Impulse with stand test
- e) Short circuit with stand tests

Losses: The load and no-load losses shall be as permitted in the guide lines of IS-11171

Impedance: The percentage impedance as per IS-11171

Technical Specifications for 11KV RMU/Switch Gear

1.0 SCOPE

Indoor floor mounting motorized RMU, 4-way consisting of 2 no 11 KV 630A, VCB incomers feeders and 1 no 11 KV 630 Amp VCB bus couplers and 2 No's out going 1000 KVA Transformer feeders along with all protections relays etc.

The same shall be equipped with following:

1. All the VCB shall have arrangement in Switch gear panel in 3 positions, **Withdraw/Isolations-** to ensure complete shutdown , **Test positions-**to test all circuit breakers with all protection, **Service position.**
2. A separate Earth Breaker trolley shall be supplied to ensure complete system earth for shutdown.
3. All the panel shall be supplied CT and PT's according to requirement of protection relays such as over current, earth fault, Instant earth fault, power measurement as per IEC standards.
4. All the relays shall be micro processors based solid state latest model digital relay.
5. RMU/11 KV switch gear/ Transformer feeder control supply shall be as per site requirement in order to meet existing feeders.

2.0 REFERENCE CODES & DOCUMENTS

- 2.1 The design, manufacture and testing of equipment shall be in compliance with all applicable Indian Standards, Codes and Regulatory requirements.

3.0 INSTRUCTIONS TO BIDDER

- 3.1 Bidder shall follow the specification given in ES_11KV_SWBD (Engineering Standard for HV switchboard).
- 3.2 HT Switchboard shall be manufactured and supplied by the OEM of the Circuit Breaker. Design & manufacturing of HT switchboard by channel partner, franchise or sub-vendor of the OEM shall not be acceptable in any case.
- 3.3 The design of offered Metal Clad Switchboard shall be of Modular construction having

separate Bus-bar chamber, Breaker Chamber, cable chamber, PT Compartment and control instrumentation chamber and should have adequate partition. All cubicle shall be isolated with each other so that flashover in any compartment shall not propagate to other compartments.

- 3.4 All power Cable shall be terminated through Heat Shrinkable Termination Kits. Cable Termination Kits are included in the bidder's scope. Suitable arrangement for Cable Termination through heat shrinkable type cable termination kits and supports for power cables shall be provided in each panel. Adopter box shall be provided for incomers for proper cable termination.
- 3.5 Breaker Rating of all Incoming feeder, bus coupler feeder and outgoing feeder shall be same.
- 3.6 Bidder to design panel by natural convection cooling only. Forced Cooling by fan or making extra opening with ventilation mesh box for cooling or any other opening shall not be allowed.
- 3.7 Bidder to provide anti condensation heater of adequate rating in Breaker chamber as well as Cable Chamber to avoid corona discharge even at 100% Relative Humidity as specified in Specification Sheet.
- 3.8 The offered switchgear shall be suitable for installation of earthquake Zone-IV as specified in specification sheet and shall comply the requirement of IEC/TS 62271-210
- 3.9 The complete assembly shall be dust, damp and vermin proof having minimum degree of protection equivalent to IP4X as per IS: 3427.
- 3.10 **Filled in Technical Particulars (TP 11KV SWBD) shall be furnished along with the bid.**
- 3.11 The Panel should be suitable to extend at both side for installation of additional panel to meet future requirement, if any.
- 3.12 Type test certificate from an independent testing authority shall be furnished along with the offer for each rating and type of circuit breaker & similar type of 11 kV switchboard.
- 3.13 **Copies of valid type test certificates for the following tests conducted on identical design of offered equipment shall be furnished with the offer:-**

S. No	Type Test	Location	Validity of Certificate
1.	Short time current withstand test for	Panel & breaker	Upto 5 years from the final bid opening date or design

	40 kA for 3 seconds.		change whichever is earlier
	Internal arc test for 40 kA for 1 second	Busbar chamber, breaker chamber & cable chamber	Till any design change
2.	Heat run test	Panel	Till any design change
3.	Impulse & Power Frequency voltage withstand	Panel & breaker	Till any design change
4.	Duty Cycle Test	Circuit Breaker	Till any design change

3.14 The switchgear shall be internal arc tested as per IS/IEC 62271-200 requirements for full short circuit current. The switchgear shall be qualified as classification IAC according to IEC 62271-200 with regard to its mechanical strength in the event of an internal arc. Independent pressure relief devices shall be provided for all HV compartments, i.e. bus bar, cable and breaker compartments and each compartment shall have type test certificate for internal arc classification (IAC) as per IS/IEC 62271-200 for the short circuit current and duration as specified. IAC test shall be conducted on the offered panel variants such as smallest width panel, panel with louvers, panel with thermography window and any other variants (as applicable). The test performance shall be in conformity with accessibility type AFLR as per IS/IEC 62271-200 requirements.

3.15 **The bidder shall furnish make, model no. and complete technical catalogue of VCBs and Switchgear Panels offered.**

3.16 The clearances and creep age distances shall not be lower than the values specified below:

Minimum clearance between two live conductors	120 mm
Minimum clearance between live parts and accidentally dangerous ground part	90 mm
Minimum creep age distance	176 mm

3.17 The clearances and creep age, as specified above, shall definitely be maintained in the bus-bar system including cable compartment. Provision of bus-bar insulation, separators

or barriers shall not be considered to reduce the clearance from the values specified above.

- 3.18 Phase barriers shall be provided in all cubicles for breaker poles. "Phase to Phase" and "Phase to Earth" barriers shall also be provided inside breaker compartment, cable compartment, bus bar compartment & PT compartment.
- 3.19 The bus-bars shall be for three phases. The bus-bars and connection shall be made of electrolytic grade copper and silver plated at joints in of rectangular cross-section. Bus-bars shall be provided with Raychem insulated sleeves/shrouds to protect against approach to live parts and to eliminate potential arcing points. Sleeving material shall have adequate electrical, thermal and mechanical properties to withstand impulse level, temperature rise during normal and short circuit condition and allow easy bending of bus bars. HT Tape shall be provided only those inaccessible locations where insulated sleeves/shrouds installation is not possible.
- 3.20 The bus-bars shall be amply sized to carry the rated continuous current under the specified ambient temperature without exceeding the limits specified in IS: 8084. The thermal rating of the bus-bars shall be designed to withstand the system fault current for 3 seconds without exceeding the limiting temperature of 250°C for bare copper. The bus bar size shall be minimum 1R-60mmx10mm (Cu).
- 3.21 Safety shutters shall be of Fibre Glass with no moving metal parts above breaker poles.
- 3.22 Separate Lockout Relay shall be provided for all feeders.
- 3.23 Separate Trip Circuit Supervision Relay shall be provided in each breaker controlled feeder as in General , Trip Circuit Supervision Scheme etc.
- 3.24 All auxiliary contacts of breaker, relays, contactor, auxiliary relays, timers etc. shall be wired up to the terminal block for external connection.
- 3.25 All auxiliary contactors used shall be provided with DC energy discharge circuit.
- 3.26 Coil of all auxiliary relays & control contactor shall have tolerance of -15% & +10% of rate voltage (Uc). Auxiliary contactor shall be provided. Technical datasheet of the auxiliary contactor shall be got approved from owner during detailed engineering.
- 3.27 All Indication lamp shall be suitable for wideband voltage operating.
- 3.28 Protection, metering & indication lamps shall be provided.
- 3.29 Meter as indicated in the feeder details for each feeder shall be provided. However, whereas ammeter and voltmeter shall be provided separately, all other meters shall be part of the multifunction meter. Voltmeter & Ammeter wherever specified separately

shall be Analogue type. The Multifunction meter shall be provided.

- 3.30 Auto Change Over scheme shall be provided for incomer feeders and bus coupler feeder of each switchboard. Under normal operating conditions, incomer-1 and incomer-2 breakers shall be closed and bus coupler breaker shall remain open with 'Local-Remote-Off' switch in 'Remote' position. The bus coupler breaker shall close automatically under the following conditions being fulfilled:
- i) Either of the incoming breaker trips due to under voltage (70% or below).
 - ii) Voltage on the healthy bus is more than 80% for the set period.
 - iii) Residual voltage on the bus with no power supply comes down to 30% or below.
- Required nos. of bus PT, line PT and under voltage relays shall be provided to achieve the desired automatic changeover. Auto transfer shall take place only on sustained loss of power on either of bus sections. Auto transfer shall be blocked in case of fault on either of bus sections or no power on both incomers.
- 3.31 All equipment for alarm scheme and other auxiliary equipment for making the scheme operational shall be included.
- 3.32 The entry of cables in the switchboards shall be from bottom side only.
- 3.33 Switch boards shall be without use of any adapter panel. However, adapter panel (of width 400 mm) shall be quoted as an optional item, which may be used to avoid floor beam fouling, if any.
- 3.34 Separate earthing shall be provided for instruments (relay & meter) from power equipment (C.B., body). Earth bus shall be of tinned copper.
- 3.35 Every enclosure door that provides access to live parts operating at 240V AC and above shall be mechanically interlocked with a circuit interrupting device on the supply side such that when the door is open, the equipment is de-energized .
- 3.36 Bus PT, line PT and required nos. of under voltage relays shall be provided to achieve the desired automatic changeover
- 3.37 All Transformer Feeders shall be provided with separate Winding Temperature Alarm, Oil Temperature Alarm and Trip for Winding Temperature on primary as well as secondary side in addition to the protection indicated in the feeder details.
- 3.38 Protection, metering & indication lamps as described in feeder details & various schematic diagrams attached shall be provided.
- 3.39 All the Line and Bus PTs shall be of draw-out type. PT design shall be such that its power

contacts, primary fuses shall be completely epoxy encapsulated.

- 3.40 Inter-tripping of primary and secondary circuit breaker of transformer Feeders and Outgoing feeders shall be provided. Transformer circuit breaker will trip on all faults through lockout relay.
- 3.41 Provision for inspection of cable terminations through transparent Inspection Window which shall be type tested and certified for internal arc faults as per IS/IEC 62271-200 requirements.
- 3.42 Proper Lifting arrangement shall be provided on the switchboard panels for handling at site.
- 3.43 Rack in / out of all the circuit breakers (Service / Test / Isolated Positions) shall be from outside of the panels i.e. without opening the breaker compartment door.
- 3.44 All operational logics of the Feeders shall be through Hardwire only.
- 3.45 Each Circuit Breaker panel shall also be provided with emergency manual trip button to trip the Circuit Breaker without opening of the door of breaker compartment.
- 3.46 Hardware change over scheme shall be as:-

Incomer-1	Bus Coupler	Incomer-2
ON	OFF	ON
ON	ON	OFF
OFF	ON	ON

- 3.47 Alarm Annunciation panel shall be provided on all feeders. Alarm Annunciation panel of Incomer, Bus coupler and transformer feeder panel shall be of 10 windows with inbuilt Accept Reset and test push button. Details of signals/interlocks for Alarm Annunciation shall be provided during drawing approval stage. Common Alarm circuit for all feeders shall be provided with one number Hooter on Bus Coupler Panel.
- 3.48 Shielded cable shall be used for annunciator circuit up to field terminals of cubicle.
- 3.49 On-Off switch with Fuse shall be provided before VT supply going into Synchro Check Relay.
- 3.50 There may be addition/deletion of some feeders during ordering and drawing approval stage, for which bidder shall indicate Unit Rates of each type of feeder as asked in the Price Schedule. Bidder shall indicate his consent for such addition/ deletion at the rate quoted by him in the Price Schedule.
- 3.51 Fuses shall be used in the control circuits and PT primary and secondary. Bidder shall also quote the spare fuses with specifying Fuse Ratings and Quantity.

- 3.52 Please consider additional cable extension box for Incomer panel/transfer feeder, if required. Please indicate the depth of cable extension box and the number of cable run that can be accommodated in the offered extension box.
- 3.53 Cable earthing truck (each type & rating) and Bus earthing truck (similar to incomer each type & rating) shall be provided with the switchboard.
- 3.54 Various schematic diagrams attached are suggestive. Vendor shall consider all other components / wiring as required for proper and safe operation of the scheme. Where no scheme is attached for any type of feeder, vendor shall develop the scheme as per his own standard which shall be subject to owner's approval.
- 3.55 Switchboard panel foundation Base Frame along with mounting foundation bolts shall be supplied along with the Switchboard.
- 3.56 All Routine Tests as per IEC shall be carried out in the Supplier's Works in presence of Owner's representative.
- 3.57 Bidder shall also confirm that Inspection and Test Plan shall be got approved from customer before manufacturing.
- 3.58 Selection, sizing and suitability of all components shall be the bidder's responsibility. The equipment as required for safe and satisfactory operation shall be considered included in Bidder's scope even if not specifically mentioned.
- 3.59 Feeder Details include only the major components like relays, meters and controls switches. Any auxiliary relays, timers, switches, etc., as required, while developing the control schematics and for safe operation, even if these are not specifically included, shall be supplied by the Bidder without any price and time implication.
- 3.60 The Bidder shall be solely responsible to coordinate the relay characteristics with relay supplier for the proper selection of all CTs with special care to select class PS CTs. CT ratios/ details, load details, cable sizes, feeder nos., name plate details etc. for all feeders at switchboards shall be finalized at the time of review of vendor drawings which shall be taken care by the Bidder without any impact on cost and time to customer.

5.0 TESTING & INSPECTION

Testing and inspection of HV Switchboards shall be as per clause no. 9.0 of Engineering Standard, ES_11kV_SWBD. Routine test certificate of major electrical components e.g. Relay, CT, PT, Meters etc. shall be submitted with final documentation.

6.0 GUARANTEE

The 11 kV Switchboard with all components shall be warranted for a period of 36 months from the date of supply & 30 months from the date of commissioning against poor workmanship & manufacturing defects.

Switch board with VCB

System / Circuit Breaker data:

Highest system voltage	: 12 kV
Normal operating Voltage	: 11 kV
Rated Current	: As mentioned in tender.
Rated Frequency	: 50 Hz
No of phases	: Three
Rated impulse withstand voltage(peak)	: 75 kV
Rated power frequency withstand voltage(RMS)	: 28 kV
Rated short circuit breaking current	: 26.2 KA for 3 sec
Tripping supply	: 110 Volts DC

Panel Design

Shall be metal clad, extensible type, of bolted design made from CRCA sheets of minimum 2 mm thickness, suitable for indoor applications with a degree of protection not less than IP 4X. The bus bars and interconnections shall be made from highly conductive electrolytic copper as specified in tender. The bus bars shall be sized as per the current rating, ambient temperature inside the enclosure and other de-rating factors. Earth bus shall be of copper and shall be of copper as specified in tender. The main bus bars shall be insulated type, with the insulation being provided by sleeves on the bus bars and taping at the joints.

The panels shall be freestanding type with bottom cable entry suitable for 11 KV XLPE cables for both incoming and outgoing sides. Suitable gland plates shall be provided. The gland plates shall be above ground level for ease of bending of the cables from the cable trench.

The fixed portion of the isolating contacts shall be mounted on cast epoxy spouts with no gaps for any arc transfer and the shutters provided shall be metallic only.

The VCB panel shall be so designed to safeguard the operator during switching operation even under heavy short circuit faulty conditions by providing pressure relief flap segregation / partitioning of compartments from other live compartments. The outer surface of the switchgear shall be painted by epoxy based paint to gray colour by powder coating process. The manufacturer shall have in-house facility for carrying out the powder painting of sheet metal components.

VCB Design:

The technology of the circuit breaker shall be vacuum for higher mechanical and electrical operation and interrupters used shall be shield less type. Vacuum interrupters mounted on common phase segregated epoxy body shall be preferred due to better insulation and negligible chances of non-simultaneous operation of the poles.

The Vacuum Circuit Breaker shall be of cassette type/ trolley mounted design fully draw out with 3 positions namely service, test and isolated. The finger contacts in the VCB (moving portion) shall be connected to fixed contacts of the bus bars and feeder circuit (fixed portion of the panel) by the horizontal movement of the circuit breaker. These main circuit devices for disconnection shall be accessible for maintenance.

Interlocking for preventing the racking in or out of a VCB in service position shall be provided. Automatic shutters shall be provided to cover the live parts of the VCB bus bars / feeder sections VCB is racked out from service position.

The VCB should be able to carry out the close/Trip functions both electrically and mechanically in the Test position to make sure that VCB is functioning perfectly.

Earthing facility for the cable and bus bar circuits shall be provided. Earthing switch shall be integral type with interlock. The switch shall be capable of withstanding the required making and breaking currents.

All metal parts shall be connected to the earth bar, which shall run continuously throughout the length of each section of the switchgear.

The closing mechanism shall be motor charged spring operated type with release mechanism. Main springs of the mechanism shall not be plated. Powder coating or any other treatment may be given so that spring property is not lost. All MS components in the mechanism shall be treated with yellow passivation and should further be coated with lacquer in order to avoid corrosion. Visual mechanical indicating devices shall be fitted to the VCB in addition to the electrical indicating device to show the open and closed position. The VCB mechanism shall be trip free and shall have anti-pumping features.

A visual mechanical indicative device shall be provided to indicate the 'spring charged' and 'free' positions. A manual spring charging device shall be provided as a backup facility. An operation counter shall be provided. All switches such as the on / OFF switch etc shall be lockable type.

Engagement and disengagement of the auxiliary supply shall be automatically achieved through the movement of the Circuit Breaker cradle so that in the service condition, the auxiliary supply is automatically maintained.

Metering and Protection:

The current transformers shall have an accuracy class 5P and shall have a rated output of not less than 15 VA. The accuracy limit factor shall be 10.

Potential transformers shall be mounted on the top of the switchgear panel for ease of replacement of the primary fuses without disturbing the circuit breaker.

Voltage indication devices for all three phases of proven design shall be supplied to verify that the power supply is available.

Numeric type over current and earth fault relays shall be provided of proven design with other relays as per tender specifications.

Quality Assurance: ISO 9000 or equivalent.

Relevant Standards:

- a) IEC 60298 - AC metal enclosed switchgear and control gear
- b) IEC 60056 - HV AC Circuit Breaker
- c) IEC 60129 - AC Disconnectors / Earthing switches
- d) IEC 60044 - Current transformers
- e) IEC 60255 - Electrical relays
- f) IEC 60529 - Degree of protection of enclosures
- g) BS 159 - Bus bars
- h) IEC 60076 - Power transformers
- i) IEC 600502 - Power cables with external insulation upto 12kV.
- j) BS 74 IEC 60044 - Current transformers
- h) BS 7430 - Code of practice for Earthing.

Training:

Two technical personnel shall be trained in operation and maintenance and fault finding of the 11kV Kiosk prior to shipment at the manufacturer's training facility.

Factory inspection and acceptance testing:

Prior to dispatch, the testing of the 11KV switchboard shall be carried out at the manufacturer's test facility and such tests shall be witnessed by the engineer.

The following acceptance tests shall be carried out at the manufacturer's facility witnessed by the engineers.

1. Power frequency voltage test on the Main Circuits
2. Die-electric tests on the auxiliary and control circuits.
3. Measurement of main circuit resistance
4. Mechanical operation tests
5. Tests on protection relay functioning.
6. Verification of correctness of control wiring.

All Circuit Breakers shall be tested for 200 Nos of operations at manufacturer's works and then subjected to computerized Circuit Breaker analyzer for checking all relevant parameters.

The to & fro charges towards transportation from Bank side / consultant side with boarding & lodging charges shall be borne by the bidder only.

Technical literature, Test reports and Drawing:

The tenderer shall supply two copies of operation / maintenance manuals for each type of equipment. Such manuals shall comprise of Single line diagrams, control-wiring diagrams, Maintenance and fault finding charts. Type test reports on the tests conducted on similar equipment at CPRI shall be submitted. The tenderer shall also furnish the catalogues and maintenance manuals for protective relays and Multi-Function Meters

The 11kV switchboard shall comprise of the following main equipment:

Incomer feeder: Equipped with following

1. 630 Amps Copper/ copper bus bars as per tender specifications
2. 630 Amps Vacuum Circuit Breakers
3. Current transformers of ratio 130/5A, class of accuracy 0.5 and 15 VA burden as mentioned in the tender for metering and Class 5P10 15 VA for protection. The same shall be copper wound resin cast type suitable for bus bar mounting
4. Potential Transformer 11kV/root3 / 110V/root3, Class 1, 100 VA, mounted on with drawable trolley. Fuses shall be provided on the HV and the LV. The PT shall be copper wound and resin cast
5. Numeric type IDMT Over current & Earth fault relay with over-current setting of 50 to 200% and earth fault setting of 40 to 80%, both with high set units as mentioned in tender
6. Master trip relay
7. Live cable indicators set (optional)
8. Set of LED indication lamps to indicate ON/OFF/Auto-trip/Spring Charged and healthy trip. Healthy trip indication lamp shall be fitted with test push button
9. Breaker control switch (TNC switch).
10. Anti-condensation heaters with MCBs and thermostat
11. Earth Spouts for Earthing of bus bars through circuit breaker.
12. Local/remote control switch
13. Breaker auxiliary contacts
14. Electronic annunciation window (8-window) for transformer feeders

- 15.Hooter with test and acknowledge push button
- 16.Powerpak 110V DC for tripping circuit
- 17.Numeric type restricted earth fault rely connected to neutral CT of TR as mentioned in tender
- 18.3 nos of zinc oxide based surge arrestors

2 no 1000 KVA transformer feeders each equipped with:

- 1.630 A copper bus bars as per tender specifications
2. 630 Amps Vacuum Circuit Breakers
3. Current transformers of ratio 60/5A, class of accuracy 0.5 and 15 VA burden as mentioned in the tender for metering and Class 5P10 15 VA for protection. The same shall be copper wound resin cast type suitable for bus bar mounting
4. Master trip relay
Live cable indicators set (optional)
- 5.Set of LED indication lamps to indicate ON/OFF/Auto-trip/Spring Charged and healthy trip. Healthy trip indication lamp shall be fitted with test push button
- 6.Breaker control switch (TNC switch).
- 7.Anti-condensation heaters with MCBs and thermostat
- 8.Earth Spouts for Earthing of bus bars through circuit breaker.
- 9.Local/remote control switch
- 10.Breaker auxiliary contacts
- 11.Electronic annunciation window (8-window) for TR fault indications
- 12.Numeric type restricted earth fault relies connected to neutral CT of TR as mentioned in tender
- 13.3 nos of zinc oxide based surge arrestors

Assistance to Site Erection / Testing and Commissioning:

You shall render all the necessary support to our erection contractor to safe erection, testing and commissioning of the equipment.

The following tests shall be carried out by the erection contractor assisted by the equipment vendor on the switchboard before energizing the same.

- 1.Primary injection on the assembled switch board
- 2.Tripping of circuit breakers through protective relays including relay calibration
- 3.Test on transformer fault alarms by simulation Testing of under voltage and over voltage relays by simulation
- 4.Measurement of resistance for main circuit of switch board
- 5.Insulation resistance for power and control circuits
- 6.Checking the functional features of breakers, interlocks etc

Based on the above tests, 4 sets of test reports shall be prepared and shall be duly signed by the equipment vendor/ contractor and the employer's representative as acceptance. The employer being an ISO certified organization, all the ISO procedures shall be followed.

Accessories and spares to be supplied along with the equipment

The following spares and accessories shall be supplied along with the equipment at free of costs.

1. Charging lever for manual charging of breaker
- 2.Any other spares and tools which are essentially required at the time of emergency and routine maintenance.

TECHNICAL SPECIFICATIONS FOR CABLES:-

1.0 SCOPE

- 1.1 The scope covers technical requirements of design, engineering, manufacture, inspection and testing at vendor's works before dispatch, delivery in well packed condition of HT Power Cables and LT Power & Control cables .

2.0 REFERENCE CODES & DOCUMENTS

- 2.1 This specification shall be read in conjunction with the following documents attached:

- i) Engineering Standard – Cables (ES-8160)
- ii) Specification Sheets - Cables

- 2.2 The design, manufacture and testing of cables shall be in compliance with all applicable Indian Standards, Codes and Regulatory requirements.

3.0 INSTRUCTIONS TO BIDDER

- 3.1 The cables shall be in conformity with attached Engineering Standard ES: 8160 and enclosed Specification Sheets.
- 3.2 PVC compound used for inner/ outer sheath shall have reduced flame propagation property.
- 3.3 Thickness of insulation, inner sheath, outer sheath and dimensions of armour wire/ strip shall be as per IS: 7098 (Part-2).
- 3.4 No negative tolerance shall be accepted in length of cable/ drum length offered for all HT & LT cables.
- 3.5 Type test certificate of similar cable supplied/ tested earlier shall be submitted with the offer.

- 3.6 Cable shall be supplied in wooden drums as specified at Cl.No.7.1 of ES: 8160.
- 3.7 The cables shall be wound on drums of suitable barrel diameter, securely battened with the take-off and fully protected against mechanical damage. The cut ends of cable shall be sealed by means of non-hygroscopic sealing material.
- 3.8 Instead of stenciled data as specified at clause no. 7.4 of ES: 8160, all drums shall have metallic name plate containing data as per clause no. 17 & 18 of IS: 7098 (Part-1) as well as the purchaser's order no., item no. and drum no.
- 3.9 Following information shall be embossed on outer sheath throughout the length of cable at regular interval:**
- i) Cable size & no. of cores
 - ii) Voltage grade: 11/ 3.3 KV/1.1KV
 - iii) Type of insulation: XLPE
 - iv) Year of manufacture
 - v) Name of manufacturer

Running metre shall also be printed on outer sheath throughout the length of cable.

4.0 DOCUMENTATION SCHEDULE

The vendor shall supply all documents in requisite numbers and within time. All documents shall be supplied in hard copies .

5.0 TESTING & INSPECTION

Testing and inspection of the board shall be as per relevant IS and as per ES: 8160 enclosed.

6.0 ENGINEERING STANDARD FOR CABLES

This standard covers the technical requirements of design, manufacture, testing at works and dispatch in well packed condition of power and control cables and The standard shall be read in conjunction with relevant specification sheets and other relevant references as specified therein.

7.0 **STANDARDS TO BE FOLLOWED**

7.1 The design, manufacture and testing of cables covered by this standard shall comply with the latest issue of following Indian Standards, unless otherwise specified. Equipment complying with equivalent IEC standards shall also be acceptable.

- | | | |
|---------------------|----|---|
| IS: 1554 Part (I) | -- | PVC insulated (heavy duty) electric cables for working voltages upto and including 1100 volts. |
| IS: 1554 Part (II) | -- | PVC insulated (heavy duty) electric cables for working voltages from 3.3 KV upto and including 11 KV. |
| IS: 7098 Part (I) | -- | Cross linked polyethylene insulated PVC sheathed cables for working voltages upto and including 1100 volts. |
| IS: 7098 Part (II) | -- | Cross linked polyethylene insulated PVC sheathed cables for working voltages from 3.3 KV upto and including 33 KV |
| IS: 7098 Part (III) | -- | Cross linked polyethylene insulated thermoplastic sheathed cables for working voltages from 66 KV upto and including 220 KV |
| IS: 692 | -- | Paper insulated lead sheathed cables for rated voltages upto and including 33KV |
| IS: 694 | -- | PVC insulated cables for working voltages upto and including 1100 volts |
| IS: 5831 | -- | PVC insulation and sheath of electric cables |

7.2 The design and operational features of the cables offered shall also comply with the provisions of latest issue of the Indian Electricity Rules and other relevant Statutory Rules & Regulations. The supplier shall, whenever necessary, make suitable modification in the cables to comply with the above mentioned rules.

7.3 Wherever any requirement, laid down in this standard, differs from that in Indian Standard Specifications, the requirement specified herein shall prevail.

8.0 **SERVICE CONDITIONS**

Ambient Conditions-These shall be as indicated in specification sheet.

System Details- These shall be as indicated in specification sheet.

9.0 **OPERATING REQUIREMENTS**

The cables shall be suitable for operating continuously at the rated capacity as specified in relevant I.S. under the ambient conditions in specification sheet without exceeding the permissible temperature rise and without any detrimental effect on any part.

10.0 **GENERAL DESIGN AND CONSTRUCTIONAL FEATURES**

The design, manufacture and workmanship of cables shall be in accordance with the latest practice. All materials to be used shall be new, unused and of the best quality.

Conductors-

The power cables shall be of stranded Aluminium / copper round or shaped conductors and control cables shall be of annealed high conductivity stranded copper round conductors. The conductors shall comply with the requirements of IS: 8130.

Insulation-

The conductor insulation shall be type A/C as indicated in specification sheet and shall comply with relevant IS.

Fillers-

The cables shall have suitable fillers wherever required, laid up with conductors to provide substantially circular cross section before the inner sheath is applied.

Inner Sheath-

Inner sheath, wherever applicable shall be ST1/ ST2 type compound applied by extrusion process except for paper cables for which it shall be of lead or lead alloy.

Armouring-

All power and control cables shall be armoured as specified in specification sheet. The single core cables shall be armoured with hard drawn Aluminium

taps/ wires or any other suitable nonmagnetic material. All other cables shall have galvanized steel wire / strip armoring.

Outer Sheath-

The outer sheath shall be ST1/ ST2 type compound applied by extrusion process and suitable to withstand atmospheric pollution, resistance to termites, fire retardant and coloured black.

Screening-

Screening over conductor and insulation shall be provided as per relevant standard unless specified otherwise. The screening for control cables if specified shall be of aluminium, mylor or equivalent and provided with tinned drain wire which shall be continuous and permanently connected to the screen.

Identification-

The individual cores of cables shall be coloured as per relevant IS. Where it is not possible to distinguish the cores by colour, coloured strip shall be applied on the cores or core nos. shall be marked on each core at regular intervals. All cables shall carry the manufacturer’s name or trade mark, the cable size, voltage rating and year of manufacture at intervals not exceeding 100 meters. Running meter markings shall also be provided throughout the length of the cable.

Dimension-

The overall dia. and dia. under armour of the cables shall be indicated by the vendor in the technical particulars. These shall be guaranteed with a tolerance of $\pm 5\%$ but not exceeding 2 mm. The cut ends of the cables shall be sealed by means of non-hygroscopic materials.

11.0

SPECIAL PURPOSE CABLES

Flame Retardant Low Smoke Cables-

Flame retardant low smoke cables, where specified in specification sheet, shall have outer sheath of PVC having following values.

- Minimum oxygen index - 29%
- Minimum temperature index - 250°C
- Maximum acid gas generation - 20%
- Maximum smoke density rating - 60%

Heat Resistant Cables-

Heat resistant cables, where specified in specification sheet, shall be of silicon rubber insulated laid circular with asbestos worming and overall glass fibre braided and varnished. Silicon rubber insulating compound shall conform to IS:6380 and the constructional features shall conform generally to IS:9968.

12.0 **CABLE DRUM**

The cables shall be supplied in non-returnable wooden drums (or steel drums if specified) of heavy construction. The wood used for construction of the drums shall be properly seasoned, sound and free from defects. Cables shall be supplied in specified drum lengths. Where no such indication is given, standard drum lengths may be offered. The tolerance on each drum of cable shall not exceed $\pm 2.5\%$. However, no negative tolerance on HV cables is acceptable. All cable drums shall have stenciled data as per relevant IS as well as the purchaser's order no., item no. & drum no.

13.0 **TESTS AND INSPECTION**

The following tests shall be carried out on the cables as per relevant IS.

- i) Routine Tests - On all cables
- ii) Acceptance tests - On representative length of each size
- iii) Type tests - Wherever specified on one cable drum of each size

In addition, the following tests shall be carried out on all fire retardant low smoke cables as per IS or as per the following standards:

- i) Oxygen and temperature index test as per ASTM-D-2863
- ii) Acid gas emission test as per IEC-754 Part-I
- iii) Smoke density test as per ASTM-D-2843
- iv) Flammability test as per IEC-332 Part-I or IS-10810

All the above mentioned tests shall be carried out in the presence of purchaser's representative. In addition, the cables shall be subjected to stage inspection at works and inspection at site for final acceptance.

These tests and inspections shall, however, not absolve the vendor from their responsibility for making good any defect which may be noticed subsequently.

14.0 **DRAWINGS AND DOCUMENTS**

Drawings and documents as per Annexure-I shall be supplied, unless otherwise specified.

- All drawings and documents shall have the following descriptions written boldly
- Name of Owner:
- Enquiry / Order Number with plant / project name
- Code No. and Description

MANUFACTURER'S AUTHORIZATION FORM (MAF)

(ON MANUFACTURER LETTER HEAD ONLY)

Date:

To:

M/s Indian Bank,
FGM Office
Delhi - 110001

WHEREAS

We, who are official manufacturers of.....
having factory at....., do hereby authorize
to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the
following Goods, manufactured by us and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with the General Conditions of Contract,
with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

Name in the capacity of:

Signed

Duly authorized to sign the Authorization for and on behalf of

LIST OF APPROVED MAKES		
S.NO	ITEM	RECOMMENDED MAKES
1	1000 KVA 11 KV/433V CRT	BHEL, ABB-Hitachi, Kirloskar, Voltamp, Crompton Greaves, Siemens, Schneider.
2	11 KV , VCB panel, RMU.	System Control, ABB- Hitachi, Siemens, Schneider, Voltamp. Kirloskar, Crompton Greaves.
3	11 KV cable	Polycab, KEI, Havells.
4	1.1 KV cable	Polycab, KEI, Havells, Finolex.
5	11 KV cable joint	Reychem, 3-M.
6	Double compression cable gland	Comet, Dowells, Jainson
7	Aluminum / copper crimping type cable socket	Comet, 3 M, Dowells, Jainson.
8	Capacitor	Epcos, Legrand, ABB, L&T, Schneider.
9	Capacitor duty contactor	Epcos, Legrand, ABB, L&T, Schneider.
10	APFC relay	Epcos, Legrand, ABB, L&T, Schneider.
11	Reactor	Epcos, Legrand, ABB, L&T, Schneider.
12	ACB	L&T, Schneider, ABB, Legrand
13	MCCB	L&T, Schneider, ABB, Legrand
14	MCB	L&T, Schneider, ABB, Legrand
15	LT panels	Local fabrication approved by consultant
16	Cable tray	CABLOFOIL, PROFAB, OBO,MK.
17	Chemical Earthing	Protech, LPI, JK, JMV, Jef, Ashulok, Galaxy.
17	11 KV CT	As approved by M/s NDMC
18	11 KV PT	As approved by M/s NDMC

[A] CHECK LIST: Details of Enclosures.

Sl.No	Description of item	Enclosed Page. No
1.	Tender Document including Letter of Proforma A	
2.	Audited Balance Sheet and Profit & Loss statement for the past three financial years duly certified by a Chartered Accountant.	
3.	Solvency certificate by a Scheduled Bank	
4.	Certificates / Reports for: a) Firm / Company registration b) Completion certificates c) Performance Reports d) Solvency Certificate	
5.	Details of key technical and administrative personnel employed by the firm/ company.	
6.	Electrical Contractor grade license issued by the Electrical Licensing board of Delhi	
7.	Any other important information.	
8.	Manufacturers Authorization letter	
9.	Copy of UTR Number for EMD	
10.	Documentary proof for Tender Fee	

Date and Place:

SIGNATURE OF APPLICANT(S)

Note: Exceptions of the above, if any, shall be clearly mentioned with details by the tenderer for evaluation/consideration if any. Even though an applicant may satisfy the above requirements, he would be liable to disqualification if he has:

- Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the tender document.
- Record of poor performance such as, abandoning work, not properly completing the contract, or financial failures / weaknesses etc.

**DEPUTY GENERAL MANAGER
INDIAN BANK
FGM OFFICE, DELHI**