BOQ FOR ON GRID SOLAR SYSTEM FOR UCO BANK AT ROURKELA
(FOR 20 Kw)

SL	Particulars Description	MAKE	UOM	QTY	PRICE	AMOUNT
A	Solar Modules					
1	Solar Panel MONO TOPCON BIFACIAL -615Wp and above As per BIS Standard & Certified	Tata /Adani/Waaree/Renewysis	Nos.	34		
	Generation per year (kwh)	30000 Unit APPROX	Kw.	or as per requrement		
B	Inverters On Grid type					
2	On Grid Solar Inverter 20 kVA On-Grid String Solar Inverter (3 Phase) 20 k W As per IEC Standard & Certified	MICROTEK/POWERONE/SUNGROW	Pic	1		
	Warranty on Inverters	10 YEAR				
C	DC & AC Protection					
3	DCDB 3 IN 3 OUT or 2 OUT OUT as per plant rwith DC Fuse & SPD		Set	1		
4	ACDB 2 IN 1 OUT with MCB & SPD with All protection (2 MCB in Input & 1 MCB In Output)		Set	1		
D	LA & Earthing					
5	Earthing GI 50mm X 2mtr + 50KG BFC Compound (copper bonded)		Set	4		
6	ESE TYPE 50 MTR RANGE LIGHTENING ARRESTER		Set	1		
7	Earthing Conductor: GI strip (25mmx3mm)		Mtr	100		
8	LA-Earthing Conductor: GI strip		Mtr	100		
9	Earthing Chamber (C.I type of size 450mmx450mm)		Set	4		
E	Cables & Accessories					
10	DC Cable: Module to inverter - 6 Sqr MM CU DC cable (as per site condition)	MICROTEK / POLYCAB / KEI	Mtr	250		
11	AC Cable: Inverter to ACDB- 25 Sqr MM sqr mm 4C (Al cable)	MICROTEK / POLYCAB/ KEI	Mtr	150		
F	Panel Mounting Structure					
12	G.I Structure for RCC flat Roof withstanding with pressure of 200k.m/hr as per requirement including all hardware,labour and materials **Structure:-** Leg:- 500 -600 mm (front) & 900-100 mm (back) with 75mm X 75mm GI squre pipe of 2mm thick . Slop :- 15 to 21 degree. Rafter :-75mm X 75mm GI squre pipe of 2mm thick . Purline :- 400mm X 40mm G.I Squre pipe of 2mm thick. Foundation :- P.C.C of base size 400mm X 400mm X 400mm of grade (1:3:6)	for 20 Kw	Job	1		
	Panel Nut bolt (SS) with MID Clamp & End Clamp					
G	Plant Monitoring System & Metering					
13	RMS	INCLUSIVE	Set	1		
	Generation Meter (LTCT Type with CT) Generation Meter - 3Ph					
	Data Charge / Wi Fi	INCLUSIVE				
H	Miscellaneous					
14	Module Cleaning System With Sprinkler & pump As Required for Successfully Operation of Sprinkler Sprinkler to be used 1 nos, with Clamps for each module & CPVC Pipe To be used for Plumbing	for 20 Kw	Job	1		
	Lugs, MC4 Connector, Cable tie, PVC Tape, PVC Ferrules, Name Plate, Danger Board, PVc Conduit, Etc.....	1 set				
	Cable Tray - FRP Cable Tray of 50X50X3mm With Cover	as per requrement				
	Cable Tray - FRP Cable Tray of 100X50X3mm With Cover	as per requrement				
	CEIG Inspection	as per requrement				
	Safety Life Line With Complete Accessories	as per requrement				
I	Liasoining With TPCODL					
	Liasoning charge for Net meter Instalation & Commissioning		Job	1		
		TOTAL				

Total in words:-

	Note	
1	Solar panel performance warranty	25 years
2	Solar panel manufacturer warranty	10 years
3	Inverters warrenty	5 years
4	Remote Monitoring & BOS	2 years

The above rate is exclusive of GST

UCO BANK
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SUPPLY AND INSTALLATION OF ROOF TOP SOLAR PLANT OF 20KW CAPACITY AT UCO BANK ROURKELA .

THE DY.GENERAL MANAGER,
UCO BANK,
ZONAL OFFICE,
SAMBALPUR.

NOTICE INVITING TENDER (NIT)

BANK RESERVES THE RIGHT TO ACCEPT OR REJECT ANYOR ALL THE TENDERS WITHOUT ASSIGNING ANY REASONS THEREOF.

Sub: Tender Document for Design, Supply and Installation of Rooftop Solar Panel of 20kw Capacity At UCO Bank Building, Rourkela.

1. Sealed tenders in TWO parts (Part-I - Technical and Part-II Commercial (Price) bid) are invited from resourceful renderers (meeting Eligibility Criteria as mentioned in Tender)

#	Particulars	Timeline
1	Name of the Tender	Supply and Installation of Rooftop Solar Panel of 20kw Capacity At UCO Bank Building, Rourkela.
2	Issuance Date	09.03.2026
3	Coordinator details (Bank)	Zonal Office, GA Department Tel- 0674-2620400 Email: zosblpur.gad@uco.bank.in
4	Mode of Tender	Physical/Offline Quotation in Sealed Envelope
5	Address for submission of Quotation	The Dy. General Manager, UCO Bank, Zonal Office, SAMBALPUR.
7	Address for opening of bids	UCO BANK, ZONAL OFFICE, SAMBALPUR .
8	Last Date of Submission of Quotation (Closing Date & Time for receipts of bids)	**4:00 PM on 23.03.2026**
9	Quotation/Tender Opening Date	**5.00 PM on 23.03.2026**
10	Visit to the premises	**Prospective bidders may visit the site between 10 am to 5 pm from 09.03.2026 to 23.03.2026**
11	Defect liability period	12 month from completion of the project
12	Validity of tender	3 month
13	Earnest Money	Rs 28,200 Rupees Twenty eight thousands only) by crossed Demand Draft/ Pay Order payable at SAMBALPUR drawn in favour of UCO BANK, to be submitted with the Bid.
14	Retention money	5 % of total certified bill amount Release of Retention: Retention money will be released after Defect Liability Period of 1 (One) year from the date of payment of the final bill after adjusting all dues, if any, from the

		contractor.
15	Availability of Tender Document	Tender form has to be downloaded from the Bank's website ***www.uco.bank.in*** (tender section). Application form available on website alone needs to be used. Tender forms will be available on Bank's website from 09.03.2026 to 23.03.2026 till 14.00hrs.

1. Tenderer can be download the tender documents from the web site and submit its tender by utilizing the downloaded document, along with the required non- refundable fee of ₹560/-.
2. Tenderers shall ensure that their tenders, duly sealed and signed, complete in all respects as per instructions contained in the Tender Documents, are dropped in the tender box located at the address given on or before the closing date and time indicated in NIT above, failing which the tenders will be treated as late and rejected.
3. In the event of any of the above mentioned dates being declared as a holiday / closed day for the purchase organization, the tenders will be sold / received / opened on the next working day at the appointed time.
4. The tenderers who are currently registered and shall continue to remain registered during the tender validity period with Central Purchase Organization (CPO) or as a Micro and Small Enterprise (MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME) or as a Startup as recognised by Department for Promotion of Industry and Internal Trade (DPIIT), are exempted from payment of tender fee and earnest money. In case the tenderer falls in these categories, it should furnish certified copy of its valid registration details (registration as a MSE or Startup, as the case may be).

For and on behalf of UCO BANK

THE DY. GENERAL MANAGER,
UCO BANK, ZONAL OFFICE .
SAMBALPUR .

Submission of Tender

ENVELOPE MARKED NO.1.

Envelope marked No.1 shall contain the following documents.

i) Forwarding letter without mentioning the cost of Tender value arrived at with quoted rates & tender paper technical volume.

ii) Tender fee deposit furnished in the form of Crossed Demand Draft/ Banker's Cheque drawn in favour of UCO BANK and payable at SAMBALPUR for the amount indicated in the Notice of Invitation to Tender.

iii) Earnest money deposit furnished in the form of Crossed Demand Draft/ Banker's Cheque drawn in favour of UCO BANK and payable at SAMBALPUR for the amount indicated in the Notice of Invitation to Tender.

iv) Latest Photocopies of up to date IT return certificate and GST No. (Bank have the right to verify the documents with originals at the time of opening of tender)

v) All document full filling qualification / eligible criteria for the works must be submitted.

(Bank has the right to verify the documents with originals at the time of opening of tender).

Any comment which the tenderer desires to make in the form of a statement as brief as possible and with reference to the items.

ENVELOPE MARKED NO.2

Envelope marked No.2 shall contain the priced tender(BOQ) Volume of the tender paper.

ENVELOPE MARKED NO.3

Envelope marked No.1 & 2 shall be put in large envelope of adequate size marked No.3 which shall be properly sealed. These envelopes which shall be endorsed on the outside face "Tender for Supply and Installation of Rooftop Solar Panel of 20kw Capacity At UCO BANK BUILDING, ROURKELA .

Qualification/Eligibility Criteria

Part-I: Technical Bid Criteria

The bidder should be currently in similar business and in sound financial condition.

Financial Soundness:

1. The average annual turnover of the company should be more than ₹ 40.00 Lakhs in the last three years ending 31/03/2025.

2. The Tenderer should not have suffered financial loss for more than one year during the last 3 years ending 31/03/2025.

3. The Net Worth of the firm should be positive and should not have eroded by more than 30% year on year in the last 3 years ending 31/03/2025.

Documents to be submitted in support of the above criteria.

1. Audited / Chartered Accountant Certified P & L Account and Balance sheet for the FY 2022-23, FY2023-24and FY 2024-25 or IT returns as applicable.

Part-II: Experience Criteria:

Minimum qualification: The bidder should have executed similar works ending last date of the previous month in which the tender is floated

1. Three similarly completed works each costing not less than the amount of value of 40% of estimated value (i.e., ₹5.70 lakhs) in the last 5 years.

OR

2. Two similarly completed works each costing not less than the amount of value of 50% of estimated value (i.e., ₹7.00 lakhs) in the last 5 years.

OR

3. One similarly completed works each costing not less than the amount of value of 80% of estimated value (i.e., ₹11.50 lakhs) in the last 5 years.

Similar work means Supply, Installation, testing and commissioning of minimum 50.0 KW capacity Solar Power Plant.

Documents to be submitted in support of above criteria.

Work orders or performance Certificate with corresponding Work Completion Certificate indicating a) Name of Work, b) Name of Client c) Actual Value of works on completion d) Actual date of completion e) Capacity of the Solar Power Plant installed.

III :-General Criteria:

i. Proof of Registration with GST, and PAN.

ii. The declaration having not blacklisted by Government of India / Public Sector Undertakings and Confidentiality Statement as given below, shall be signed and submitted as part of Technical Bid.

All the above certificates / documents shall by duly signed with seal by the Authorized person of the firm.

Bidder to furnish stipulated documents is support of fulfilment of qualifying criteria. Non-submission or incomplete submission of documents may lead to rejection of offer.

The following documents may also be submitted along with the bids:

(i) The intending bidders shall submit all technical details, product catalogues, specifications etc of the proposed systems offered for evaluation.

(ii) The address /contact details of the office / authorized dealers who will be responsible for after sales service / maintenance shall be clearly mentioned.

Bidder shall submit the following declarations / undertakings along with tender application.

(a) The signatory is competent and legally authorized to submit the tender and / or to enter into legally binding contract.

(b) Undertaking that the bidder is accepting all the terms and conditions of this tender and abides by it without any counter conditions

(c) Applicant will absolve the purchaser against any infringement of patent right and other contract

provision.

(d) Undertaking that the information given in the documents is correct and the Bidder is aware that any information provided is found to be false at a later stage bank reserves the right to reject / disqualify the Bidder at any stage of the tendering process without assigning any reason.

(e) The Company/firm/organization undertakes not to reveal the information in the tender documents to any third party .

Confidentiality Statement

The information, which is contained in this document will not, in whole or in part be reproduced, transferred to other documents/electronic media or disclosed to others without written consent of UCO BANK. Bidder shall also undertake to maintenance secrecy, exclusivity and confidentiality of the high security currency-printing environment of UCO BANK.

For and on behalf of

M/s.....

Yours faithfully,

Name

Signature with date Seal ( )

Declaration

We confirm that that our firm has not been debarred by Bank/ Government of India/ any Government Agency in the past 5 years ending as on date.

For and on behalf of

M/s.....

Yours faithfully,

Name

Signature with date Seal ( )

1. Project overview and Scope of Work

This document has been prepared solely for the purpose of enabling UCO BANK ("the Bank") to select a bidder/vendor for Supply and Installation of Rooftop Solar Panel of 20KWp Capacity At UCO BANK BUILDING,ROURKELA ..

The Bank, for this purpose, invites quotation from **bidders** who are interested in Supply and Installation of Rooftop Solar Plant. The bidder must also agree to all our terms & conditions mentioned in this document.

The detailed scope of work and technical specifications is mentioned in the Annexure -1. However, Bank reserve the right to modify/ change the scope of work at any phase of this contract.

Contract Period

The contract is for Design, Supply and Installation of Rooftop Solar Plant of 20KWp Capacity At UCO BANK BUILDING, Rourkela, Sector-19. The execution of the said work should be completed within **-45- days** of award of work. The Work executed will have Defects Liability Period (DLP) or warranty period of 1 year post successful installation & handing over to the Bank.

2. Preference to make in India initiative

Government has issued Public Procurement (Preference to Make in India) [PPP-MII] Order 2017 vide the Department for Promotion of Industry and Internal Trade (DPIIT) Order No.P-45021/2/2017-B.E.-II dated 15.06.2017 and subsequent revisions vide Order No. 45021/2/2017-PP (BE-II) dated 16-9-2020 to encourage 'Make in India' and to promote manufacturing and production of goods, services and works in India with a view to enhancing income and employment.

Preference will be given with the criteria laid down by Bank and as per procedures laid down in Public Procurement (Preference to Make in India)order 2017, revision dated 16/09/2020 vide order P-45021/2/2017-PP (BE – II) dated 16-9-2020 issued by GOI.

The guidelines under PPP-MII order and subsequent revisions as mentioned above shall be applicable subject to bidder submitting with Class-I/Class-II local content certificate for the quoted product.

3. Performance Bank Guarantee

3.1 The successful bidder shall provide a Performance Bank Guarantee (PBG) within 21 days from the date of receipt of the order in the format as provided underAnnexure2. The value of PBG should be 5% of the total contract value, valid for entire period of the SITC contract including DLP plus 3 months and such other extended period as the Bank may decide for due performance of the project obligations. The guarantee should be of that of a Nationalized Bank only, other than UCO BANK.

3.2 In the event of non-performance of obligation or failure to meet terms of this Tender or subsequent agreement, the Bank shall be entitled to invoke the performance guarantee without notice or right of demur to the bidder. Any amount pending for payment due to non-achieving of milestone/s set under the agreement or

any other reason solely attributable to the bidder should be included in the remaining amount of the contract value.

3.3 The Bank reserves the right to recover any dues payable by the selected bidder from any amount outstanding to the credit of the selected bidder, including the pending bills and/or invoking Performance Guarantee, if any, under this contract.If the Performance guarantee is not submitted within the stipulated time, the Bank reserves the right to cancel the order contract.

4. Sub - Contracting

The selected vendor shall not subcontract or permit anyone other than its personnel to perform any of the work, service or other performance required under this project. In case any particular specialized service as prescribed in the scope of work requires subcontracting, it need to be specified in the proposal/ response document with all the details of the work/ services. Please note that no work/services shall be subcontracted without the prior permission from the Bank in writing.

6. Compliance with Laws

7.1 Compliance in obtaining approvals/permissions/licenses: The bidder shall promptly and timely obtain all such consents, permissions, approvals, licenses, etc., as may be necessary or required for any of the purposes of this project or for the conduct of their own business under any applicable Law, Government Regulation/Guidelines and shall keep the same valid and in force during the term of the project. Also the bidder shall comply with the provisions of code of wages, and other labor welfare legislations. In the event of any failure or omission to do so, shall indemnify, keep indemnified, hold harmless, defend, protect and fully compensate the Bank and its employees/ officers/ staff/ personnel/ representatives/agents from and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising there from. The Bank will give notice of any such claim or demand of liability within reasonable time to the bidder.

6.2 The bidder is not absolved from its responsibility of complying with the statutory obligations as specified above.

7. Termination

4.1 Bank reserves the right to terminate this tender at any stage without any notice or assigning any reason.

At any time during the course of the tender process or before the award of contract or after execution of the contract that one or more terms and conditions laid down in this Request For Proposal has not been met by the bidder or the bidder has made material misrepresentation or has given any materially incorrect or false information, Bank may terminate his contract and may invoke performance bank guarantee or forfeit the security deposit as the case may be. Further bank may impose such restriction/s on the defaulting bidder as it deemed fit.

8.3 After the award of the contract, if the selected bidder does not perform satisfactorily or delays execution of the contract, Bank may terminate his contract and may invoke performance bank guarantee or forfeit the security deposit as the case may be. The Bank reserves the right to get the balance contract executed by another party of its choice by giving one month notice for the same. In such an event, the

bidder is bound to make good the additional expenditure which the Bank may have to incur for the execution of the balance of the contract

9 Governing Laws

This tender and the subsequent contract shall be governed and construed and enforced in accordance with the laws of India. Both the Parties shall agree that in respect of any dispute arising upon, over or in respect of any of the terms of this tender, only the courts in SAMBALPUR shall have exclusive jurisdiction to try and adjudicate such disputes to the exclusion of all other courts.

10Authorized Signatory

The selected bidder shall indicate the authorized signatories who can discuss and correspond with the Bank, with regard to the obligations under the contract. The selected bidder shall submit a certified copy of the resolution of their Board, authenticated by Company Secretary/Director, authorizing an official or officials of the company or a Power of Attorney copy to discuss, sign agreements/contracts with the Bank. The bidder shall furnish proof of signature identification for above purposes as required by the Bank.

11 **Right to Reject Bids**

Bank reserves the absolute and unconditional right to reject the response to this tender, if it is not in accordance with its requirements and no correspondence will be entertained by the Bank in the matter. The bid is liable to be rejected if:

a) It is not in conformity with the instructions mentioned in the Tender document.
b) It is not properly or duly signed.
c) It is received through Telex / telegram/ fax
d) It is received after expiry of the due date and time.
e) It is incomplete including non- furnishing the required documents.
f) It is evasive or contains incorrect information.
g) There is canvassing of any kind.
h) It is submitted anywhere other than the place mentioned in the Tender.

Further Bank reserves the rights to:

a) Reject any or all responses received in response to the Tender
b) Extend the time for submission of all proposals
c) Cancel the Tender at any stage, without assigning any reason whatsoever.
d) Visit the place of work of the bidder
e) Conduct an audit of the services provided by the bidder.
f) Ascertain information from the Banks and other institutions to which the bidders have rendered their services for execution of similar projects.
g) Revise any part of the tender document, by providing a written addendum at any stage till the award of the contract. The Bank reserves the right to issue revisions to this tender document at any time before the date of submission of tender. The addendums, if any, shall be informed vide mail only.

12 General Terms and conditions

12.1 The Tender document is not a recommendation; offer to enter into a contract, agreement or any other arrangement, in respect of the services. The provision of the services is subject to observance of selection process and appropriate documentation being agreed between the Bank and any successful as identified by the Bank, after completion of the selection process as detailed in this document.

12.2 Information Provided: The Tender document contains statements derived from information that is believed to be true and reliable at the date obtained but does not purport to provide all of the information that may be necessary or desirable to enable an intending contracting party to determine whether or not to enter into a contract or arrangement with the Bank in relation to the provision of services. Neither the Bank nor any of its directors, officers, employees, agents, representative, bidders, or advisers gives any representation or warranty (whether oral or written), express or implied as to the accuracy, updating or completeness of any writings, information or statement given or made in this Tender document.

12.3 For Respondent Only: The Tender document is intended solely for the information of the party to whom it is issued ("the Recipient" or "the Respondent") and no other person or organization.

12.4 Costs Borne by Respondents: All costs and expenses (whether in terms of time or money) incurred by the Recipient Respondent in any way associated with the development, preparation and submission of responses, including but not limited to attendance at meetings, discussions, demonstrations, etc. and providing any additional information required by the Bank, will be borne entirely and exclusively by the Recipient Respondent.

12.5 No Legal Relationship: No binding legal relationship will exist between any of the Recipients/Respondents and the Bank until execution of a contractual agreement to the full satisfaction of the Bank.

12.6 Recipient Obligation to Inform Itself: The Recipient must apply its own care and conduct its own investigation and analysis regarding any information contained in the Tender document and the meaning and impact of that information.

12.7 Evaluation of Offers: Each Recipient acknowledges and accepts that the Bank may, in its sole and absolute discretion, apply whatever criteria it deems appropriate in the selection of bidder, not limited to those selection criteria set out in this Tender document.

12.8 The issuance of Tender document is merely an invitation to offer and must not be construed as any agreement or contract or arrangement. The bidders unconditionally acknowledges by submitting its response to this Tender document that it has not relied on any idea, information, statement, representation, or warranty given in this Tender document.

12.9 Acceptance of Terms: the bidders will, by responding to the Bank's Tender document, be deemed to have accepted the terms as stated in this Tender document

12.10 Only one submission of response to Tender by each Respondent will be permitted.

12.11 The Bank expects the bidder to adhere to the terms of this tender document and would not accept any deviations to the same.

12.12 The Bank expects that the appointed under the tender document shall have the single point responsibility for fulfilling all obligations and providing all deliverables and services required by Bank.

12.13 Unless agreed to specifically by the Bank in writing for any changes to the issued tender document, the bidder responses would not be incorporated automatically in the tender document.

12.14 All responses received after the due date/time as mentioned in "Table A: Important Dates - Last Date of Submission of Tender Response (Closing Date)"would not be considered.

12.15 The Bank has established Tender co-ordinators to provide a venue for managing bidder relationship and other requirements through the Bank's decision making body for contract clarification. All the queries and communication must be addressed to the Tender coordinators contact persons from the Bank mentioned in "Table A: Important Dates –Tender Coordinator".

12.16 Recipients are required to direct all communications for any clarification related to this Tender to Tender Coordinator.

12.17 All questions relating to the Tender, technical or otherwise, must be in writing and addressed to the addresses given in point "Table A: Important Dates" above. Interpersonal communications will not be entered into and a Respondent will be disqualified if attempting to enter into such communications. The Bank will try to reply, without any obligation in respect thereof, every reasonable question raised by the Respondents in the manner specified.

12.18 However, the Bank may in its absolute discretion seek, but under no obligation to seek, additional information or material from any Respondents after the Tender closes and all such information and material provided must be taken to form part of that Respondent's response.

12.19 The Bank may in its absolute discretion engage in discussion or negotiation with any Respondent (or simultaneously with more than one Respondent) after the Tender closes to improve or clarify any response.

12.20 The response to be submitted in a sealed envelope super scribed as "*Supply and Installation of Rooftop Solar Plant of 20kw Capacity at UCO BANK, BUILDING, ROURKELA* "and shall contain bill of quantities duly filled in and this document duly sealed and signed on each page.

12.21 All submissions, including any accompanying documents, will become the property of the Bank. The bidder shall be deemed to have licensed, and granted all rights to, the Bank to reproduce the whole or any portion of their submission for the purpose of evaluation, to disclose the contents of the submission to other bidders who have registered a submission and to disclose and/or use the contents of the submission as the basis for any resulting Tender process, notwithstanding any copyright or other intellectual property right of the Recipient that may subsist in the submission or accompanying documents

12.22 All responses should be in English language. All responses by the bidder to this tender document shall be binding on such bidder for a period of 180 days after opening of the bids.

12.23 The bidder may modify or withdraw its offer after submission but prior to the closing date and time as prescribed by Bank. No offer can be modified or withdrawn by the bidder subsequent to the closing date and time for submission of the offers.

12.24 The bidders required to quote for all the components/services mentioned in the "Project scope" and all other requirements of this Tender. In case the bidder does not quote for any of the components/services, the response would be deemed to include the quote for such unquoted components/service. It is mandatory to submit the details in the formats provided along with this document duly filled in, along with the offer. The Bank reserves the right not to allow/ permit changes in the technical

specifications and not to evaluate the offer in case of non-submission of the technical details in the required format or partial submission of technical details.

12.25 Based on the Bank's requirements as listed in this document, the bidder should provide their commercial. In case the bidder unable to fulfills the requirements, then their response would be considered as improper and the whole tender submitted by the bidder is liable to be rejected. The bidder is expected to provide the best option and quote for the same.

12.26 In the event the bidder has not quoted for any mandatory items as required by the Bank and forming a part of the tender document circulated to the bidder's and responded to by the bidder, the same will be deemed to be provided by the bidder at no extra cost to the Bank.

12.27 The Bank is not responsible for any assumptions or judgments made by the bidder for proposing the deliverables. The Bank's interpretation will be final.

12.28 The Bank ascertains and concludes that everything as mentioned in the tender documents circulated to the bidder and responded by the bidders have been quoted for by the bidder, and there will be no extra cost associated with the same in case the bidder has not quoted for the same.

12.29 All out of pocket expenses, traveling, boarding and lodging expenses for the entire period of the contract should be a part of the financial bid submitted by the bidderto the Bank. No extra costs on account of any items or services or by way of any out of pocket expenses, including travel, boarding and lodging etc. will be payable by the Bank. The bidder cannot take the plea of omitting any charges or costs and later lodge a claim on the Bank for the same.

12.30 Responses to this Tender should not be construed as an obligation on the part of the Bank to award a contract / purchase contract for any services or combination of services. Failure of the Bank to select a bidder shall not result in any claim whatsoever against the Bank. The Bank reserves the right to reject any or all bids in part or in full, without assigning any reason whatsoever.

12.31 By submitting a proposal, the bidder agrees to contract with the Bank within the time period prescribed by the bank. Failure on the part of the successful bidder to execute an agreement with the Bank will relieve the Bank of any obligation to the bidder, and a different bidder may be selected based on the selection process.

12.32 The terms and conditions as specified in the Tender and addendums (if any) thereafter are final and binding on the bidders. In the event the bidders not willing to accept the terms and conditions of the Bank, the bidder may be disqualified. Any additional or different terms and conditions proposed by the bidder would be rejected unless expressly assented to in writing by the Bank and accepted by the Bank in writing.

12.33 The bidder shall represent and acknowledge to the Bank that it possesses necessary experience, expertise and ability to undertake and fulfill its obligations, involved in the performance of the provisions of thisTender. The bidder represents that the proposal to be submitted in response to this Tender shall meet the proposed Tender requirement. If any services, functions or responsibilities not specifically described in this Tender are an inherent, necessary or customary part of the deliverables or services and are required for proper performance or provision of the deliverables or services in accordance with thisTender, they shall be deemed to be included within the scope of the deliverables or services, as if such services, functions or responsibilities were specifically required and described in this Tender and shall be

provided by the bidder at no additional cost to the Bank. The bidder also acknowledges that the Bank relies on this statement of fact, therefore neither accepting responsibility for, nor relieving the bidder of responsibility for the performance of all provisions and terms and conditions of this Tender, the Bank expects the bidder to fulfill all the terms and conditions of thisTender.

12.34 The bidder covenants and represents to the Bank the following:

a) It is duly incorporated, validly existing and in good standing under as per the laws of the state in which the entity is incorporated.
b) It has the corporate power and authority to enter into Agreements and perform its obligations there under.

12.35 The execution, delivery and performance under an Agreement by bidder:

a) Will not violate or contravene any provision of its documents of incorporation;
b) Will not violate or contravene any law, statute, rule, regulation, licensing requirement, order, writ, injunction or decree of any court, governmental instrumentality or other regulatory, governmental or public body, agency or authority by which it is bound or by which any of its properties or assets are bound;
c) Except to the extent that the same have been duly and properly completed or obtained, will not require any filing with, or permit, consent or approval of or license from, or the giving of any notice to, any court, governmental instrumentality or other regulatory, governmental or public body, agency or authority, joint venture party, or any other entity or person whatsoever;

12.36 The bidder shall undertake to provide appropriate human as well as other resources required, to execute the various tasks assigned as part of the project, from time to time.

12.37 The Bank would not assume any expenses incurred by the bidder in preparation of the response to this Tender and also would not return the bid documents to the bidders

12.38 The Bank will not bear any costs incurred by the bidder for any discussion, presentation, demonstrations etc. on proposals or proposed contract or for any work performed in connection therewith.

12.39 The Bank reserves the right to extend the dates for submission of responses to this document.

12.40 Preliminary Scrutiny – The Bank will scrutinize the offers to determine whether they are complete, whether any errors have been made in the offer, whether required documentation has been furnished, whether the documents have been properly signed, and whether items are quoted as per the schedule. The Bank may, at its discretion, waive any minor non-conformity or any minor deficiency in an offer. This shall be binding on all bidders and the Bank reserves the right for such waivers and the Bank's decision in the matter will be final.

12.41 Clarification of Offers – To assist in the scrutiny, evaluation and comparison of offers, the Bank may, at its discretion, ask some or all bidders for clarification of their offer. The Bank has the right to disqualify the bidder whose clarification is found not suitable to the proposed project.

12.42 No Commitment to Accept Lowest bid or Any Tender – The Bank shall be under no obligation to accept the lowest price bid or any other offer received in response to this Tender notice and shall be entitled to reject any or all offers including those received late or incomplete offers without assigning any reason whatsoever.

The Bank reserves the right to make any changes in the terms and conditions of procurement. The Bank will not be obliged to meet and have discussions with any bidder, and or to listen to any representations unless there is change in the terms and conditions of purchase

12.43 Erasures or Alterations – The offers containing erasures or alterations will not be considered. There should be no hand-written material, corrections or alterations in the offer. Technical details must be completely filled up. Correct information of the services being offered must be filled in. Filling up of the information using terms such as "OK", "accepted", "noted", "as given in brochure manual" is not acceptable. The Bank may treat the offers not adhering to these guidelines as unacceptable.

12.44 Price Discussion – It is absolutely essential for the bidders to quote the lowest price at the time of making the offer in their own interest. The Bank reserves the right to do price discovery and engage the successful bidder in discussions on the prices quoted.

12.45 If the Bank is not satisfied with the offers in the tender document and observes major deviations, the bids of such bidders will not be short-listed for further evaluation. No further discussions shall be entertained with such bidders in respect of the subject bid.

12.46 The bidder shall perform its obligations under this Tender as an independent bidder, and shall not engage subcontractor to perform any of the Deliverables or Services without the prior permission from Bank. Neither this Tender nor the bidder's performance of obligations under this Tender shall create an association, partnership, joint venture, or relationship of principal and agent, master and servant, or employer and employee, between the Bank and the bidder or its employees, subcontractor; and neither Party shall have the right, power or authority (whether expressed or implied) to enter into or assume any duty or obligation on behalf of the other Party.

12.47 The bidder shall solely be responsible for all payments (including any statutory payments) to its employees and or sub-contractor and shall ensure that at no time shall its employees, personnel or agents hold themselves out as employees or agents of the Bank, nor seek to be treated as employees of the Bank for any purpose, including claims of entitlement to fringe benefits provided by the Bank, or for any kind of income or benefits. The bidder alone shall file all applicable tax returns for all of its personnel assigned hereunder in a manner consistent with its status as an independent bidder of services; and the bidder will make all required payments and deposits of taxes in a timely manner.

13. Information Confidentiality

This document is meant for the specific use by the Company person/s interested to participate in the current tendering process. This document in its entirety is subject to copyright laws. UCO BANK expects the bidders or any person acting on behalf of the bidders to strictly adhere to the instructions given in the document and maintain confidentiality of information. The bidders will be held responsible for any misuse of the information contained in the document and liable to be prosecuted by the Bank, in the event of such circumstances being brought to the notice of the Bank. By downloading the document, the interested party is subject to confidentiality clauses.

14. Disclaimer

Subject to any law to the contrary, and to the maximum extent permitted by law, the Bank and its directors, officers, employees, bidders, representatives, agents, and advisers disclaim all liability from any loss, claim, expense (including, without

limitation, any legal fees, costs, charges, demands, actions, liabilities, expenses or disbursements incurred therein or incidental thereto) or damage, (whether foreseeable or not) ("Losses") suffered by any person acting on or refraining from acting because of any presumptions or information (whether oral or written and whether express or implied), including forecasts, statements, estimates, or projections contained in this Tender document or conduct ancillary to it whether or not the Losses arises in connection with any ignorance, negligence, inattention, casualness, disregard, omission, default, lack of care, immature information, falsification or misrepresentation on the part of the Bank or any of its directors, officers, employees, bidders, representatives, agents, or advisers.

15. Evaluation Terms

The evaluation/selection process will be done as detailed here below.

Commercial bids shall be opened of those bidders who have submitted their bids till last date and time of submission complying with all the requirements detailed in this Tender document. The final selection of thebidder shall be based on **lowest commercial** (i.e. L1 bidder) quote criteria.

16. Commercial Bids Terms

a. In the event the Bank has not asked for any quotes for alternative prices, and the bidder furnishes the alternative price in the bidder's financial bid, the higher of the prices will be taken for calculating and arriving at the Total Cost of Ownership. However, payment by the Bank will be made at the lower price. The Bank in this case may also reject the offer outright.

b. In the event optional prices are not quoted by the bidder, for items where such prices are a must and required to be quoted for, the highest price quoted by any of the participating bidder will be taken as the costs, for such alternatives and also for arriving at the Total Cost of Ownership for the purpose of evaluation of the bidder. The same item has to be supplied by the lowest price quoted by any of the participating bidder.

c. The bidder is requested to quote in Indian Rupee (INR). Bids in currencies other than INR would not be considered. The date for opening of price bids would be communicated separately to the successful bidders post the completion of the technical evaluation.

d. The prices and other terms offered by bidders must be firm for an acceptance period of 180 days from the opening of the technical bid.

e. In case of any variation (upward or down ward) in Government levies taxes cess duties etc. which has been included as part of the price will be borne by the bidder. Variation would also include the introduction of any new tax/cess/duty, etc. provided that the benefit or burden of other taxes quoted separately as part of the commercial bid like GST and any taxes introduced instead of GST and levies associated to GST or any new taxes introduced after the submission of bidder's proposal shall be passed on or adjusted to the Bank. If the bidder makes any conditional or vague offers, without conforming to these guidelines, Bank will treat the prices quoted as in conformity with these guidelines and proceed accordingly. Necessary documentary evidence should be produced for having paid any tax/cess/duty, if applicable, and or other applicable levies. The tendered rates shall be firm and shall not be subject to any variations, on account fluctuations in the market rate or any other source. Hence, no adjustments in the costs of materials and labour etc. shall be allowed based on price variation clause governed by any

institution.

f. If any Tax authorities of any state, including, Local authorities like Corporation, Municipality etc. or any Government authority or Statutory or autonomous or such other authority imposes any tax, charge or levy or any cess charge other than GST and if the Bank has to pay the same for any of the items or supplies made here under by the bidder, for any reason including the delay or failure or inability of the bidder to make payment for the same, the Bank has to be reimbursed such amounts paid, on being intimated to the bidder along with the documentary evidence. If the bidder does not reimburse the amount within a fortnight, the Bank shall adjust the amount out of the payments due to the bidder from the Bank along with the interest calculated at commercial rate.

g. Terms of payment as indicated in the Purchase Contract that will be issued by the Bank on the selected bidder will be final and binding on the bidder and no interest will be payable by the Bank on outstanding amounts under any circumstances. If there are any clauses in the Invoice contrary to the terms of the Purchase Contract, the bidder should give a declaration on the face of the Invoice or by a separate letter explicitly stating as follows "Clauses, if any contained in the Invoice which are contrary to the terms contained in the Purchase Contract will not hold good against the Bank and that the Invoice would be governed by the terms contained in the Contract concluded between the Bank and the bidder".

h. The Bank is not responsible for any assumptions or judgments made by the bidder for arriving at any type of costing. The Bank at all times will benchmark the performance of the bidder to the Tender and other documents circulated to the bidder and the expected service levels as mentioned in these documents. In the event of any deviations from the requirements of these documents, the bidder must make good the same at no extra costs to the Bank, in order to achieve the desired service levels as well as meeting the requirements of these documents. The Bank shall not be responsible for any assumptions made by the bidder and the Bank's interpretation will be final.

i. The Commercial Offer should give all relevant price information and should not contradict the Technical Offer in any manner. There should be no hidden costs for items quoted.

j. The Bank is not responsible for the arithmetical accuracy of the bid. The bidders will have to ensure all calculations are accurate. The Bank at any point in time for reasons whatsoever is not responsible for any assumptions made by the bidder. The Bank at a later date will not accept any plea of the bidder or changes in the commercial offer for any such assumptions.

k. Considering the enormity of the assignment, any service which forms a part of the Project Scope that is not explicitly mentioned in scope of work as excluded would form part of this Tender, and the bidder is expected to provide the same at no additional cost to the Bank. The bidder needs to consider and envisage all services that would be required in the Scope and ensure the same is delivered to the Bank. The Bank will not accept any plea of the bidder at a later date for omission of services on the pretext that the same was not explicitly mentioned in the Tender.

	APPENDIX –I	
1.	Nature of Work	**Supply and Installation of Rooftop Solar Panel of 20kw Capacity At UCO BANK BUILDING, Sector-19,ROURKELA .**
2.	Date of Commencement of Work including mobilization period at site	Within -7- days after issue of work order
3.	Completion Period	Within -45- days after issue of work order.
4.	Defects Liability Period	12 months from the date of successful handing over/form issue of virtual completion certificate
5.	Security Deposit	The Security Deposit shall be 5% of the accepted tender amount which shall be released 14 days after the end of satisfactory completion of defects liability period. (i.e. 1 year after satisfactory completion of work including removal of materials, site clearance etc. from site) Bank Guarantee will also be acceptable issued from a scheduled Bank valid for a period of 90 days beyond the date of entire period of the SITC & DLP and such other extended period as the Bank may decide for due performance of the project obligations.
6.	Performance Guarantee	In addition to security deposit, successful Bidder has to submit Performance Guarantee in the form of BG amounting to 5% of the total contract value valid for entire period of the SITC contract including DLP plus 3 months and such other extended period as the Bank may decide for due performance of the project obligations
7.	Liquidated Damages for Delay	@ 0.5% of the contract value per week subject to a ceiling of 5 % of contract value (including authorized additions).
8.	Terms of Payment	The Bank will release the payments only on receipt of all the relevant documents, within a period of 30 days from its receipt after satisfactory supply & installation.
9.	Period of honoring the final Bill	Within -30- working days from the receipt of final bill.

Undertaking from the Bidder

To
The Regional Manager
UCO BANK
SAMBALPUR.

Sir,
Sub: Supply and Installation of Rooftop Solar Panel of 20kw Capacity At UCO BANK BUILDING ROURKELA .

Having examined the Tender Documents including all Annexures and Appendices, the receipt of which is hereby duly acknowledged, we, the undersigned offer to supply, deliver, implement and commission ALL the items mentioned in the 'Request for Proposal' and the other schedules of requirements and services for your bank in conformity with the said Tender Documents in accordance with the schedule of Prices indicated in the Price Bid and made part of this Tender.

1. If our Bid is accepted, we undertake to comply with the delivery schedule as mentioned in the Tender Document.
2. We agree to abide by this Tender Offer for 180 days from date of Technical bid opening and our Offer shall remain binding on us and may be accepted by the Bank any time before expiry of the offer.
3. All 'Bill of Material' line items have been quoted as per requirement in Commercial Bid format without any deviation.
4. Commercial Bid (Annexure 09) have been submitted without any deviation.
5. This Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.
6. a) We undertake that in competing for and if the award is made to us, in executing the subject Contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

   (b) Commission or gratuities, if any paid or to be paid by us to agents relating to this Bid and to Contract execution, if we are awarded the Contract are listed below.
      i. Name and Address of the Agent - .....(please specify NA if not applicable)
      ii. Amount and Currency in which Commission paid payable - .....(please specify NA if not applicable)
      iii. Purpose of payment of Commission (If commission is not paid not payable indicate the same here) - .....(please specify NA if not applicable)
7. We agree that the Bank is not bound to accept the lowest or any Bid the Bank may receive.
8. We certify that we have provided all the information requested by the bank in the format requested for. We also understand that the bank has the exclusive right to reject this offer in case the bank is of the opinion that the required information is not provided or is provided in a different format.

Dated this.....by 20

Yours faithfully,
Authorized Signatory
Name:
Designation:
Bidder's Corporate Name
Address
Email and Phone

Conformity Letter

(***This letter should be on the letter head of the bidder duly signed by an authorized signatory***)

To
The Zonal Manager
UCO BANK
SAMBALPUR.

Sir,

Sub: Request for proposal (Tender) for Supply and Installation of Rooftop Solar Plant of 20kw Capacity At UCO BANK BUILDING, ROURKELA.

Further to our proposal dated ....., in response to the Request for Proposal..... (Here in after referred to as "Tender") issued by UCO BANK ("Bank") we hereby covenant, warrant and confirm as follows:

We hereby agree to comply with all the terms and conditions stipulations as contained in the Tender and the related addendums and other documents including the changes made to the original tender documents issued by the Bank shall form a valid and binding part of the aforesaid Tender document. The Bank is not bound by any other extraneous matters or deviations, even if mentioned by us elsewhere either in our proposal or any subsequent deviations sought by us; whether orally or in writing, and the Bank's decision not to accept any such extraneous conditions and deviations will be final and binding on us.

Yours faithfully,

Authorized Signatory
Name:
Designation:
Bidder's Corporate Name
Address
Email and Phone #

Annexure 01- Project Details and Scope of Work

A. Project Scope

- On receipt of intimation from the Employer of the acceptance of his/their tender, the successful tenderer shall be bound to implement the contract agreement within Fourteen days thereof, the successful tenderer shall sign the agreement in accordance with the draft agreement and the schedule of conditions but the written acceptance by the UCO BANK of a tender will constitute a binding contract between the UCO BANK and the person so tendering, whether such formal agreement is subsequently executed or not. The cost of necessary stamp paper for execution of the agreement shall be borne by successful tenderer.
- The bidder shall not assign the Contract to sub-contractor. He shall not sublet any portion of the Contract except with the written consent of the Employer Bank may serve a notice in writing on the bidder rescinding the contract whereupon the security deposit shall stand forfeited to the Employer, without prejudice to his other remedies against the bidder
- The bidder shall carry out all the work strictly in accordance with drawings, details and instructions of Bank's Engineer. Submission of General Arrangement Drawings within the timelines specified in the tender and making all changes thereto as may be reasonably required by Bank as per the advice of its Consultant. If in the opinion of the Bank Representative, changes have to be made in the design and with the prior approval in writing of the Bank Representative, they desire the bidder to carry out the same, the bidder shall carry out the same without any extra charge.
- External/Internal Restoration/Repairs, Painting and Terrace Waterproofing of all structurein accordance with the specifications laid down in this tender Agreement. The Bidder shall maintain during the progress of the Work "As-Built" drawings indicating the current status of the Work as actually performed. Upon final completion of the Work, the bidder shall prepare and submit to Bank four (04) hard bound sets and One (1) soft copy of revised "As-Built" drawings as necessary in line of the Work as actually performed at Final Completion along with the Electrical circuit drawing.
- A schedule of Probable Quantities in respect of each work and Specifications accompany these Special Conditions. The Schedule of Probable Quantities is liable to alterations by omissions, deductions or additions at the discretion of the Bank. Each tender should contain not only the rates but also the value of each item of work entered in a separate column and all the amounts quoted against various items should be totaled in order to show the aggregate value of the entire tender.
- The tenderer must obtain for himself on his own responsibility and at his own expense all the information which may be necessary for the purpose of making a tender and for entering into a contract, inspect the site of the work, acquaint himself with all local conditions, means of access of the work, nature of the work and all matters pertaining thereof.
- The rates quoted in the tender shall include all charges for clearing of site before

commencement as well as after completion, water, electric consumption, meters, double scaffolding, centering, boxing, staging, planking, timbering and pumping out water including bailing, fencing, hoarding, plant and equipment, storage sheds, watching and lighting, by night as well as day including Sundays and Holidays, temporary plumbing and electric supply, protection of the public and safety of adjacent roads, streets . The rates quoted shall be deemed to be for the finished work to be measured at site. The rates shall also be firm and shall not be subject to exchange variations, Labour conditions, fluctuations or any conditions whatsoever. GST will be paid extra as applicable. No claims will be paid in respect of sales tax, excise duty, Octroi or other tax duty or levy by the Bank.

- The bidder should note that unless otherwise stated the tender is strictly on item rate basis and his attention is drawn to the fact that rates for each and every item should be correct, workable and self-supporting. The quantities in the Schedule of Quantities approximately indicate the total extent of work but may vary to any extent and may even be omitted thus altering the aggregate value of the Contract.
- Time allowed for carrying out the work as mentioned shall be strictly observed by the tenderer and it shall be reckoned from the tenth day after written order to commence the work is issued.
- The work shall throughout the stipulated period of the Contract be proceeded with all due diligence and if the bidder fails to complete all the work within the specified period he shall be liable to pay compensation of the Conditions of Contract. The tenderer shall before commencing work prepare a detailed work program which shall be approved by the Employer. Bidders shall be liable to pay Liquidated damages against delay of the work @ 1 % per week of delay of the estimated amount shown in the tender or contract amount whichever is higher. Maximum liquidated damages shall be 70 % of the accepted contract sum (including addition for authorized increase, if any).
- Tenders will be considered from reputed bidders in trade concerned. Each bidder shall submit with his tender a list of large works of a like nature he has executed giving details as to their magnitude and cost of the proportion of work done by the bidder in it and the time within which the work were completed.
- The bidder shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause of delays may be, including delays arising out of modification to the work entrusted to him.
- The successful tenderer is bound to carry out any or all items of work necessary for the completion of the job even though such items are not included in the quantities and rates. Schedule of instructions in respect of such additional items and their quantities will be issued in writing by Bank.
- The bidder must bear in mind that all the work shall be carried out strictly in accordance with the specifications made by the Bank and also in compliance of the requirements of the local public authorities and no deviation on any account will be permitted.
- Bidder shall have the responsibility to ensure safety of material against pilferage and damage till the installation is handed over to the Bank.

- The tenderer shall have to use materials of the makes/manufacturers specified in the list of material approved brand and/or manufacture contained in this tender form and BOQ. In case the make is not mentioned, the decision of the Bank in respect of specifying the same shall be final and binding on the bidder.
- The bidder shall strictly comply with the provision of safety code annexed hereto.
- The security deposit of the successful tenderer will be forfeited if he fails to comply with any of the conditions of the Contract.
- Contractor shall give minimum annual power generation guarantee of 30000 Units Kwh for first year (Calculated on the basis of average 5 KWH per KWp functioning for 300 days) and for subsequent years as per following –

2nd Year : 99.0% of 1st Year Generation
3rd Year : 98.5% of 1st Year Generation
4th Year : 98.0% of 1st Year Generation
5th Year : 97.5% of 1st Year Generation

In case of short fall, Contractor will compensate for the less power generated as per prevailing rate of State electricity board for first five years. The power generation trend after first 5 years must be mentioned.

Contractor may monitor the performance of system installed. In case Contractor finds that installed system will not meet assigned minimum annual guarantee, it is up to Contractor to upgrade the system to meet the minimum requirement at his own cost.

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Materials &workmanship to confirm to description	All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or Specifications and in accordance with the Bank's instructions, and the bidder shall upon the request of the Bank furnish it with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The bidder shall at his own cost arrange for and/or carry out any test of any materials which the Bank may require as per the testing schedule of tender.
Bidder's superintendence and representative on the works.	The bidder shall give all necessary personal superintendence during the execution of the works, and as long thereafter as the Bank may consider necessary until the expiry of the "Defects Liability Period" stated in the Appendix hereto.
Dismissal of workmen.	The bidder shall on the request of the Bank immediately dismiss from the works any person employed thereon by him who may, in the opinion of the Bank be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of the Bank.
Access to works	The Employer, their respective representatives, shall at all reasonable times have free access to the work and/ or to the workshops, factories or other places where materials are lying or from which they are being obtained and the bidder shall give every facility to the Employer.
Schedule of Quantities.	The Schedule of Quantities, unless otherwise stated shall be deemed to have been prepared in accordance with the Standard

	Method of Measurement.
Sufficiency of Schedule of quantities	The bidder shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities, and/or the Schedule of Rates and Prices which rates and prices shall cover all his obligations under the Contract, and all matters and things necessary for the proper completion of the works.
Measurement of works	The Bank may from time to time intimate to the bidder that he requires the works to be measured, and the bidder shall forthwith attend or send a qualified Agent to assist the Bank. The bidder Should not attend or neglect or omit to send such Agent then the measurement taken by the Bank shall be taken to be correct measurements of the works. Such measurements shall be taken in accordance with the Mode of Measurements detailed in the Specifications. The bidder or his Agency may at the time of measurement take such notes and measurements as he may require.
Unfixed materials when taken into account to be the property of the Employer.	Where in any Certificate (of which the bidder has received payment), the Bank has included the value of any unfixed materials intended for and/or placed on or adjacent to the works such materials shall become the property of the Employer and they shall not be removed except for use upon the works, without the written authority of the Bank. The bidder shall be liable for any loss of, or damage to, such materials.
Defects after virtual completion.	Any defect, shrinkage, settlement or other faults which may appear within the "Defects Liability Period" stated in the Appendix hereto or, if none stated, then within twelve months after the virtual completion of the works, arising in the opinion of the Bank from materials or workmanship not in accordance with the contract, shall upon the directions in writing of the Bank, and within such reasonable time as shall be specified therein, be amended and made good by the bidder, at his own cost and in case of default the Employer may employ and pay other persons to amend and make good such defects, shrinkage, settlement or other faults, and all damages loss and expenses consequent thereon or incidental thereto shall be made good and borne by the bidder and such damage, loss and expenses shall be recoverable from him by the Employer.
Certificate of virtual completion & defects liability period.	The works shall not be considered as completed until the Bank has certified in writing that they have been virtually completed. The Defects Liability Period shall commence from the date of Hand over or Virtual Completion of Work.
Other persons employed by Employer.	The Employer reserves the right to use premises and any portions of the site for the execution of any work not included in this Contract which it may be desire to have carried out by other persons, and the bidder shall allow all reasonable facilities for the execution of such work, but shall not be required to provide any plant or material for the execution of such work except by special

	arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the works included in the Contract and the bidder shall not be responsible for any damage or delay which may happen to or occasioned by such work.
Insurance in respect to damages to persons and property.	The bidder shall be responsible for all injury or damage to persons, animals or things, and for all damage to property which may arise from any factor omission on the part of the bidder or any Sub-bidder or any nominated Sub- bidder or any of their employees. The liability under this clause shall cover also, interalia any damages to structures, whether immediately adjacent to the works or otherwise; any damage to roads, streets, footpaths, bridges as well as damage caused to the building and other structures and works forming the subject matter of this contract. The bidder shall also be responsible for any damage caused to the buildings and other structures and works forming the subject, matter of this contract due to rain, wind, frost or other inclemency of weather. The bidder shall, indemnify and keep indemnified the employer and hold him harmless in respect of all and any loss and expenses arising from any such injury or damage to persons or property as aforesaid and also against any claim made in respect of injury or damage, whether under any statute or otherwise and also in respect of any award or compensation or damage consequent upon such claims. The bidder shall, at his own expense, effect and maintain till issue of the virtual completion certificate under this contract, with an insurance company approved by the Employer, an All Risk Policy for Insurance for the 125% of the amount of the contract (Price Bid) including third party insurance, earthquake risk in the joint names of the employer and the bidder (the name of the former being placed first in the policy) against all risk as per the standard all risk policy for bidders and deposit such policy or policies with the employer before commencing the works.
	The bidder shall reinstate all damage of every sort mentioned in this clause so as to do delivery of the whole of the works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to property or third parties.
	The bidder shall also indemnify and keep indemnified the Employer against all claims which may be made against the Employer by any person in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense, effect and maintain until the virtual completion of the contract, with an Insurance Company approved by the employer a policy of Insurance in the joint names of the Employer and the bidder (name of the former being placed first in the policy) against such risk and deposit such policy or policies before commencement of the works. The minimum limit of the coverage under the policy shall be Rs.2 lakhs per person for any one accident or occurrence and Rs.5 lakhs in respectof damage to property for any one accident or occurrence. The bidder shall also indemnify the employer against all claim which may be made upon the Employer, whether under

	the Workmen's Compensation Act or any other statute in force, during the currency of this contract or at Common Law in respect of any employee of the bidder or of Sub-bidder and shall be at his own expense effect and maintain until the virtual completion of the contract, or with an Insurance Company, approved by the Employer, a policy of insurance against such risks and deposit such policy or policies with the Employer from time to time during the currency of this contract.
	In default of the bidder insuring as provided above, the employer may so insure and may deduct the premiums paid from any moneys due or which may become due to the bidder.
	The bidder shall be responsible for any liability which may not be covered by the Insurance Policies referred to above and also for all other damages to any person, animal or defective carrying out of this contract, whatever, may be the reasons due to which the damage shall have been caused.
	The bidder shall also indemnify and keep Indemnified the Employer against all and any costs, charges or expenses arising out of any claim or proceedings relating to the works and also in respect of any of damage or compensation arising there from.
	Without prejudice to the other rights of the employer against bidders in respect of such default, the employer shall be entitled to deduct from any sums payable to the bidder the amount of any damages, compensation costs, charges and other expenses paid by the employer and which are payable by the bidder under this clause.
	The bidder shall upon settlement by the insurer of any claim made against the insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the money received from the Insurer in respect of such damage shall be paid to the bidder and the bidder shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.
	The bidder, in case of re-building or reinstatement after damage shall be entitled to such extension of time for completion as the Bank deem fit, but shall, however, not be entitled to reimbursement by the employer of any shortfall or deficiency in the amount finally paid by the insurer in settlement of any claim arising as set out herein
Date of commencement and completion.	The bidder shall be allowed admittance to the site on the "Date of Commencement" stated in the Appendix hereto, or such later date as may be specified by the Bank and he shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same (except such painting or other decorative work as the Bank may desire to delay) on or before the "Date of Completion" stated in the Appendix subject nevertheless to the provisions for extension of time hereinafter contained.

Damage for non-completion	If the bidder fails to complete the works by the date stated in the Appendix or within any extended time reasonably to have been completed the bidder shall pay the Employer the sum named in the work order as "Liquidated Damages" for the period during which the said work shall so remain incomplete and the employer may deduct such damage from any moneys due to bidder.
Delay and extension of time.	If in the opinion of the Bank the works be delayed (a) by force majeure or (b) by reason of any exceptionally inclement weather or (c) by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through the bidder's own default or (d) by the works or delays of other bidders or Tradesmen engaged or nominated by the Employer or the Bank and not referred to in the Schedule of Quantities and/or Specification or (e) by reason of Bank's instructions or (f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or (g) in consequences of the bidder not having received in due time necessary instructions from the Bank for which he shall have specifically applied in writing or (h) from other causes which the Bank may certify as beyond the control of bidder or (i) in the event, the value of work exceed the value of the priced schedule of quantities owing to variations the Bank may with previous approval in writing of the Employer make fair and reasonable extension of time for completion of the Contract Works. In case of such strike or lockout the bidder shall immediately give written notice thereof to the Bank but the bidder shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Bank to proceed with work.
	If the bidder needs an extension of time for the completion of the work or if the completion of work gets delayed for any reason beyond due date of completion stipulated in the contract, the bidder shall apply to the Employer for extension of time in writing at least 7 days before the expiry of the scheduled time and while applying for extension of time bidder shall furnish the reasons in detail and his justification, if any, for delays. Only that period of extension of time as granted by the Employer (on receipt of the application from the bidder or even in absence of any such application) will qualify for exemption of imposition of liquidated damages.
	Further, the contract shall remain in force even for the period beyond the due date of completion irrespective whether the bidder has applied or not, for the grant of extension of time for completion unless the Employer decides to terminate the contract. The delay for completion of work for any reason will not entail any right to the bidder to claim any revision of rates or any extra compensation for any reason.
Termination of contract by The Employer	If the bidder being an individual or a firm commits any "act of insolvency", or shall be adjudged an insolvent or being an incorporated Company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the Court and the Official

	Assignee or the Liquidator of such acts of insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Bank that he is able to carry out and fulfill the Contract and to give security therefore, if so required by the Bank.
	Or if the bidder (when and individual, firm or incorporated Company) shall suffer execution or other process of Court attaching property to be issued against the bidder.
	Or shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors of the bidder.
	Or shall charge or encumber this Contract or any payments due or which may become due to the bidder hereunder. Further bidders may also be barred from tendering in future for the Bank and its subsidiaries in case of serious breach of contract.
Certificates and payments	The bidder shall be paid by the Employer from time to time by installments under Interim Certificates to be issued by the Bank to the bidder on account of the works executed when in the opinion of the Bank found complete.
Settlement of disputes by arbitration.	All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the works (whether during the progress of the works or within 12 months from the date of virtual completion of the work and whether before or within 12 months of determination abandonment or breach of the contract) shall be referred to giving inter-alia full details of the matter under dispute like quantities, rates, amount claimed and the reason thereto and settled by the Bank.
	The Arbitrator shall have power to open up, review and revise any Certificate, opinion, decision requisition or notice, save in regard to the excepted matters, referred to in the preceding Clause and to determine all matters in dispute which shall be submitted to arbitration and of which notice shall have been given as aforesaid.
	The Arbitrator shall make his award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case during the arbitration proceedings the parties mutually settle, compromise or compound their dispute or difference, the reference to arbitration, the reference to arbitration and the appointment of the Arbitrator shall be deemed to have been revoked and the arbitration proceedings shall stand withdrawn or terminated, with effect from the date on which the parties file a joint memorandum of settlement thereof; with the Arbitrator or the Arbitrators as the case may be.
	The submission shall be deemed to be a submission to arbitration within the meaning of the Indian Arbitration Act, 1996 or any statutory modification thereof.

	It is agreed that the bidder shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence and shall, until the decision of the Arbitrator or Arbitrators as the case may be, is given.
Right of Technical Scrutiny of Bills/Final Bill.	The Employer shall have a right to cause a technical examination of the works by any of the persons or organization as appointed by the employer and the final bill of the bidder including all supporting vouchers, abstracts, etc. If as a result of this examination or otherwise any sum is found to have been overpaid or over certified it shall be lawful for the Employer to recover the sum from any payment due to the bidder for this works or any other works being carried out by the bidders elsewhere under the UCO BANK.
Employer entitled to recover compensation paid to workmen.	If, for any reason, the Employer is obliged, by virtue of the provisions of the Workmen's Compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the bidder in execution of the works, the Employer shall be entitled to recover from the bidder the amount of compensation so paid, and without prejudice to the rights of the Employer under the said Act. The Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Employer to the bidder under this contract or otherwise. The Employer shall not be bound to contest any claim made against it under the said Act, except on the written request of the bidder and upon his giving to the Employer full security to the satisfaction of the Employer for all costs for which the Employer might become liable in consequence of contesting such claim.
Return of surplus materials	Notwithstanding anything to the contrary contained in any or all the clause of this Contract, where any material for the execution of the Contract is procured with the assistance of the Employer by purchases made under orders or permits or licenses issued by Government, the bidder shall held the said materials economically and solely for the purpose of the Contract and not dispose of them without the prior written permission of the Employer and return it to the Employer, if required by the Employer, at the mutually agreed price. Price is inclusive of sales tax, octroi and other such levies paid by bidder in respect thereof. In the event of breach of the aforesaid condition, the Contract shall, in addition to being liable to action for contravention of the terms of licenses or permit and or criminal breach of trust, be liable to Employer for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.
Right of Employer to terminate contract in the event of death of bidder if individual.	Without prejudice to any of the rights or remedies under this contract, it the bidder, being an individual, dies, the Employer shall have the option of termination the contract without incurring any liability for such termination.
Tenderer to Visit Site & Sufficiency of Tender	Each Tenderer must, before submitting his tender, visit the site of works so as to ascertain the physical site conditions and prices, availability and quality of materials according to Specifications

	before submitting the bid. The bidder shall inspect and examine the site and its surrounding and shall satisfy himself before submitting his tender as to the form and nature of the site, the quantities and nature of access to the site, the accommodation he may require and in general, shall himself obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect his tender. The bidder shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of work/items/quantities or in Bills of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for proper completion and maintenance of the works. No extra charges consequent on any misunderstanding or otherwise shall be allowed.
Extra items Deviations	The bidder shall not commence work in respect of any extra items/deviations without obtaining the approval of the Bankin writing. The bidder shall immediately submit the rate analysis for such item, with necessary details to support the rate quoted. The rate shall then be settled by the Bankand necessary certificate based on this shall be given to Bank while incorporating the item in the Interim Bills. Claims for extra/deviated items shall be submitted in the as per specimen copies of Performa included in this tender document that indicate authority/order for such items. Quantities in this tender are subject to any variation by way of addition, reduction or deletions of the items or quantities. No compensation whatsoever will be paid for such variations. Should it be found from measurements taken in accordance with the clause on "Measurement of works" that any of the quantities or amounts of works thus ascertained are less or greater than the amounts specified for the works in the priced schedule of quantities and/or that any variation is made from the tender schedule of items by operating Additional items called "Extra Items" or "Substitute Items" in substitute on of some tendered items, the rate and valuation thereof, of such items unless previously or otherwise agreed upon, shall be made in accordance with the following rules: - a) The net rate or prices in the original Tender shall determine the valuation of the extra quantities where extra quantities for any item are of similar character and executed under similar conditions as the work priced therein. In other words variation in quantities shall be measured and paid at quoted price only. b) The net rate or prices in the original Tender shall determine the rate for the items altered, provided if omissions additions vary the conditions under which any remaining items of works are carried out, the prices for the same shall be valued under (b) hereof. c) For extra items/Substitute items where the description of items is

	different from that of any tendered item, the following method shall hold good. d) Where the extra item works are not of similar character and/or executed under condition as aforesaid or where the omissions vary, the conditions under which any remaining items of works are carried out or if the amount of any omission or additions relative to the amount or the whole of the Contract works or to be any part thereof shall be such that in the opinion of the Bank the net rate or price contained in the priced Schedule of Quantities or tender or for any item of the works involves loss or expenses beyond that reasonably contemplated by the bidder or is by reason of such omission or addition rendered unreasonable or inapplicable, the Bank shall fix such other rate or price as in the circumstances he shall think reasonable and proper on the basis of actual rate analysis cost of work involved. The measurement and valuation in respect of the bidder shall be completed within the "period of Final Measurement" or within three months of the completion of the Contract works as defined under Clause For "Certificate of Virtual Completion". The bidder shall submit the claims for Deviated items and Extra items as per Performa annexed hereto.
Measurement of Works	The Bank shall from time to time intimate the bidder that he requires the works to be measured and the bidder shall forthwith attend or send a qualified agent to assist the Bank's representative in taking such measurements and calculations and to furnish all particulars or give all assistance required by either of them. Should the bidder omit to attend or neglect or omit to send such agent, then the measurements taken by the Bank or approved by him shall be taken to be the correct measurements. The works shall be measured according to the mode of measurements specified in the Contract documents and, where no mode is specified, as per the latest edition of relevant I.S. Codes. A certain percentage of measurements will be checked/test checked by the Bank as the case may be for each trade, and for this the bidder has to render all necessary assistance and co-operation. The bidder or his Agent may at the time of measurement take such notes and measurements as he may require. All authorized extra works; omissions and all variations made without the Bank's knowledge, but if subsequently sanctioned by the Bank in writing, shall be included in such measurements. The mode of measurement for this contract shall be on item rate basis and shall include all quantities specified in the Schedule of Quantities of this tender/ contract. It shall be further deemed that all variations and deviations if specifically agreed to in writing shall also form part of this tender/ contract and shall be subject to measurements. All payments released to the bidder shall be subject to verification of quantities on the basis of mode of measurements herein stated. If the mode of measurement for any or all item is not specified in the

	contract, latest relevant IS. Code will prevail. The bidder shall give due notice to the Bank in writing whenever any work is to be concealed or made inaccessible, in order that the work may be inspected and correct measurements are recorded before such concealment, in default whereof the same shall be at the option of the Bank to either open up for measurement at the bidder's expense or no allowance shall be made for such work. The Bank may from time to time intimate to the bidder that he requires the works to be measured & the bidder shall forthwith attend or send a qualified Representative to assist the Bank in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them. Should the bidder not attend or neglect or omit to send such Representative, then the measurement taken by the Bank or a person approved by him shall be taken to be correct measurements of the works. Such measurements shall be taken in accordance with the Mode of Measurements detailed in the Specifications. The Bank shall take joint measurements with the bidder and the measurements shall be entered in the measurement book sheet by the Bank's representative. The bidder or his Representative may at the time of measurement take such notes and measurements as he may require. All authorized extra works, omissions and all variations made without the Bank's knowledge, but subsequently sanctioned by him in writing (with the prior approval in writing of the Employer) shall be included in such measurements.
Project Management	The Tenderer shall, along with his bid/within acceptance of the bid, submit a schedule for completion of work, either in the form of a CPM Network or in the form of a bar chart, showing how he proposes to complete the works. This program shall be prepared in sufficient detail and shall indicate, among other things, the following details on a month-to -month basis (for each month). a) Quantum of work under each major item of work that would be carried out. b) Amount of resources that would be deployed (e.g. materials, skilled/unskilled labour, equipment etc.) c) Schedule of delivery of materials to site. d) Approximate value of work contemplated to be completed. e) Various milestones to be achieved. This program suitably amended after discussions with the Bank shall become binding on the bidder. However, during the execution of the project, should it become necessary, in the opinion of the Bank to reschedule some of the activities, the bidder shall do so at no extra cost and/or without any other claim. Acceptance of a bidder's tender does not necessarily imply acceptance of the schedule submitted and the Bank reserve the right to modify/amend this schedule to suit the overall project schedule which will be binding on the bidder at no extra cost to the

	Bank.
Work at Night/Sunday/Holidays	All work during the night shall be carried out without unreasonable noise and disturbance and with the prior approval of the Bank and local authority, if so applicable. The bidder shall indemnify the Employer from and against any liability for damages on account of noise or other disturbance created while or in carrying out the work and from and against all claims, demands, proceedings, costs, charges and expenses whatsoever in regard or in relation to such liability. Also bidder shall provide and maintain at his own cost sufficient lights to enable the work to proceed satisfactorily without danger. Approaches to the site also shall be sufficiently lighted by the bidder. No extra payments will be made for night work. Prior intimation and approval should also be taken from Bank
Safety Management	The bidder shall be responsible for the safety of persons employed by him on the works and shall report serious accidents to any of them, however and wherever occurring on the works, to the Bank who shall make every arrangement to render all possible assistance. This shall be without prejudice to the responsibility of the bidder under the Insurance Clause of the General Conditions. Explosives shall not be used on the works by the bidder without the written permission of the Bank and then only in the manner and to the extent to which He has prescribed. When explosives are used, the same shall be stored in a special magazine to be provided by and at the cost of the bidder, who shall be liable for all damages, loss or injury for noncompliance with all the statutory obligations. Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration work, which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made either of good quality wood or steel. The steps shall have a minimum width of 450mm and a maximum rise of 300mm.Suitable hand holds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal to 1 vertical). Scaffolding or staging more than 4 m. above the ground floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly bolted, braced or otherwise secured, at least 1m 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 openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be fastened to prevent it from swaying from the building or structure. Working platforms, gangways and stairway shall be so constructed that they do not sag unduly or unequally and if the height of the platform, gangway or stairway is more than 4m. Above ground level or floor level, they shall be

	closely boarded and shall have adequate width and be suitably fenced as described in (ii) above. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 m. Wherever there are open excavations in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into excavations. Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. in length while the width between said rails in rung ladder shall in no case be less than 290mm for ladder up to and including 3 m. in length. For longer ladders this width shall be increased at least 20mm. for each additional meter of length. A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to construction. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. OTHER SAFETY MEASURES: All personnel of the bidder working within the site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal workers shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses. 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. All necessary personnel safety equipment as considered adequate by the Engineer should be kept available for the use of the persons employed on the site and maintained in a condition suitable for immediate use, and the bidder should take adequate steps to ensure proper use of equipment by those concerned. Workers employed on mixing asphalt materials, cement and lime mortar shall be provided footwear and protective goggles. Those engaged in white washing and mixing or stacking of cement bags or any materials, which are injurious to the eyes, shall be provided with protective goggles. Those engaged in welding works shall be provided with welder's protective eyesight lids. Stonebreakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals. When workers are employed in sewers and manholes which are in use, the bidder shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into 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. The bidder shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form.

Site Management	The bidder shall provide everything necessary for the proper execution of the works according to the true intent and meaning of the Drawings, Specifications and Schedule of Quantities taken together whether the same may or may not be particularly shown or described therein, provided that the same can reasonably be inferred wherefrom and if the bidder finds any discrepancy in the Drawings or between the Drawings, Specifications and Schedule of Quantities he shall immediately refer the same in writing to the Bank, who shall decide which shall be followed, and his decision shall be final and binding on all parties. The Bank shall not charge the bidder for his own un-rented ground but shall on no account be responsible for the expenses incurred by the bidder for hired ground. The bidder shall provide and maintain all measuring and testing instruments at all times for properly carrying out the work and for the use of the Bank, including providing skilled attendants as required. The bidder shall supply, fix and maintain at his cost during the execution of any works, all the necessary equipment, materials and lighting required by night and as well as by day for proper execution of work. The bidder shall take down and remove any or all such unwanted waste materials, debris etc. as occasion shall require or when ordered to do so, and shall fully reinstate and make good all matters and things described during the execution of the works, to the satisfaction of the Bank. The bidder shall be allotted space existing rooms on site subject to availability. The bidder shall make his own arrangements to enclose, secure and guard the space allotted to him. Wherever there may be materials, which are likely to deteriorate by the action of the sun, rain or other elements, all such materials, tools etc shall be duly protected by the Tenderer from damage by weather or any other cause. All such stores and yards shall be cleared away and ground left in good and proper order, on completion of this Contract unless otherwise expressly mentioned herein. The bidder shall not be allowed to put up any hutment/temporary structure of accommodating his labour/staff. He shall be required to make these arrangements elsewhere at his own cost. However, if the rules of local authorities so permit and subject to the bidder arranging for such permission, some space at site which will not come in the way of the permanent construction, temporary construction facilities and offices may be provided to the bidder at the discretion of the Bank for essential/core staff engaged on emergency or essential services round the clock work with proper sanitary facilities. The bidder shall clear site of works as per the instructions of the Bank. The site of works shall be cleared of all men, materials, sheds, etc. belonging to the bidder. The site shall be delivered in a clean and neat condition as required by the Bank within a period of one week after the job is completed. In case of failure by the bidder, the Bank under advice of the Bank will have the right to get the site cleared at the risk and cost of the bidder to the satisfaction of the

	Bank The bidder shall be required to maintain the site and the building areas in a neat and clean condition at all times to the satisfaction of the Bank. Debris to be removed & disposed as per extant guidelines of disposal by Municipality/local bodies every 2 days. The bidder shall also be required to keep all access roads to the site and within the site free from all obstructions, material droppings etc. to the satisfaction of the Bank and local authorities.

Annexure 1

TECHNICAL SPECIFICATIONS FOR ROOFTOP SOLAR INSTALLATION

1 GRID TIED SOLAR ROOFTOP PHOTO VOLTAIC (SRPV) SYSTEM

A Grid Tied Solar Rooftop Photo Voltaic (SRPV) power plant consists of SRPV array, Module Mounting Structure, Inverter consisting of Maximum Power Point Tracker (MPPT) and Controls &Protections, interconnect cables, Junction boxes, Distribution boxes and switches. PV Array is mounted on a suitable structure. Grid tied SRPV system is without battery and should be designed with necessary features to supplement the grid power during day time.

Components and parts used in the SRPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications. Solar Rooftop system shall consist of following equipment's/components.

a) Solar PV modules consisting of required number of Mono Crystalline PV cells.
b) Surge Protectors
c) Cables DC & AC LT Cables.
d) Cable Trays
e) Grid interactive Power Conditioning Unit
f) Mounting structures
g) Junction Boxes.
h) DC & AC Distribution Panel Boards
i) Earthing and lightening protections.
j) Conduits and accessories

2 SOLAR PHOTOVOLTAIC MODULES

2.1 The PV modules used should be PID (Potential Induced Degradation) resistant and tested for PID as per IEC 62804.

- All the modules used in this contract shall be of Mono Crystalline technology.
- All the modules used shall be equipped with factory made anti–soiling coating

2.2 The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-1: Requirements for construction and Part 2: Requirements for testing, for safety qualification or equivalent IS.

a) For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701

b) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar mono-crystalline modules of minimum 540Wp and above wattage. Module capacity less than minimum 540 watts shall not be accepted.

c) Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.

d) PV modules must be tested and approved by one of the IEC authorized test centres.

e) The module frame shall be made of corrosion resistant materials, preferably having anodized aluminium.

f) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. UCO BANK, Fort shall allow only minor changes at the time of execution.

2.3 Other general requirement for the PV modules and subsystems shall be the Following:

a) The rated output power of any supplied module shall have tolerance of +/- 3%.

b) The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.

c) The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by- pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.

d) I-V (Current – Voltage) curves at STC (standard test conditions) should be provided by bidder.

2.4 Modules deployed must use a RF (Radio frequency) identification tag. The following information must be mentioned in the RFID used on each module (This can be inside or outside the laminate but must be able to withstand harsh environmental conditions).

a) Name of the manufacturer of the PV module
b) Name of the manufacturer of Solar Cells.
c) Month & year of the manufacture (separate for solar cells and modules)
d) Country of origin (separately for solar cells and module)
e) I-V curve for the module Wattage, Imax, Vmax and FF (Fill Factor) for the module
f) Unique Serial No and Model No of the module
g) Date and year of obtaining IEC PV module qualification certificate.
h) Name of the test lab issuing IEC certificate.
i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001.

3 ARRAY STRUCTURE

3.1. Hot dip galvanized MS (with 970 gm/m2 or 80 Microns zinc mass coating) (or) Aluminium mounting structures may be used for mounting the modules / panels / arrays. New Technology Materials having better properties like PosMACetc may also be used for mounting structures. Each structure should have angle of inclination as per the site conditions to take maximum irradiation. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.

3.2. The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (like SAMBALPUR-basic wind speed of 200 km/hour). It may be ensured that the design has been certified by a STRUCTURAL ENGINEER in this regard and submit wind loading calculation sheet to UCO BANK, Fort in compliance to standards governing, as on date like IS-875, NBC etc. Suitable fastening arrangement such as grouting and

clamping should be provided to secure the installation against the specific wind speed.

3.3. The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.

3.4. Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminum structures also can be used which can withstand the wind speed of respective wind zone. Necessary protection towards rusting need to be provided either by coating or ionization.

3.5. The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels. Installation of solar structure should not damage the roof in any way. If any concrete or foundation is required, it should be pre-cast type.

3.6. Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.

3.7. The minimum clearance of the structure from the roof level should be 30 mm, for RCC type roof.

3.8. The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m2.

4 JUNCTION BOXES (JBs)

4.1 The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP / FRP / Powder Coated Aluminum / Cast aluminum alloy with full dust, water & vermin proof arrangement. All wires / cables must be terminated through round cable lugs. The JBs shall be such that input & output termination can be made through suitable cable glands.

4.2 Copper bus bars/terminal blocks housed in the junction box with suitable termination threads Conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry with single compression cable glands, provision of earthlings. It should be placed at 5 feet height or above for ease of accessibility. Additional rain protection canopy shall be provided.

4.3 Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / surge arrestors, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.

4.4 Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.

4.5 All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

5 DC DISTRIBUTION BOARD:

1 DC Distribution panel to receive the DC output from the array field.

2 DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

6 AC DISTRIBUTION PANEL BOARD

6.1 AC Distribution Panel Board (DPB) shall control the AC power from inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.

6.2 All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III. The changeover switches, cabling work should be undertaken by the bidder as part of the project.

6.3 All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.

7 PCU / ARRAY SIZE RATIO

The combined wattage of all inverters should not be less 1.4 (one point four) times, than rated capacity of power plant under STC (Standard test conditions).

7.1 Maximum power point tracker shall be integrated in the inverter to maximize energy drawn from the array.

8 INVERTER

a) As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Smart Inverter and the associated control and protection devices. All these components of the system are termed the "Power Conditioning Unit (PCU)". In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter. It is imperative that the inverter output should be compatible with the grid frequency.

b) Typical technical features of the inverter shall be as follows:

Parameter	**Requirement**
Switching devices	IGBT/MOSFET
Control	Microprocessor / DSP (Digital Signal Processor)
Nominal AC output voltage and frequency	415V, 3 Phase, 4 Wire 50 Hz
Grid Frequency Synchronization range	+/- 5 Hz
Design Ambient temperature	50 Deg. C
Humidity	95 % non-condensing
Protection of Enclosure	IP54 for Indoor / IP65 for Outdoor
Grid Frequency Tolerance range	+/- 5 Hz
Grid Voltage tolerance	-0.20.15

No-load losses	Less than 1% of rated power
inverter efficiency(minimum)	>93%
THD	< 3%
Power Factor	> 0.9
Communication interface	IEC 61850, RS 485 with Modbus
Protections (min)	▪ Over voltage (both input and output)
	▪ Over current (both input and output)
	▪ Over/Under grid frequency
	▪ Over temperature
	▪ Short circuit
	▪ Lightening Surge voltage induced at output due to external source
	▪ Anti-islanding
Alert/Indications (Min)	▪ Inverter ON
	▪ Grid ON
	▪ Inverter Under / Over Voltage
	▪ Inverter Overload
	▪ Inverter Over Temperature
LCD Display on Inverter (min)	▪ Output power (W)
	▪ Daily Energy (Wh)
	▪ Cumulative energy (Wh)
	▪ DC voltage (V)
	▪ DC current (A)
	▪ AC voltage (V)
	▪ AC frequency (Hz)
	▪ AC current (A)
	Cumulative hours of operation (h).

c) PCU / inverter shall be used with each power plant system (70kW or above).

d) PCU / inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.

e) The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power; inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.

f) Built-in meter and data logger to monitor plant performance through external laptop shall be provided.

g) The power conditioning units / inverters should comply with applicable IEC / equivalent BIS standard for efficiency measurements and environmental tests as per

standard codes IEC 61683/IS 61683 and IEC 60068- 2(1,2,14,30) / Equivalent BIS Std.

h) The charge controller / MPPT units environmental testing should qualify IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS standard. The junction boxes / enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.

i) The PCU / inverters should be tested from the MNRE approved test centers / NABL / BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

j) Anti-islanding (Protection against Islanding of grid): The PCU shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.

k) Successful Bidders shall be responsible for limiting dc injection into the grid and load as per the CEA/state regulations.

l) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.

m) The inverter control system shall be fully compatible for remote data logging.

n) Alarm shall be integrated for the following operating conditions

i. Inverter failure
ii. IGBT/MOSFET over temperature
iii. Breaker / Dis-connecter failure
iv. Over load
v. Over load shutdown
vi. Emergency shutdown
vii. DC circuit breaker/switch open
viii. AC Main failure
ix. Fan failure
x. Asynchronous condition and Synchronous condition
xi. Control power failure
xii. DC ground fault

o) The minimum following devices shall be provided to protect the inverter:

i. Reverse polarity
ii. Reverse power
iii. Short Circuit
iv. Over-current
v. Earth fault protection
vi. Islanding
vii. Under / Overvoltage
viii. Over / Under frequency
ix. Surge Protection on both AC and DC side.

p) The BIDDER shall clearly bring out the earthing philosophy to be adopted for the Inverter electronics, protective earthing (PE) and neutral earthing. The requirement of separate earth pit independent of the plant electrical system shall be clearly brought out.

9 INTEGRATION OF PV POWER WITH GRID

9.1 The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after

synchronization and availing net metering connection from Discom. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid.

70 METERING AND GRID CONNECTIVITY

a) Metering panel shall be installed as near as possible, to the point of evacuation of power to grid.

b) The bidirectional electronic energy meter (0.5S class) shall be installed for the measurement of import/Export of energy.

c) The bidder must take approval/NOC from the Owner / Discom for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to Owner / Discom before commissioning of SPV plant.

d) Metering and grid connectivity of the roof top solar PV system shall be made in accordance with the prevailing guidelines of the concerned DISCOM and / or CEA (if available by the time of implementation). Owner shall facilitate connectivity; however, the entire responsibility lies with bidder only.

11 LIGHTNING PROTECTION

a) The SPV power plants shall be provided with lightning and overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standards. The protection against induced high-voltages shall be provided by the use of metal oxide arrestors (MOVs) and suitable earthing such that induced transients find an alternate route to earth. Radio-active air-terminals shall not be allowed. Any other kind of air- terminal like dissipation system / ESE air-terminal / CSE air-terminal shall not be acceptable.

b) All the Material for earthing and lightning protection shall be copper.

c) The lightning system shall be mounted such that the shadow of system does not fall on PV array but at the same time it covers entire systems being installed as part of the project.

d) Lightning protection shall be directly connected to earth mat / pit through test links.

e) Please refer attached Standard Specification for Lightning Protection.

12 SURGE PROTECTION

Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and –ve terminals to earth (via Y arrangement).

13 EARTHING PROTECTION

a) Each array structure of the PV yard should be grounded/ earthed properly as per IS: 3043. In addition, the lighting arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of customer as and when required after earthing by calibrated earth tester. Complete system including PCU and ACDB should be earthed properly at least 2 locations.

b) 2 nos. earthing pits shall be provided for Solar Rooftop system and shall be connected to existing station earth at two locations. Redundant 02 no earthing shall be provided for all indoor, outdoor metallic structures, electrical and electronic systems being installed under the project. Dedicated electronic earthing junction box (ETB) to be provided Earth resistance shall not be more than 1 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

c) Lightning protection down comers shall not be used as earthing conductors above ground.

d) Copper earthing rod shall be 3.5m long and at least 25mm dia.

e) The treated earth pits shall be connected to main earth grid.

f) Please refer attached Standard Specification for Earthing& Lightning Protection.

14 GRID ISLANDING

a) In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands."

b) Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.

c) A manual disconnect 4 pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

15 DC PROTECTION

An inline fuse shall be provided at the end of positive terminal of the first module of each string, to ensure protection from High DC voltage in case of fault.

16 CABLES

Cables of appropriate size to be used in the system shall have the following characteristics:

a) Shall meet IEC 60227 / IS 694, IEC 60502 / IS1554 standards

b) Voltage rating: 1700V.

c) Excellent resistance to heat, cold, water, oil, abrasion, UV radiation

d) All AC cables shall be of armoured type.

e) Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. FRLSZH cables shall be used in all underground areas.

f) DC cables manufactured with EBXL & having anti-rodent properties shall be used. The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5 mm.

g) Cable Routing / Marking: All cable / wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified at both ends.

h) The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. 25 years.

i) The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant provided by the bidder. Any change in cabling sizes if desired by the bidder / approved after citing appropriate reasons. All cable schedules / layout drawings approved prior to installation.

j) The size of each type of DC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2%.

k) The size of each type of AC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2%.

l) Separate cable trays to be laid for AC cables, DC Positive cables, DC Negative cables and control cables.

17 DANGER BOARDS AND SIGNAGES

Danger boards should be provided as and where necessary (but not limited to solar array, DCDB, Inverter, ACDB, Solar generation meter, Net meter) as per CEA rules (as amended up to date) at solar array area. Text of the signage's may be finalized in consultation with Owner.

18 MODULES CLEANING SYSTEM

The BIDDER shall install a module cleaning system after approval of layout by owner. Water pump shall be included if availability/pressure of water at the rooftop site is not available/sufficient.

19. Safety Requirements

a) The bidder ensures compliance to electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per CEA regulations and best practices.

b) Since the Job involves Working at Height, all safety measures related to Working at height shall be followed as per standard engineering practice including mounting of Pipe Scaffolding, Safety Net, Personal protective equipment, Safety Belt etc.

c) For Maintenance purpose on regular basis, adequate safe arrangements shall be provided for the operator and workmen to carry out their routine work without and risk of accident.