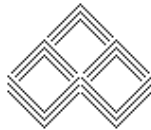


**TENDER
PART-A
TECHNICAL BID**



INDIAN OVERSEAS BANK

**NOTICE INVITING TENDER FOR
Design, Supply, Installation, Testing and Commissioning of Roof Top
Solar Systems at Bank's branch at SICO, Maramalai Nagar branch,
Chennai**

NIT REFERENCE NUMBER: CO/GAD/ 7 /2024-25

DATED: 08.05.2024

**INDIAN OVERSEAS BANK
3131 Regional Office
General admin department
20-21, Kamarajar street,
Kancheepuram 631501**

PHONE: 044-2722

Consultant: M/s.Energy Multiples, 2C, Montieth Court
Montieth road, Egmore, Chennai 600008

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NOTICE INVITING TENDER

DSITC OF ROOF TOP SOLAR INSTALLATION AT BANK'S branch at Maramalai Nagar, Chennai

Tender invited from **MNRE registered vendors** for Supply, Installation, testing and commissioning of Roof top solar systems at Bank's Central Office, Chennai & Staff College, Chennai.

The eligible and competent **MNRE registered vendors** may collect the Tender Document form online www.iob.in under tender page. Bidders are invited to submit their proposal in accordance with this **Notice Inviting Tender (NIT)**. E-tenders are invited by the Indian Overseas Bank for **DSITC OF ROOF TOP SOLAR INSTALLATION AT BANK'S branch at Maramalai Nagar, Chennai**

Any amendments will be published in Bank's website & E Tender website only.

Site Address :

**1.Indian Overseas Bank,
34, Nandanam street
Opp, Audco,
Maramalai Nagar 603209
Chengelpet Dis, Tamil Nadu**

The eligibility criteria of applications shall be evaluated as on cutoff date (i.e., 31.03.2024).

Please note that the PQ Document shall be submitted, complete in all respect, as below:

The attachment shall contain the PQ document, cost of the PQ document, integrity pact and all proof documents in support of your application should be uploaded in the E-Tender for SITC of Roof top solar systems and other allied works at Bank's Central Office & Staff College, Chennai.

Estimated Cost	: Rs.7.74 Lakhs + GST
Earnest Money Deposit	: Rs.15480/- way of NEFT to the below account number
Application Fee	: Rs.1000/- way of NEFT to the below account number
Account Name	: IOB Utility Account
Account Number	: 901102000641125
IFSC	: IOBA0009011
Duration of work	: 2 Months (Two months) from the date of work order
Issue Tender Documents (Uploading to web site)	: 10-7-2024
Last date for submission: tender documents.	Before 15:00 Hrs on 31-7-2024 as per instructions in

EARNEST MONEY DEPOSIT (EMD) CUM SECURITY DEPOSIT

(a) The participating contractors must submit an EMD of Rs.15480.00/- (**Rupees fifteen thousand four hundred and eighty Only**) by way of NEFT to the below account number. The details of the NEFT (UTR Number and Date) shall be furnished along with the along with the Technical Bid.

Bank's Account Details for Payment of EMD and Application Fee:

Account Name : IOB Utility Account

Account Number : 901102000641125

IFSC : IOBA0009011

(b) The EMD would be returned to unsuccessful contractors on completion of the tender process without any interest.

(c) The EMD of successful contractor shall be converted into Security Deposit.

(d) The EMD/ Security Deposit held with the Bank will be released within 30 working days from date of completion of the project after adjusting dues to the Bank (if any).

(e) **Initial Security Deposit: 2 % of contract value.** The success bidder shall submit the Initial security Deposit within 7 days of issuing purchase/work order.

(f) In case, the contract with the contractor is extended by the Bank, the Security Deposit kept with Bank will also be extended automatically. If the contractor refuses to accept the work order (or) fails to carry out obligations mentioned in the contract (or) the contract is terminated by the Bank due to unsatisfactory performance, the Security Deposit held with the Bank shall be forfeited.

(g) EMD of successful tenderer will be retained as a part of security deposit (or) returned on compensatory submission of Security Deposit (including EMD amount)

Any revision / amendment in Government Policy shall be noted from time to time for compliance.

Note:

- Bidder(s) must submit, along with the bids, self attested photocopies of works with the Name of the Client / Customer, Work Order reference No. and Date, Executed Value, date of start, date of completion and Certificates for proof of satisfactory completion of work.

- Self attested Photo copies of audited profit and loss account accompanied by relevant schedules in support of turnover figures must be submitted by the bidder(s) along with the bids.

- The eligibility criteria of applications shall be evaluated as on cutoff

date(i.e.31.03.2024). The Bank reserves the right to accept or reject any or all the applications without assigning any reasons thereof and their decision of selection will be final.

- The contractors must be registered for Income Tax and GST as detailed in this tender document. The contractors, otherwise eligible but not registered for either Income Tax or GST, shall not be considered for pre-qualification.
- Prospective contractors to note that all payments will be made electronically as per Government guidelines.

The Bank reserves the right to accept or reject any or all the applications without assigning any reasons thereof and their decision of selection will be final. The Courts in Tamil Nadu, India only will have exclusive jurisdiction to entertain any litigation between the parties with regard to this tender.

Date: 8-7-2024

Chief Regional Manager

DISCLAIMER

The information contained in this Notice Inviting Tender ("NIT") document or information provided subsequently to bidders or applicants whether verbally or in documentary form by or on behalf of Indian Overseas Bank (or Bank), is provided to the bidder(s) on the terms and conditions set out in this NIT document and all other terms and conditions subject to which such information is provided.

This NIT document is not an agreement and is not an offer or invitation by the Bank to any parties other than the applicants who are qualified to submit the bids (hereinafter individually and collectively referred to as "Bidder" or "Bidders" respectively). The purpose of this NIT is to provide the Bidders with information to assist the formulation of their proposals.

This NIT does not claim to contain all the information where each Bidder requires. Each Bidder may conduct its own independent investigations and analysis and is free to check the accuracy, reliability and completeness of the information in this NIT. The Bank makes no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this NIT. The information contained in the NIT document is selective and is subject to updating, expansion, revision and amendment. It does not purport to contain all the information that a Bidder require.

Bank in its absolute discretion, but without being under any obligation to do so, can update, amend or supplement the information in this NIT. Such change will be published on the Website (www.iobtenders.auctiontiger.net) and it will become part of NIT. Indian Overseas Bank reserves the right to reject any or all the proposals received in response to this NIT document at any stage without assigning any reason whatsoever. The decision of the Bank shall be final, conclusive and binding on all the parties. Bank reserves the right to cancel the entire bid at any point of time, or disqualify any particular bidder, if it finds that fair play is not maintained by the bidder.

SCHEDULE OF BIDDING PROCESS

S.No	Description	Important dates/ information
1	Tender Reference Number	CO/GAD/ 7 /2024-25
2	Tender issuing date	08.05.2024
3	Pre Bid meeting	18-7-2024 @ 11.30 AM at IOB, 3131 Regional office, General administration department,, 20-21, Kamarajar street, Kancheepuram 631501
4	Bid submission mode	To be deposited in the tender box kept at our office on or before 31-7-2024
5	Last Date and Time for submission of bids along with supporting documents through the above e-tendering portal.	31-7-2024 on or before 15.00 hours at IOB General administration department
6	Date, time and venue for opening the Technical BID	1-8-2024 at 15.30 hours at the Bank's, Region 3131 office, General admin dept, 20-21Kamarajar street, Kancheepuram 631501
8	Date, time and venue for opening the Price bid	Shall be intimated to the technically qualified bidders in due course.
10	Consultant for the project	M/s.Energy Multiples, 2C, Montieth Court Montieth road, Egmore, Chennai 600008 E-mail :energymultiples@gmail.com

NOTICE INVITING TENDER (NIT) INSTRUCTIONS

1. Tenders are invited on behalf of Indian Overseas Bank for the proposed Roof top solar systems works at Our branch at 34, Nandanam street, Opp. Audco, Maramalai Nagar from MNRE registered vendors who satisfy the requirement specified in the tender documents.
2. The details of the applicants and their experience shall be submitted in the Bank's prescribed "Application Format" only. Wherever required and if the space provided is not sufficient, particulars can be furnished as Annexures but such details shall be clearly mentioned in the respective columns of the Application Format. Applicant shall enclose latest copies of brochures and technical documentation giving additional information about the applicant. Each page of the document shall be duly signed by the Applicant or their authorized representative along with their company seal.
3. **Documentary proof with respect to the prequalification criteria shall be furnished along with the completed application form. In this regard, copies of the work orders and completion certificates and or such other documents shall be submitted. Incomplete applications or applications without proper proofs for establishing their credentials will be liable for rejection and no correspondence will be entertained in this regard.**
4. **The authorized person of the firm/ company shall sign in all the pages of the application with seal of the company/ firm.**
5. **The pre-qualification will be made for this specific work depending on the credentials submitted and acceptable to Bank, as on cutoff date.**
6. For consideration of experience, works should have been executed in same name & style of the firm.
7. The evaluation will be based on the evaluation criteria, which are detailed elsewhere in this document.
8. If found necessary, Bank may inspect the works undertaken by the bidders, for which necessary co-ordination shall be made by them. Based on the details furnished in acceptable format, inspection of works and **eligibility criteria as on cutoff date**, the bidders will be shortlisted.
9. Decision of the Bank regarding selection / rejection for pre-qualification will be final and binding and no further correspondence will be entertained. The prequalified / shortlisted contractors will only be eligible for opening Price Bid.
10. If, information and details furnished by applicants are found to be false at any time in future or any information withheld, which comes to the notice of the Bank at a later date, the prequalified / shortlisted contractors of such applicant shall be cancelled immediately.
11. Bids received after the due date and time is liable to be rejected.
12. The prospective bidder shall have a local Office in Chennai, for better co-ordination with the Consultants & Bank, liaison with Statutory Authorities, if required etc.
13. The bidders shall OEM/Authorized dealer and proof to be enclosed.

14. The Bank reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
15. The rate quoted by the Contractor shall be net, including all taxes (Except GST), insurance etc., as prevailing on the date of submission of the tender and hence all taxes, insurance and other statutory obligations in respect of this contract shall be payable by the Contractor and the Bank will not entertain any claim whatsoever in this respect. Statuary deductions like Income Tax etc as per prevailing rates shall be deducted from the bills of the contractor.
16. The tender for works shall remain open for acceptance for a period of 90 days from the date of opening of Part B price bid. If any tenderer withdraws his tender before the said period, then the Bank shall be at liberty to forfeit Earnest Money paid along with the tender.
17. It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts. After the work is awarded, the successful tenderer will have to enter into an agreement with the Bank.
18. The EMD of the Contractor, whose tender is accepted, shall be forfeited in full in case he does not remit the initial security deposit within the stipulated period or start the work by stipulated date mentioned in the award letter.
19. The acceptance of a tender will rest with the Indian Overseas Bank and the Bank reserves to itself the authority to reject any or all of the tenders received without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled (or) are incomplete in any respect are liable to be rejected. The Bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other conditions if his tender is accepted in parts.
20. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the Contractors who resort to canvassing will be liable to rejection.
21. An item rate tender containing percentage below/ above will be summarily rejected. However, where a tenderer voluntarily offers a rebate on the quoted rates along with sealed tender, the same shall be considered.
22. On acceptance of the tender the name of the accredited representative(s) of the Contractor who would be responsible for taking instructions from the Bank / Officer-in-charge, shall be communicated to the Bank.
23. Indian Overseas Bank reserves its right to reject any / or all the applications without assigning any reasons whatsoever.
24. Bank reserves the right to amend/ modify the tender terms or issue any corrigendum before bids are opened. However, the bidder shall be given opportunity to modify his tender based on the revised terms.
25. The bidder shall bear all costs associated with the preparation and submission of its bid and the Bank shall in no case be held responsible or liable for these costs, regardless of the conduct or outcome of the bidding process including cancellation or abandonment of the bidding process.
26. Conditional tenders / incomplete tenders will not be accepted and will be summarily rejected.

27. Bids submitted shall remain valid for a period of 90 days or such extended period as may be agreed mutually from the last day of submission of the Tender.
28. The bidder shall quote the rates in the format as indicated in the Price Bid inclusive of all applicable taxes Except GST. GST would be paid extra over & above the bid amount as applicable. Any deviation in the Price Bid format, by way of insertions or omissions, shall be rejected summarily.
29. The written offer of contract issued to the successful bidder/contractor shall be accepted by the bidder in writing within 7 days from the date of issue of the offer letter. Failure to accept the offer within this period will result in forfeiture of the EMD.
30. Applicable taxes will be deducted at source at the time of settlement of bills unless the bidder produces the certificate to the contrary from the Income Tax authorities. Necessary TDS certificate will be issued by the Bank.
31. The bidders must clearly note that: -
- a) the contractor shall strictly conform to the scope of work and terms & conditions of the Tender:
 - b) Security Deposit:
EMD of Rs. 15480/- (Rupees Fifteen Thousand four hundred and eighty only) and the Initial Security Deposit amount (which is 2% of the contract value less EMD) will be converted into Security Deposit on award of contract, acceptance of the offer & submission of ISD and shall not bear any interest.
 - c) Security Deposit would be refunded only after deducting any payment due by the Contractor to the Bank in terms of the contract or otherwise. The decision of the Bank in this regard shall be final, conclusive and binding.
 - d) EMD of the unsuccessful bidders would be refunded only after finalization of the tender.
32. Bank reserves the right to reject any or all offers without assigning any reason. Bank may decide not to avail of any services from any bidder as a consequence of this E-Tender/ Advertisement. Bank also reserves the right to re-issue/recommence the entire bid process without the vendors having the right to object. Any decision of the Bank in this regard shall be final, conclusive and binding on the bidders.
33. Failure of the successful Bidder to comply with the requirement of the E-tender shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which event Bank may call for fresh Bids. Any decision in this regard by the Bank shall be final, conclusive and binding on the Bidder.
34. 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. Bank: The term Bank shall denote Indian Overseas Bank with their Central Office at Chennai and any of its employees' representative authorized on its behalf.
 - ii. Consultants: The term Consultants shall mean M/S Energy Multiples, Chennai.
 - iii. Bidder / Contractor: The term Bidder / Contractor shall mean _____ and his/ her / their heirs, legal representatives, assigns and successors.

- iv. Site: The site shall mean the site where the works are to be executed viz., Chennai, including any equipment and erections thereon allotted by the Bank for the Contractor's use.
- v. "The Works" shall mean the work or works to be executed or done under this contract.
- vi. "The Schedule of Quantities" shall mean the schedule of quantities as specified and forming part of this contract.
- vii. "Priced Schedule of Quantities" shall mean the schedule of quantities duly priced with the accepted quoted rates of the Contractor.
- viii. 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 Employer during the execution of the work.

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

In case any detailed Drawings are necessary, Contractor shall prepare such detailed drawings and or dimensional sketches there for and have it confirmed by the Employer/ consultant as the case may be prior to taking up such work.

The Contractor shall ask in writing for all clarifications on and address of the Contractor and his/ their heirs, legal representatives, assigns and successors.

35. Bidder shall Visit the Site : Intending Bidder shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport condition, effective labour and materials, access and storage for materials and removal of rubbish. The successful Bidder will not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site condition which existed before the commencement of the work or which in the opinion of the Bank might be deemed to have reasonably been inferred to be so existing before commencement of work.

36. Tenders: The entire set of tender paper downloaded from the e-tender portal by the tenderer should be submitted fully priced and also signed on the every page. Signature will indicate the acceptance of the tender papers by the tenderer. The schedule of quantities shall be filled in as follows:

- a) Amount column to be filled in for each item and the amount for each sub head as detailed in the " Schedule of Quantities".
- b) All corrections are to be initialed.
- c) The "Rate Column" for alternative items shall be filled up.
- d) The " Amount" column for alternative items of which the quantities are not mentioned shall not be filled up.
- e) In case of any errors/omissions in the quoted rates, the rates given in the tender marked "Original" shall be taken as correct rates.

No modifications, writings or corrections can be made in the tender papers by the
Signature of contractor

tenderer, but may at his option offer his comments or modifications in a separate sheet of paper attached to the original tender papers.

The Employer 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 Employer/ Architects/ PMC detailed analysis of any or all the rates shall be submitted. The Employer/ Architects/ PMC shall not be bound to recognize the Contractor's analysis.

The works will be paid for as "measured work" on 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 Employer/ Consultant.

The employer 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 Contractor without authorization from the Employer. No variation shall vitiate the contract.

The tenderer shall note that his tender shall remain open for consideration for a period as specified in General rules and Instructions, from the date of opening of the tender.

37. The Bank has power to add to, omit from any work as described in specifications or included in schedule of quantities and intimate the same/in writing but no addition, omission or variation shall vitiate the contract.

38. The Bidder shall note that his tender shall remain open for consideration for a period as specified, from the date of opening of the tender.

39. Agreement

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

40. Permits and Licenses

Permits and licenses necessary for carrying out the subject contract work shall be arranged by the successful Bidder. The Bank will render necessary assistance, sign any forms or applications that may be necessary. The successful Bidder shall have to Liaise with the Statutory Authorities, etc., for necessary Clearances. Bank would provide necessary documents, etc., if any, for the same.

The Bank shall be indemnified against all Government or legal actions for noncompliance of statutory obligations by the Contractor.

41. **Government and Local Rules:**

The Contractor 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 Contractor shall give all notices required by said Act, Rules, Regulations and Bye-laws etc., and pay all fees 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 Employer against such liabilities and shall defend all actions arising from such claims or liabilities.

42. The successful Contractor / Bidder shall provide everything necessary for the proper execution of the subject work, according to the intent and meaning of the 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 Contractor finds any discrepancies therein he shall immediately and in writing, refer the same of the Bank whose decision shall be final and binding.

43. Contractor's Employees

The successful Contractor shall employ qualified and competent labours for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Bank. The Contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently. The Contractor 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 Contractor to be engaged on the work on day-work basis either wholly or partly under the direct order or control of the Bank or his representative shall be deemed to be a person employed by the Contractor.

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

- a) Minimum Wages Act: cost of man power should be covering all applicable labour Acts like minimum wages, insurance, EPF etc
- b) Bonus Act
- c) Workmen's Compensation Act Contract Labour (Regulation & Abolition) Act, 1970 and
- d) Any other Act or enactment relating thereto and rules framed thereunder from time to time.

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

The Contractor 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 Bank regarding the maintenance of proper environmental sanitation of the area hygiene.

The Contractor 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 Bank and also to the Competent Authority where such report is required by law.

44. Insurance

The Contractor shall arrange to take "Contractors all risk insurance policy" including third party liability, covering the entire period of contract (including extended period if any) for the entire scope of works for a risk cover as deemed fit.

45. The Contractor shall obtain all the requisite licenses including under and Contract Labour (Regulation & Abolition) Act, 1970 and rules frames hereunder and under other applicable laws issued by the concerned Labour Department for running the establishment. Bank shall not be responsible in any way for any breach by the Contractor of the rules and regulations governing the running of such establishments.

46. The Contractor shall maintain and provide all necessary documentation, registers, challans and such other records in connection with the performance of captioned project and other related documents including for complying with any statutory requirements and provisions of applicable laws.

47. The Contractor shall take all precautionary measures to ensure the safety of the workmen employed by it and Bank will not be responsible in case of any eventuality.

48. In the case of any labour problems related to the workmen staff of the Contractor deployed at site, the same shall be settled at the Contractor's end only. The Contractor shall indemnify the Bank suitably. It shall be the duty of the Contractor to clearly inform his own personnel / staff that they shall have no claim whatsoever against the Bank and they shall not raise any industrial dispute, either directly and / or indirectly, with or against the bank, in respect of any of their service conditions or otherwise.

49. The contractor shall make his own arrangement for power required for the work at his cost. DG set of suitable capacity may be installed and operated by the contractor at his cost. IOB shall not be responsible for power supply and contractor shall ensure proper supply of electricity to meet the schedule.

50. Successful tenderer shall abide all safety/security regulations that need to be followed inside the Working site & as per the instruction of IOB Officials.

51. Contractor shall take care for cleaning the working site from time to time for easy access to work site and also from safety point of view.

52. The contractor shall arrange water/procure water required for the work at his own cost for all leads and lifts. IOB shall not be responsible for supplying water

and Contractor shall ensure timely and adequate supply of water to meet the schedule.

53. All the payment for quantities certified in the running account/ final bill shall be as per the details recorded in the standard measurement book of the Contractor and jointly signed by the Contractor/ site engineer of IOB (Both hard copy and soft copy should be submitted with Running bill)
54. The Contractor shall register with Registrar of the concerned Central/ State Body and shall abide by State Labour/Government of India (Ministry of Labour) rules and regulations and all other Statutory Acts/Regulations and rules relevant to this contract including Works Contract Act, Minimum Wages Act, Provident Fund Act, ESI etc. and shall indemnify the principal employer (IOB) against and damages arising out of the default on the part of Contractor due to negligence or non-compliance of any of the aforesaid rules, regulations, etc., laid down by the Government, Statutory authorities Regulations and other Government bodies, if any, from time to time.
55. Any dispute between the Contractor and IOB Bank, which cannot be settled by negotiation may be resolved exclusively by arbitration and such dispute may be submitted by either party to arbitration within 30 days of the failure of negotiations. Arbitration shall be held in Tamil Nadu, India and conducted in accordance with the provision of Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof. The arbitration proceedings shall be conducted in the English language. Subject to the above, the courts of law at Tamil Nadu alone shall have the jurisdiction in respect of all matters connected with the Contract. The arbitration award shall be final and binding. The Contractor shall not be entitled to suspend the provision of the captioned Project, pending resolution of any disputes and shall continue to render the Captioned Project in accordance with the provisions of the contract notwithstanding the existence of any dispute between the Contractor and the Bank or the subsistence of any arbitration or other proceedings.
56. The contract shall be governed by and construed in accordance with the laws of India and the Courts in Chennai shall have the exclusive jurisdiction to try any suit, proceedings in connection therewith / in that behalf.

I/We have read the terms and conditions and are acceptable to me/us. –

Signature of the authorized person:

Name of the Signatory (in block capital letters):

Date :

Place :

SPECIAL INSTRUCTIONS TO TENDERERS

1. Time of Completion, Extension of Time & Progress Chart

Signature of contractor

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Time of Completion:

The entire work is to be completed in all respects within the stipulated period. The work shall be deemed to be commenced within fourteen days from the date 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 Contractor.

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

Extension of Time:

If in the opinion of the Employer/ consultant the works be delayed (a) by reason of any exceptionally inclement weather, or (b) by reason of instructions from the Employer in consequence of proceedings taken or threatened by or disputes, with adjoining or neighboring owners or (c) by the works, or delay, of other Contractors or tradesmen engaged or nominated by the Employer and not referred to in the specification or (d) by reason of authorized extra and additions or (e) by reason of any combination of workmen or strikes or lock-out affecting any of the building trades or (1) from other causes which the Employer may consider being beyond the control of the Contractor, the Employer 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 Employer 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 Contractor shall, immediately give the Employer, written notice thereof. Nevertheless the Contractor shall use his best endeavors all that to prevent delay and shall do all that may be reasonably required to the satisfaction of the Employer to proceed with the works and on his doing so that it will be ground of consideration by the Employer for an extension of time as above provided. The decision of the Employer as to the period to be allowed for an extension of time for completion hereunder (which decision shall be final and binding on the Contractor) shall be promulgated at the conclusion of such strike or lock-out and the Employer shall then, in the event of an extension being granted, determine and declare the final completion date. The provision in clause 15 with respect to payment of compensation for delay shall in such case, be read and construed as if the extended date fixed by the Employer were substituted for and the damage shall be deducted accordingly.

Progress of Work:

During the period of construction, the Contractor shall maintain proportionate progress on the basis of a Programme Chart submitted by the Contractor immediately before commencement of work and agreed to by the Employer / consultant. Contractor 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)

The DLP shall be for a period of one year which shall commence from the certified date of Virtual Completion issued by the consultant.

3. Mobilization and Date of Commencement

The date of commencement shall be either 14 Days from the date on which the acceptance letter is issued to the Contractor or the date, on which Contractor is instructed to take possession of the site, whichever is later. The contractor shall mobilize all men and material required for start of work at site including setting up site office etc. that may be necessary for smooth completion of project, within the said period.

Mobilization Advance:

No mobilization advance would be provided for the work. The successful contractor shall do all financial planning necessary for execution of works, accordingly.

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 work order.

5. Compensation for Delay (LD)

The quantum of LD per week of delay, applicable for this work shall be 0.5 % of the tender amount shown in the tender, per week delay and subject to the total amount of damages not exceeding 10 % of the Contract price.

6. Period of Final Measurement

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

All hidden works shall be got measured as the work progress in presence of Contractors, Bank, Architect and respective specialized consultants to check up the quantity, 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.

7. Payment Terms : The minimum value of work done, entitling the Contractor to receive an interim payment is Rs.300000/-. The maximum number of payment is 3 including final bill payment. **Necessary TDS & TDS on GST will be deducted from the payment.**

The AMC payment will be made after completion of each year.

8. Period of Honoring Interim Certificate

The period shall be ten days, from the date of receipt of the Certificate from the Architect along with measurement book ('M' book) only signed by the Contractor

consultants & Architect.

9. Period of Honoring Final Certificate

The period shall be one month from the date of receipt of the final certificate from the Architect along with 'M' book duly signed by Contractor, Consultant and Architects and statutory certificates wherever necessary.

10. Total Security Deposit

The Total Security Deposit on the contract is calculated as under:

- a) 10.00% on the first Rs. 1,00,000 of the Cost of work.
- b) 7.5% on the next Rs. 1,00,000 of the cost of work.
- c) 5.0% on the next amount up to Rs.2 crores of the cost of work.
- d) 2.0% for the amount in excess of Rs. 2 crores of the cost of work subject to a ceiling on the Total Security at Rs. 25,00,000

Total Security Deposit shall comprise of

- a) Earnest Money Deposit
- b) Initial Security Deposit
- c) Retention Money

Initial Security Deposit

The amount of Initial Security Deposit is calculated at the rate of 2% of the accepted value of the tender including the Earnest Money Deposit, subject to a ceiling of Rs. 5.00 lakhs. The Initial Security Deposit is to be paid by the Contractor to the Bank within 14 (fourteen) days of intimation to him of the acceptance of his tender.

Retention Money

The retention percentage (i.e. deduction from interim bill) shall be 8% 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 Contractor on completion subject to the following:

- Issue of Virtual Completion Certificate by the consultant.
- Contractor'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 Bank)
The remaining 50% of the amount may be refunded within One year 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.

11. Contractor to provide everything necessary including Electricity & Water

The Contractor 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 Contractor finds any discrepancies therein he shall immediately and in

writing, refer the same of the Employer/ Architects/ PMC whose decision shall be final and binding.

The Electricity will be provided free of cost for carry out the works in Bank premises. The Employer shall on no account be responsible for the expenses incurred by the Contractor for arranging the water. The workers of the contractor should not misuse the drinking water facilities of the bank premises.

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 Contractor shall supply, fix and maintain at his own cost, for the execution of any work, all tools, tackles, machineries and equipment 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 Contractor 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 Employer/ Architects/ PMC.

The Contractor shall also provide such temporary road and suitable barricades 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 Employer shall otherwise direct. The Contractor shall at all times give access to workers employed by the Employer 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 employer 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.

12. Compensation for delay in completion of the work

Should the work be not completed to the satisfaction of the Employer/consultant within the stipulated period, the Contractor agrees to pay to the Employer a sum calculated as given below by way of compensation for the delay and not as penalty during which the work remains un commenced or unfinished after the expiry of the completion date. This is an agreed sum of money between parties and the employer need not prove that it has suffered damages to avail this money.

0.5% of the estimated amount shown in the tender per week subject to a ceiling of 10% of the accepted contracted sum.

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

The Contractor shall maintain a site office with site engineer 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 Contractor shall provide at his own cost all artificial light required for the work and to enable other Contractors and sub-Contractors to complete the work within the specified time.

The Contractor shall use the toilets identified by the Bank for use of their workmen and keep the same in a clean and sanitary condition to the satisfaction of the 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 Contractor 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 Contractor shall indemnify the Employer against any breach of rules in respect of anti-malarial measures.

The Contractor 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 Employer .

Protective Measures: The Contractor 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.

Contractor shall indemnify the Employer against any possible damage to the building, roads, or members of the public in course of execution of the work. The Contractor 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 Contractor 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- Contractors and remove same on completion. Cement should be stored one foot above the ground level and have pucca raised floor.

Tools: The theodolite levels, prismatic compass, chain, steel and metallic tapes and all other surveying instruments found necessary on the works shall be provided by the Contractor 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 Contractor.

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 Contractors as he chooses for checking the works executed or being executed on the contract. The Contractor should cover in his rates for making

provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc. by sub-Contractors for their work.

14. Notice and Patents of Appropriate Authority and Owners

The Contractor shall conform to the provisions of any Acts of the Central and State Governments 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 Employer/ consultant written notices specifying the variations proposed to be made and the reasons for making them and apply for instruction thereon. The Employer/ Architects/ PMC on receipt of such intimation shall give a decision within a reasonable time.

The Contractors shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer.

The Contractor shall indemnify the Employer against all claims in respect of patent rights, royalties, and damages to buildings, roads or members of public in course of execution of work and shall defend all actions arising from such claims and shall keep the Employer saved harmless and indemnified in all respects from such actions, costs and expenses.

15. 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 Contractor 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 Contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the Employer. The Contractor 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.

16. Datum

The average ground level will be considered as the crown of the nearest road, which should be taken as "Datum" which is however, subject to final confirmation by the Employer/ Architects/ PMC. All levels shown in the drawings are to be strictly adhered to.

17. Benches

The Contractor is to construct and maintain proper benches of all the main walls, in order that the lines and levels may be accurately checked at all times.

18. Contractor Immediately to Remove All Offensive Matters

All soil, filth or other matters of any offensive nature taken out of any trench, sewer,
Signature of contractor

drain, cesspool or other place shall not be deposited on the surface but shall be at once carted away by the Contractor to place provided by him.

The Contractor 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 Employer for the purpose, until the building is handed over to the Employer. The Contractor shall arrange for the disposal of the water so accumulated to the satisfaction of the Employer and local authority and no claims will be entertained afterwards if he does not include in his rates for the purpose.

19. Access

Any authorized representative of the Employer 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 Contractor shall give every facility to the Bank or their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Employer no person shall be allowed at any time without the written permission of the Employer.

20. 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 Employer/ consultant during the execution of the work, and to his entire satisfaction.

If required by the Employer/ consultant, the Contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Employer/ consultant 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 Contractor. 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 Bank will be subjected to testing as per tender specifications.

For imported materials, for which standard testing procedures are not available in India, the Contractor shall obtain necessary test certificates for such materials from the manufacturer to that effect that the materials comply with all codal provisions with respect to physical, chemical and functional parameters.

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 Contractors 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 to the Employer/ Architects/ PMC and written approval from Employer/ consultant must be obtained prior to placement of order.

During inclement weather the Contractor shall suspend concreting and plastering for such time as the Employer/ Architects/ PMC 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 Contractor shall be rectified by the Contractor in an approved manner at no extra cost.

Should the work be suspended by reason of rain, strike, lock -outs or any other cause, the Contractor 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 Contractor 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-Contractor and any damage caused must be made good by the Contractor at his own expenses.

21. Removal of Improper Work

The Employer 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 Employer/ Architects/ PMC 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 Contractor refuses to comply with the order the Employer 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 Employer/ consultant shall be borne by the Contractor or may be deducted from any money due to or that may become due to the Contractor. No certificate which may be given by the Architects shall relieve the Contractor from his liability in respect of unsound work or bad materials.

22. Site Engineer/ Consultant:

The term "Site Engineer/ consultant" shall mean the person/agencies appointed and paid by the Employer to superintend the work. The Contractor shall afford the Site Engineer/ consultant every facility and assistance for examining the works and materials and for checking and measuring work and materials. The Site Engineer/consultant shall have no power to revoke, alter, enlarge or relax any requirements of the Contractor 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 Employer

The Site Engineer/consultant shall have power to give notice to the Contractor 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 Employer is obtained. The work will from time to time be examined by the Architects, Engineer from

the Premises Department of the Employer and the Site Engineer, if any. But such examination shall not in any way exonerate the Contractor 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 Contractor shall take instructions only from the consultant/ Employer or his representative.

23. Contractor's Employees

The Contractor 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 Employer/ consultant. The Contractor shall engage at least one experienced Engineer as site-in-charge for execution of the work. The Contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently. The Contractor shall employ local labourers on the work as far as possible.

No labourer below the age of sixteen years and who is not an Indian National shall be employed on the work.

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

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

- e) The Payment of Wages Act
- f) Employer's Liability Act
- g) Workmen's Compensation Act Contract Labour (Regulation & Abolition) Act, 1970 and
- h) Central Rules 1971.
- i) Apprentices Act 1961
- j) Minimum Wages Act
- k) Any other Act or enactment relating thereto and rules framed thereunder from time to time.

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

The Contractor 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 Employer regarding the maintenance of proper environmental sanitation of the area where the Contractor's labourers are housed or accommodated, for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The Contractor 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 Contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The Contractor 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 Employer and also to the Competent Authority where such report is required by law.

24. Dismissal of Workmen

The Contractor shall on the request of the Employer immediately dismiss from works any person employed thereon by him, who may in the opinion of the Employer be unsuitable or incompetent or who may misconduct himself. Such discharges shall not be the basis of any claim for compensation or damages against the Employer or any of their officer or employee.

25. Assignment

The whole of the works included in the contract shall be executed by the Contractor and the Contractor 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 Employer and no subletting shall relieve the Contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

26. Damage to Persons and Property Insurance Etc.

The Contractor 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-Contractor or of any of his or a sub-Contractor'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 Contractor shall indemnify the Employer 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 Contractor 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 Contractor shall effect the insurance necessary and indemnify the Employer entirely from all responsibility in this respect. The insurance must be placed with a company approved by the Employer and must be effected jointly in the name of the Contractor and the Employer and the policy lodged with the latter. The scope of insurance is to include 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 Contractor 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.

The Employer 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 for damages from any sums due or to become due to the Contractor.

27. Insurance

The Contractor shall arrange to take "Contractors all risk insurance policy" including third party liability, covering the entire period of contract (including extended period if any) for the entire scope of works for a risk cover not less than the contract value

Unless otherwise instructed the Contractor 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 Employer, in the joint names of the Employer and the Contractor for such amount and for any further sum if called to do so by the employer, the premium of such further sum being allowed to the Contractor as an authorized extra.

The Contractor 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 Contractor in case of rebinding or reinstatement after fire shall be entitled to extension of time for completion as the Employer may deem fit.

28. Accounts, Receipts & Vouchers

The Contractor shall, upon the request of the Employer 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 Contractor 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 Employer shall be final and binding on the Contractor as to the amount of materials the Contractor is required to use for any work under this contract.

Before taking any measurement of any work the Site Engineer or a subordinate deputed by him shall give reasonable notice to the Contractor. If the Contractor fails to attend at the measurements after such notice or fails to countersign or to record the difference within a week from the date of measurement in the manner required by the Site Engineer, then in any such event the measurements taken by the Site Engineer or by the subordinate deputed by him as the case may be is final and binding on the Contractor and the Contractor shall have no right to dispute the same.

29. Payments

All bills shall be prepared by the Contractor in the form prescribed by the Employer/ consultant. 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 Employer/ consultant shall issue a certificate after due scrutiny of the Contractors' bill stating the amount due to the Contractor from the Employer and the Contractor 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 shall be paid on the request of the Contractor 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 Employer as retention money vide clause 11 of the general conditions of contract, less TDS, 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 Employer will deduct retention money as per tender conditions. The refund of retention money will be made as specified in the said clause.

If the Employer has supplied any materials or goods to the Contractor, the cost of any such materials or goods will be, progressively deducted from the amount due to the Contractor 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 Employer 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 Contractor 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 within three months.

30. Final Payment

The final bill shall be accompanied by a certificate of completion from the Consultants & Architects. Payments of final bill shall be made after deduction of Retention Money as specified in clause 10 of the Special Instructions to tenderers less TDS & Other applicable taxes etc. The acceptance of payment of the final bill by the Contractor would indicate that he will have no further claim in respect of the work executed.

31. Variation/Deviation

The price of all such additional items/ non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing or on engineering rate analysis based on prevalent fair price of labour, material and other components as required. The tender rates shall hold good for any increase or decrease in the tendered quantities up to variation of 25%. For variation beyond 25%, the rate for the respective item may be reviewed on mutually agreed terms.

32. Substitution

Should the Contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Employer/ consultant. in writing for any such substitution

well in advance. Materials designated in this specification indefinitely by such term as "Equal" or "Other approved" etc. specific approval of the Employer/ Architects/ PMC has to be obtained in writing.

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

The whole of the work will be thoroughly inspected by the Contractor and deficiencies and defects put right. On completion of such inspection the Contractor shall inform the Employer that he has completed the work and it is ready for inspection.

On completion the Contractor shall clean all works/ Serviced Areas at all places of the building. He will leave the entire building neat and clean and ready for immediate occupation and to the satisfaction of the Bank.

34. Clearing Site on Completion

On completion of the works the Contractor 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 Employer/ consultant.

35. Defects after Completion

The Contractor shall make good at his own cost and to the satisfaction of the Employer all defects, shrinkage, settlements or other faults which may appear within 12 months after completion of the work. In default the Employer 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 Contractor and such damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the employer, in lieu of such amending and making good by the Contractor, deduct from any money due to the Contractor 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 Contractor from the amount retained under clause No.11 together with any expenses the Employer may have incurred in connection therewith.

36. Concealed Work

The Contractor shall give due notice to the Employer/ 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 Employer/ consultant be either opened up for measurement at the Contractor'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 Employer/ consultant shall be accepted as correct and binding on the Contractor.

37. 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.

38. 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.

39. Suspension

If the Contractor except on account of any legal restraint upon the Employer preventing the continuance of the work or in the opinion of the Employer 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 Employer shall have the power to give notice in writing to the Contractor 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 has been given the Contractor 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 Contractor fails to start the work within seven days after such notice has been given to proceed with the works as therein prescribed, the Employer may proceed as provided in clause 42 (Termination of Contract by Employer).

40. Termination of Contract by Employer

If the Contractor 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 Part, 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 Contractor in insolvency, shall repudiate the contract, or if a Receiver of the Contractor'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 employer that he is able to carry out and fulfill the contract, and if so required by the employer to give reasonable security therefore, or if the Contractor 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 Contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to the Contractor, 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 Contractor within three clear days after the notice shall have been given to the Contractor in manner hereinafter mentioned requiring the Contractor 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 employer 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 employer after three clear days' notice requiring the Contractor so to do shall have been given to the Contractor as hereinafter mentioned, or shall abandon the contract, then and in any of the said cases, the 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 employer of the obligations and liabilities of the Contractor 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 Contractor (without thereby creating any trust in favour of the Contractor) further the employer 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 Contractors or other persons or person to complete the works, and the Contractor shall not in any way interrupt or do any act, matter of thing to prevent or hinder such other Contractors 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 employer shall give notice in writing to the Contractor to remove his surplus materials and plants and should the Contractor fail to do so within a period of 14 days after receipt by him the employer may sell the same by Public Auction and shall give credit to the Contractor for the amount so realized.

Any expenses or losses incurred by the employer in get the works carried out by other Contractors shall be adjusted against the amount payable to the Contractor by way of selling his tools and plants or due on account of work carried out by the Contractor prior to engaging other Contractors or against the Security Deposit.

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

The Contractor shall on receipt of the names as aforesaid, select anyone of the person's name to be appointed as a sole Arbitrator and communicate this name to the Employer within thirty days of receipt of the names. The Employer shall there upon without any delay appoint the said person as the Sole Arbitrator. If the Contractor 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 Employer fails to send to the Contractor the panel of three names as foresaid within the period specified, the Contractor shall send to the Employer a panel of three names of persons who all shall be unconnected with either party. The Employer shall on receipt of the names as aforesaid select anyone of the person's names and appoint him as the Sole Arbitrator. If the Employer fails to select the person and appoint him as

the Sole Arbitrator within 30 days of receipt of the panel and inform the Contractor accordingly, the Contractor shall be entitled to appoint one of the persons from the panel as the Sole Arbitrator and communicate this name to the Employer.

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 Contractor 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 such place 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 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 Employer and the Contractor 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.

BRIEF SCOPE OF WORK

- 1) The contractor shall **Design, Engineering, Supply Installation, Testing and Commissioning and Operation & Maintenance of 12 kWp Grid interactive roof top Solar Photo Voltaic system at IOB- Maramalai Nagar branch, Chengelpet dist, Tamil Nadu**
- 2) The contractor shall also obtain necessary clearances/approvals for installation of 12 Kwp grid interactive solar power plant from the competent authorities. The copy of the approvals, certificates has to be submitted to the Employer. The contractor is responsible to obtain the necessary clearances/approvals for installation/operation of 12 kWp grid interactive solar power plant and also for power purchase/sale from the competent authorities, if required. Liaisoning for getting all mandatory approval pertaining to subsidy / Net metering etc.. Payment to the prospective contractor for this liaisoning work (as per the BOQ) in getting project approval from TEDA/MNRE/ Tangedco/CEA will be released only on submission of approval for the subject project to the Bank for the full capacity including existing capacity and payment to the prospective contractor for liaisoning work (as per BOQ) in getting net-metering will be processed only after installation of net-metering in the premises by Tangedco for the subject project.
- 3) The solar panel shall be installed at a suitable height and the entire arrangement shall withstand wind speed of 180 kMPH. The fixing arrangement of the panel shall be on GI structure resting on concrete blocks placed on the terrace floor.
- 4) The structure and solar panel drawings with weight shall be vetted by consultant /Employer before installation of solar power plant. The contractor shall not damage the existing roof while installation of support structures of solar power plant. In case of any damage done to the water proofing and detect leakage due to the same, the contractor will be responsible to rectify the same at their cost to the full satisfaction of the bank.
- 5) Solar Power plant Single line diagram/ General Arrangement / technical documents / civil drawings / Support structures / Cable race way layout including installation details shall be approved by the Consultant / Employer before installation of solar power plant.
- 5) The contractor shall visit the site, understand the site logistics and access the *actual requirement before submitting tender.*
- 7) The complete electrical system arrangement, installation, including laying of cables / wiring, installation of support structures, civil works shall be done in consultation with Consultant / Employer.
- 8) A copy of SLD, GA, Circuit diagrams, drawings of civil works shall be submitted to the Consultant / Bank at the time of installation.
- 9) The complete setup from design, engineering, supply, erection and commissioning including grid connectivity and Operation & Maintenance of Solar PV System is under contractor's scope.

10) Suitable Energy meter with time totalizer shall be supplied and installed as directed by consultant / Employer as per specification given in the tender to monitor the daily generation.

11) The operation & maintenance of Solar Photovoltaic Power Plant for a period of **05** years (in addition to DLP period of one year) would include wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors / Power Conditioning Unit (PCU), spares, consumables & other parts as per warranties & guarantees given in the tender.

12) During O&M period of 5 years (in addition to DLP period of one year) contractor shall carryout the works as per the schedule give the tender document.

13) The contractor shall make necessary arrangements to safe guard and maintain the solar power plant from seasonal changes, thefts, etc. for the entire AMC (O&M) period.

14) Contractor will comply with all the IE Rules. 1956, Indian Electricity Act. 2003 and regarding the work of repairs and maintenance

16) The SLD & Available terrace area given in the tender is indicative only. The bidder is completely responsible for preparation of drawings etc, site survey before submitting the bid and after award of contract (successful bidder).

17) The vendor should make necessary arrangement towards all kinds / modes of transport / arrangement of scaffolding / ladders etc., to complete the job at the slanted roof. The tender cost deemed to be included in the quoted price and no extra claim will be entertained.

TECHNICAL SPECIFICATIONS FOR EQUIPMENTS

1.0 Outline scheme of the project

- i. The array capacity of the proposed grid connected PV power plant shall be 12KWp. PV array should be installed as indicated in the layout drawing and supported as per the specification given in the technical specification. The installation is on the roof top of the IOB SIDCO industrial area branch, Maramali Nagar.
- ii. The fixing arrangement of the solar panel on the terrace shall be on GI structure resting on concrete blocks resting on the floor. No drilling shall be carried out on the terrace due to water seepage problems.
- iii. The power plant shall be connected to the existing (Bank) LT system through grid tie string inverters of suitable capacity as per specification each and with output voltage of 415V 3-phase, 50 Hz AC.
- iv. The inverters shall be located at the terrace in a closed / or as directed by Consultant as per the layout drawing
- v. The output of the new grid tie inverters (12Kw) are to be terminated to the Sub panel in the ground floor of the building
- vi. Out of the 2 nos energy meters to be employed for measuring the solar generation, one will be fixed on the ACDB and other at the sub panel in the ground floor where solar power is evacuated..
- vii. The interface ports provided in the grid tie string inverters will measure the amount of energy generated and same will be wired to the monitor.
- viii. The SPV power plant to be installed should be robust, economic. Efficient and time tested.
- ix. A reverse power relay will be fixed on the ACDB with suitable CTs fixed on the EB supply side to avoid feedback of power to the DG set

2.0 Solar PV Modules

The cell of the modules shall be Monocrystalline. The capacity shall be considered as 550Wp per module. The approx number of modules shall be 22 no. The PV modules shall qualify IEC-61215 or IS-14286 and IEC-61730. The proposed PV modules have test certificates issued from accredited test laboratories of MNRE (Ministry of new and renewable energy). Test certificates issued by IEC accredited laboratories are also acceptable. The proposed PV modules shall be manufactured in India.

Each PV module used in this project must use an RF (Radio frequency) identification tag. The information must be mentioned in the RFID tag used in each module as per guide lines of MNRE which must be inside the laminate and able to withstand harsh environment condition.

Technical specification of the PV Module shall include but not limited to the following:

Sl. No	Item	Description
1.0	Certification	i) IEC61215 or IS 14286 ii) IEC61730
1.1	Test certificate issuing authority.	NABL/IEC Accredited Testing Laboratories or MNRE accredited test centers (preferably the latest).
2.0	PV Cell	
2.1	Type	Mono crystalline
2.2	Size	156mm x 156mm
3.0	PV Module	
3.1	Rating at STC	550Wp, 144 cells (without any negative tolerance)
3.2	Efficiency	Minimum 14%
3.3	Fill factor	Minimum 70%
3.4	Withstanding voltage	1000V DC
3.5	Glass	Toughened
3.5.1	Thickness	3.2 mm (minimum)
3.5.2	Type	High transmission, low iron, tempered & textured
3.6	PV Module Junction Box	
3.6.1	Protection level	IP 65 or above
3.7	Bypass Diode	
3.7.1	System Voltage (V _{sys})	1000Vdc
3.7.2	Number	3 numbers
3.8	Module Frame	
3.8.1	Type	Anodized aluminum frame

3.0 PV Array

Specification of the PV Array shall include but not limited to the following:

Sl. No	Item	Description
1.0	Nominal Capacity	12 kWp
2.0	PV Module interconnection connector	MC-4
3.0	PV Module interconnection cable and array cable	PV 1-F standard / NEC standard "USE-2 or RHW-2" type (double insulated)

4.0	PVarrayStringVoltage	Compatible with the MPPT Channel of the inverter
5.0	NumberofParallelStringag ainst	02 Nos (Maximum) / AS Specified by manufacturer

4.0 Array Structure

1. PV array shall be installed on the GI channel supports resting on the Concrete blocks on the terrace floor.
2. PV array mounting channel shall be GI with combination of either I,C,L or as per structural design requirement. The structure shall be capable of with standing a wind load of 180 Km/Hr after installation. (Structural design document to be submitted by the contractor).
3. The weight of the metallic part of the PV module
4. Structure shall be corrosion resistant and electrically compatible with the materials used in the module frame, fasteners, nuts and bolts.
5. The mounting channel shall be made of hot dip galvanized MS structure of minimum galvanizing thickness of 120 microns (Test certificate to be submitted by the contractor from standard testing lab to prove the thickness of galvanization).
6. The channel shall be supplied complete with all members to be compatible for allowing easy installation.
7. The module mounting channel shall have to be designed and fabricated with optimum tilting angle considering the site condition.
8. The channel shall have to be designed for simple mechanical and electrical installation. It shall support solar photo Voltaic modules at a given orientation, absorb and transfer the mechanical loads to the building structure.
9. All fasteners for supporting conduits, nuts and bolts shall be stainless steel of grade SS-314. The same shall be supported on concrete blocks. No drilling on the terrace floor is allowed.
10. The module mounting structure shall have to be adequately protected against climate condition. The array support shall support SPV modules at a given orientation and absorb and transfer the mechanical load to the building properly
11. The channel shall be designed for simple mechanical and electrical installation. There are no requirement of welding or complex machinery at the installation site.
12. The specification of GI section shall be as per IS-808.
13. The supplier shall specify the installation details of the PV modules and the support structures with appropriate design and drawings

5.0 PVArray Junction Box (AJB)

ArrayJunctionBox(AJB)shall have to be usedfor terminationofstring prior connecting arraywitheachinverter. There shall betwo Arrays Junction Box incase,theinverterislocatedelsewhereaway fromPVArray.Thedesiredspecificationof the PV ArrayJunction Box and accessories shall include but not limited to the following:

SI No	ItemDescription	Desired Data
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1.0	Enclosure	
1.1	Degree of Protection	IP65 with UV Protected
1.2	Material	Polycarbonate.
1.3	Withstanding voltage	1000V DC
1.4	Withstanding Temperature	100 °C
1.5	Accessories mounting arrangement	DIN Rail
1.6	Number of Strings entry	As maybe required
2.0	Cable Entry and Exit	
2.1	Position	Bottom at cable entry and exit
2.2	Cable Entry and Exit connector	MC 4 Connector (PV Array String cable)
2.3	Cable gland	Earthing cable entry
3.0	Surge Protecting Device (SPD)	
3.1	Type	DC
3.2	Approved Make	OBO Betterman / ABB / Legrand
3.3	Protection class	Type B+C
3.4	Number of set	As maybe required as per string Design
3.5	System Voltage	Matched with System Voltage 1000
4.0	Fuse with fuseholder	
4.1	Position	Positive and negative terminal for each series string
4.2	Type	Glass fuse, for PV Use only
4.3	Rating	Current: Minimum 1.25 times the rated short circuit current of the string

6.0 Grid Connected Inverter

The inverters shall be of string inverter. The proposed 12 KW for grid connected solar PV power plant shall be connected with grid. As such, the inverters shall be compatible to operate with existing utility supply. The PV system shall comprise of One Number of grid tie inverters each of nominal capacity 12 KW

Specification of 12Kw 1 grid tie inverter shall include but not limited to the following:

S.No.	Operating Parameter	Desired specification
1.0	Type	Grid connected String Inverter
2.0	Usage	Specially used for PV system
3.0	Standards	
3.1	Efficiency Measurement	IEC 61683/Equivalent BIS Std.
3.2	Environmental testing	IEC 60068-2 (1,2,14,30) /Equivalent BIS Std.
3.3	Interfacing with utility grid	IEC 61727
3.4	Islanding Prevention	IEC 62116
3.5	Type Test certificate issuing authority	NABL/IEC Accredited Testing Laboratories or MNRE approved test centers.

4.0	Input (DC)	
4.1	PV array connectivity capacity	12 kWp
4.2	MPPT Voltage range	Compatible with the array voltage
4.3	Number of MPPT Channel	2 nos (Minimum)
5.0	Output (AC)	
5.1	Nominal AC Power output	12 KW
5.2	Number of Grid Ph	3Ø
5.3	Adjustable AC voltage range	Programmable as per grid condition 360V-
5.4	Frequency range	47-53 Hz
5.5	AC wave form	Sinewave
5.6	THD	Less than 3%
5.7	Switching	High frequency transformer/transformer less
6.0	General Electrical data	
6.1	Efficiency (Maximum)	95 %
6.2	Sleep mode consumption	Less than 5W
7.0	Protection	
7.1	DC Side	<ol style="list-style-type: none"> 1. Reverse-polarity protection 2. Reverse current to PV array protection, overvoltage, Under voltage protection
7.2	AC side	<ol style="list-style-type: none"> 1. DC inject protection to grid less than 1% 2. Overvoltage and Undervoltage 3. Overcurrent 4. Over and under grid frequency
7.3	Isolation Switch	1. PV array isolation switch (DC)
7.4	Ground fault detection device (RCD) which can detect changes in ground current. Ratings shall be	To be provided for transformer less inverter.
8.0	Display	
8.1	Display type	LCD Display
8.2	Display parameter	
8.2.1	DC	Voltage Current Power
8.2.2	On grid connected mode	Line status Grid voltage Grid frequency Export Power Cumulative Export Energy

9.0	Interface (Communication protocol)	Suitable port must be provided in the inverter for i) On site upgrade of Software, ii) On site dumping data from the memory, iii) Web based remote monitoring
10.0	Web monitoring	Matched with the monitoring and data logging system
11.0	Mechanical Data	
11.1	Protection Class	IP 65 or higher
11.2	Operating ambient temperature	0 °C to 60 °C
11.3	Cooling	Natural/ forced cooling

7.0 Web enabled on line data logger and Remote Monitoring Unit: (Only for 12 Kw system at Central office)

Web enabled data logging system may be an integrated part of the inverter or a separate unit. The data logging system includes **MPPT wise PV array monitoring** system also. The data loggers should have the provision of recording **the data of solar insolation (the amount of solar radiation reaching in a given area), PV cell temperature and ambient temperature and associated electrical parameters** at different stages to study performance of systems as well as to study status of the system at a particular instant. The data loggers should have required transducer to monitor and record the required system data. **The data loggers should be provided with an insolation sensor and a module temperature sensor, ambient temperature sensor matched with the system.**

The data logger shall have reliable battery backup and data storage capacity (minimum two days data) to record all sorts of data simultaneously round the clock. Web based Remote Monitoring system must be compatible with data logger.

The Web based monitoring system should have the provision of graphical representation of the data shall include but not limited to the following:

7.a – Web based monitoring system:

Sl. No.	Operating Parameter	Desired specification
1.0	Input data	PV Power PV Energy
2.0	Meteorological data	Insolation Module Temperature Ambient Temperature
3.0	Output data	
3.1	Inverter	Export Power Export energy

All data shall be recorded chronologically date wise. The data files should be MS Excel/XML/ or any readable form compatible and should have the facility of easy download. The system should be connected to the standalone PC through Cat-6 cabling.

8.0 AC DB

The output of the Inverter shall be terminated in a ACDB (indoor wall mounting type) which will be equipped with 1 no 32A 415V 4 pole MCB, 3 nos copper wound resin cast CTs of ratio 32/5A, class 0.5, 10 VA, 1 no electronic KWH meter, LED type RYB indication lamps with MCB control, SPD for arresting the switching surges and reverse power relay. The inverter output will be connected to this DB and output will be connected to the building Ground floor panel. The second KWH meter with CTs shall be installed in the ground floor panel where solar power is evacuated.

9.0 Energy Meter:

Two number 3Ø 4 wire 415V AC 3 x (10A-60A) whole current Electronic Energy Meter (Main metering & Check metering). The Meter to be supplied must be tested from any of the NABL/ BIS Accredited Testing-Calibration Laboratories. The Energy meter shall be installed at the separate housing within an enclosure. The Energy meter shall be installed at the combiner panel. The CTs shall be copper wound resin cast bus bar mounting type. The same will have communication port RS-482 for data logging.

10.0 Cables & Wirings:

The Specification of wiring material of PV Power plant shall include but not limited to the following:

Sl No	Item	Description
A	DC Cable	
1.1	Conductor	Tinned annealed stranded flexible copper according to IEC 60228
1.2	Standard	PV-1F /2 PfG 1169/08.2007 /VDE Standard
1.3	Make	LAPP/Top Solar/Nexans/Schneider
B	AC Cable	
2.1	Rated Voltage	1.1kV
2.2	Construction	
2.2.1	Type	Armored or unarmored as
2.2.2	Conductor	Stranded flexible copper
2.2.3	Insulation	PVC
2.2.5	Standard	IS : 1554-1
2.3	Make	RR Cable/Polycab/LAPP/ Havell's
C	PVC Conduites, bends etc	
3.0	Standard	ASTM D1785 u PVC
3.1	Ambient Temperature	0 °C to 50 °C
3.2	Type	UV stabilized , temperatures, Shock proof chemical resistant
3.3	Make	Oriplast /Supreme

D	GI Pipe	
2.0	Make	TATA- B class

Notes:

- (i) All the Array Junction Boxes shall be located at the rear side of the solar array.
- (ii) The equipment/structure of the equipment fixed on the array structure then suitable insulation must be provided between Array structure and the equipment and equipment structure.
- (iii) The minimum clearance of the lower edge of the equipments from the developed ground level shall be maintained as standard practice.

11.0 System, Equipment, Array structure

- i. Array Structure must be earthed with GI Strip
- ii. The complete earthing system shall be electrically connected to provide return to earth from all equipment independent of mechanical connection.
- iii. The equipment grounding wires shall be connected to one grounding electrode per PV power plant.
- iv. Test point shall be provided for each earthing pit.
- v. An earth bus and test point shall be provided inside the room / location where we are installing the inverter and combiner panel.
- vi. Earthing system design should be as per the standard practices and conforming IS-3043.
- vii. The earth electrode shall be maintenance free chemical type
- viii. The Code of Practice Earthing shall be IS 3043:1987
- ix. Necessary provisions shall be made for bolted isolating joints of each earthing pit for periodic checking of earth resistance.
- x. Minimum six (06) numbers of earth pit. Earthing electrodes need to be provided (2 nos for AC earthing 2 nos for DCI earthing and 2 nos for lightning arrestor earthing)
- xi. Earth Grid must be made by interconnection of earthing pit through GI Strip. The size of the GI earth strip must be minimum **25 x 3mm**. The thickness of the galvanization should not be less than 610gr/M².

12.0 Lightning Protection

The lightning protection of the building shall be provided which shall protect the solar PV installation also. The lightning terminals shall consist of 3-prong copper spike mounted on 3 Mt high GI pipe provided with a GI bus plate bolted to the building structure. 2 nos of such terminals shall be provided diagonally opposite on the terrace. The lightning terminal

mounting pipes shall be anchored on both sides with suitable GI wire ropes. Both these terminals are interlinked at the terrace with 25x3mm GI strips. Further 25x3mm GI strip shall be taken from each terminal to separate earth electrodes at the ground level. Suitable test terminal box shall be provided about 300mm from ground level for earth continuity testing purposes

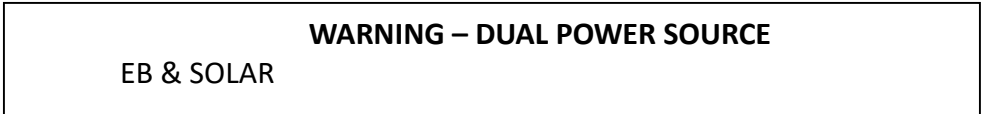
13.0 Signage:

Safety Signage: Safety Signage must be provided mentioning the level and type of voltage and symbols as per IEC Rule at different position as may be required.

The Solar PV System Caution Stickers shall be fixed in the following locations.

- (a) On the Sub switch board/ rising main where the solar power is terminated.
- (b) Near PV Modules / Junction Box / Combiner panel / Inverter / Solar Generation Meter.
- (c) And signage at locations as per the requirement of CEA/Tangedco

The above stickers shall be non-corrosive caution label with the following text:



The size of the caution label shall be 105mm (width) x 20mm (height) with white letters on a red background.

14.0 Provision for Module Cleaning

Module Cleaning: IOB will provide a water tap at a convenient place in the terrace from where plastic garden hose can be connected for cleaning of PV modules

15.0 Fire Buckets and Fire Bucket holding stand

Fire Bucket of minimum quantity eight (08) numbers and Fire Bucket Stand of minimum quantity two (02) shall be provided at Array field. Each fire Bucket holding stand (Triangular type) shall have the arrangement to hold four (04) numbers of fire buckets. The Fire Bucket stand must be as per IS 2546. The stand shall be installed at the rear side of the PV Array. The minimum technical specification is as follows:

Bis Specification	IS 2546
Fire Bucket Capacity	10 Litres
Fire Bucket Body Material	Galvanized Mild Steel Sheet
Body Thickness	1 mm

15a. Fire extinguisher:

A 2.5 KG dry powder fire extinguisher shall be provided in the lift machine room where the inverter will be installed. The same shall be mounted to the wall with suitable brackets.

1. Rubber mat:

A rubber mat as per IS- 15623-2006 with thickness of 2mm and tested for 3.3 KV shall be spread in front of the inverter and ACDB

16.0 Spares, Tools and Measuring Instruments:

The minimum number and different type of spares, tools and measuring instruments must be supplied under this project within the contract value. Also any special tools, spares, measuring instruments if required as may be shall be provided by the contractor within the contract value.

17.0 Operation and Maintenance (O&M)

- i. Cleaning of solar modules with soft water, wet and dry mops : Monthly
- ii. DC String / Array and AC Inverter monitoring: Continuous and computerized.
- iii. AC Energy monitoring: Continuous and computerized.
- iv. Visual Inspection of the plant : Monthly
- v. Functional Checks of Protection Components and Switchgear : Monthly
- vi. String Clean PV Array and Installation Area: Quarterly.
- vii. Inverter, transformer, data acquisition, energy meters and power evacuation checks: Quarterly.
- viii. Support structure and terrace water-proofing checks: Yearly.
- ix. O & M log sheet shall be provided and maintained: Monthly
- x. The repair/replacement work shall be completed within 72 hours from the time of identification / reporting of the fault.
- xi. A Monthly performance report of the plant inclusive of energy generation data shall be provided.
- xii. All recorded data (monthly & yearly) shall be preserved in both manual and computer format and submitted.

18.0 Warranties and Guarantees

Warranties and Guarantees		
1	Solar Modules	10 years free replacement guarantee against material defect or craftsmanship
2	Solar Modules	90% power output for 10 years and 80% power output for 25 years
3	Inverter	Workmanship/product replacement - 5 years, service - 25 years
4	PV Array Installation	Structural -25 years
5	Balance of System / Plant – Parts and workmanship	Parts and Workmanship – 10years, service – 25 years
6	Power Evacuation and Metering Equipment	Workmanship / product replacement – 10 years, service- 25 years

19.0 Standards

Standards	
IEC 60364-7-712 - Electrical Installations of Buildings	Requirements for Solar PV power supply systems
IEC 61727 or similar	Utility Interface Standard for PV power plants > 12 kW
IEC 62103, 62109 and 62040 (UL 1741)	Safety of Static Inverters - Mechanical and Electrical safety aspects
IEC 62116	Testing procedure of Islanding Prevention Methods for Utility-Interactive PV Inverters
PV Modules	IEC 61730 - Safety qualification testing, IEC 61701 - Operation in corrosive atmosphere
IEC 61215	Crystalline Silicon PV Modules qualification
String/Array junction boxes	IP65, Protection Class II, IEC 60439-1, 3
AC distribution boxes	Rated for IP42
Static Watt Hour Meter (AC)	IS 13779-1999
Central Inverter	Rated for IP54
Surge Protection Devices	Type 2, DC 1000V rated
PV Module/string/string combiner box interconnects	MC4 compatible. DC 1000V rated
All DC and AC cables, conduits, cable trays, hardware	Relevant IS
Earthing System	Relevant IS
PV Array support structure	Relevant IS

MAKE OF MATERIALS

1. Solar PV panels	: Panasonic/ Vikram Solar/Warre/ Emmvee/ Adani
2. Solar inverter	: Growatt/ ABB / Delta / Schneider
3. Junction box	: Hensel/OBO Betterman/ Cooper busman
4. Combiner panel	: Local fabrication approved by consultant
5. MCB / MCCB	: Legrand/ Schneider/Siemens/ L&T
6. Armoured cables 1.1 KV	: Polycab/KEI/Gloster/Havells/ RR Kabel
7. Energy Meter	: L&T/Siemens/Schneider/Socomec
8. Surge protection	: OBO Betterman/ ABB/ Merzen
9. PV module interconnecting Connector	: Tyco/ Cooper busman/Nordid
10. PVC Conduitees, bends etc (Hard &flexible)	: Oriplast /Supreme
11. Cables and Wires for AC	: RR Cable/Polycab/LAPP/ Scichem
12. Cables and Wires for DC	: LAPP/Top Solar/Nexans/Siechem
13. Surge ProtectingDevice (SPD)	: OBO Betterman / ABB/ Legrand
14. GI Pipe	: TATA-B class
15. Reverse power relay	: C&S, Alsthom, L&T

NOTE : All Equipment / Components used in execution of work shall be preferred make listed above subject to the approval of OWNER / CONSULTANT. The Consultant / Owner reserve the right to choose any one of the make listed above. If any other makes are offered, the same shall be clearly indicated in offer.

GUARANTEED TECHNICAL PARTICULARS (GTP)

(to be completely filled and submitted along with technical bid)

PV MODULE (GTP)

Sl. No	Item	Specification (AS PER TENDER)	AS OFFERED
1	Certification	i) IEC 61215 or IS 14286	
		ii) IEC 61730	
1.1	Test certificate issuing authority.	NABL/ IEC Accredited Testing Laboratories or MNRE accredited test centers	
2	PV Cell		
2.1	Type	Mono crystalline	
2.2	Size	156mm x 156mm	
3	PV Module		
3.1	Rating at STC	550Wp, 72 cells (without any negative tolerance)	
3.2	Efficiency	Minimum 14%	
3.3	Fill factor	Minimum 70%	
3.4	Withstanding voltage	1000V DC	
3.5	Glass	Toughened	
3.5.1	Thickness	3.2 mm (minimum)	
3.5.2	Type	High transmission, low iron, tempered & textured glass with anti reflective coating.	
3.6	PV Module Junction		
3.6.1	Protection level	IP 65 or above	
3.7	Bypass Diode		
3.7.1	System Voltage (V _{sys})	1000 V dc	
3.7.2	Number	3 numbers	
3.8	Module Frame		
3.8.1	Type	Anodized aluminum frame	
4	PV Module : MAKE offered		

PV ARRAY (GTP)

Sl. No	Item	Specification (AS PER TENDER)	AS OFFERED
1	Nominal Capacity	12 kWp	
2	PV Module interconnection connector	MC-4	
3	PV Module interconnection cable and array cable	PV 1-F standard /NEC standard "USE-2 or RHW-2" type (double	

		insulated)	
4	PV array String Voltage	Compatible with the MPPT Channel of the	
5	Number of Parallel String against each MPPT	02 Nos (Maximum)	
6	MAKE offered	As per preferred make	

PV ARRAY JUNCTION BOX (GTP)

SI No	Item Description	Specification (AS PER TENDER)	AS OFFERED
1	Enclosure		
1.1	Degree of Protection	IP65 with UV Protected	
1.2	Material	Polycarbonate.	
1.3	Withstanding voltage	1000V DC	
1.4	Withstanding Temperature	100 0C	
1.5	Accessories mounting	DIN Rail	
1.6	Number of Strings entry	As may be required	
1.7	Approved Make	Hensel/OBO Betterman/ABB/Cooper	
2	Cable Entry and Exit		
2.1	Position	Bottom at cable entry and	
2.2	Cable Entry and Exit connector type	MC 4 Connector (PV Array String cable)	
2.3	Cable gland	Earthing cable entry	
3	Surge Protecting Device		
3.1	Type	DC	
3.2	Approved Make	OBO Betterman / ABB/	
3.3	Protection class	Type B+C	
3.4	Number of set	As may be required as per string Desian	
3.5	System Voltage	Matched with System Voltage 1000 V DC	
4	Fuse with fuse holder		
4.1	Position	Positive and negative terminal for each series	
4.2	Type	Glass fuse, for PV Use only	
4.3	Rating	Current: Minimum 1.25 times the rated short circuit current of the string Voltage: Minimum 1000 V DC	
5.0	MAKE offered	As per preferred make list	

GRID CONNECTED INVERTER (GTP)

SI. No	Operating Parameter	Specification (AS PER	AS OFFERED
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1	Type	Grid connected String	
2	Usage	Specially used for PV	
3	Standards		
3.1	Efficiency	IEC 61683/ Equivalent BIS	
3.2	Environmental testing	IEC 60068-2 (1,2,14,30) / Equivalent BIS Std.	
3.3	Interfacing with utility	IEC 61727	
3.4	Islanding Prevention	IEC 62116	
3.5	Type Test certificate issuing authority (for item no 3.1, 3.2, 3.3)	NABL/ IEC Accredited Testing Laboratories or MNRE approved test	
4	Input (DC)		
4.1	PV array connectivity	12 kWp (minimum)	
4.2	MPPT Voltage range	Compatible with the	
4.3	Number of MPPT	2 nos (Minimum)	
5	Output (AC)		
5.1	Nominal AC Power	12kW Total	
5.2	Number of Grid Ph	3Ø	
5.3	Adjustable AC voltage range	Programmable as per grid condition 360V-	
5.4	Frequency range	47-53 Hz	
5.5	AC wave form	Sine wave	
5.6	THD	Less than 3%	
5.7	Switching	High frequency transformer / transformer	
6	General Electrical data		
6.1	Efficiency (Maximum)	95%	
6.2	Sleep mode	Less than 5 W	
7	Protection		
7.1	DC Side	1. Reverse-polarity 2. Reverse current to PV array protection, over voltage, Under voltage protection 3. Over current	
7.2	AC side	1. DC inject protection to grid less than 1% 2. Over voltage and Under voltage 3. Over current 4. Over and under grid frequency protection, 5. Anti Islanding protection	
7.3	Isolation Switch	1. PV array Isolation	

7.4	Ground fault detection device (RCD) which can detect changes in ground current. Rating	To be provided for transformer less inverter.	
8	Display		
8.1	Display type	LCD Display	
8.2	Display parameter		
8.2.1	DC	Voltage Current Power	
8.2.2	On grid connected mode	Line status	
		Grid voltage	
		Grid frequency	
		Export Power	
		Cumulative Export Energy	
9	Interface (Communication protocol)	Suitable port must be provided in the inverter for	
		i) On site upgrade of Software,	
		ii) On site dumping data from the memory,	
		iii) Web based remote monitoring system	
10	Web monitoring	Matched with the monitoring and data	
11	Mechanical Data		
11.1	Protection Class	IP 65 or higher	
11.2	Operating ambient	0 0 C to 600C	
11.3	Cooling	Natural / forced cooling	
12	MAKE offered	As per preferred make	

CABLES & WIRINGS (GTP)

Sl. No	Description	Specification (AS PER TENDER)	AS OFFERED
A	DC Cable		
1.1	Conductor	Tinned annealed stranded flexible copper according to IEC 60228 class 5	
1.2	Standard	PV-1F / 2 PfG 1169/08.2007 / VDE Standard E PV 01:2008-02 /Equivalent	
1.3	Make	LAPP/Top Solar/Nexans/Schneider	
B	AC Cable		
2.1	Rated Voltage	1.1kV	
2.2	Construction		

2.2.1	Type	Armored or unarmored as per requirement	
2.2.2	Conductor	Stranded flexible copper	
2.2.3	Insulation	PVC	
2.2.5	Standard	IS : 1554 -1	
2.3	Make	RR Cable/ Polycab/LAPP/ Havell's or equivalent	
C	PVC Conduit tees, bends etc (Hard & flexible)		
3	Standard	ASTM D 1785 u PVC	
3.1	Ambient Temperature	0 0C to 50 0C	
3.2	Type	UV stabilized , temperatures, Shock proof chemical resistant	
3.3	Make	Oriplast /Supreme or equivalent	
D	GI Pipe		
2	Make	TATA- B class	

ADDITIONAL SPECIAL TERMS AND CONDITION

1.0 Field Proven Inverter

The proposed string inverter must be field proven in Indian atmosphere. The string inverter of the proposed manufacturer must be used in any project in India and in operation on or before 31st December 2020. Also there must be a good maintenance setup of the proposed inverter manufacturer with having sufficient numbers of qualified service engineers (Degree / Diploma engineers) and well equipped setup with instruments, tools and tackles at Tamil Nadu or Chennai city. The maintenance setup of the proposed inverter manufacturer may be inspected by authority, if required.

2.0 Equipment and Material

Equipment and material shall comply with description, rating, type and size as detailed in this specification. Equipment and materials furnished shall be complete and operative in all respect. All accessories, which are necessary for safe and satisfactory installation and operation of the equipment, shall be furnished. All parts shall be made accurately to standard gauges so as to facilitate replacement and repair. All corresponding parts of similar equipment shall be interchangeable. Contractor shall carefully check the available space and the environmental conditions for installation of all equipments available at site and shall design the system accordingly.

3.0 Mode of Execution

The PV power plant shall be procured as a complete package. The entire work shall have to be executed on **turnkey basis**.

4.0 Materials and Workmanship

Qualified, experienced people should be deployed to install the **PV Power Plant**. All materials shall be of the best quality and workmanship capable of satisfactory operation under the operating and prevailing climatic conditions of respective. Unless otherwise specified, they shall conform in all respect to the latest edition of the relevant code and standards. The project must be supervised by a qualified Civil Structural Engineer/Engineering firm and Electrical /Electronics Engineers so that the work shall be as per drawing and related IS/IECC Code. The work shall be performed confirming safety precaution of all level of worker execute the project. The name and the qualification of the project engineers must be submitted to authority after placement of order. **The qualification of the supervising engineers must be minimum diploma or degree in respective stream.**

5.0 Testing and Inspection

- Material Inspection will be carried out after submission of all test reports/certificates and after completion of the manufacturing work, against formal intimation from the contractor. The contractor shall, given notice of any material being ready for testing and the authority Bank/Engineer-In-charge/bank,
- if desired, shall attend at the contractor's premises and may proceed with the routine tests. The material shall have to be dispatched at site after inspection and clearance from the purchaser. The inspection setup and instruments must be provided by the contractor within the contract value. The necessary charges for Site Testing, Transportation, accommodation and any other expenses shall be borne by the Contractor only.

Factory Testing:

- **A Factory Test Report (FTR) shall be supplied with the unit after all tests. The FTR shall include detailed description of all parameters tested qualified and warranted. The report must contain measurement of phase currents, efficiencies, harmonic content and power factor, also should include all other necessary tests/simulation required. Tests may be performed at 25, 30, 75 and 100 percent of the rated nominal power.**

Site Testing:

- a. The PCU shall be tested to demonstrate operation of its control system and the ability to be automatically synchronized and connected in parallel with a utility service.
- b. Operation of all controls, protective and instrumentation circuits shall be demonstrated by direct test if feasible or by simulation operation conditions for all parameters that cannot be directly tested.
- c. Special attention shall be given to demonstration of utility service interface protection circuits and functions, including calibration and functional trip tests of faults and isolation protection equipment.
- d. Operation of start up, disconnect and shutdown controls shall also be tested and demonstrate. Stable operation of the PCU and response to control signals shall also be tested and demonstrated.

6.0 Commissioning

After the erection and testing of the equipment/works as per above, commissioning of the plant and works shall be carried out and here the term "Commissioning" shall mean the activities of functional testing of the complete system after erection and testing, including tuning or adjustment of the equipment for optimum performance and demonstrating to the Purchaser that the equipment performance meets the requirements of the specifications.

7.0 Comprehensive Warranty and Maintenance

The contractor must ensure that the goods supplied under the contract are new, unused and of most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the contract.

The warranty period for the complete PV Systems will be **60 (sixty)** calendar months from the date of completion of Defects liability period of **one year** from date of commissioning of plant. The contractor shall remain liable to replace any defective parts that may develop in the plant of his own manufacture or that of his sub-contractors under the conditions provided for by the contract under proper use, and arising solely from faulty design, materials or workmanship, provided always that such defective parts as are not repairable at site and are not essential in the meantime to the maintenance in commercial use of the plant are promptly returned to the contractor's works at the expense of the contractor unless otherwise arranged.

The maintenance includes Routine, Preventive, Breakdown & Capital Maintenance the details are as follows but not limited:

Routine, Preventive, Breakdown & Capital Maintenance:

8.0 Routine and preventive maintenance:

Routine and preventive maintenance shall include cleaning of PV Module on regular basis, checks and maintenance activities such as tightening of all electrical connections, daily, weekly, fortnightly, monthly, quarterly, half yearly, and yearly basis which are required to be carried out on all the components of the power plant to minimize breakdowns and to ensure smooth and trouble-free running of the power plant. The supplier shall be responsible to carry out routine and preventive maintenance and replacement of each and every component/equipment of the power plant and he shall provide all labour, material, consumables etc. for routine and preventive maintenance at his own cost.

9.0 Breakdown maintenance:

Breakdown maintenance shall mean the maintenance activity including repairs and replacement of any component or equipment of the power plant which is not covered by routine and preventive maintenance and which is required to be carried out as a result of sudden failure/breakdown of that particular component or equipment while the plant is running. The supplier shall be responsible to carry out breakdown maintenance of each and every component of the power plant and he shall provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance at his own cost irrespective of the reason of the breakdown/failure.

10. Capital maintenance:

Capital Maintenance shall mean the major overhaul of any component or equipment of the power plant which is not covered by routine, preventive and breakdown maintenance which may become necessary on account of excessive wear & tear, aging, which needs repair/replacement. The capital maintenance of power plant and all civil structures shall normally be planned to be carried out on an annual basis. For this purpose a joint inspection by the supplier and purchaser shall be carried out of all the major components of the power plant, about two months in advance of the annual maintenance period, in order to ascertain as to which components of the power plant require capital maintenance. In this regard the decision of the purchaser will be final and binding. However, if the condition of any plant and component warrants its capital maintenance at any other time, a joint inspection of the purchaser and supplier shall be carried out immediately on occurrence of such situation and capital maintenance shall be carried out by arranging the shutdown of the plant/part of the plant, if required, in consultation with concerned authorities. The decision of the purchaser shall be final and binding. Capital maintenance also includes replacement of defectivelights fans under the projects supplied by the contractor. The capital maintenance includes painting, of mechanical structure, civil structure.

The contractor shall undertake necessary maintenance/troubleshooting work of the Solar PV Power Systems. Downtime shall not be more than 72 working hours from time of occurrence. Adequate measures should be taken for prevention of wear and tear of the machines. Solar PV Power System is to be designed to operate with a minimum of maintenance.

The scope of Support Service provides preventive maintenance as & when necessary within the contract period and breakdown maintenance in the event of malfunctions, which prevent the operation of the power system or part of it within the stipulated time period & free replacement of spares required for maintenance. Party will provide the A list of Spare parts & measuring instruments are
The contractor will submit warranty certificates of the work & spare parts and materials at the time of submission of completion report. If any defect is found within the warranty period, contractor will be liable to repair or replace the same at his own cost and risk, within three (72 hours) days from the date of complaint lodged by the authority or by the user themselves.

11.0 End Users Training

The Contractor shall arrange for training at site for the end users / employer. The duration of training shall be minimum **five days**. The contractor shall provide training materials at least seven days before commencement of training programme. **The training shall be the part of contract and no extra cost shall be provided for organizing the training programme.**

12.0 Handing Over

The work shall be taken over by authority upon successful completion of all tasks to be performed at site(s) on equipments supplied, installed, erected, commissioned AND RUN SUCCESSFULLY FOR CONSECUTIVE **30 DAYS** AT A STRETCH by the contractor in

accordance with provision over complete project work, the for considering final payment.

of this order. During handing contractor shall submit the followings

- i. All As-Built Drawings & Design
- ii. Detailed Engineering Document with detailed specification, schematic drawing, and test results, manuals for all deliverable major items, Operation, Maintenance & Safety Instruction Manual and other information about the project
- iii. Certificate issued by the structural & civil engineer/firm having engineer with minimum LBS/ESE/EBAL license for structural design of PV Array.
- iv. Bill of Materials
- v. Inventory of spares at project site
- vi. Completion certificate as per prescribed format provided by authority

13.0 Gov. Inspection

The contractor shall submit all the necessary drawings, SLD etc to Govt Authorities and arrange for inspection of the installation and obtain their certification. **Rectifications if any pointed out by TEDA/Govt. Authorities in the installed equipments / details shall be carried out by the contractor without any extra claim.**

14.0 Operation & Maintenance (O&M)

The bidder shall be responsible for operation and maintenance of the Roof top Solar PV system for a period of 05 years (in addition to DLP of 1 year) **for which one technician shall visit the site Monthly once on account of the same and submit the report to Bank.**

During this period, the bidder shall be responsible for time to time preventive maintenance and maintaining log sheets for operation details etc (as per clause 17 of technical specification for equipments)

15. Metering and Grid Connectivity

Metering and grid connectivity of the roof top solar PV system under this scheme would be the responsibility of the bidder in accordance with the prevailing guidelines of the concerned Distribution Company / TANGEDCO / TNERC / CEA (if available by the time of implementation). Bank could facilitate connectivity; however the entire responsibility lies with bidder only i.e obtaining clearance / liasoning etc.



SAFETY CODE

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying material as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
2. Scaffolding or staging more than 3.6 m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have guard rail properly attached bolted, braced and otherwise secured at least 90 cm (3 feet) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platform, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (ii) above.
4. Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 feet).
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm (11 $\frac{1}{2}$ ") for ladder up to and including 3m (10 feet) in length. For longer ladders this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm (1 foot) of length. Uniform step spacing shall not exceed 30 cm (12"). 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. The contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the contractor, be paid to compromise any claim by any such person.
6. Excavation and Trenching: All trenches, 1.2 m (four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 feet) in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 90 cm (3 feet) above the surface of the ground. The sides of the trenches which are 1.5 m (5 feet) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides to collapse. The excavated material shall not

be placed within 1.5 m (5 feet) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

7. Demolition: Before any demolition work is commenced and also during the process of the work: -
 - a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
 - c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge 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 contractor should take adequate steps to ensure proper use of equipment by those concerned: -
 - a. Workers employed on mixing asphaltic 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 which is injurious to the eyes shall be provided with protective goggles.
 - c. Those engaged in welding works shall be provided with welder's protective eye shields.
 - d. Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - e. When workers are employed in sewers and manholes, which are in use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
 - f. When workers are employed in sewers and manholes, which are in active use, the contractor shall ensure that the following safety measures are adhered to: -
 - i) Entry for workers into the line shall not be allowed except under supervision of the Architect or any other higher officer.
 - ii) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the Manholes for working inside.
 - iii) Before entry, presence of toxic gases should be tested by inserting wet lead acetate paper, which changes colour in the presence of such gases and gives indication of their presence.
 - iv) Presence of oxygen should be verified by lowering a detector lamp into the manhole. In case, no oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
 - v) Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - vi) No smoking or open flames be allowed near the blocked manholes being cleaned.

- vii) The Malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
- viii) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- ix) Gas masks with oxygen cylinder should be kept at site for use in emergency.
- x) Air blowers should be used for flow of fresh air through the manholes. Whenever called for, Portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 meters away from the opening and on the lowered side protected from wind so that they will not be source of friction on any inflammable gas that might be present.
- xi) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
- xii) The workers shall be provided with Gumboots or non-sparkling shoes, bump helmets and gloves, non-sparkling tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- xiii) Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole wall.
- xiv) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- xv) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer in charge regarding the steps in this regard to be taken in an individual case will be final".

g. The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precautions should be taken:

- i) NO paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- ii) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
- iii) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

Whenever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:

I. a. White lead, sulphate of lead, or products containing these pigments shall not be used in painting operation except in the form of paste or of paint ready for use.

b. Measures shall be taken in order to prevent danger arising from the application of paint in the form of spray.

c. Measures shall be taken, whenever practicable, to prevent danger arising from dust caused by dry rubbing down and scraping.

II.a. Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

b. Overall shall be worn by all the working painters during the whole of the working period.

c. Suitable arrangements shall be made to prevent clothing put off during working hours being soiled by painting materials.

III.a. Cases of lead poisoning and of suspected lead poisoning shall be notified and subsequently verified by a medical man appointed by the competent authorities of the Employee.

b. The Employer may require, when necessary a medical examination of workers.

c. Instructions with regard to the special hygienic precautions to be taken if the painting work shall be distributed to working painters.

9. When the work is done near any place where there is risk of drowning, all necessary equipment's should be provided and kept ready for use and all necessary steps taken for prompt rescue of the 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.

10. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:

1) a. These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order.

b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

2). Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.

3). In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or a means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

4). In case of Employer's machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractors' machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.

11. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials which are the good conductors of electricity.
12. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe conditions and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places or work.
13. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
14. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer, of the Government Engineer-in-Charge of the Employer or their representatives.
15. Notwithstanding the above clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.
- 16.** Pandemic Safety Rules and Regulations should be taken into Account and to be executed in site without any relaxations.

EVALUATION CRITERIA

All interested and eligible bidders shall submit their bids through <https://iobtenders.auctiontiger.net/EPROC/> through e-tendering portal, on or before the due date and time specified for submission of in the E-tenders.

Evaluation Criteria (Technical bid):

1. Technical Competence
2. Ability to carry out the work based on past records
3. Company Organisation.
4. Appropriate Supervision staff & Skilled Labour committed to be mobilized
5. Completeness of bid submission

The details of the Technical Bid evaluation criteria are furnished below:

Technical Bid Evaluation Criteria:

Stage 1: Preliminary Examination:

To ascertain the responsiveness of the bidders and reject those bids who have;

- a) Not submitted the tender in time
- b) Submitted tender without Application Fee/EMD
- c) Not submitted the tender in Bank's approved format
- d) Submitted unsigned / illegible tender
- e) Not accepted the Bank's E-tender conditions
- f) Submitted the tender with counter conditions
- g) Not registered for Income Tax and GST etc.

Only those bids that are responsive shall be subject to further processing. Bids not complying with the above would be rejected.

Stage 2: Pre-Qualification:

To determine the compliance of the bidders with the Pre-Qualification (PQ) mandatory criteria specified below:

- a) Locally available contact persons for co-ordinating the work.
- b) Experience and past performance on similar contracts.
- c) Financial position / capability
- d) Compliance to Vigilance Guidelines.

For establishing the above, the terms are elaborated as follows:

1. The bidder should be based in Chennai or should have a locally available contact at Chennai for day to day supervision and co-ordination.

Proof of address / contact details in respect of the same must be submitted along with the application.

2. All the Pages of the tender Documents should be signed and sealed by the Authorized person.
3. **The bidder should be in the Constructional business during last three years, prior to the cutoff date of 31/03/2024.**

4. Bidder must have achieved minimum average annual financial turnover of Rs.3.87 Lakh during the atleast any three financial years (FY 2020-21 & 2021-22, 2022-23) ending March 2024 ;

Copies of audited balance sheet and profit & loss account / IT Returns for three years shall be submitted.

5. The contractor should have executed work(s) for / registered for works with CPWD or State PWD or MES or Railways or such other Government organizations or Registered in Public sector units or Public Sector Bank's or Financial institutions as Civil works contractor.
6. Bidder must have successfully completed works for CPWD / PWD / PSUs / PSBs / FIs/Private organizations in the past five years as on 30.09.2022:
 - i. One work of value at least Rs.6.2 lakhs in a single work order (or)
 - ii. Two works of value at least Rs.3.1 Lakh each (or).
 - iii. Three works of value at least Rs.2 Lakh each.

Value here means the completed cost as reflected in the final bill/ completion certificate. Fill up Proforma 2a, 2b and 2c provided along with the Application Format, depending upon the number of works (one or two or three) which satisfy the PQ criteria as above and submit proof of works completed (Work Orders and Performance Certificates from previous employers with contact details) for these works.

The work experience shall be similar in nature comprising of Fire System works.

7. The bidder, whose contract in the past was terminated by the employer due to unsatisfactory performance, will not be eligible for participating in the tendering process. Similarly, a bidder who discontinued the contract before its expiry or failed to commence the service after award of contract will also be not eligible for participating in the tendering process. Tenders must be accompanied with declaration to this effect on letterhead of the bidders.

Declaration Certificate on the company's letter head, duly signed by the authorized signatory shall be submitted.

Note:

It may be noted that documentary evidence in respect of first five items are essential. For the last item declaration letter is a must. Tenders not accompanied by any one of the above would render the bid invalid / unresponsive and hence the bid would be rejected forthwith.

Bidders will be evaluated for all the above parameters in this stage. Accordingly, the contractors / bidder satisfying all the above criteria will only qualify for next stage.

In other words, a bidder has to comply with each of the PQ criteria (mandatory requirement) to qualify for further evaluation and if the contractor fails to satisfy any one of the PQ criteria, then the agency would be disqualified.

Stage 3: Site Inspection:

The Bank, at its discretion, may inspect sites of work of those prospective bidders (who have qualified Stage 2 of Pre-Qualification), for further shortlisting, depending

upon the number of eligible bidders, as decided by Competent Authority of Bank. For this purpose, only those sites of the eligible bidders which qualify the PQ criteria [criteria no.(v) of Stage 2] alone shall be inspected.

I. Price Bid Evaluation Criteria:

On opening of Price Bids, the same shall be evaluated based on the rates quoted. The Bidder quoting the lowest price would be the successful bidder. On opening of Price Bids, all the rates quoted by all the pre-qualified bidders would be arithmetically checked and the final costs would be compared. The lowest quoting bidder would be the successful bidder, subject to acceptance of bid by the Competent Authority of the Bank.



APPLICATION FORM

1. Please fill in all particulars in the space provided in the application form.
2. Please affix your seal and signature (authorized signatory) on all pages of the application form.
3. Bank will scrutinize the offers based on information provided in Pre-Qualification Documents. Banks decision on shortlisting of the prospective Architect is final.

(Attach separate sheets wherever necessary)

1	Name of the Applicant / Firm / Company	
2	Registered Address: Address for Communication:	
3	Contact Information Office Phone Number: Mobile Number: Alternate Number: E-Mail:	
4	Status of the Firm: <i>(Please tick appropriate box)</i>	<input type="checkbox"/> Company <input type="checkbox"/> LLP <input type="checkbox"/> Partnership <input type="checkbox"/> Proprietary Firm <input type="checkbox"/> Individual <i>(attach proof)</i>

5	Name of the Proprietor / Partners / Directors with professional qualifications (if any):	
6	Year of Establishment:	
7	Registration Details Companies/ Firm Registration Number & Date: Income Tax – PAN No.: GST No.: Others, if any:	<i>(attach proof)</i>
8	Income Tax Turnover of the Company / firm (Please attach copy of audited balance sheet and profit & loss account / IT Returns for any three years)	Financial Years 2020 - 21 :Rs. 2021 - 22 :Rs. 2022 - 23 :Rs.
9	Registration With Government Organizations / PSUs / PSBs viz., CPWD, MES, Banks etc. Furnish Names, Category, Registration Details etc.	1. 2. 3. 4.
10	Field of activities (Mention based on preference)	
11	Key Personnel Details (Enclose Proforma 1)	YES <input type="checkbox"/> NO <input type="checkbox"/>
12	Details of works done in last five years (PWD/CPWD/PUBLIC SECTOR/GOVERNMENT WORK).	1.

	<p>Please mention only those works which qualifies the Pre-Qualification Criteria. Please attach proof in support. (FILLED UP PROFORMA 2A, 2B & 2C SHALL BE ENCLOSED. If only one work satisfies the eligibility criteria, only one form say, PROFORMA 2A shall be enclosed.)</p>	<p>2.</p> <p>3.</p> <p>PORFORMA 2A,2B, 2C Enclosed:</p> <p>YES <input type="checkbox"/></p> <p>NO <input type="checkbox"/></p>
13	<p>Details of three responsible clients/ persons to whom the major works carried out by the applicant with address and telephone number who will be in a position to certify about the quality as well as past performance of your organization</p>	<p>1.</p> <p>2.</p> <p>3.</p>
14	<p>Details of Application Fee</p>	<p>UTR No. :</p> <p>Date:</p> <p>Issuing Bank / Branch:</p>

DECLARATION

- a) All the information furnished by me / us here above is correct to the best of my knowledge and belief.
- b) I / we have no objection if enquiries are made about the work listed by me / us in the accompanying sheets / Annexures.
- c) I / We agree that the decision of Indian Overseas Bank in shortlisting of contractors will be final and binding to me / us.
- d) I / We have read the instructions and I / we understand that if any false information is detected at a later date the selection shall be cancelled at the discretion of the Bank.

Place :

SIGNATURE OF THE APPLICANT

Date :

NAME & DESIGNATION

SEAL OF ORGANISATION



PROFORMA - 1A

Sl. No.	Name	Qualifications	Experiences	Particulars of Work Done	Employed in Your Firm Since	Any Others
1						

PROFORMA – 2A:

Signature of contractor

WORK EXPERIENCE- 1
(Qualifying Evaluation Criteria)

Work experience should be accompanied by the copy of its award letter, work completion certificate / performance certificate.

Bank Reserves the right to verify the details furnished by the Applicant, with the Organization which awarded the contract, if it desires.

1	Furnish details of the Client Organization, below:	
a	Name of the Organization:	
b	Address of the Organization:	
c	Name of Contact Person(s):	
d	Contact Number(s):	
2	Name of Contract and location of Project:	
3	Period of Execution:	
4	Nature of Project in Brief:	

5	Actual Value of the Project:	
6	Whether Work Left Incomplete or Terminated?	<input type="checkbox"/> YES <input type="checkbox"/> NO (If YES, please furnish details / reasons below)
7	Enclosed copy of	
	a) Purchase order	YES <input type="checkbox"/> NO <input type="checkbox"/>
	b) Completion certificate	YES <input type="checkbox"/> NO <input type="checkbox"/>
	c) Performance certificate	YES <input type="checkbox"/> NO <input type="checkbox"/>

SIGNATURE OF APPLICANT WITH SEAL

PROFORMA – 2B:

WORK EXPERIENCE- 2
(Qualifying Evaluation Criteria)

Work experience should be accompanied by the copy of its award letter, work completion certificate / performance certificate.

Bank Reserves the right to verify the details furnished by the Applicant, with the Organization which awarded the contract, if it desires.

1	Furnish details of the Client Organization, below:	
a	Name of the Organization:	
b	Address of the Organization:	
c	Name of Contact Person(s):	
d	Contact Number(s):	
2	Name of Contract and location of Project:	
3	Period of Execution:	
4	Nature of Project in Brief:	

5	Actual Value of the Project:	
6	Whether Work Left Incomplete or Terminated?	<input type="checkbox"/> YES <input type="checkbox"/> NO (If YES, please furnish details / reasons below)
7	Enclosed copy of	
	a) Purchase order	YES <input type="checkbox"/> NO <input type="checkbox"/>
	b) Completion certificate	YES <input type="checkbox"/> NO <input type="checkbox"/>
	c) Performance certificate	YES <input type="checkbox"/> NO <input type="checkbox"/>

SIGNATURE OF APPLICANT WITH SEAL

PROFORMA – 2C:

WORK EXPERIENCE- 3 *(Qualifying Evaluation Criteria)*

Work experience should be accompanied by the copy of its award letter, work completion certificate / performance certificate.

Bank Reserves the right to verify the details furnished by the Applicant, with the Organization which awarded the contract, if it desires.

1	Furnish details of the Client Organization, below:	
a	Name of the Organization:	
b	Address of the Organization:	
c	Name of Contact Person(s):	
d	Contact Number(s):	
2	Name of Contract and location of Project:	
3	Period of Execution:	
4	Nature of Project in Brief:	

5	Actual Value of the Project:	
6	Whether Work Left Incomplete or Terminated?	<input type="checkbox"/> YES <input type="checkbox"/> NO (If YES, please furnish details / reasons below)
7	Enclosed copy of	
	d) Purchase order	YES <input type="checkbox"/> NO <input type="checkbox"/>
	e) Completion certificate	YES <input type="checkbox"/> NO <input type="checkbox"/>
	f) Performance certificate	YES <input type="checkbox"/> NO <input type="checkbox"/>

SIGNATURE OF APPLICANT WITH SEAL

On the letter-head of the bidder

LETTER OF UNDERTAKING

**The Chief Regional Manager
3131 Regional office,
General admin department,,
Indian Overseas Bank
20-21, Kamarajar street,
Kancheepuram 631501.**

Dear Sir,

1. We hereby confirm that we agree to all the NIT terms and conditions of the installation of roof top solar plant for Indian Overseas Bank branch at Ambattur, Chennai , its Annexes, amendments made to the NIT without any pre-conditions. Any presumptions, assumptions, deviations given or attached as part of technical document (technical bid) be treated as null and void.
2. We confirm that the undersigned is authorized to sign on behalf of the company and the necessary support document delegating this authority is enclosed to this letter.
3. We also agree that you are not bound to accept the lowest or any bid received and you may reject all or any bid without assigning any reason or giving any explanation whatsoever.

Dated at _____ this _____ day of _____ 2024.

Yours faithfully,

For _____
Signature: _____
Name: _____

Authorized Signatory

Name and Designation

Office Seal

Place:

Date:

Note: (Signed NIT document to be appended while uploading this Annexure in e-tendering portal)

AGREEMENT FORMAT

Articles of Agreement made on this _____ 2024, between _____ having registered office at _____ (herein after called the 'contractor'), on one part and the Indian Overseas Bank a Body Corporate constituted under the Banking Companies (Acquisition and Transfer of undertakings) Act 1970, having its Central Office at 763, Anna Salai, Chennai 600 002 (herein after called the 'Bank') on the other part.

WHEREAS the employer is desirous of SITC OF Roof top solar systems and other allied works at Bank's Central Office & Staff College, Chennai as per schedule I to this agreement and has caused drawings, bill of quantities, and a specification describing the work to be done as prepared by our consultant Mr K P Muralidharan.

AND WHEREAS the said drawings as per schedule II to this agreement inclusive, the bill of quantities and the specifications as per Architects specification / CPWD / local PWD specifications/The Indian standard specifications have been signed by or on behalf of the parties hereto:

AND WHEREAS the Contractor has agreed to execute upon and subject to the conditions set forth in schedule III hereto (hereinafter referred to as "the said conditions") the work shown upon the said drawings and described in the said specification and included in the said bill of quantities for the sum of Rs. _____ (Rupees _____) only

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. Inconsideration of the sum of Rs. _____ (Rupees _____) only to be paid at the times and in the manner set forth in the said condition, the Contractor will upon and subject to the said conditions execute and complete the works shown up to the said drawings and described in the said specification and bill of quantities.

2. The Bank will pay to the Contractor the said sum of Rs _____ (Rupees _____) only or such other sum as shall become payable hereunder at the times and in the manner specified in the said conditions.

3. Or in the event of their ceasing to be Architect for the purpose of this contract, such other person as shall be nominated for that purpose by the employer, not being a person to whom the Contractor shall object for reasons considered to be sufficient by the arbitrator

Signature of contractor

mentioned in the said conditions. Provided always that no person subsequently appointed to be consultant under the contract shall be entitled to disregard or overrule any decision or approval or direction give or expressed by the consultant for the time being.

4. The said conditions, specifications and priced bill of quantities shall be read and constructed as forming part of this agreement and the parties hereto will respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their part respectively in such conditions, specifications and priced bill of quantities contained.

SCHEDULE-I

Contains drawing number

SCHEDULE –II

Correspondence between Contractor and Bank
As witness our hand the day and year first above written.

Signed by the said employer
In the presence of witnesses

Name: _____	Name: _____
Occupation: _____	Occupation: _____
Address: _____	Address: _____
_____	_____
_____	_____

Signed by said Contractor (s):
In the presence of witnesses:

Name: _____	Name: _____
Occupation: _____	Occupation: _____
Address: _____	Address: _____
_____	_____

Checklist

(To be filled by Bidder)

- a) Have you uploaded signed tender (filled) documents? Yes/No
- b) Whether EMD & Application fee paid? If not, enclosed relaxation certificate? Yes/No
- c) Whether copy of PAN and GST enclosed? Yes/No
- d) Whether Declaration Certificate as per Sl. No. (v) of Evaluation Criteria enclosed? Yes/No
- e) Whether proof for year of establishment enclosed? Yes/No
- f) Whether proof for average annual financial turnover enclosed? Yes/No
- g) Whether Proforma – 1 and Proforma – 2 (2a, 2b, 2c) filled up / signed and enclosed? Yes /No
- h) Whether documentary proofs for having satisfactorily undertaken the works (as detailed in Proforma -2) are enclosed? Yes/No
- i) MNRE registered certificate is enclosed? Yes/No
- j) Whether technical particulars are filled Technical bid? Yes/No

Yes/No

If yes, number of certificates enclosed:

Name of the Bidder / Firm / Company :
