

TENDER ID	AHM202111006
DATE	18.11.2021

**State Bank of India
Local Head Office**

Premises & Estate Department, 3rd Floor, Bhadra, Laldarwaja, Ahmedabad-1

**Part – I
(Technical Bid)**

SBI, LHO, Ahmedabad invites online e-Tenders followed by e-Reverse Auction for Design, Supply, Installation, Testing and Commissioning (SITC) of remote monitoring grid connected (net metering) solar photovoltaic panel rooftop power system of tentative capacity of 155 Kwp at 10 different locations in Bank's own premises in Gujarat on CAPEX model from GEDA approved channel partners.

Name of The Tenderer:.....

Address:.....
.....
.....

Email ID:

Date:

GSTIN:.....

CONTENTS

Sl. No	Description/ Clause	Page No.
1	Notice Inviting Tenders	3-5
3	Evaluation of price bid	6
4	Eligibility Criteria	7
5	Sample Business Rules	8-11
6	Process Compliance	12-13
7	Letter of Declaration	14-15
8	Basic information of Vendor	16-18
9	Article of Agreement	19-21
10	Instructions to the Tenderer	22-30
11	Declaration by Vendor	31
12	Technical Specification	32-42
13	Undertaking for product	43
14	Undertaking for the product by the manufacturer	44
15	Special Conditions of Contract	45
16	Safety Code	46
17	List of approved makes	47
18	Performa for Electronic Payment	48
19	Format of Unpriced bid	49

NOTICE INVITING TENDER

SBI, LHO, Ahmedabad invites e-Tenders followed by e-Reverse Auction for Design, Supply, Installation, Testing and Commissioning (SITC) of remote monitoring grid connected (net metering) rooftop solar power system of tentative total capacity of 155 Kwp at 10 different locations in Bank's own premises in Ahmedabad Circle in Gujarat on CAPEX model from GEDA approved channel partners. The other details of the tender are as under:

1.	Name of Work	SBI, LHO, Ahmedabad invites e-Tenders followed by e-Reverse Auction from GEDA approved channel partners having office in Gujarat for Design, Supply, Installation, Testing and Commissioning (SITC) of remote monitoring (wifi/sim will be provided by the Bank) grid connected (net metering) rooftop solar power system of tentative total capacity of 155 Kwp at 10 different locations in Bank's own premises in Ahmedabad Circle in Gujarat on CAPEX model
2	Earnest Money Deposit (EMD)	Not Applicable
3	Initial Security Deposit (ISD)	2% of the contract value in the form of Demand Draft issued by any Nationalized/Scheduled Bank in favour of "State Bank of India" payable at Ahmedabad.
4	Total Security Deposit (TSD)	Bank will keep total security deposit of 3% of the total contract value (including 2% ISD) during the defect liability period of one year from the date of successful installation of the system and the same will be refunded after entering into CAMC. Security Deposit for CAMC will be 5% of the Annual CAMC value.
5	Award of work	Work will be distributed among L1 & L2 in the ratio 60:40 if L2 vendor is ready to work at L1 rate. If L2 vendor is not ready to work at L1 rate then L1 vendor has to execute the whole work at quoted rate.
6.	Date for Downloading of Tender Document (Technical and Price Bid)	18.11.2021 to 29.11.2021 up to 3:00 pm from Bank's Website: www.sbi.co.in Link <SBI in the News><Procurement News>
7	Last date and time for receipt of written queries for clarification from bidders in Pre-bid meeting.	At 12.00 Noon on 29.11.2021
8	Pre-Bid Meeting	At 3:00 pm on 22.11.2021 at SBI, LHO Building, Premises Department, 3 rd Floor, Ahmedabad.
9	Posting of clarifications on the Bidder's queries.	Clarifications, if any, shall be posted only on the Bank's website. No individual communication shall be provided to the Bidder.
10	Last date & time for submission of Technical bid along with Documentary proof of office in	Up to 3:00 PM on 29.11.2021 Note:

	Gujarat and other documents for eligibility as specified in the tender in sealed Cover-“A” and Indicative Price Bid in sealed Cover “B” and both these two covers shall be placed in a third sealed cover super scribing “Tender for SITC of Solar photovoltaic panels on at SBI premises in Ahmedabad Circle, Gujarat”.	<ol style="list-style-type: none"> 1. It is sole responsibility of the bidder to ensure submission of their bid by stipulated date and time at specified address. The SBI shall not entertain bids received late due to any delay on account of delivery by the courier agency/speed post or any other mode for the reasons whatsoever. 2. Tenders received without all eligibility criteria documents shall be summarily rejected.
11	Address for submission and opening of Technical Bid.	State Bank of India, Premises & Estate Department, 3 rd Floor, LHO, Bhadra, Laldarwaja, Ahmedabad-1
12	Date and Time of Opening of Technical Bid	3.30 pm on 29.11.2021 at State Bank of India, Premises & Estate Department, 3 rd Floor, LHO, Bhadra, Laldarwaja, Ahmedabad-1
13	Date and Time of opening of indicative Price Bid	Only those vendors who will qualify and found eligible in Technical bid evaluation will be informed for opening of indicative price bid.
14	Date and Time of reverse auction	Date and Time will be informed through e-mail to technically qualified vendors.
15	Validity for Offer for acceptance by the Bank	3 (Three) months from the date of opening of price bid
16	Validity of rates after acceptance by the Bank	6 (Six) months from the date of approval of rates by the SBI.
17	Date of Commencement of Work	Within 7 days from the date of work order.
18	Delay Penalty / Liquidated damages	0.5% per week maximum upto 5% of the contract value.
19	Period of Honoring Payment Certificate	21 days from the date of receipt of bill (excluding Sunday and Public Holidays).
20	Insurance	As per insurance clause of the tender document
21	Time allowed for completion of work	8 weeks from the date of issue of work order
22	Defect Liability period/Warranty	The Solar PV Panels/mechanical structures, power conditioners/ inverters/ charge controllers/ maximum power point tracker units etc. must be warranted against any manufacturing/ design/ installation defects for a minimum period of 1 year from the date of completion.

23. In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.

24. Tenders received without supporting documents for pre-qualification shall be summarily rejected and such bidders **shall not be allowed** to participate in the price bidding process.

25. Bank reserves their rights to accept any or to reject all the tenders in part or whole without assigning reasons thereof and no correspondence shall be entertained in this regard.

26. Tenders can be downloaded from www.SBI.co.in (link)<SBI in the News> <Procurement News>. It shall be responsibility of the Vendor to arrange and ensure that all pages of technical bid are properly bound. Tenders in loose pages shall be disqualified.

27. The Vendor shall sign and stamp each page of the tender document thereby ensuring the number and sequence of all pages. Tender documents without seal and signature of the authorized tenderer are liable to be rejected.

28. The information required should be neatly filled/typed in **each and every columns and row** of the Formats. **The tender received with “partly filled formats” not containing desired information in each and every columns/points/row of various annexures shall be treated as INCOMPLETE and such applications shall be summarily rejected without any reference to the bidder and at the bidder’s risk and responsibility.**

29. The tenderers are categorically advised to refrain from mentioning the remark “AS PER ATTACHEMENT/ENCLOSURES” in their applications and annexures to avoid rejection of their applications.

30. Conditional tenders shall be summarily rejected.

AGM (P&E)

EVALUATION OF PRICE BID

1. The Bidders qualified in the Technical Bid evaluation shall only be allowed to participate in the price bidding.
2. The award of contract will be made to the bidder whose bid has been determined to be the lowest after arithmetic checking of calculations of all components of online price bid after e-reverse auction and applying “K” factor.
3. The SBI reserve its rights to accept any or to reject all the bids without assigning any reasons therefore and no correspondence shall be entertained in this regard.

We have read and understood the abovementioned prequalification criteria and shall abide by the same.

Signature of the Vendor
With Seal

Name:

Place:

Date:

ELIGIBILITY CRITERIA

- 1) Bidder should be GEDA approved channel partner having minimum five years of experience in SITC of grid connected (net metering) rooftop solar panels in Government/Semi Government/PSUs/Large MNCs as on 30.09.2021.
- 2) The aggregate turnover of the bidder should not be less than 19.0 lacs in the last 3 financial years i.e. for the year 2017-18, 2018-19 & 2019-20.
- 3) The Bidder should not have been black listed by the Government.(Please submit self declaration on company/firm letter head duly signed by the authorized person)
- 4) Vendor should have executed minimum two works with single point responsibility for Design Engineering, Manufacture, Installation & Commissioning of roof top off grid / grid connected (net metering) SPV power plants of minimum 20 Kwp in Central / State Govt. / Public sector undertaking / Public Limited Company / Private Limited Company. These SPV power plants should be installed during last three years as on 30.09.2021.
- 5) Value of work done during last 3 years ending 30 09.2021 should be either of the following:

Three Solar rooftop Plants each of not less than Rs. 26 lakhs each

OR

Two Solar rooftop Plants each of not less than Rs. 33.00 lakhs each

OR

One Solar rooftop Plant of not less than Rs. 52.0 Lakhs.
- 6) Must have office/service setup in Gujarat before the date of this tender.
- 7) Must have valid GSTN number.
- 8) Solvency certificate of Rs. 65.0 Lakh issued by any Nationalized/Scheduled Bank and should be issued after the date of issue of this tender.

(Please enclose documentary proof for all above eligibility criteria)

SAMPLE BUISNESS RULE DOCUMENT

Online e-tenders are invited from GEDA approved channel partners vendors having office in gujarat for design, supply, installation, testing and commissioning (SITC) of grid connected (net metering) rooftop solar power system of tentative capacity of 155 kwp at 10 different locations in Ahmedabad circle in Gujarat on CAPEX model.

(A) Business rules for E-tendering:

1. Only GEDA approved vendors having valid registration for SITC of Solar system, Office in Gujarat shall only be eligible to participate.
2. SBI will engage the services of an E-tendering service provider who will provide necessary training and assistance before commencement of online bidding on Internet.
3. In case of e-tendering, SBI will inform the vendor in writing, the details of service provider to enable them to contact and get trained.
4. Business rules like event date, closing and opening time etc. also will be communicated through service provider for compliance.
5. Vendors have to send by email, the compliance form in the prescribed format (provided by service provider), before start of E-tendering. Without this the vendor will not be eligible to participate in the event.
6. The Vendors will be required to submit the various documents in sealed Envelope to the office of SBI, P&E Deptt., 3rd Floor, LHO, Bhadra, Laldarwaja, Ahmedabad before last date and time i.e. (1) Hard Copy of Technical Bid duly signed and stamped on each page **(2) valid GEDA registration certificate and other necessary documents to fulfill eligibility criteria.** Vendors not submitting any one or more documents shall not be eligible to participate in the on-line price bidding.
7. E-tendering will be conducted on schedule date &time.
8. **The e-tendering will be treated as closed only when the bidding process gets closed in all respects for the item listed in the tender.**

(B) Terms & conditions of E-tendering:

SBI shall finalize the Tender through e-tendering mode for which **M/s. e-Procurement Technology, Ahmedabad** has been engaged by SBI an authorized service provider. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

1. E-tendering shall be conducted by SBI through **M/s. e-Procurement Technology, Ahmedabad.**, on pre-specified date. While the Vendors shall be quoting from their own offices/ place of their choice, Internet connectivity and other paraphernalia requirements shall have to be ensured by Vendors themselves. In the event of failure of their Internet connectivity,(due to any reason whatsoever it may be) it is the bidders' responsibility.
2. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/alternatives such as back-up power supply whatever required so that they are able to circumvent such situation and still be able to participate in the E-tendering successfully. Failure of power at the premises of Vendors during the E-tendering can not be the cause for not participating in the E-tendering. On account of this the time for the E-tendering can not be extended and SBI is not responsible for such eventualities.
3. M/s. **e-Procurement Technology, Ahmedabad.**, shall arrange to train your nominated person(s), without any cost to you. They shall also explain you all the Rules related to the E- tendering. You are required to give your compliance on it before start of bid process.
4. BIDDING CURRENCY AND UNIT OF MEASUREMENT: Bidding will be conducted in Indian currency & Unit of Measurement will be displayed in Online E-tendering.
5. BID PRICE: The Bidder has to quote the rate as per the Tender Document provided by SBI their appointed Architects.
6. VALIDITY OF PRICE BID: The Bid price shall be for a period specified in the tender document and shall not be subjected to any change whatsoever.
7. Procedure of E-tendering:
 - i. **Online E-tendering:**
 - (a) The hard copy of the Technical as well as Price Bid is available on the Bank's website during the period specified in the NIT.
 - (b) Online e-tendering is open to the pre-qualified bidders who receive NIT from the Bank and qualified for participating in the price bidding as provisions mentioned hereinabove through SBI approved Service Provider.
 - (c) The Price-Bid shall be made available online by the Service Provider wherein the vendors will be required to fill-in their Item-wise rates for each item.
 - (d) The Vendors are advised not to wait till the last minute to submit their online item-wise quote in the price bid to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.
 - (e) It is mandatory to all the bidders participating in the price bid to quote their rates for each and every item.

- (f) In case, vendor fails to quote their rates for any one or more tender items, their tender shall be treated as **“Incomplete Tender”** and shall be liable for rejection.
8. LOG IN NAME & PASSWORD: Each Bidder is assigned a Unique User Name & Password by M/s. **e-Procurement Technology, Ahmedabad**. The Bidders are requested to change the Password after the receipt of initial Password from M/s. **e-Procurement Technology, Ahmedabad**. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.
9. BIDS PLACED BY BIDDER: Bids will be taken as an offer to execute the work as specified. Bids once made, cannot be cancelled / withdrawn and the Bidder shall be bound to execute the work at the quoted bid price. In case the L-1 Bidder backs out or fail to complete the work as per the rates quoted, SBI shall at liberty to take action as deemed necessary including de-paneling such vendors and forfeiting their EMD.
10. At the end of the E-tendering, SBI will decide upon the winner. SBI decision on award of Contract shall be final and binding on all the Bidders.
11. SBI shall be at liberty to cancel the E-tendering process/tender at any time, before ordering, without assigning any reason.
12. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
13. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.
14. OTHER TERMS & CONDITIONS:
- The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidders.
 - The Bidder shall not divulge either his Bids or any other exclusive details of SBI to any other party.
 - SBI decision on award of Contract shall be final and binding on all the Bidders.
 - SBI reserve their rights to extend, reschedule or cancel any E-tendering within its sole discretion.
 - SBI or its authorized service provider M/s. **e-Procurement Technology, Ahmedabad** shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
 - SBI or its authorized service provider M/s. **e-Procurement Technology, Ahmedabad** is not responsible for any damages, including damages that result from, but are not limited to negligence.
 - SBI or its authorized service M/s. **e-Procurement Technology, Ahmedabad** will not

be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

N.B.

- All the Bidders are required to submit the Process Compliance Statement (Annexure-II) duly signed to M/s. **e-Procurement Technology, Ahmedabad.**
- **All the bidders are requested to ensure that they have a valid digital signature certificate well in advance to participate in the online event.**

PROCESS COMPLIANCE STATEMENT (ANNEXURE II)

(The bidders are required to print this on their company's letter head and sign, stamp before emailing)

To,
M/s. **e-Procurement Technology**,
B-705, Wall Street - II, Opp. Orient Club, Ellisbridge,
Ahmedabad – 380006,
State Gujarat, India

E-mail : jayprakash@auctiontiger.net
Contact No.- 07968136815, 8849722625

Email:

AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE ONLINE E-TENDERING FOR PROPOSED DESIGN AND SITC OF GRID CONNECTED (NET METERING) REMOTE MONITORING SOLAR PHOTOVOLTAIC POWER PANELS OF TOTAL TENTATIVE CAPACITY OF 155 Kwp AT 10 DIFFERENT LOCATIONS IN BANK'S OWN PREMISES IN GUJARAT ON CAPEX MODEL.

Dear Sir,

This has reference to the Terms & Conditions for the E-tendering mentioned in the Tender document

This letter is to confirm that:

- 1) The undersigned is authorized representative of the company.
- 2) We have studied the Commercial Terms and the Business rules governing the E-tendering as mentioned in RFP of SBI as well as this document and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the E-tendering tool and have understood the functionality of the same thoroughly.
- 4) We confirm that SBI and M/s. **e-Procurement Technology, Ahmedabad** shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-E-tendering platform due to loss of internet connectivity, electricity failure, virus attack, problems with the PC, any other unforeseen circumstances etc. before or during the E- tendering event.

5) We confirm that we have a valid digital signature certificate issued by a valid Certifying Authority.

6) We, hereby confirm that we will honor the Bids placed by us during the E-tendering process.

With regards,

Date:

Signature with company seal Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

Scan it and send to this Document on -----

LETTER OF DECLARATION

(To be submitted duly typed, signed with stamped by the Authorised Signatory on the Letter Head of the Bidder in Original along with Technical Bid document.)

The Assistant General Manager (P&E)
SBI, LHO, 3rd Floor,
Bhadra, Laldarwaja,
Ahmedabad

Design, Supply, Installation, Testing and Commissioning (SITC) of grid connected (net metering) remote monitoring rooftop solar power system of approx. total tentative capacity of 155 Kwp in Bank's own approximately 10 premises in Ahmedabad Circle in Gujarat on CAPEX model.

Dear Sir,

Having examined the terms & conditions, schedule of requirements, scope of work etc. of the tender for the captioned work and examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto and affecting the tender. I/We hereby offer to provide specified services in the said memorandum mentioned in the attached schedule and in accordance in all respect with the schedule of instructions, scope of work and instruction in writing referred to in conditions of Tender, the articles of agreement, conditions of contract and with such conditions so far as they may be applicable.

a	Description of work	Design, Supply, Installation, Testing and Commissioning (SITC) of grid connected (net metering) remote monitoring rooftop solar power system of Approximately tentative capacity 155 Kwp in Bank's own approximately 10 premises in Ahmedabad Circle in Gujarat on CAPEX model.
b	Earnest Money	Not Applicable
c	Validity of Contract	For an initial period of 6 (Six) months from the date of commencement of work subject to the renewal for one similar terms after expiry of initial period subject to satisfactory performance.

3. Should this tender be accepted, I/we hereby agree to abide by and fulfill the terms and provisions of the said conditions of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to SBI the amount mentioned in the said conditions.

4. We understand that as per terms of this tender, the SBI may consider accepting our tender in part or whole or may entrust the work of housekeeping for proposed building. We, therefore, undertake that we shall not raise any claim / compensation in the eventuality of Bank deciding to drop any of the scope of work of this tender at any stage during the contract period. Further,

we also undertake to execute the work entrusted to us on our approved rates and within the stipulated time limit without any extra claim for price escalation.

5. We confirm that we are not debarred by the SBI for any of its projects.

6. Further, we confirm that we are eligible to quote this tender. In case any information is found incorrect at any subsequent point of time, our tender may be annulled / rejected by SBI, including taking any action against us as deemed fit.

We have read and understood all the terms & conditions, schedule of requirement and scope of work of the tender and accept the same.

**Signature of the Tenderer
With Seal**

BASIC INFORMATION OF THE VENDOR

(Please strike-off which is not applicable)

1	a) Name of the applicant/Firm/ Organization	
	b) Full Postal Address of Firm	
	c) Contact Details (i) Phone No. (ii) Mobile No. (iii) Fax No. (iv) e-mail Id (v) Web-site	
	d) Application fee details Online application fees receipt no. (Please enclose online application fees payment receipt) Date	
2	Year of establishment (Please enclose documentary evidence)	
3	Constitution of Firm (Enclose certified copies of documents as evidence)	Sole proprietorship/ Partnership /Private Ltd. / Public Ltd. / Any other (Please specify)
4	Name of the Proprietor/Partners/Directors of the organization/firm	
5	a) Name/s of authorized signatory with designation	

	b) Bio-data of Partners/Directors (Enclose separate sheet as)	
6	Mode of Authorization Enclose certified copies of document as evidence.	Resolution / Partnership Deed / Registered Power of Attorney / Proprietor / Any Other (Please specify)
7	Whether registered with MNRE/GEDA (Enclose certified copies of document as evidence). Name of Organization Category No. & Date of Registration Name of Organization Category No. & Date of Registration	YES / NO
8	No. of years of experience in the field and details of work in any other field (Please enclose documentary proof)	
9	Yearly turnover of the organization during last 3 years (year wise) and furnish audited balance sheet and Profit & Loss A/c. (Audited) for the last 3 financial years certified by the auditor. (Please enclose CA Certificate)	2017-18 2018-19 2019-20 Average :
10	<i>Banker's Details</i> (i) <i>Banker's Name</i> (ii) <i>Full Postal Address</i> (iii) <i>Telephone No.</i> (iv) <i>Account No.</i> (v) <i>Type of Account</i>	
11	PAN No.	
12	GST No.	
13	Whether last three years IT returns filed (Pl. enclose certified copies of the I T return of 2017-18, 2018-19, 2019-20)	

14	Details of major works executed & completed during last 3 years.	(Please enclose separate sheet)
15	Details of major works on hand.	Please enclose copies of LOI /work order / agreement
16	Whether any Civil Suit/litigation arisen in works executed during the last 5 years. If yes, please furnish the name of the project, employer, and nature of work, contract value, work order and brief details of litigation. Give name of the Court, place and status of pending litigation.	Attach a separate sheet if required.
17	Confirmation of valid Digital Signature (Yes/No)	

(Signature of the authorized person)

Name:

(Mobile No.):

E-mail ID:

Date:

ARTICLES OF AGREEMENT

This AGREEMENT is made at on this day ofbetween SBI, a body Corporate created under SBI Act 1955, having its Local Head Office at State Bank Bhavan, Bhadra, Laldarwaja, Ahmedabad, represented by authorized officer of SBI. (hereinafter called "the Employer") on the one part and M/s(proprietor ship/partnership firm/Company), incorporated under the provisions of the Companies Act and having its registered office at(hereinafter called "the Vendor") represented by Shri who is authorized to enter this agreement by its Board of Directors on the other part.

AND WHEREAS the Employer has intention of engaging vendor for SITC of Grid connected Roof top Solar Power plant at Bank's own **approximately 10 premises at diferent locations in Gujarat**, as stated in the scope of work attached to the Tender Document to the Vendor.

AND WHEREAS the Employer had called for tenders from channel partners of Ministry of New and Renewable Energy/GEDA for the proposed work as indicated in the scope of work and other documents attached to the tender.

AND WHEREAS the Vendor and others submitted the tenders and the Employer has awarded the contract relating to Grid connected Roof top solar power plant, as per the information and technical specifications enclosed, at Bank's own **approximately 10 premises at diferent locations in Gujarat**, as stated in the scope of work attached to the Tender Document to the Vendor as stated in the scope of work attached to the Tender Document to the Vendor.

AND WHEREAS both the parties to this agreement are desirous of recording the terms and conditions upon which the said services are to be rendered by the Vendor.
NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said Contract Amount to be paid at the times and in the manner set forth in the said Conditions, the Contractor shall upon and subject to the said Conditions execute and complete the work shown upon the said Drawings and described in the said Specifications and the priced Schedule of Quantities.
2. The Employer shall pay to the Contractor the said Contract Amount, or such other sum as shall become payable, at the times and in the manner specified in the said Conditions.
3. The said Conditions and Appendix thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by submit themselves to the said Conditions and perform the Agreements on their part respectively in the said Conditions contained.
4. The Plans, Agreements and Documents mentioned herein shall form the basis of this Contract.
5. This Contract is neither a fixed lump-sum contract nor a piece work contract but a contract to carry out the work as per enclosed schedule of Items and to be

paid for according to actual measured quantities at the rates contained in the Schedule of Quantities or as provided in the said Conditions and approved by the SBI.

6. The Contractor shall afford every reasonable facility for the carrying out of all works relating to above Installation in the manner laid down in the said Conditions, and shall make good any damages done to walls, floors, etc. after the completion of his work.

7. The Employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this Contract.

8. Time shall be considered as the essence of this Contract and the Contractor hereby agrees to commence the work soon after the Site is handed over to him or from 07th day after the date of issue of formal work order as provided for in the said Conditions whichever is later and to complete the entire work within 90 days subject to nevertheless the provisions for extension of time.

9. After defect liability period of 1 year comprehensive AMC charges as per tender are as under:

S. No.	Comprehensive AMC year	Amount (Rs.)
1	2 nd Year	
2	3 rd Year	
3	4 th Year	
4	5 th Year	
5	6 th Year	

(GST Extra)

10. Comprehensive AMC shall be paid on quarterly basis after satisfactory services reported to the in-charge. AMC includes periodic cleaning of the solar panels etc. on fortnightly basis. All payments by the Employer under this Contract will be made by State Bank of India.

11. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Ahmedabad and only the Courts in Ahmedabad shall have jurisdiction to determine the same.

12. That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

IN WITNESS WHEREOF THE EMPLOYER and the Contractor have set their respective hands to these presents and two duplicates hereof the day and year first hereinabove written.

SIGNATURE CLAUSE

SIGNED AND DELIVERED by the

_____ By the (Employer)

hand of Shri _____

(Name and Designation) In

the presence of :

Shri / Smt. _____

(Signature of Employer)

(Signature of Witness)

Address _____

(Witness)

SIGNED AND DELIVERED by the

_____ by the
(Contractor)

(Signature of Contractors)

in the presence of : Shri / Smt. _____
Address _____

(Signature of Witness) Witness #2

Signature:

Name:

Address

If the bidder is signing by the by the by hand of Power of Attorney, whether a company or an individual.

INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS OF CONTRACT

1. Purpose:

SBI, LHO, Ahmedabad invite e-Tenders followed by e-Reverse Auction for Design, Supply, Installation, Testing and Commissioning (SITC) of remote monitoring rooftop solar power system of tentative capacity of 155 KWp at 10 different locations in Bank's own premises located in Ahmedabad Circle in Gujarat. The capacity and no. of locations are likely to increase. The Proposed locations are as under:

SBI Avanti flats (All 6 blocks)	33.00
SBI Southern Township, Vadodara	4.95
Prashanti Guest House	7.00
SBI Saurabh flats, Vadodara	10.89
SBI Petlad Branch	15.00
SBI Main Br., Vadodara	25.74
SBI, A.O. Building, Surat	25.74
SBI Jamnagar Br.	19.80
SBI, RBO-IV, Kutch	4.95
SBI Ahwa Branch	8.00

The above locations and capacity are tentative which may increase/decrease after final survey of the site by the lowest vendor. Bank reserves its right to ask the lowest vendor to install solar system at few more locations at the same rate during the validity period of the tender.

2. The tenderer must use only the Price Bid format issued by the SBI, Ahmedabad, to fill in the rates. Any addition/alteration in the text of the tender made by the tenderer shall not be considered. Such tender/s may be considered invalid by the Bank at its discretion.
3. All entries must be made by hand and written in ink. If any of the documents is missing or unsigned, the tender may be considered invalid by the Bank in its discretion.
4. Rates and amounts should be quoted both in figures and in words in columns specified. All erasures and alterations made while filling the tender must be attested by initials of the tenderer. Overwriting of figures is not permitted.
5. Failure to comply with either of these conditions will render the tender void at the Bank's option. No advice whatsoever especially on any change in rate, specifications or conditions after the opening of the tender will be entertained. If on check there are differences between the rates given by the vendor in words and figures or in the amount worked out by him, the following procedure shall be followed:
 - a. When there is a difference between the rates in figures and in words, the rates that correspond with the rate written either in figures or in words, then the rate quoted by the vendors in words shall be taken as correct.
 - b. When the amount of an item is not worked out by the vendor or it does not correspond with the rate written either in figures or in words, then the amount corresponding to the rate quoted by the vendors in words shall be taken as correct.

- c. When the rates quoted by the vendor in figures and in words tallies but the amount is not worked out correctly, the rate quoted by the vendor shall be taken as correct and not the amount.
6. Each page of the Tender Document should be signed by the authorized person or persons submitting the tender in token of his/their having acquainted himself/themselves with the General Conditions of Contract. General specifications, Special Conditions, etc. as laid down. Any tender with any of the documents not so signed will be liable to be rejected.
7. The tender submitted on behalf of a firm shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the tender may be rejected by the Bank.
8. A tender that is not accompanied by Valid GEDA registration certificate and other required necessary documents shall be rejected.
9. The SBI does not bind itself to accept the lowest or any tender and reserves to itself the right to accept or reject any or all the tenders, either in whole or in part, without assigning any reasons for doing so.
10. All the firms are required to submit the prequalification documents in the enclosed formats. On opening of envelope-I (Technical bid), the the prequalification documents would be examined and the firms who meet the prequalification criteria would be eligible for the work and their price bid only will be opened and considered for evaluation.
11. On receipt of intimation from the SBI of the acceptance of his / their tender, by way of Work Order, the successful tenderer shall sign an agreement in accordance with the agreement in the format prescribed herein and the Price Bid. A work order by the SBI of a tender will constitute a binding contract between the SBI and the bidder so tendering, whether such formal agreement is or is not subsequently executed. The cost of necessary stamp paper for execution of the agreement shall be borne by the successful tenderer.
12. The tenderer shall not assign the contract and shall not sublet any portion of the contract except with the written consent of the SBI. In case of breach of these conditions, the SBI may serve a notice in writing on the tenderer rescinding the contract whereupon the security deposit shall stand forfeited to the SBI, without prejudice to his other remedies against the tenderer.
13. The Tenderer shall carry out all the work strictly in accordance with details and instructions of the Bank's concerned Officials. If in the opinion of the Bank's Officials, changes have to be made in the design and with the prior approval in writing of the SBI they desire the Tenderer to carry out the same, the Tenderer shall carry out the same. The Bank's Officials decision in such cases shall be final.
14. A Schedule of Probable Quantities in respect of each work and Specifications accompany these General and Special Conditions. The Price Bid 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.

15. The tenderer must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making tender and for entering into a contract and inspect the site of the work, acquaint himself with all local conditions, means of access to the work, nature of work and all matters pertaining thereto.
17. The tenderer shall note that unless otherwise stated the tender is strictly on lump sum basis and his attention is drawn to the fact that rate should be correct, workable and self-supporting. The tenderer shall carry out all works necessary for completion of work and for delivering the desired results. No claim shall be entertained on this account.
18. Time allowed for carrying out the work shall be strictly observed by the tenderer. The work shall throughout the stipulated period of the contract be proceeded with all due diligence.
19. The tenderer 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 modifications to the work entrusted to him or in any subcontract connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such works or in procuring government controlled or other building materials or in obtaining water and power connections for construction purpose or for any other reason whatsoever and the SBI shall not be liable for any claim in respect thereof. The SBI does not accept liability for any sum besides the tender amount, subject to such variations as are provided for herein.
20. 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.
21. The successful tenderer must cooperate with the other vendor appointed by the SBI so that the work shall proceed smoothly with the least possible delay and to the satisfaction of the Bank's Engineer/Officials.
22. The tenderer shall guarantee that the work shall be free from any defects whatsoever during the contract period.
23. DELIVERY SCHEDULE: The work allotted to the Bidder is to be completed within six weeks reckoned from the date of issue of the Work Order. Bidders are advised to visit the site and get themselves fully acquainted with the general and local site conditions, particularly those bearing upon transportation, handling, storage and the like, prior to quoting for the work.
24. Any defects or shortcomings found during execution of work and during the defects liability period from the completion of the entire work shall be

attended/rectified by the tenderer without any extra cost to the SBI. In case of failure to do so within 10 days from such notice from the Bank, the SBI may get such rectification works carried out through any other firm and expenditure incurred by the Bank shall be recovered from any money due to the Vendor.

25. Initial Security Deposit: A sum equivalent to 2% of contract sum is required to be deposited by the firm within 7 (seven) days from the date of issue of work order. Earnest Money Deposit, Initial Security Deposit and Retention Money Deposit will form a total Security Deposit. The entire Security Deposit will be refunded after expiry of defects liability period.

26. No escalation shall be allowed on the rates of this contract.

27. No mobilization advance shall be paid to the Vendor.

28. Storage space may be allowed at site as per the availability. The Vendor will have to make his own arrangement for security and locking arrangement of the storage space. The Vendor may be required to vacate the storage space as per SBI's exigency without any extra cost.

29. The vendor has to make his own arrangement of stay for his employees.

30. TERMS OF PAYMENT:

No advance payment shall be paid. 97% of the contract amount shall be paid after successful installation, testing and commissioning of the system along with the approvals from the Government Departments. Remaining 3% shall be kept as SD during defect liability period of 1 year..

31. Labour Law / Act - The vendor will be governed by the local Labour Laws / Acts in force.

32. Delay and Extension of Time : If in the opinion of Bank's Officials, works be delayed by force majeure such as (a) war / hostilities, (b) riots or civil commotion,

(c) earthquakes, fire tempest, lightening or other natural / physical disasters, etc., (d) restrictions imposed by the Government which prevent or delay the execution of the order or by any other reasons, a suitable extension of time will be given and no extra claim will be paid by the SBI whatsoever.

33. The Vendor shall use all materials conforming to relevant BIS/ relevant Code and will use the best materials of approved manufacture.

34. Vendor's Representative on Works - Vendor shall maintain at site responsible, efficient, qualified and well experienced incharge during the contract period. Any clarifications, explanation, instructions or notices given by the SBI to such in-charge shall be deemed to be given to the vendor and shall be binding on the vendor.

35. Dismissal of Workman - Vendor shall, on the request of the SBI, immediately dismiss from the work any person in the opinion of SBI be unsuitable or incompetent or who may be guilty of misconduct.

36. The vendor shall at the instructions of the SBI within such time as notified, open up for inspection any work and should the vendor refuse or neglect to comply with such instructions, the SBI may employ other workman to open of the same. Such work if it is found not in accordance with approved specifications, or the instructions, expenses of opening up and redoing if required shall be borne by and recoverable from the Vendor from any money due or which may become due to the vendor.

37. NOTICES: Notices of the SBI, to the vendor may be served personally or by being left at or sent by registered post to the last known place of the business of the party to whom the same is given or in the case of the vendor by being left on the works. Notices may be served at or sent by registered post to the registered office of the vendor. Any notice sent by registered post shall be deemed to be served at the time when in the ordinary course of post, it would be delivered.

38. TERMINATION OF CONTRACT BY THE SBI:

If the vendor being an individual or a firm, commit any "Act of Insolvency" or shall be adjudged an insolvent or being an incorporated company shall have an order for compulsory winding up or applies for voluntary winding up or subject to the supervision of the court and of the official assignee or the liquidator, in such acts of insolvency or winding up shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the SBI that they are able to carry out and fulfill the contract, and to give security, therefor, if so required by the SBI.

OR if the vendor (whether an individual Firm or Incorporated Company) shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the vendor, or shall assign or sublet the contract without the consent in writing of the SBI first obtained.

OR shall charge or encumber this contract or any payments due or which may become due to the vendor there under.

OR if the vendor

- a. has abandoned the contract or
- b. has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for seven days after receiving from the SBI written notice to proceed, or
- c. has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- d. has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the SBI written notice that the said materials of work were condemned and rejected by the SBI under these conditions or
- e. has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this contract to be observed and performed

- by the vendor for seven days after written notice shall have been given to the vendor requiring the vendor to observe or perform the same, or
- f. has to the detriment of good workmanship or in defiance of the SBI's instructions to the contrary sublet any part of the contract.

Then and in the event of any of the aforesaid cases, the SBI may, notwithstanding any previous waiver, after giving seven days notice in writing to the vendor, determine the contract but without thereby affecting the powers of the SBI or the obligations and liabilities of the vendor, the whole of which shall continue in force as fully as if the contract has not been so determined and as if the works subsequently executed has been executed by or on behalf of the vendor.

And further, the SBI may enter upon and take possession of the work and all plant, tools, scaffolding, sheds, machinery and materials lying upon the premises or the adjoining lands or roads and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other vendors or other persons to complete works, and the vendor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other vendor or other person or persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter as convenient, the SBI shall give a notice in writing to the vendor to remove his surplus materials and plant, and should the vendor fail to do so within a period of 14 days after the receipt thereof by him, the SBI shall sell the same by public auction, and shall give credit to the vendor for the amount realised on deducting there from the costs of removal and sales.

If any sum shall be due or payable to or by the SBI for the values of the said plant and materials so taken possession of by the SBI and the expense of loss which the SBI shall have been put to in requiring the works to be completed, and the amount, if any, owing to the vendor and the amount which shall be so certified shall thereupon be paid by the SBI to the vendor or by the vendor to the SBI, as the case may be, and the SBI's certificate shall be final and conclusive between the parties.

On termination of the contract, the vendor shall forth with remove himself and his workmen from the work site.

39. TERMINATION OF THE CONTRACT BY THE VENDOR

If the payment of the amount payable by the SBI shall be in arrears and unpaid for 30 (thirty) days after it has become due as per payment terms and after notice in writing requiring payment of the amount shall have been given by the vendor to the SBI and if the SBI unreasonably withholds any such payment then vendor shall be entitled to give a termination notice and terminate the contract and recover from the SBI payment for all works executed for the purpose of the contract. In arriving at the amount of such payment, the net rates contained in the vendor's original tender shall be followed.

40. MATTERS TO BE FINALLY DETERMINED BY THE SBI

The SBI's decision, opinion, direction, with respect to all or any of the matter such as scope of work, vendor to provide everything necessary, materials and workmanship to conform the description, assignment of subletting, defects after

completion, delay & extension of time, opened up works and the schedule of rates as contained in the Price Bid hereof and as to the exercise by them the right to have any works opened up shall be final and conclusive and binding on the vendor. SBI's instructions if any, in this regard in case of any urgency, shall also be complied immediately.

41. ARBITRATION

If any dispute, difference or question shall at any time arise between the parties as to the construction of this Agreement or concerning anything or as to the rights, liabilities and duties of the parties hereunder, except in respect of matters for which it is provided hereunder that the decision of the SBI or its DGM & CDO is final and binding, the same shall be referred to conciliation or arbitration after giving at least 30 days notice in writing to the other (herein after referred to as the "Notice for Conciliation / Arbitration") clearly setting out the items of dispute to a Conciliator or the Sole Arbitrator who shall be appointed as herein after provided for the purpose of appointing the Conciliator or the Sole Arbitrator who shall be appointing the Conciliator or the Sole Arbitrator referred above, the SBI shall send to the vendors, within thirty days of the Notice of Conciliation / Arbitration, a panel of three names of persons who shall be presently unconnected with the organisation of the SBI or the vendors.

The Vendor shall, on receipt of the names as aforesaid, select any one of the persons so named to be appointed as the Conciliator or Sole Arbitrator, as the case may be, and communicate his name to the SBI within fifteen days of receipt of the names. The SBI shall thereupon without any delay, appoint the said person as the Conciliator or Sole Arbitrator.

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

The Conciliation / Arbitration shall be governed by the Conciliation and Arbitration Act, 1996 as in force from time to time. Where the parties do not agree with the Conciliator and appoint an Arbitrator (s) the award of the Arbitrator (s) shall be final and binding on the parties. It is hereby agreed that in all disputes referred to Arbitration, the Arbitrator shall give a separate Award in respect of each dispute or difference in accordance with the terms of the reference and the Award shall be a reasoned Award.

The fees, if any, of the Conciliator or the Arbitrator shall, initially are paid in equal proportion by each of the parties. The cost of the Conciliation / Arbitration including the fees, if any, of the Conciliator or the Arbitrator, shall be directed to be finally borne by such partly or parties to the dispute, in such matter or proportion as may be directed by the Conciliator or the Arbitrator, as the case may be in the Award.

The SBI and the vendor also hereby agree that the Arbitration under this Clause shall be a condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to Arbitration. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Ahmedabad and only the Courts in Ahmedabad shall have jurisdiction to determine the same.

42. INSURANCE CONTRACT CONDITIONS VENDOR'S LIABILITY AND INSURANCE

- a. From commencement to completion of works, the Vendor shall take full responsibility for the care of the work and for taking precautions to prevent loss or damage to the works and to minimize the loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the works or any part thereof from any cause whatsoever, inherent defects and failures due to poor workmanship and causes such as fire, lightening, explosion, earthquake, storm, hurricane, floods, inundation, subsidence, landslides, rock slides, riots (excluding civil war, rebellion, revolution and insurrection) and shall at his own cost repair and make good the same so that at all times the work shall be in good order and condition and in conformity in every respect with the requirements of the Contract.

Explanation:

For the purpose of this condition, the expression "from the commencement to completion of work" shall mean the time commencing from the issue of the work order to the vendor and ending with successful commissioning of the Plant.

- b. Without limiting the obligations and responsibilities under this condition, the Vendor shall insure and keep insured the works from commencement to completion, as aforesaid, for their full value provided under this Contract, increased by 25% against the risk of loss or damage from any cause whatsoever including the causes enumerated in the Clause (a) above. In the event of there being a variation in the nature and extent of the work, the Vendor shall from time to time increase or decrease the value of the insurance correspondingly. The entire premium shall be borne and paid by the Vendor. The said insurance shall also provide for the removal of debris of the lost or damaged works.
- c. The Vendor shall at all times indemnify the SBI against all losses, claims or damages or compensation under the provisions of the payment of Wages Act 1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, The Maternity Benefit Act 1961, Industrial Disputes Act 1947 and Contract Labour and Regulation and Abolition Act 1970, SBI State Insurance Act 1948 or any modification thereof or any other law relating thereto and rules made there under from time to time or as a consequence of any accident or injury to any workman or other persons in or about the work whether in the Employment of the SBI, or Vendor or not and also against all costs, charges and expenses of any suit, action or proceedings whatsoever out of such accident or injury or combination of any such claims.
- d. Before commencing the work, the Vendor shall without limiting his obligations and responsibilities under this condition, insure against any loss of life or injury to any personnel in the employment of Vendor/Sub-Vendor/Nominated Sub-Vendor. For this purpose, insurance shall be taken by the Vendor/Sub-Vendor. Such insurance shall be taken to include both employees/workmen covered by the Workmen's Compensation Act 1923, as well those employees/workmen not covered by the said Act. Separate insurance policies may be taken for employees/workmen covered by Workmen's Compensation Act 1923,

and employees workmen not covered by the said Act. All the premiums shall be paid by the Vendor.

- e. The Vendor shall at all times indemnify and keep indemnified the SBI against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the construction and maintenance of the work and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto. Before commencing the execution of the works, the Vendor shall without in any way limiting his obligations and liabilities under this condition, insure at his cost and expense against any damage or loss or injury which may be caused to any person or property including the Employee or servants of the SBI and the Consultants and their property by or in the course of the execution of the works. Such insurance to be known as the Third Party Insurance shall be in a sum equivalent to two percent of the value of the accepted tender, subject to the minimum sum of Rupees Five Lakhs. The Insurance Policy to be so obtained by the Vendor shall be deposited by the Vendor with the SBI within seven days of its issue by the insurer.
- f. The Vendor shall ensure that similar insurance policies are taken out by his sub vendors or nominated vendors, if any, and shall be responsible for any claim or loss resulting from their failure to obtain adequate insurance protection in connection thereof. While taking the insurance policies, vendor should indicate clearly to the insurance companies that policies issued shall cover their sub-vendors and nominated sub-vendors also.
- g. No work shall be commenced by the Vendor unless and until he has obtained the insurance or insurance required to be obtained by him under or by the foregoing clauses and no work shall be carried out or continued by the Vendor unless and until each insurance is current and valid at that time.
- h. In the event of any claim for insurance becoming due on account of any eventuality covered by the respective insurance policy/policies, the Vendor shall reinstate the installation, replace the materials or equipments or pay compensating to the affected personnel/Employees without waiting for settlement of the claim from insurance company.

DECLARATION BY THE BIDDER
(On Company letter head)

I / We hereby declare that I/We have read and understood the above instructions to the bidders and that the same are binding on me /us.

Signature of Bidder

Seal

Date:
Place:

TECHNICAL SPECIFICATIONS

1 . Scope of work:

Study the existing power system in the office and space available on roof top at proposed 10 locations for installation of solar PV system. Design the solar system as per **BIS specifications** and get it approved by the Bank before installation.

- 1.2. Design, supply, installation, testing and commissioning the grid connected (net metering) Roof Top Solar Power Plant as per BIS specifications in coordination with SBI implementation team.
- 1.3. Liaison with CEIG/GEDA/Electricity Company for statutory approval to connect the solar power with the grid and also with MNRE or Central/State Government for obtaining capital subsidy, if applicable. No extra payment shall be made by the SBI for liaising works to the vendor. However, statutory fees paid by the vendor to the Government Departments/Electricity Boards for approval/NOC etc. shall be reimbursed to the vendor on submission of original payment receipt to the Bank.
- 1.4. Conduct end user training on operation and maintenance for identified group of employees along with appropriate training tools such as detailed training manuals, presentations containing appropriate flow charts etc.
- 1.5. Prepare all the as-built drawings in soft copy (autocad) and hardcopy. All operating manuals, user manuals, system manuals, etc, as required.
- 1.6. Post Commissioning Support during the contract period at their own cost.
- 1.7. The tenderer will have to prepare terrace area layout plan.
- 1.8. Location and design of PV module structure should be such that the existing infrastructure on terrace is not disturbed.
- 1.9. Fabrication works are to be done at factory only and submit structural stability certificate from the structural engineer/reputed engineering college in the area that designed MS structure can sustain the wind pressure of 150 Kmph with the load of solar panels. Only grouting and assembly with nuts and bolts are to be done at the site.
- 1.10. The tenderer has to visit the site and only after being satisfied about the entire nature of work, has to submit the bid.
- 1.11. The supporting MS section/ girders should be located at a height such as to completely avoid the parapet wall shadows from falling onto the PV modules.
- 1.12. Replacement of existing conventional energy meter with bidirectional energy meter for net metering and grid connection etc. This will also include the replacement of CT/PT, metering box etc. if required, in the scope of the vendor.

2. System Description

The Photovoltaic (PV) Grid connect system consists mainly of three components viz. the solar photovoltaic (SPV) array, Module Mounting Structure and the Power conditioning Unit (PCU)/ inverter. The PV array converts the solar energy into direct current (DC) electric energy. The Module mounting structure is used to hold the module in position. The DC power is converted to alternating current (AC) power by the Power Conditioning Unit (PCU) and fed into the building power system through metering panel and isolation panel.

3. PV Modules:

- 3.1. The PV modules must be indigenous and conform to the latest edition of any of the following IEC/ equivalent BIS standards and shall be of state of the art technology may be Crystalline Silicon Terrestrial PV Modules IEC 61215/is 14286 in addition the modules must conform to IEC 61730 Part-I requirement for construction & Part-2 requirements for testing for safety qualifications or equivalent IS PV Module shall be suitable to be used.
- 3.2. The power output of the modules should be a minimum of installed capacity. Photo/ electric conversion efficiency of SPV module shall be greater than 19%. The modules used shall be grouped in an optimum number of strings with module-to module cable connections.
- 3.4. The modules shall be held fixed on MS hot-dipped powder coated structures. The modules shall be inclined at optimum horizontal tilt angle facing due south depending on the site location. The DC output from the modules shall be fed to Array junction box and the strings are to be paralleled at Sub Main & Main Junction Boxes.
- 3.7. The output of the main junction box shall be fed to DC distribution board (DCDB).
- 3.8. The DC power output from the DCDB is fed to the Power Conditioning Unit (PCU).
- 3.9. The Power-conditioning unit shall be installed in a control room (to be strategically located).
- 3.10. The environmental requirements/ infrastructure to be provided in the control room will be **in tenderers scope**.
- 3.11. The AC power output of the inverter shall be fed to the AC Distribution Board of the building through the metering panel & isolation panel.

4. System Bill of Materials

Major components of solar power plant shall consist of:

- 4.1. Crystalline Silicon Terrestrial PV Modules
- 4.2. Power Conditioning Units
- 4.3. Array /Sub main/Main Junction Boxes
- 4.4. Support Structures
- 4.5. Cables
- 4.6. AC Distribution Board (Metering panel, isolator panel)

5. Acceptance testing

The Acceptance Testing of various components of the system and the Integrated system to be offered by the bidder shall be done at the factory of the successful bidder.

6. Minimum specifications of the various components

6.1. PV Module :

- 6.1.1. The PV module should comprise of Crystalline Silicon Terrestrial PV Modules. The module must be tested and certified by MNRE approved test centres of India. SPV module conversion efficiency should be greater than 16% under Standard Testing Conditions.
- 6.1.2. The PV module shall perform satisfactorily in humidity up to 100% with temperatures between -4 to +85 degrees centigrade.
- 6.1.3. Since the modules would be used in a high voltage circuit, the high voltage insulation test shall be carried out on each module and a test certificate to that effect be provided.

- 6.1.4. 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 more than 3 (three) per cent from the respective arithmetic mean for all modules and/or for all module strings, as the case may be.
- 6.1.5. The PV module should have suitable number of Crystalline Silicon Terrestrial PV Modules connected in series and hermetically sealed with impact resistant, low iron and high transmission toughened glass on top and suitable lamination material on the back using state-of-the-art technology.
- 6.1.6. The module frame shall be made of a corrosion-resistant material that shall be electrolytically compatible with the structural material used for mounting the modules. Anodized aluminium channels may be used for framing the laminates.
- 6.1.7. The module shall be provided with a junction box with provision of external screw terminal connection and with arrangement for provision for by-pass diode. The box shall have hinged, weather-proof lid with screws and cable gland entry points or may be of sealed type.
- 6.1.8. Necessary I-V curves at 25, 45, 60 are required to be furnished.
- 6.1.9. A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side: (a) Name of the Manufacturer.(b) Module Serial number & Year of Make.

6.2. Array structure/ PV panel structure

- 6.2.1. Wherever required, suitable number of PV panel structures shall be provided. Structures shall be of either I or L sections.
 - 6.2.2. The structure will be MS hot-dipped power coated to make them non-corrosive and long lasting, and also give enough working space for other installations on terrace.
- 6.2.3. Structures shall be supplied complete with all members to be compatible for allowing easy installation at the rooftop site.
- 6.2.4. The structures shall be designed to allow easy replacement of any module.
- 6.2.5. Each structure will have a provision to adjust its angle of inclination to the horizontal as per the site condition and will be capable of withstanding a wind load of 150 Km/hr after grouting and installation. The vendor has to submit the installation drawings approved by the registered structural engineer that designed structure and grouting method is capable of withstanding a wind pressure of 150 Km/hr.
- 6.2.6. The front end of the SPV array must be 1 meter above the roof surface. Grouting material for SPV structure shall be as per M15 (1:2:4) concrete specifications.
- 6.2.7. The structures shall be designed for simple mechanical and electrical installation. There shall be no requirement of welding or complex machinery at the installation site.
- 6.2.8. If prior civil work or support platform is absolutely essential to install the structures, the tenderer shall clearly and unambiguously communicate such requirements along with their specifications in the bid.

- 6.2.9. Detailed engineering drawings and instructions for such prior civil work shall be carried out prior to the supply of goods.
- 6.2.10. The supplier shall specify installation details of the PV modules and the support structures with appropriate diagrams and drawings.
- 6.2.11. Such details shall include, but not limited to, the following; a) Determination of true south at the site; b) Array tilt angle to the horizontal with permitted tolerance c) Details with drawings for fixing the modules d) Details with drawings for fixing the junction/terminal boxes e) Interconnection details inside the junction/terminal boxes f) Structure installation details and drawings Electrical grounding (earthing) Inter-panel/Inter-row distances with allowed tolerances i) Safety precautions to be taken.
- 6.2.12. The array structure shall support PV modules at a given orientation and absorb and transfer the mechanical loads to the roof top columns properly.
- 6.2.13. All nuts and bolts shall be of very good quality stainless steel.
- 6.2.14. Detailed design and Drawing shall have to submit to SBI for acceptance and approval before execution of work.

6.3. Power Conditioning Unit

- 6.3.1. DCDB output will be fed to PCU which mainly consists of Maximum Power Point Tracker (MPPT), Charge Controller, Inverter, Voltage Stabilizer, Frequency and voltage and distribution panel along with necessary Displays, Indicators and Alarms.
- 6.3.2. The power conditioning unit shall convert DC Power produced by SPV modules into grid quality AC Power.
- 6.3.3. Common Technical Specification:
 Type : Self commuted, current regulated, high frequency, IGBT based.
 Output Voltage : 3 phase, 440 VAC/1 phase 230 v (+10%)
 Wave form : Pure sine wave
 Continuous rating :As per installed capacity at each location.
 Nominal DC input: 120 V DC
 Total harmonic distortion: < 3%
 Operating temperature range: 50 to 55 0 C
 Housing cabinet : IP 20
 Inverter efficiency : > 90%
- 6.3.4. The charge controller and MPPT should preferably confirm to IEC 62109-3, IEC 62093 and IEC 62509 standards or equivalent BIS standards.
- 6.3.5. The inverter shall be preferably from Indian manufacturer having qualifications as per IEC 61683, IEC 62109-2 and IEC 62093 or equivalent BIS standards.
- 6.3.6. Important Features / Protections in the PCU:
- MPPT included.
 - Array ground fault detection.
 - LCD keypad operator interface menu driven.
 - Automatic fault conditions reset for all parameters like voltage, frequency and/or black out.
 - MOV type surge arrestors on AC and DC terminals for over-voltage protection from lightning induced surges.

- PCU operations from 50 to 55 Deg C, provision for air conditioning be included.
 - All parameters shall be accessible through an industry standard communication link.
 - Over load capacity (for 30 seconds) shall be 200% of continuous rating.
- 6.3.7. The PCU shall be self-commuted and shall utilize a circuit topology and components suitable for meeting the specifications listed above at high conversion efficiency and with high reliability.
- 6.3.8. The PCU shall be of hybrid type and shall give the preference to feed the load from SPV power produced and shall draw the additional power from mains.
- 6.3.9. Automatic starting and transfer for extended grid failure periods.
- 6.3.10. Since PCU is to be used in solar photovoltaic system it should have high operational efficiency. The idling current at no load shall not exceed 2% of the full load current.
- 6.3.11. In PCU there shall be a direct current isolation provided at the output by means of a suitable isolating transformer.
- 6.3.12. The PCU shall include appropriate self protective and self diagnostic features to protect itself and the PV array from damage in the event of PCU component failure or from parameters beyond the PCU safe operating range due to internal or external causes. The self protective features shall not allow signals from the PCU front panel to cause the PCU to be operated in a manner which may be unsafe or damaging.
- 6.3.13. Faults due to malfunctioning within the PCU including commutation failure shall be cleared by the PCU protective devices.
- 6.3.14. Electrical Safety, Earthing and Protection :
- 6.3.14.1. Inbuilt protection for internal faults including excess temperature, commutation failure, overload, short circuit and cooling fan failure (if fitted) is obligatory.
- 6.3.14.2. Isolation: Isolation is required to avoid any DC component being injected into the grid and the potential for AC components appearing at the array.
- 6.3.14.3. Over Voltage Protection against atmospheric lightning discharge to the PV array is provided.
- 6.3.14.4. Earth fault supervision: An integrated earth fault device shall have to be provided to detect eventual earth fault on DC side and shall send message to the supervisory system.
- 6.4. **Cabling practice :**
- Cable connections must be made using PVC Copper cables, as per BIS standards. All cable connections must be made using suitable terminations for effective contact. Only FRLS cables and wires of appropriate sizes and reputed make shall have to be used.
- 6.5. All doors, covers, panels and cable exits shall be gasketed or otherwise designed to limit the entry of dust of moisture. All doors shall be equipped with locks.

6.6. Minimum Generation Guarantee

6.6.1. The tenderer has to guarantee a minimum energy generation of 1250 kWh per Kwp per annum. Failing which, a penalty @ Rs.12/- per kWh shortfall per annum will be deducted from the Security Deposit (SD) up to the defects liability period.

In addition to above, the system shall be provided with the following:

- a) **Earthing:** The structure of the PV arrays will be grounded properly using adequate number of earthing. All metal casing / shielding of the system shall be thoroughly grounded to ensure safety of the solar systems.
- b) **Lightning and O/V protection:** The SPV systems shall be provided with lightning & over voltage 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.
- c) All wiring/cables should be in proper conduit or suitable casing and wires should not be hanging loose.
- d) All connections are to be made through suitable cable/lug/terminals; crimped properly & with use of Cable Glands.
- e) Switches / Circuit Breakers / Connectors-safety IS/ IEC 20947 part I, II & III, EN 50521
- f) Fuses/ MCBs to be provided to protect against short circuit conditions.
- g) Details of solar power system design and layout for all systems shall be submitted along with Technical bid (Part-I)

ENVIRONMENT/MAINTENANCE/ SAFETY DESIGN PARAMETERS

i) Environment

All components and materials are to be designed and selected for long service life under local environment conditions.

ii) Maintenance consideration

- a) Particular attention shall be given to keep components simple, rugged and easily accessible for routine maintenance and components replacement.
- b) Major assemblies and components such as, electrical components/controls shall be interchangeable and easily removable/replaceable without extensive dismantling of other assemblies of components.
- c) **All wiring shall be of a uniform colour coding and marking system throughout indicating wiring terminations** to permit rapid effective tracing and trouble shooting. Maintenance manual shall reflect said colour coding/markings.
- d) To facilitate identification, each item of equipment shall have a name plate of corrosion resistant metal attached in a conspicuous location.

iii) Safety considerations

All components shall be designed to have fail proof performance. In the event of an equipment failure or external influence such as improper operation, power failure or other adverse conditions affecting the proper function of the system or equipment, the said system or equipment **shall revert to a safe state.**

- h) All the components of the systems viz PV modules, Electronics, etc should have type approval / test certificates **as per MNRE guide lines**
- i) All components and materials used in the system should be of good quality & conform to the BIS / IEC standards / specifications, wherever available / applicable.
- j) Each system should have number plate with name & logo of the manufacturer and the month / year of installation.
- k) Operation and Maintenance / Instruction Manual (with Do's and Don'ts) to be provided with each system.
- l) Danger boards should be provided as and where necessary as per IE Act./IE rules as amended up to date.

SCHEDULE OF TECHNICAL INFORMATION

i)	Enclose a write up on the system design proposed for this project specifically indicating how the power generated from the solar energy will be synchronized with the local grid.	
ii)	Enclose a single line diagram (SLD) / schematic layout for the proposal indicating the ratings and quantity of major components viz. SPV Modules, nos. of arrays, AC & DC distributions, PCUs etc.	
iii)	Enclose the proposed layout of the SPV module array showing the spacing between arrays, walk way width etc.	
iv)	Confirm the minimum guaranteed annualized energy (KWH/year) that will be generated from solar energy source and available for internal use for 25 years.	Please fill up the format Enclosed
v)	Confirm the area required by the bidder for installation of SPV panels along with its structure, maintenance, walk ways to provide a generating capacity of 12/17/25/28/30/50/58/80 KWp as required in the tender.	Length in Meter _____ Width in Meter _____ Total area in sqm. _____
vi)	Enclose drawing showing typical arrangement for mounting of SPV modules along with dimension and nature of foundation.	(plan, elevation and section to be enclosed)
vii)	Confirm the total quantum of AC power to be available from the installed SPV Modules	_____ kVA
viii)	Confirm the location of meters to be provided for continuous measurement of AC power generated.	
ix)	Please confirm the acceptance test procedures to be adopted during FAT for the SPV Modules. Also indicate the standard to be followed.	
x)	Please confirm the acceptance test procedure to be adopted on completion of the work for the major components and the complete system at site.	

SCHEDULE OF TECHNICAL DATA TO BE FUNISHED BY THE CONTRACTOR
(On Company letter head)

A	SPV MODULE	
i.	Manufacture's Name & Address	
ii.	Type of Modules with cat. Reference	
iii.	Design of module at standard test condition	
	a) Peak power watt	
	b) Peak power voltage	
	c) Peak power current	
	d) Open circuit voltage	
iv.	No. of SPV Modules proposed to achieve minimum 12/17/25/28/30/50/58/80 KWp DC power	
v.	Short circuit current of PV module (Amp.)	
vi.	Open circuit voltage of PV Module (V)	
vii.	Max. power rating of one PV Module (KWp) (not less than 250Wp)	
viii.	Photo electrical conversion efficiency of SPV module (not less than 14%)	
ix.	Fill factor of the SPV module (> 0.70)	
x	Designated life of the SPV modules	
xi.	Overall dimensions (in mm)	
xii.	Weight	
Xiii	Frame materials	
xiv.	Reference of Standards / approval, if any	
xv.	Life of SPV Module (Years of Operation)	
B	PV ARRAY CAPACITY	
	Number of Module in series in each array	
	Peak power rating of one array	
	Number of array considered to achieve the specified output	
C	MODULE MOUNTING STRUCTURE	
i)	Type of structure and its materials used in frame and accessories	
ii)	Type of mounting structures (Fixed or any other type)	
iii)	Overall dimensions	
iv)	Type of mounting	
v)	Surface azimuth angle of PV Modules	
vi	Tilt angle (Slope) of PV module	

vii.	Confirm structure & module frame shall be designed at wind 150 km/hr.	
D	POWER CONDITIONING UNITS (PCUs)	
i.	Manufacturer's name & address	
ii.	Type of PCU (Centralized or string type)	
iii.	Number of units proposed	
iv.	Rated capacity of each PCU	
v.	Input DC Voltage range	
vi.	Output voltage	
vii.	Frequency	
viii.	Minimum efficiency at full load	
ix.	Location (outdoor/indoor)	
x.	Output wave shape	
xi.	Dimensions in mm	
xii.	IP protection level	
xiii.	Type of cooling required	
xiv.	Type of mounting	
xv.	Suitability for specified Ambient Temp. range & Humidity at	
xvi.	Type of Protection provided	
xvii.	Over Load Condition	Yes/No
xviii.	Short Circuit Protection	Yes/No
xix.	Low/High Voltage Protection	Yes/No
xx.	Power Electronic Component Protection Yes/No	Yes/No
E.	METERING	
i.	Nos. of meters proposed to be provided	
ii.	Location of meters	
iii.	Manufacturer's name & address	
iv.	Confirm compliance with laid down specification	

Date

Signature of the contractor

with company Seal

GUARANTEED ENERGY GENERATION FOR 5 YEARS
(On Company letter head)

Note : Efficiency of solar PV System shall be guaranteed to minimum 90% at the end of 5 years after expiry of defect liability period of one year.

Year	Total (KWh) of guaranteed generation
Year 2	
Year 3	
Year 4	
Year 5	
Year 6	

Date

Signature of the authorized person with
company seal

Format for undertaking for product & maintenance support

(To be submitted by the tenderer on company letter head)

NAME OF WORK: Supply, Installation, Testing and Commissioning of Grid Connected SPV Based Solar Power System for SBI, Gujarat

Pursuant to a contract awarded by State Bank of India for the full scope of work as contained under the tender document for the above mentioned work or part thereof, we..... *(full name of the firm with address)*, hereby undertake the complete responsibility for providing full product support and also maintenance support for the entire period of the designed life of the equipment so supplied and installed by us, promptly and expeditiously.

Further, in case any of the component(s), materials or parts used in the system so provided goes out of production, then we will make available the blue prints, drawings of the spare parts and specifications of materials at no cost to the SBI, as and when required in connection with the equipment to enable the SBI to procure spare parts from other sources.

Thanking You

Yours faithfully,

(Signature of the Contractor / Firm with Company's Seal)

Undertaking on company letter head

(Undertaking by manufacturer of SPV Modules and PCUs regarding the manufacture's obligation to extend uninterrupted after sales service to SBI)

NAME OF WORK: Supply, Installation, Testing and Commissioning of Grid Connected SPV Based Solar Power System for State Bank of India, Ahmedabad, Gujarat

We, the manufacturer of Solar Power System Component(s) undertake to provide continued after sales service including but not restricted to the following services.

- i) To guarantee uninterrupted supply of spare parts throughout the designed life of SPV modules and PCU's. The designed life of SPV modules and PCU's shall be as indicated elsewhere in the technical bid.
- ii) To assist SBI in investigation of failure/malfunctioning of any part or system as and when called for by SBI during and after defects liability period.
- iii) We shall propose with cost estimate, any modification / up gradation of safety features, design modification / improvements to be incorporated in the SPV modules and PCU's subsequent to completion of the contract and suggest a time schedule to implement the same to enhance performance, reliability / life of SPV modules and PCU's.
- iv) We hereby undertake to provide the above services and respond to SBI's queries/requests in reasonable time notified by SBI during the design life of the SPV modules and PCU's.
- v) Any breach of above undertaking will entail SBI to take any or all actions mentioned below as deemed fit by SBI.
 - a) To place on record the performance of firm either in the SBI Web Site or other publications.
 - b) Intimate the Regulatory Authorities / bodies or other Banks.
 - c) Restrict the firm's participation in further tendering in SBI.

Date: *(Name and address of the company with Company Seal)*

Note : This undertaking shall be furnished by the manufacturer of SPV Modules and PCUs. In case the manufacturers of these two items are different, separate undertakings must be furnished by the respective manufacturer.

SPECIAL CONDITIONS OF CONTRACT

1. Working /detailed /shop drawings /brochures shall be submitted and approval of MNRE / State Govt. to be received before taking up the works on site.
2. Comprehensive AMC for the next 5 years after warranty period of one year will be paid on quarterly basis after performing quarterly maintenance services and submission of maintenance report to the in-charge. **However, vendor has to arrange for cleaning of all solar panels on fortnightly basis apart from quarterly and breakdown services in the quoted AMC amount.**
3. No workmen will be allowed to stay within SBI premises.
4. Electricity and water etc. will be provided by the Bank, free of cost.
5. Permission, if any required, from the local statutory authorities / bodies shall be obtained by the vendor at his own cost. However, Bank will reimburse to the vendor(s) statutory charges paid by the vendor to the Government Departments/Electricity Boards on production of original receipt.
6. The Vendor shall engage the necessary workers for removal of debris, waste, dust etc. as required by the Engineer-in-charge without extra cost and also re do the damages caused to the building /works without any extra cost to SBI and dispose of the debris at the designated place of Corporation.
7. Work may have to be done during night-time to adhere to the time schedule for completion of the work, for which no extra charges will be paid.
8. The Vendor shall take out and maintain insurance policies as prescribed in General Conditions of Contract throughout the currency of the contract until the works are taken over by SBI.
9. **The vendor shall notify the Bank about the Statutory Approvals/permissions/Agreements, if any, to be taken in respect of installation of the Roof Top Solar Power plant and its subsequent operation and shall take full responsibility in obtaining the same as well as in complying with all statutory requirements.**
10. **During the contract period, the bidder is required to provide periodic preventive maintenance chart of all components to the in-charge and strictly follow the maintenance schedule.**
11. When storage is being provided, the surroundings and premises where such storage is located as well as the work of other agencies shall be protected and not damaged; if any damage is caused, it has to be made good to the satisfaction of the SBI at the vendor's cost.
12. The vendor shall cover, secure and protect all the items of work, as directed, until the works are taken over by SBI.
13. All the materials used in the work shall conform to the latest edition of BIS/ relevant Specifications and shall be of tested quality and subject to further tests, if required by SBI, at no extra cost to SBI.
14. Statutory deductions like income tax at source & GST TDS or other statutory deduction/s as applicable shall be deducted from bills /amounts payable to the vendor.

SAFETY CODE

1. First aid appliances including adequate supply of sterilized dressing and cotton wool shall be maintained in a readily accessible place.
2. An injured person shall be taken to a hospital without loss of time in cases where the injury necessitates hospitalization.
3. Hoisting machines and tackle if used in works, including their attachments, anchorage and supports shall be in perfect condition.
4. Inflammable and hazardous items shall not be allowed near the working site.
5. Adequate safety measures against fire, theft etc. will be taken by the Vendor.

List of approved makes

Sr.no.	Item	Approved Makes
1	Solar PV Module	Vikram /Waaree / Adani/ Tata Solar/Renewsys/Emmvee
2	Power Conditioning Unit	Fronius/SMA Solar/Delta/Polycab/Havells/Sungrow/ ABB /Schneider/Luminous
3	Cables	Finolex/ Polycab/ RR Kable /Havells
4	Distribution boxes	Legrand/ Schneider/ Hager /ABB /C&S

PROFORMA FOR ELECTRONIC PAYMENT

Details of Bank account to be furnished by the vendors/ service providers for effecting payment through ECS (e-payments)

Name and address of consultant with phone nos.

1. Name of the account holder
(As appearing in the Bank account)
2. Name of the Bank
3. Name of the Branch
4. Account number
5. RTGS/ NEFT/ IFS Code
6. Type of account (Savings, current, etc.)
7. PAN Number
8. GST Registration No.

Signature

Encl.: - (1) one cancelled cheque leaf

(2) Copy of PAN card

(3) GST registration Certificate

CAPEX MODEL
(INDICATIVE PRICE BID)
SEALED COVER-“B”

Sl No	Description	Qty	KWp	Rate/Kwp
1	Design, Supply, Installation, Testing, Commissioning and Maintenance of total tentative requirement of 155 KWp Grid connected remote monitoring Roof Top Photovoltaic solar Power plant at Bank's own 10 premises in Gujarat as per the detailed specifications given in the tender document including earthings, wires, cables, DBs, CT/PT, Meter, Connection, Transportation, Lifting, Shifting, Insurance, approvals for grid connection etc.			
	<ul style="list-style-type: none"> • Above 3 Kwp upto 10 Kwp • Above 10 Kwp and up to 50 Kwp 	01 01	1 1	
2	Charges for Comprehensive Annual Maintenance contract (CAMC) of 1 Kwp system after DLP of one year			
i	2 nd year	01	KWp	
ii	3 rd year	01	KWp	
iii	4 th year	01	KWp	
iv	5 th year	01	KWp	
v	6 th year	01	KWp	
	Total			
	Total amount in figures			

(GST Extra)

(Note: Reverse auction will be conducted on total amount)

(Signature of the authorized person with company/firm stamp)

Date: