

NOTICE INVITING TENDER (NIT)
TENDER ID : LUC202106001

State Bank of India, invites online tenders for the below mentioned work from the eligible [Bidders/Vendors](#), having experience in the field of rooftop solar plant installation. (A copy of certificate of incorporation shall be furnished along with the bid in support of above).

1	Name of the work	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of grid connected roof-top solar photovoltaic in OPEX (operational expenditure) model/ resco model through power purchase agreement at 10 locations with indicative capacity at Bank's own buildings with-in state geographical area of UTTAR PRADESH(U.P.)
2	Cost of Tender Documents (Non-Refundable)	Nil (to be downloaded online)
3	Date and Time where tender forms are available	Available from 15.06.2021 to 06.07.2021 at (i) https://etender.sbi/ (ii) SBI Procurement news.
4	Pre bid Meeting/	On 03:00 pm 24.06.2021 at The Assistant General Manager (Premises & Estate) State Bank of India 1 st Floor, B wing, Local Head Office, Moti Mahal Marg Hazrat Ganj Lucknow -226 001, U.P. Tel: 0522 2295361/ Concerned Engineer: Shri Pramod Kumar, 8384826503
5	Time and last date of submission of online e-Tender	Up to 3.00pm on 06.07.2021
6	Place, Time& Address for submission of e-tender/contact person /telephone no/email address.	Up to 3.00 pm on 06.07.2021 The Assistant General Manager (Premises & Estate) State Bank of India 1 st Floor, B wing, Local Head Office, Moti Mahal Marg, Hazrat Ganj Lucknow -226 001, U.P. Tel: 0522 2295361/ Concerned Engineer: Shri Pramod Kumar 8384826503
7	Date, Time and Place of opening of Technical bid	On 06.07.2021 at 3:30 PM

		The Assistant General Manager (Premises & Estate) State Bank of India 1 st Floor, B wing, Local Head Office, Moti Mahal Marg, Hazrat Ganj Lucknow -226 001, U.P. Tel: 0522 2295361/ Email: agmpne.lholuc@sbi.co.in Concerned Engineer: Shri Pramod Kumar 8384826503
8	Earnest Money Deposit (EMD).	Rs. 30,000.00 /- (DD-Drawn in favor of “AGM (Premises & Estate) LHO Lucknow” payable at Lucknow
9	Quantum of Security Deposit (SD).	By successful bidders Rs. 1,00,000.00 (Rupees One lakh only) DD-Drawn in favor of Assistant General Manager, P&E, SBI LHO, LUCKNOW payable at Lucknow with 15 days from date of receipt of work order (Refunded on successful commissioning of project)
10	Maximum allowable levelized tariff	Rs. 5.00 per KWh
11	Performance Guarantee Security	Rs. 1000.00 per KWp of Bank Guarantee for each location separately in Scheduled/ Nationalized banks other than SBI.
12	Terms of payment of Bills	1. No Advance will be paid 2. On successful commissioning, Invoices raised on monthly basis as per Net Solar Power Generation of each location.
13	Penalty clause/Liquidated Damages	@ 0.5% of the security deposit per week of delay subject to a maximum penalty of 5% of the security deposit value of work would be strictly imposed. Upon further delay, the allocation of project order shall be cancelled and the Security Deposit amount pro-rata to noncommissioned capacity would be forfeited.
14	Stipulated time for completion of the work/supply.	Two months
15	Validity period of the tender.	90 days from last date for receipt of tender
16	Eligible Taxes	A) Income Tax will be deducted at source as per Govt. Guidelines. B) Reimbursement of GST will be made only on submission of proper GST invoice as per applicable GST provisions/Rules. The contractor should comply with the following; ◆ Contractor should have GST Registration Number. ◆ Invoice should specifically/separately disclose the amount of GST levied at applicable rate as per GST provisions/Rules. ◆ In case of Correction in the bills after scrutiny, contractor should submit fresh bills for payment. ◆ Contractor should timely file his GST return in accordance with GST provisions to enable the bank to claim the credit of GST paid to the contractor. ◆ The GST Number of State Bank of India are For UTTAR PARDESH LHO LUCKNOW : 09AAACS8577KAZE

17	Electronic Payment	Electronic payment shall be preferred. All the contractor must furnish contact details for communication in addition to, 1) Name of their bank 2) Name of their branch 3) Account number 4) Name of the account holder as in the bank account 5) IFSC No of the branch 6) PAN number.
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18	For further Clarifications on Technical matters & Agency for arranging e-tender/online bidding	<p>1. All e-Tender/Online bidding related issues, e-Procurement technologies Limited, Ahmedabad. Primary Contact Numbers:- 8849722625, Udit Kumar Yadav Email : udit@auctiontiger.net 06354919566</p> <ul style="list-style-type: none"> ➤ Pooja shah: - 9328931942, pooja.shah@eptl.in ➤ JaymeetRathod:07968136829, jaymeet.rathod@eptl.in ➤ Vinayak Khambe: - 079-68136835, vinayak.k@eptl.in ➤ Nadeem Mansuri: - 079-68136853, nadeem@eptl.in ➤ Nandan Valera: - 079-68136843, nandan.v@eptl.in ➤ Hemangi Patel: - 079-68136852, hemangi@eptl.in ➤ Kanchan Kumari: - 079-68136820, kanchan.k@eptl.in ➤ Deepak Narekar: - 079-68136863, deepak@eptl.in ➤ Anshul Juneja: - 079-68136840, anshul.juneja@eptl.in ➤ Salina Motani: - 079-68136831, salina.motani@eptl.in ➤ Devang Patel: - 079-68136859, devang@eptl.in <p>2. All technical matters contact, PRAMOD KUMAR Mgr(Electrical), 8384826503</p>
19	Defect Liability Period.	<p>Plant owned by Successful bidder.</p> <ul style="list-style-type: none"> - Responsible for uninterrupted operation from date of Virtual Completion/ Date of operation
20	O&M period/ PPA Time Period	<p>Minimum lock-in period of 10 years and total 25 years from the commissioned-on-date (COD). After completion of lock in period of 10 years, renewal after each block of 5 years subject to satisfactory performance.</p>
21	Any additional Information	<p>The quoted rate should be inclusive of materials, labour, wages, fixtures, transportation, installation, all taxes (excluding GST), wastage's, Octroi, machinery, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental charges and all related expenses to complete the work</p>

- ◆ *Any clarifications sought after opening of the tenders will not be entertained at any cost. Firm should visit the website till last date of submission for changes/ corrigendum if any.*
- ◆ *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.*
- ◆ *At any time prior to the deadline for submission of Bids, the SBI may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the tender document by issuing clarification(s) and/or amendment(s).*
- ◆ *The SBI reserves the right to cancel or postpone the tenders at any stage without assigning any reason.*

**On behalf of State Bank of India,
AGM (Premises & Estate),
LHO Lucknow**

I.

ELIGIBILITY CRITERIA

The Bid, fulfilling following technical and financial eligibility conditions shall be considered valid for opening

Technical Eligibility Criteria:

- i. The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto and engaged in the business of Solar Power (A copy of certificate of incorporation shall be furnished along with the bid in support of above).
- ii. Vendors who have **minimum 5 years' experience** in the field of undertaking similar works viz Supply, Installation, Testing and Commissioning of Grid Connected SPV Based Solar Power System on CAPEX/OPEX model for the Office Buildings/ Commercial Premises/ Industrial Houses and have, during the last 5 years (works completed on or after February, 2016), executed successfully similar works individually costing as under:
 - ✓ Three works each of minimum **84 KWp** on CAPEX/ OPEX model.
OR
 - ✓ Two works each of minimum **105 KWp** on CAPEX/ OPEX model.
OR
 - ✓ One work of **168 KWp** on CAPEX/ OPEX model.
- iii. The Bidder should have an Average Annual Turnover of minimum of **Rs 30 lakhs.**
- iv. Bidder must have PAN & GST number.

MANDATORY / CHECKLIST DOCUMENTS

TO BE SUBMITTED BY BIDDER

Bidder has to **upload the following documents in the Technical Bid Section** and also **send hardcopy with spiral binding with page index of all documents duly stamped and signed**, which is mandatory.

- ✓ *Scanned copy of D.D/B.C of EMD must be uploaded and **physically the same needs to be submitted at given address within due date of tender.***
- ✓ *GST Registration certificate & PAN of Bidding Company.*
- ✓ *A certificate of incorporation as bidder is a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto and engaged in the business of Solar Power*
- ✓ *General Power of Attorney executed in favour of Authorized signatory of the Bidder, which shall conclusively establish that the signatory has been authorized by the Board of Directors to execute all documents on behalf of the Bidding Company.*
- ✓ *Allocation/ work orders (minimum 3 Nos.) copies issued by any Govt. / Semi Govt. / PSU Organizations within last 5 years (as mentioned in page No.8 clause 4.2).*
- ✓ *P&L Statements/Audited turnover statements of last three years for proof of average turnover*
- ✓ *Scan copies of satisfactory performance certificates given by any Govt./PSUs/Semi Govt/Private organization for roof top Solar installation projects works with minimum capacity 30 KWp within last 5*

years.

INSTRUCTIONS TO THE TENDERER

NAME OF WORK

State Bank of India invites sealed tenders (technical bid) and price bid through e-tendering for the **DESIGN, MANUFACTURE, SUPPLY, ERECTION, TESTING AND COMMISSIONING INCLUDING WAR- RANTY, OPERATION & MAINTENANCE OF GRID CONNECTED ROOF-TOP SOLAR PHOTOVOL- TAIC AND SMALL SOLAR POWER PLANTS IN RESCO MODEL THROUGH POWER PURCHASE AGREEMENT(PPA)**

Site and its Location

The proposed work is to be carried out at:

S.No	Location	Proposed capacity
1	Transport Nagar Branch (Lucknow)	20 KWp
2	Shahjahanpur RBO	20 KWp
3	AO Gorakhpur	25 KWp
4	MLNR Engg College	15 KWp
5	Pryagraj Main Branch	30 KWp
6	Colonelganj Branch	10 KWp
7	Khalilabad Branch	15 KWp
8	Indo Gulf Jagdishpur	15 KWp
9	AO Varanasi	30 KWp
10	Varanasi Main Branch	30 KWp
	Total	210 KWp

TENDER DOCUMENTS

The work has to be carried out strictly according to the conditions stipulated in tender consisting the following documents and the most workman like manner,

- Instructions to tenderer
- General Conditions of Contract
- Special Conditions of Contract
- Additional Conditions for Solar PV Installation
- Technical Specifications
- Drawings (if incorporated)
- Priced Bid

The above documents shall be taken as complementary and mutually explanatory of one another

but in case of ambiguities or discrepancies, shall take precedence in the order given below:

Price Bid

Technical Specifications
Additional Conditions for Solar PV Installation
Special Conditions of Contract
General Conditions of Contract
Instructions to Tenderer

Complete set of tender documents including relative drawings can be obtained/ downloaded from the

(i). <https://etender.sbi/>

(ii). [SBI Procurement news](#)

on any Day during the period mentioned in the NIT.

The tender documents are not transferable.

SITE VISIT

The tenderer must obtain himself on his own responsibility and his own expenses all information and data which may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The Tenderer is requested satisfy himself regarding the availability of water, power, transport and communication facilities, the character quality and quantity of the materials, labour, the law and order situation, climatic conditions local authorities requirement, traffic regulations etc.; The tenderer will be fully responsible for considering the financial effect of any or all the factors while submitting his tender.

The tenderer should visit the site to ascertain the working conditions and local authority regulations / restrictions if any and other information required for the proper execution of the work.

4.0 CLARIFICATIONS AND PRE-BID MEETING

The SBI will not enter into any correspondence with the Bidders, except to furnish clarifications on RFS Documents, if necessary. The Bidders may seek clarifications or suggest amendments to RFS in writing, through a letter or by e-mail to reach SBI at the address, date and time mentioned in Bid information sheet.

The Bidder(s) or their authorized representative(s) is /are invited to attend pre-bid meeting(s), which will take place on date(s) as specified in Bid information sheet, or any such other date as notified by SBI.

The purpose of the pre-bid meeting will be to clarify any issues regarding the RFS including in particular, issues raised in writing and submitted by the Bidders. SBI is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

5.0 BIDDER FOR PARTICIPATION:

Submit bids under RESCO/ OPEX Model for the Locations mentioned in above in Clause 1.1. The scheme targets installation of grid-connected roof top solar PV projects on the roofs of SBI owned/ leased Premises of SBI. The generated solar power may be utilized for captive application and the surplus power will be fed to the grid. The scheme aims to reduce the fossil fuel-based electricity load on main grid and make building self-sustainable from the point of electricity, to the extent possible.

The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the bid document must be furnished. Failure to provide the information and / or documents as required may render the bid technically unacceptable.

The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect the carrying out the works in line with the scope of work specified elsewhere in the document at the offered rates and to have satisfied himself to the sufficiency of his bid. The bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures and as to what all works, he has to complete in accordance with the bid documents irrespective of any defects, omissions or errors that may be found in the bid documents.

6.0 BID SUBMITTED BY A BIDDING COMPANY/ POWER OF ATTORNEY:

The Bidding Company should designate one person to represent the Bidding Company in its dealings with SBI. The person should be authorized to perform all tasks including, but not limited to providing information, responding to enquires, signing of Bid etc. The Bidding Company should submit, along with Bid, a Power of Attorney in original, authorizing the signatory of the Bid.

7. INSTRUCTIONS FOR ONLINE TENDERING:

The bidders are required to submit soft copies of their [bids electronically on the SBI e-Tender Portal, using valid Digital Signature Certificates](#). The instructions given below are meant to assist the bidders in registering on the SBI e-Tender Portal, prepare their bids in accordance with the requirements and submitting their bids online on the SBI e-Tender Portal. More information useful for submitting online bids on the SBI e-Tender Portal may be obtained at <https://etender.sbi/>.

8.0 REGISTRATION

- 1) For First time participation Bidders are required to enroll/Register on the SBI e-Tender Portal (URL: <https://etender.sbi/>) by clicking on the link "**Register**" on the SBI E-Tender Portal which is free of charge.
- 2) As part of the [enrollment process](#), the bidders will be required to choose a unique user name and assign a password for their accounts.
- 3) Bidders are advised to [register their valid email address and mobile numbers](#) as part of the registration process. These would be used for any communication from the SBIIMSPL/SBI.
- 4) Upon enrollment, the bidders will be required to register their [valid DSC i.e. Digital Signature Certificate \(valid Class Certificates with signing key usage\)](#) issued by any Certifying Authority recognized, with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the [secured log-in](#) by entering their user ID / password and the password of the DSC / e-Token.

NOTE:

Firm of proprietorship can hold DSC on owner's name, but Firm of private partnership should hold DSC on firm name only.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the SBI e-Tender Portal, to facilitate bidders to [search active tenders by several parameters](#). These parameters could include Tender Event ID, Reference No., Name of work, Branch name/Location, Date, Value, etc. to search for a tender published on the SBI e-Tender Portal.

2) Once the bidders have selected the tenders they are interested in, they may [download the required documents / tender schedules](#). These tenders can be moved to the respective „My Tenders“ folder. This would enable the SBI e-Tender portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

3) The bidder should make a note of the unique Tender Event ID assigned to each tender, in case they want to obtain any clarification / [help from the Help desk](#).

9.0 AMENDMENTS TO RFS

At any time prior to the deadline for submission of Bids, the SBI may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFS document by issuing clarification(s) and/or amendment(s).

The clarification(s)/ amendment(s) (if any) may be notified on SBI website www.sbi.co.in & <https://etender.sbi/> at least Two (2) days before the proposed date of submission of the Bid. SBI will not bear any responsibility or liability arising out of non-receipt of the information regarding Amendments in time or otherwise. Bidders must check the website for any such amendment before submitting their Bid.

10.0 PREPARATION OF BIDS

1) Bidder should [take into account any corrigenda published and also Minutes of Meeting \(MoM\) of Pre-bid meeting](#) on the tender document before submitting their bids.

2) Please [go through the tender advertisement and the tender document carefully](#) to understand the documents required to be submitted as part of the Technical bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should [get ready the technical bid documents](#) to be submitted as indicated in the tender document / schedule checklist and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

4) To avoid the time and effort required in [uploading the same set of standard documents](#) which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GST, empanel certificate etc...) has been provided to the bidders. Bidders can use “Briefcase” area available to them to upload such documents. These documents may be directly submitted from the “Briefcase” area while submitting a bid and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

5) Bidder should prepare the [EMD/ Document Fees as per the instructions](#) specified in the tender document. The original EMD with technical bid should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. A photocopy should be retained with bidder for future reference.

6) Bidder should be ready with the price bid as item wise published in Tender for fast filling without confusion. Bidder should be cautious while preparing rates as to fulfill the job without any deviation from Terms & Conditions of Tender.

EARNEST MONEY DEPOSIT

The tenderer is requested to submit the Earnest Money (as mentioned in NIT) in the form of Demand Draft or Banker's Cheque in favour of "AGM (Premises & Estate) LHO Lucknow" payable at Lucknow drawn on any Bank in India.

EMD in any other form other than as specified above will not be accepted. Tender not accompanied by the EMD in accordance with above shall be rejected.

No interest will be paid on the EMD.

EMD of unsuccessful tenderer will be refunded within 30 days of award of Contract.

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

Forfeit of EMD: *The EMD will be forfeited under the following conditions:*

- (a) If the tenderer withdraws or amend, impairs or derogates from the tender in any respect within the period of validity of the tender.*

- (b) If the bidder withdraws the bid before the expiry of the validity period of the bid or within the time frame of extension given by SBI in special case communicated before the expiry of the bid.*
- (c) If the bidder fails to comply with any of the provisions of the terms and conditions of the bid document.*
- (d) If the selected bidder fails to execute agreement in prescribed format and furnish the Security Deposit within the prescribed time.*

SUBMISSION OF ONLINE BIDS:

Tenders should be submitted online in the website <https://etender.sbi/>. The tender shall be submitted online in two parts, viz., **Technical Bid (hard copy) and Price Bid (online only)** with acceptance of Tender Conditions. In addition, scanned copies of required (as mentioned in NIT) Mandatory checklist documents should be submitted online with help of our service provider on the website at <https://etender.sbi/>. The tender document is not required to be sent to us in hard copy.

TECHNICAL BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or [before the last bid submission time](#). Bidder will be responsible for any delay due to other issues.
- 2) The server time (which is displayed on the bidders" dashboard") will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 3) The bidder has to digitally sign and upload the required [Technical bid documents](#) one by one as indicated in the tender document Checklist.
- 4) Bidder has to upload scanned copy [EMD \(DD/BC\)](#).
- 5) The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 6) All the documents being submitted by the bidders would be [encrypted using PKI encryption techniques to ensure the secrecy of the data](#). The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/ bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

PRICE BIDS

After technical evaluation, the Sealed Bid option available in the e-Procurement portal shall be used to receive [per unit \(KWh\) prices](#) of Solar Energy generated per year from bidders

- 1) After the completion of Technical bid submission/ Mandatory Documents uploading, Price bid to be filled by the bidder in prescribed format as given in this Tender Document. Year wise per unit tariff to be quoted by the bidder.
- 2) The rates (Tariff) for per unit cost to be quoted in Financial Bid and should be in Indian Rupees and excluding GST (Which is payable later on as per norms).

3) Bidders are requested to note that they should necessarily submit their [financial bids \(price bids\)](#) in the format provided and no other format is acceptable.

4) Evaluation of [Total Amount \(Levelized Tariff \)](#) will be auto functioned/Sum by SBI e-Tender Portal as per the [clause 15.2 below](#).

5) Upon the successful and timely submission of bids (i.e. after Clicking "[Final Bid Submission](#)" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

6) The bid summary has to be printed and kept as an [acknowledgment of the submission of the bid](#). This acknowledgment may be used as an entry pass for any bid opening meetings.

14.0 ASSISTANCE TO BIDDERS/HELP

1) Any assistance regarding online tender process /e-Tender/Bid Submission should be addressed to following address as specified in NIT.

[e-Procurement technologies Limited, Ahmedabad.](#)

[Primary Contact Numbers: - ,](#)

[Contact No.: - 8849722625, Udit Kumar Yadav,](#)
[06354919566](#)

2) Any queries relating to SBI E-Tender Portal in general may be directed to the [24x7 SBI E-Tender Portal Help desk](#).

3) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the [relevant contact person indicated in the NIT \(Notice Inviting Tender\)](#) of tender.

TENDER EVALUATION

Technical bid

The list of documents, which are mandatory & specified in Tender Notice are to be furnished by the bidder. Only Technical Bids of those contractors, who submitted the earnest money deposit (EMD) of required amount in the prescribed manner in original hard copy to this dept, will be opened. All Technical bid documents will be verified at the tender opening time specified in Notice Inviting Tender.

1. Technical bids of bidders whose EMD was not received physically, will not be opened.
2. If the Bidders failed to submit the listed mandatory documents, they will be disqualified.
3. Tender documents found partly or fully modified / altered/ corrected etc shall stand summarily rejected.
4. Any clarifications sought after opening of the tenders will not be entertained at any cost.
5. Tender Document duly signed & stamped by the respective bidder in pdf format only will be validated.
6. If any bidder submits false/fake document, they will be banned from doing work in SBI.

Financial bids of only those bidders [who qualified in technical bid](#) will only be opened.

Financial bid

The rates quoted by the Bidder will be validated/scrutinized by committee and compared to market price for adaptability. The lowest total rate quoted will be considered for award of work. The tariff for all the locations shall be as per levelized tariff quoted for per unit rate only. Bidder submitting bid above the maximum allowable project cost/ Tariff shall be rejected.

The Levelized Tariff under OPEX /RESCO model shall be calculated as indicated below for each qualified Bidders.

S. No.	Year of Operation	Tariff (Rs/kWh)	Discount Factor at 10.81%	Discounted Tariff (Rs/kWh)
C1	C2	C3	C4	C5= (C3) X (C4)
1	1st Year		1.000	
2	2nd Year		0.903	
3	3rd Year		0.815	
4	4th Year		0.735	
5	5th Year		0.664	
6	6th Year		0.599	
7	7th Year		0.540	
8	8th Year		0.488	
9	9th Year		0.440	
23	23rd Year		0.105	
24	24th Year		0.095	
25	25th Year		0.085	
	TOTAL		9.469	Sum of Discounted tariff
Levelized Tariff for 25 years (in Rs /kWh)		$= \frac{[\text{Sum of Discounted Tariff (Rs/kWh)}]}{9.469}$		

Based on the price bid quoted by the bidders and auto calculated levelized tariff rates for 25 years, SBI e-Portal automatically arrange the bids in the ascending order i.e. L1, L2, L3, ___ (L1 being the lowest tariff/ cost).

The allotment/ distribution of works (branches/offices) to vendors will be at the sole discretion of the Bank, subject to matching the L1 rates by the L2, L3 vendors etc. The split order may be in the ratio of **50%, 30% and 20%** of total orders for L1, L2 and L3 vendors respectively (or) 70% and 30% of total orders for L1 and L2 vendors respectively in case only two vendors participated in price bid. In case vendors are not in a position to execute the job in stipulated time or not able to perform as per SBI's satisfaction, the Bank may, at its discretion, award the contract to other L1/L2/L3 vendors at L1 approved contract rate for other branches.

The Bank will not be bound to accept the lowest tender and reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

16.0 ZERO DEVIATION

This is a ZERO Deviation Bidding Process. Bidder is to ensure compliance of all provisions of the Bid Document and submit their Bid accordingly. Tenders with any deviation to the bid conditions shall be liable for rejection.

17.0 VALIDITY OF TENDER

Tenders shall remain valid and open for acceptance for a period of **90 Days** from the date of opening price bid. If the tenderer withdraws his/her offer during the validity period or makes modifications in his/her original offer which are not acceptance to the Bank without prejudice to any other right or remedy the Bank shall be at liberty to forfeit the EMD.

18.0 TAXES AND DUTIES

The tenderer in their quoted tender prices must include all taxes (except GST) and duties royalties, cess, local charges if applicable. No extra claim on this account will in any case be entertained.

Price bids are invited inclusive of duties and taxes (except GST). However, Tax exemptions including certificates of any sort, if available may be dealt with the concerned Dep't of Govt. of India by the bidder. SBI in no case will be responsible for providing any tax exemptions to the bidder.

RATES AND PRICES/ LEVELLIZED TARIFF

The tenderer shall quote their rate/ Tariff as per KWh (unit energy) for each year separately. CERC Regulations, 2012 will be followed adherently by the bidder for tariff.

In order to avoid the discrepancy in quoted rates, work out well before proceeding for bid submission. The tenderer should not change the units as specified in the tender. If any unit is changed the tenders would be evaluated as per the original unit and the contractor would be paid accordingly.

All the Quoted rates shall be totaled, as per Net Present Value by multiplying with **Discount Factor of 10.81%** and the Levelized Tariff for 25 years Calculated. The Bidders has to quote for only yearly tariff in the SBI e-tender platform, auto sum and calculations will be done by the auto programmed event page.

The L1 Bidder shall be finalized on basis of lowest Levelized Tariff rate quoted by firm. The tariff quoted shall include all costs, allowances, insurances, taxes, levies, etc. excluding GST.

The Levelized tariff shall include all the costs related to above Scope of Work (Solar PV System implementation and connection with necessary protection equipment).

Bidder shall quote for the entire facilities on a "single responsibility" basis such that the total Bid Price covers all the obligations mentioned in the Bidding Documents in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for a period of 25 years under RESCO/ OPEX model, goods and services including spares required if any during O&M period

IMPLEMENTATION IN OPEX MODEL

Grid-connected solar PV systems feed solar energy directly into the building loads without battery storage. In OPEX model, successful bidder shall be allocated roof top area for implementation of Solar PV System and generated power purchased by roof top owner as per **PPA Agreement**.

SOLAR PV SYSTEM

The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training and such other items and services required to complete the scope of work mentioned above. Procurement and installation of system shall be as per approval from SBI.

OPERATION & MAINTENANCE/ PPA PERIOD

The operation & maintenance of Solar Photovoltaic Power Plant would include wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors / Power Conditioning Unit (PCU), spares, consumables & other parts for a period of 25 years under RESCO model through power purchase agreement.

TRANSFER OF OWNERSHIP

Upon completion of contracted O&M period (25 years), the ownership of Solar PV system shall be automatically transferred to SBI free of cost and also parties reserve the right to renew the O&M contract on mutual agreement.

Within the period of Contract O&M period (25 years) and with **minimum of 10 years** uninterrupted operation of system, SBI solely has rights to transfer the ownership/ purchase the Solar plant of such location with the market analyzed rates/ salvage value. In such case, the Bidder/ RESCO cannot coerce SBI to do so or not.

The successful bidder has to transfer all the Guarantees /Warrantees of the different components to the Owner of the project on salvage/ purchase by the owner. The responsibility of operation of War- rantee and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be joint responsibility of the owner and successful bidder, SBI will not be responsible in any way for any claims whatsoever on account of the above.

22.0 RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID

This RFS may be withdrawn or cancelled by the SBI at any time with out assigning any reasons thereof. The SBI further reserves the right, at its complete discretion, to reject any or all of the Bids without assigning any reasons whatsoever and without incurring any liability on any account.

SBI reserves its right to vary, modify, revise, amend or change any of the terms and conditions of the Bid before submission. The decision regarding acceptance or rejection of bid by SBI will be final.

The acceptance of a tender will rest with the Competent Authority, who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received, without assigning any reasons. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

-Sd-
Assistant General Manager (P& E)

LHO Lucknow.

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS

In the contract the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

1. **'SBI'** shall mean State Bank of India (client) a body Corporate created under State Bank of India Act 1955, having its Corporate Centre at State Bank Bhavan, Madame Cama Road, Mumbai 400 021 and a LHO at Lucknow and includes the client's representatives, successors and assigns.
2. **'Site Engineer'** shall mean an Engineer appointed by the Bank as their representative to give instructions to the contractors.
3. **'The Contract'** shall mean the documents forming the tender and the acceptance thereof and the formal agreement executed between State Bank of India (Client) and the contractor, together with the documents referred therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the SBI and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.
4. **'Works'** or **'Work'** shall mean the permanent or temporary work described in the 'Scope of Work' and/or to be executed in accordance with the contract and includes materials, apparatus, equipment, temporary supports, fittings and things of all kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the contract.
5. **'Engineer'** shall mean the representative of the SBI.
6. **'Drawings'** shall mean the drawings prepared by the SBI and issued by the Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time 'Contract value shall mean the value of the entire work as stipulated in the letter of acceptance of tender subject to such additions thereto or deductions there from as may be made under the provision herein after contained.
7. **'Specifications'** shall mean the specifications referred to in the tender and any modifications thereof as may time to time be furnished or approved by the SBI.
8. **"Month"** means calendar month.
9. **"Week"** means seven consecutive days.
10. **"Day"** means a calendar day beginning and ending at 00 Hrs. and 24 hrs. respectively.
11. **"B.I.S"** shall mean specifications of Bureau of Indian Standards (BIS);
12. **"Bid"** shall mean the Techno Commercial and Price Bid submitted by the Bidder along with all documents/credentials/attachment's annexure etc., in response to this RFS, in accordance with the terms and conditions hereof.

13. **"Bidder/Bidding Company"** shall mean Bidding Company submitting the Bid. Any reference to the Bidder includes Bidding Company / including its successors, executors and permitted assigns as the context may require;
14. **"CEA"** shall mean Central Electricity Authority.
15. **"COD"** means commissioned on date i.e. Successful operation of the Project / Works by the Contractor, for the purpose of carrying out Performance Test(s) as defined in RFS.
16. **"Company"** shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;
17. **"Capacity Utilization Factor"** (CUF) shall mean the ratio of actual energy generated by SPV project over the year to the equivalent energy output at its rated capacity over the yearly period. (CUF = actual annual energy generated from the plant in kWh / (installed plant capacity in kW * 365 * 24)).
18. **"Eligibility Criteria"** shall mean the Eligibility Criteria as set forth in Clause 3.6 of this RFS;
19. **"KWp"** shall mean kilo-Watt Peak;
20. **"kWh"** shall mean kilo-Watt-hour;
21. **"MNRE"** shall mean Ministry of New and Renewable Energy, Government of India;
22. **"O&M"** shall mean Operation & Maintenance of Rooftop Solar PV system for 25 years;
23. **"OEM"** shall mean Original Equipment manufacturers of Rooftop Solar PV system PV Cells/ Solar Panels.
24. **"Project capacity"** means Capacity in KWp offered by the Bidder for each State consisting of single or multiple roof tops. The project capacity specified is on "DC" output Side only.
25. **"SPG"** means Solar Power Generator i.e. successful bidder for the location of project.
26. **"P P A"** means **Power Purchase Agreement** between SBI and Successful bidder.
27. **"P B G"** means Performance Bank Guarantee between SBI and Successful bidder, renewed periodically up to end of the PPA time period.
28. **"Performance Ratio"** (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured. $PR = (\text{Measured output in kW} / \text{Installed Plant capacity in kW} * (1000 \text{ W/m}^2 / \text{Measured radiation intensity in W/m}^2))$.
29. **"RESCO"** shall mean Renewable Energy Service Companies;
30. **"OPEX model"** shall mean where the bidders intend to take a roof top owned by some other entity on mutually agreed terms and conditions from the roof top owner(s) and enters into the PPA with rooftop owner / DISCOM / others for supply of Solar power for 25 years from the date of Commissioning of project.

31. **“SNA”** shall mean State Nodal Agency.
32. **“NISE”** shall mean National Institute of Solar Energy.
33. **“UPNREDA”** shall mean Uttar Pradesh New & Renewable Energy Development Agency.
34. **“IREDA”** shall mean Indian Renewable Energy Development Agency.
35. **“CERC”** shall mean Central Electricity Regulation Commission.

INTERPRETATIONS

1. Words comprising the singular shall include the plural & vice versa.
2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
4. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
5. The table of contents and any headings or subheadings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

SCOPE OF WORK

Scope of work covers Design, Manufacture, Supply, and Installation & Commissioning of SPV Rooftop on OPEX model as per the technical specification and Maintenance up to 25 years. (The processing charges payable to UPPCL for net-metering shall be borne by the beneficiary if permitted in U.P.).

The contractor shall carry out, complete and maintain the said work in every respect strictly in accordance with this contract and with the directions of and to the satisfaction of the Bank to be communicated directly.

SCOPE	DETAILS
Survey	<p>The successful bidder shall assess</p> <ul style="list-style-type: none"> ▪ Roof structural stability, ▪ Load bearing capacity, ▪ Solar resource availability, ▪ Identification health & Safety risks, ▪ Shadow free area on roof top...etc. <p>for hassle free operation of system and also data to be approved by P&E Engineer/ AO Engineer</p>
Design	<ul style="list-style-type: none"> ▪ Selecting efficient PV Modules, ▪ Optimum Detailed PV Panels layout, ▪ Inverter selection, ▪ Mounting structure, ▪ Routing cables and connectivity, ▪ Attaining maximum output (max. utilization of rooftop area), ▪ Ensuring Safety standards...etc.

Manufacture	As per standards & specifications mentioned in the Tender Document
Supply & Installation	<ul style="list-style-type: none"> ▪ Equipment acquisition ▪ Obtaining Permits ▪ Solar PV System Installation as per standards ▪ Wiring up to Distribution Board from the SPV Rooftop system ▪ Online Monitoring system for Local & Remote Data Monitoring...etc.
Testing	Testing of Modules, System Performance Evaluation, Capacity Utilization Factor (CUF) etc. of the complete Solar PV system as per the Technical specifications.
Commissioning	<ul style="list-style-type: none"> ▪ Obtaining Approval of Statutory Authorities like CEA, SNA's...etc. ▪ Virtual Completion Certificate from SBI. ▪ Compliance from DISCOM for connection to grid etc. <p>All the necessary activities for successful commissioning of the system shall be responsible of bidder. Any deposits/ fees to be paid by the Roof top owner for acquiring permission from Govt Authority etc, shall be borne by SBI.</p>
O&M (PPA Period)	<p>On completion/ commissioning of the system PPA shall be signed up to 25 years as per the tariff agreed.</p> <p>Operation and Maintenance of the Total system shall be the complete responsibility of successful bidder/ RESCO. At any point of time they are bound to any condition of SBI pertaining to the RFS.</p> <p><i>If the operation or use of the system proves to be unsatisfactory during the period, the supplier shall replace the faulty ones or carry out necessary repairs as per the PPA terms and conditions.</i></p>

The SBI time to time issue further written instructions, details directions and explanations which are hereafter collectively referred to as SBI instructions in regard to: the variation or modification of the design, quality or quantity of work or the addition or omission or substitution of any work, any discrepancy in the drawings or between the BOQ and/or drawings and/or specifications, the removal from the site of any material brought thereon by the contractor and the substitution of any other materials thereof, the demolition, removal and/or re- execution of any work executed by him, the dismissal from the work of any person employed/engaged thereupon.

The eligible (MNRE and State) subsidy will be released based on MNRE /State Govt. Policies and guidelines either directly to the supplier or to the beneficiary, based on the declaration submitted by the beneficiary. The procedure for availing subsidy and for submission of proposals shall be as per State Nodal Agencies for Solar Mission & MNRE provisions.

4.0 SIGNING OF CONTRACT DOCUMENTS

The successful tenderer shall be bound to implement the contract by signing an agreement and conditions of contract attached herewith within 15 days from the receipt of intimation of acceptance of his tender by the Bank. However, the written acceptance of the tender by the Bank will constitute a binding agreement between the Bank and successful tenderer whether such formal agreement is subsequently entered into or not.

5.0 COMPLETION PERIOD

Signature of Contractor

The Successful Tenderer shall be complete the work within time period **60 days** from the date of the work order issued to the contractor to commence the work.

- i) The work shall be considered as complete only when the certificate of virtual completion is issued by the Bank.
- ii) The 'defects liability period' as prescribed in the contract shall commence only from date of such virtual completion.
- iii) Any defect that may appear within the defect's liability period shall be rectified by the contractor within reasonable time on receipt of necessary instructions from Bank to that effect.

PENALTY

SBI will issue the sanction letter(s) for the Project (s) indicating the clearance for further proceeding. The Bidder shall complete the project survey, design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of each project within **60 days** from the date of issue of allocation letter.

DELAY FOR IMPLEMENTATION PERIOD:

If the bidder fails to commission the allocated capacity within **60 days** from date of issue of allocation letter, Penalty shall be calculated **@ 0.5% of the security deposit per week of delay subject to a maximum penalty of 5% of the total security deposit** would be strictly imposed. Upon further delay, the allocation of project order shall be cancelled and the Security Deposit amount pro-rata to non commissioned capacity would be forfeited.

PPA PERIOD :

If the bidder fails to deliver minimum output units as per PPA, bidder shall be terminated/ penalized.

7.0 ALLOCATION OF WORK

(i) Letter of Acceptance/ Award

Within the validity period of the tender the Bank shall issue a letter of acceptance by registered post or otherwise depositing at the address of the contractor as given in the tender to enter into a Contract for the execution of the work as per the terms of the tender. The letter of acceptance shall constitute a binding contract between the SBI and the contractor.

(ii) Contract Agreement

On receipt of intimation of the acceptance of tender from the SBI the successful tenderer shall be bound to implement the contract and **within fifteen days** thereof he shall sign an agreement in a non-judicial stamp paper of appropriate value including submission of Security deposit.

- Two copies of agreement/tender document duly signed by both the parties with the drawings shall be handed over to the contractors.
- On successful completion/ Commissioning of the project security deposit will be refunded and a new PPA agreement shall be signed between both the beneficiary and successful bidder (owner of solar PV system).

(iii) Power Purchase Agreement (PPA)

A draft copy of standard PPA to be executed between the SBI/ Beneficiary and the Successful bidder is provided along with Tender. After successful commissioning of system, PPA will have to be executed by Solar Power Generator (SPG). The PPA shall be for a period of 25 years from the date of COD with minimum lock in period of 10 years.

8.0 SECURITY DEPOSIT

The successful tenderer will have to submit a sum equivalent to **Rs. 1,00,000/-** (Rupees One lakh only) by means of D/D drawn in favour of State Bank of India within a period of 7 days of acceptance of tender. The security deposit shall be returned to the contractors on the basis of SBI certifying the virtual completion.

No interest shall be paid to the amount retained by the Bank as Security Deposit.

In all the above cases corresponding unidentified/non-commissioned capacity shall stand cancelled.

PERFORMANCE SECURITY / PERFORMANCE BANK GUARANTEE (PBG):

After the successful commissioning of System, within 07 days from the date of issue of Virtual Completion Certificate, Successful Bidder shall furnish the Performance Bank Guarantee for the sum equal to **Rs. 1000.00 per KWp * Installed Capacity (KWp)**. PBG and PPA Agreement shall be submitted separately for each location under OPEX/ RESCO model with SBI.

The Performance Security shall be denominated in Indian Rupees and shall be in one of the following forms:

- a. A bank guarantee from the Scheduled/ Nationalized banks other than State Bank of India.
- b. The PBG shall be forfeited in the following event without prejudice to the Bidder being liable for any further consequential loss or damage incurred to SBI.
 - i. If the Successful Bidder is not able to deliver minimum output (throughout PPA period) to the satisfaction of SBI, PBG amount shall be forfeited.
- c. The Performance Security shall be valid for a minimum period of 18 months from the date of issue of Allocation letter(s) and shall be renewed / extended till the completion of 25 years of O&M from the date of commissioning.

10.0 DETAILED DRAWINGS AND INSTRUCTIONS

The SPG shall survey the project site location, design the solar PV system and furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of the work. All such drawings and instructions shall be pre-approved by SBI and thereto consistent with the contract documents, true developments thereof and reasonably infer-able there from.

The work shall be executed in conformity therewith and the contractor prepare a detailed programme schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI.

11.0 COMMENCEMENT OF WORKS

The date of commencement of the work will be reckoned as the recorded date of handing over site by the SBI or 15 days from the date of issue of Letter of Acceptance of Bank, whichever is later.

LANGUAGE ERRORS, OMISSIONS AND DISCREPANCIES

In case of errors, omissions and/or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications etc., the following order shall apply.

- i) Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.
- ii) Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the former shall be taken as correct.
- iii) Between the duplicate/subsequent copies of the tender, the original tender shall be taken as correct.

13.0 PROTECTION OF WORKS AND PROPERTY

The contractor shall continuously maintain adequate protection, of all his work from damage and shall protect the SBI's properties from injury or loss arising in connection with contract. The contractor shall be responsible for any loss or damage to SBI property, materials, tools or other articles used held for use in connection with the work. He shall make good any such damage, injury, loss due to his fault or negligence except which are due to causes beyond his control. He shall take adequate care and steps for protection of the adjacent properties.

The contractor shall take all precautions for safety and protection of his employees on the works and shall comply with all applicable provisions of Government and local bodies safety laws and building codes to prevent accidents, or injuries to persons or property of about or adjacent to his place of work. The contractor shall take insurance covers as per [clause 22.0](#) at his own cost.

In case the contractor refuses to comply with the order the Employer shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Employer / SBI shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate shall relieve the contractor from his liability in respect of unsound work or bad materials.

QUALITY OF MATERIALS, WORKMANSHIP & STANDARDS

The Design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards as detailed in the Technical specifications of the bid document. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.

The specifications of the components should meet the requirements mentioned in Technical specifications.

Any supplies which have not been specifically mentioned in this Contract, but which are necessary for the design, engineering, manufacture, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

The contractor shall always enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

All materials shall be new and both workmanship and materials shall be of best quality.

The contractor shall provide and pay for all materials, labour, water, power, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work.

15.0 WORK PERFORMED AT CONTRACTORS RISK

All works shall be done by the contractor with utmost care and if any loss or damage shall result from fire or from others cause, the contractor shall promptly make good such loss or damage / or replace and make the employer free from all such expenses. The work shall be carried on to completion without interferences with the operations of existing machinery or equipment, if any. In case, performance of Solar PV System found unsatisfactory during any time, SBI has rights to terminate the contract.

16.0 AUTHORITIES, NOTICES, PATENT RIGHTS AND ROYALTIES

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

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

The Contractor shall indemnify the Employer against all claims in respect of patent rights, designs, trademarks or name or the protected rights in respect of any constructional plant, machine, work or material used for or in connection with the works or temporary works and from and against all claims, demands, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend all actions arising from such claims, unless he has informed the SBI, before any such infringement and received their permission to proceed and shall himself pay all royalties, license fees, damages, cost and charges of all and every sort that may be legally incurred in respect thereof.

17.0 PERMITS, LAWS AND REGULATIONS

Permits and licenses required for the execution of the work shall be obtained by the contractor at his own expenses. The contractor shall give notices and comply with the regulations, laws, and ordinances rules, applicable to the contract. If the contractor observes any discrepancy between the drawings and specifications, he shall promptly notify the SBI in writing. If the contractor performs any act which is against the law, rules and regulations he shall meet all the costs arising there from and shall indemnify the SBI any legal actions arising there from.

18.0 OBTAINING INFORMATION RELATED TO EXECUTION OF WORK

No claim by the contractor for payment shall be entertained for installation of Solar PV System. The Successful Bidder shall survey and study the rooftop area of location for the feasibility and maximum capacity (shadow free area), can be incorporated. Any incorrect information or the failure to obtain correct information will not relieve him from any risks or from the entire responsibility for the fulfillment of contract. All the acquired data to be certified/ approved by the SBI Engineer, before proceeding further.

19.0 ASSIGNMENT AND SUBLETTING

The whole of work included in the contract shall be executed by the contractor and he shall not directly entrust and engage or indirectly transfer / assign or under let the contract or any part or share thereof or interest therein without the written consent of the SBI and nothing shall relieve the contractor from the responsibility of the contractor from active superintendence of the work during its progress.

20.0 NO COMPENSATION FOR RESTRICTIONS OF WORK

If, at any time, after acceptance of the tender, SBI shall decide to abandon or reduce the scope of work

for any reason whatsoever and hence not require the whole or any part of the work to be carried out, the SBI shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter.

In such case, the contractor shall not claim any charges on the cartage or cost of materials brought to the site of the work by him. As project is OPEX model, ownership of material rests on the SPG, and he should remove materials and vacate the premises on his own.

21.0 SUSPENSION OF WORK

i) The contractor shall, on receipt of the order in writing of the SBI (whose decision shall be final and binding on the contractor) suspend the progress of works or any part thereof for such time and in such manner as SBI may consider necessary so as not cause any damage or injury to the work already done or endanger the safety thereof for any of following reasons.

- a) On account any default on the part of the contractor, or
- b) For proper execution of the works or part thereof for reasons other than the default of the contractor, or
- c) For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary.

ii) If the suspension is ordered for reasons (b) and (c) in sub-Para (i) above: The contractor shall be entitled to an extension of time equal to the period of every such suspension. No compensation whatsoever shall be paid on this account.

INSURANCE OF WORKS

Without limiting his obligations and responsibilities under the contract the contractor shall insure in the joint names of the SBI and the contractor against all loss or damages from whatever cause arising other than the excepted risks, for which he is responsible under the terms of contract and in such a manner that the SBI and contractor are covered for the period stipulated in clause 23 of GCC and are also covered during the period of maintenance for loss or damage arising from whatever cause, occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under sub clauses:-

- a) The works for the time being executed to the estimated current Contract value thereof, or such additional sum as may be specified together with the materials for incorporation in the works at their replacement value.
- b) The constructional plant and other things brought on to the site by the contractor to the replacement value of such constructional plant and other things.
- c) Such insurance shall be effected with an insurer and in terms approved by the SBI which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the SBI the policy of insurance and the receipts for payment of the current premiums.

Damage to persons and property

The contractor shall, except if and so far as the contract provides otherwise, indemnify the SBI against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in

respect of or in relation thereto except any compensation of damages for or with respect to :

- d) The permanent use or occupation of land by or any part thereof.
- e) The right of SBI to execute the works or any part thereof, on, over, under, in or through any lands.
- f) Injuries or damages to persons or properties which are unavoidable result of the execution or maintenance of the works in accordance with the contract.
- g) Injuries or damage resulting from any act or neglect of contractor, to persons or property of the SBI, their agents, employees or other contractors not being employed by the contractor or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the SBI, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

Contractor to indemnify SBI

The contractor shall indemnify the SBI against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the provision sub-clause 22.2 of this clause.

Contractor's superintendence

The contractor shall fully indemnify and keep indemnified the SBI against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claim made under or action brought against SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expenses to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the SBI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the SBI in this behalf.

Third Party Insurance

25.5.1 Before commencing the execution of the work the contractor but without limiting his obligations and responsibilities under clause 09.0 of GCC shall insure against his liability for any material or physical damage, loss, or injury which may occur to any property including that of SBI, or to any person, including any employee of the SBI, by or arising out of the execution of the works or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to clause 2.0 & 9.0 thereof.

22.5.2 Minimum Amount of Third-Party Insurance: Such insurance shall be effected with an insurer and in terms approved by the SBI which approval shall not be reasonably withheld and for at least the amount stated below. The contractor shall, whenever required, produce to the SBI the policy or policies of insurance cover and receipts for payment of the current premiums.

Minimum Insurance Cover

The minimum insurance cover for physical property, injury, and death is Rs.5.0lacs per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

Accident or Injury to Workmen

The SBI shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment

of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI against all such damages and compensation, save and except as aforesaid and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

Insurance against accidents etc. to workmen

The contractor shall insure against such liability with an insurer approved by the SBI during the whole of the time any person employed by him on the works and shall, when required, produce to the SBI such policy of insurance and receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor the contractor's obligation to insure as aforesaid under this clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that SBI is indemnified under the policy but the contractor shall require such sub-contractor to produce to the SBI when required such policy of insurance and the receipt for the payment of the current premium.

Remedy on Contractor's failure to insure

If the contractor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the SBI may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the SBI as aforesaid and also deduct 15% of contract value from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

Without prejudice to the other rights of the SBI against contractors, in respect of such default, the Bank shall be entitled to deduct from any sums payable to the contractor the amount of any damage's costs, charges, and other expenses paid by the SBI and which are payable by the contractors under this clause. The contractor shall upon settlement by the insurer of any claim made against the insurer pursuant a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the moneys received from the insurer in respect of such damage shall be paid to the contractor and the contractor 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.

23.0 TIME FOR COMPLETION

Time is the essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within a period as mentioned in Notice from the date of commencement. If required in the contract or as directed by the SBI, the contractor shall complete certain portions of work before completion of the entire work. However, the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the contract.

24.0 EXTENSION OF TIME

If the contractor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond control and the due date of completion as stipulated in the contract, the contractor shall apply to the SBI through the Engineer in writing at least **15 days** before the expiry of the scheduled time and while applying for extension of time he shall furnish the reasons in detail and his justification if any, for the delays. The Engineer shall submit their recommendations to the SBI in the prescribed format for granting extension of time. While granting extension of time the contractor shall be informed the period extended time which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the SBI the provision of liquidated damages as stated under clause 6.1 & 26.1 of GCC shall become applicable. Further contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

25.0 RATE OF PROGRESS

Whole of the materials, plant and labour to be provided by the contractor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the SBI. Should the rate of progress of the work or any part thereof be at any time be in the opinion of the SBI too slow to ensure the completion of the whole of the work by the prescribed time (in NIT) or extended time for completion the SBI shall thereupon take such steps as considered necessary by the SBI to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the SBI neither shall relieve the contractor from fulfilling obligations under the contract nor he shall be entitled to raise any claims arising out of such directions.

LIQUIDATED DAMAGES/ PENALTY:

If the contractor fails to maintain the required progress in terms of [clause 25.0 of GCC](#) or to complete the work and clear the site including removing debris on or before the contracted or extended date or completion without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the SBI on account of such breach to pay a liquidated damages at the rate of [0.5%](#) of the security deposit per week subject to a maximum of [5%](#) of the security deposit.

All costs, damages or expenses which SBI may have paid or incurred, which under the provisions of the Contract, the Successful bidder is liable/will be liable, will be claimed by the SBI. All such claims shall be billed by the SBI to the Contractor/ Successful bidder under the contract or may be recovered by actions of law or otherwise, if the Successful bidder fails to satisfy the SBI of such claims.

In any case in which under any clause or clauses of this contract, the Contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit the SBI shall have the power to rescind the contract (of which rescission notice in writing to the contractor by the SBI shall be conclusive evidence) and in which case the security deposit of the contractor shall be forfeited and be absolutely at the disposal of SBI.

VIRTUAL COMPLETION CERTIFICATE (VCC)

On successful completion of entire works covered by the contract to the full satisfaction of the SBI, the contractor shall ensure that the following works have been completed to the satisfaction of the SBI.

- a) Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour, equipment and machinery.
- b) Demolish, dismantle and remove the contractor's temporary works, structures including labour sheds/camps and constructions (if any) and other items and things whatsoever brought upon or erected at the site or any land allotted to the contractor by the SBI and not incorporated in the permanent works.
- c) Remove all rubbish, debris etc. from the site and the land allotted to the contractor by the SBI and shall clear, level and dress, compact the site as required by the SBI.
- d) All defects/imperfections made to SBI properties while installation of Solar PV System have been attended and rectified as pointed out by the SBI to the full satisfaction of SBI.

Upon the satisfactory fulfillment by the contractor as stated above, the contractor shall be entitled to

apply to the SBI for the certificate. If the SBI is satisfied of the completion of the work, relative to which the completion certificate has been sought, the SBI shall within fourteen (14) days, issue a VCC in respect of the work for which the VCC has been applied.

Note: *The VCC issued by SBI is not intended to depict successful commissioning of Solar PV system, it assents to the Power Purchase agreement (PPA) contract execution.*

28.0 COMMISSIONING:

The projects shall be commissioned, within a period of **45 days** from the date of execution of the LoA. Subject, delay in commissioning, beyond the Scheduled Commissioning Period shall involve penalties, on the Solar Power Generator, as per **clause 26.0 of GCC**.

The SPG is required to achieve a minimum **CUF of 15%** on annual basis during the PPA period. However, in case of low Solar radiation zones, lower minimum CUF may be specified by the concerned. The SPG will be free to operate the plant after expiry of the 25 years of PPA period if other conditions like land lease, etc., permits. However, any extension of the PPA period beyond 25 years shall be through mutual agreements between the SPG and SBI.

PAYMENT TERMS

No advance payment in any form will be granted for the works proposed.

The Capital and O&M cost for the Solar PV System shall be borne by the successful bidder, system completely owned by them; Roof top area shall be provided by the SBI. As per the quoted rate per unit on monthly basis Generated power shall be purchased by the SBI, subject to the terms & conditions.

The Tariff at which the S B I shall purchase the Output from the Service Provider/ SPG will be as per quoted and approved rate yearly tariff as per Price bid (Unit Price) (inclusive of all expenses, duties and levies excluding GST) from COD/ PPA/ Successful completion of project.

Billing and Terms of Payment

1. The customer will be charged on a monthly basis, an amount that is equal to the Unit Price, multiplied by
 - (a) the monthly output from the System as per joint Meter Reading Report (“Metered Generation”)
 - and/or
 - (b) Deemed Generation. The monthly invoice will be raised by the Service Provider on the SBI for the Metered Generation and/or Deemed Generation supplied by it in the immediately preceding calendar month, or part thereof, within a period of five (5) days from the end of each calendar month (“**Monthly Invoice**”).
2. Each monthly Invoice shall state the Tariff and Taxes payable by the SBI calculated with reference to the Metered Generation and/or Deemed Generation.
3. The Customer shall make payment of the Monthly Invoice to the bank account of the Service Provider as shall be specified in the Monthly Invoice through electronic funds transfer/RTGs only.

30.0 WORK BY OTHER AGENCIES

The SBI reserves the rights to use premises and any portion of the site for execution of any work not included in the scope of this contract which it may desire to have carried out by other persons simultaneously and the contractor shall not only allow but also extend reasonable facilities for the execution of such work. The contractor however shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI. Such work shall be carried out in such manners not to impede the progress of the works included in the contract.

OWNER'S RIGHT TO TERMINATE THE CONTRACT

If the contractor being an individual or a firm commit any 'Act of Insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Government and of the Official Assignees of the liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him to do so, to show to the reasonable satisfaction of the SBI that he is able to carry out and fulfill the contract, and to give security therefore if so required by the SBI. Or if the contractor (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 contractor. Or shall assign or sublet this contract without the consent in writing of the SBI or shall charge or encumber this contract or any payment due to which may become due to the contractor there under.

- 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 14 days after receiving from the SBI through the SBI written notice to proceed, or
- c) Has failed to proceed with the works with such 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 the materials from the site or to pull down and replace work within seven days after written notice from the SBI through that the said materials 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 contractor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to the detriment of good workmanship or in defiance of the SBI's instructions to the contrary subject any part of the contract.

Then and in any of said cases the SBI, after giving seven days' notice in writing to the contractor, terminate the contract without any conditional clauses.

32.0 SETTLEMENT OF DISPUTES AND ARBITRATION

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work or the execution or failure to execute the same, whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter :

- i) If the contractor considers that he is entitled to any extra payment or compensation in respect of the

works over and above the amounts admitted as payable by the SBI or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the Contractor shall forthwith give notice in writing of his claim, or dispute to the Assistant General Manager (Premises& Estate)/Dy. General Manager (Premises) and endorse a copy of the same to the SBI, within 30 days from the date of dis allowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the Bank be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to the Assistant General Manager (Premises& Estate)/Dy. General Manager (Premises) in the manner and within the time as aforesaid. The contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the Assistant General Manager (Premises& Estate)/Dy. General Manager (Premises) in writing in the manner and within the time aforesaid.

ii) The Assistant General Manager (Premises& Estate)/Dy. General Manager (Premises) shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of the Assistant General Manager (Premises& Estate)/Dy. General Manager (Premises) submit his claims to the conciliating authority namely the Circle Development Officer/General Manager (Corporate Services) for conciliation along with all details and copies of correspondence exchanged between him and the Assistant General Manager (Premises& Estate)/Dy. General Manager (Premises).

iii) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned Chief General Manager of the Bank for appointment of an arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.

iv) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the Chief General Manager. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said Chief General Manager. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by such Chief General Manager aforesaid should act as arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under.

It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on

the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be Lucknow. The fees if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

SPECIAL CONDITIONS OF CONTRACT

In the event of any discrepancy with clauses mentioned anywhere else in the tender with the clauses mentioned within General conditions of contract, the clauses mentioned within the special conditions of contract shall supersede those mentioned elsewhere.

1.0 WORK DURING NIGHTS AND HOLIDAYS

Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the SBI, save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the contractor shall immediately advise the SBI.

However, the provision of the clause shall not be applicable in the case of any work which becomes essential to carry by rotary or double shifts in order to achieve the progress and quality of the part of the works being technically required and continued with the prior approval of the SBI at no extra cost to the SBI. All work at night after obtaining approval from competent authorities shall be carried out without unreasonable noise and disturbance.

2.0 CUTTING AND MAKING GOOD

Where it is found necessary to interfere with finished work in order to execute this contract, the contractor will be required to do all necessary work at his expenses. Only approved hangers and bolts or other metal fixing devices shall be used to secure frames panels and other units in position. Wooden plugs will not be permitted. Holes shall be formed with electric drills whenever possible.

Anyhow, Roof punctures/ Ceiling drills are not allowed without the permission from SBI Structural members shall not be cut or drilled without prior consent of the client.

3.0 TYPOGRAPHICAL CLERICAL ERRORS

The Employer/ SBI clarification regarding partially omitted particulars of typographical or Clericals errors shall be final and binding on the contractors.

4.0 WATER & POWER SUPPLY:

The contractor shall make his own arrangements for water required for the work and nothing extra will be paid for the same.

The contractor shall make his own arrangements for power and supply/ distribution system for driving plant or machinery for the work and for lighting purpose at his own cost. He has to obtain necessary approvals from the appropriate authorities, if required.

5.0 CUSTODY AND SECURITY OF MATERIALS

When any materials intended for the works shall have been placed at site by the Contractor, such material shall not be removed there without the written authority of the Employer / SBI/SBIIMSPL, the contractor shall be liable for any loss or damage to any such materials.

The contractors shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman / watchmen to lock after his materials, stores, equipment's etc.

MAINTENANCE OF REGISTERS:

The contractor shall maintain the following registers as per the enclosed format at site of work and should produce the same for inspection of SBI whenever desired by them. The contractor shall also maintain the records/registers as required by the local authorities/Government from time to time.

- i) Register for hindrance to work
- ii) Register for labour

LOCAL LAWS, ACTS, REGULATIONS

The contractor shall strictly adhere to all prevailing labour laws inclusive of Contract Labour (Regulation and Abolition Act of 1970) and other safety regulations. The contractor shall comply with the provision of all labour legislation including the latest requirements of all the Acts, laws, any other regulations that are applicable to the execution of the project.

- i) Minimum Wages Act, 1948 (Amended)
- ii) Payment of Wages Act 1936 (Amended)
- iii) Workman’s Compensation Act 1923 (Amended)
- iv) Contract Labour Regulation and Abolition Act 1970 and Central Rules 1971 (Amended)
- v) Apprentice Act 1961 (Amended)
- vi) Industrial Employment (Standing Order) Act 1946 (Amended)
- vii) Personal Injuries (Compensation Insurance) Act 1963 and any other modifications
- viii) Employees’ Provident Fund and Miscellaneous Provisions Act 1952 and amendment thereof
- ix) Shop and Establishment Act
- x) Any other Act or enactment relating thereto, and rules framed there under from time to time.

All the Licenses and necessary Registers to be maintained by the Contractor shall be verified by SBI anytime.

8.0 AMENDMENT

The Central Government may from time to time add to or amend the regulation and on any question as to the application, interpretation or effect of these regulations the decision of the Chief Labour Commissioner or Deputy Chief Labour Commissioner to the Government of India, or any other person authorized by the Central Government in that behalf shall be final.

OTHER CONDITIONS:

1. The Successful bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of SBI/ SBIIMSPL and owner of the Rooftop.
2. The Successful bidder shall not make any other use of any of the documents or information of this contract, except for the purposes of performing the contract.

10.0 DEBARRED FROM PARTICIPATING IN ROOF TOP TENDER

SBI reserves the right to carry out the performance review of each Bidder from the time of submission of Bid onwards. In case it is observed that a bidder has not fulfilled its obligations in meeting the various timelines envisaged, in addition to the other provisions of the RFS, such Bidders may be debarred from participating in SBI any future tender for a period as decided by the competent authority of SBI.

11.0 SAFETY CODE/SAFETY MEASURES:

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

FORCE MAJEURE:

Neither contractor nor SBI shall be considered in default in performance of their obligations if such performance is prevented or delayed by events such as war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of god or for any other cause beyond the reasonable control of the party affected or prevented or delayed. However, a notice is required to be given within 30 days from the happening of the event with complete details, to the other party to the contract, if it is not possible to serve a notice, within the shortest possible period without delay.

As soon as the cause of force majeure has been removed the party whose ability to perform its obligations has been affected, shall notify the other of such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.

From the date of occurrence of a case of force majeure obligations of the party affected shall be suspended during the continuance of any inability so caused. With the cause itself and inability resulting there from having been removed, the agreed time of completion of the respective obligations under this agreement shall stand extended by a period equal to the period of delay occasioned by such events.

Should one or both parties be prevented from fulfilling the contractual obligations by a state of force majeure lasting to a period of 6 months or more the two parties shall mutually decide regarding the future execution of this agreement.

13.0 ACCIDENTS

The contractor shall immediately on occurrence of any accident at or about the site or in connection with the execution of the work report such accident to the SBI. The contractor shall also report immediately to the competent authority whenever such report is required to be lodged by the law and take appropriate actions thereof.

14.0 INSURANCE

The Bidder shall be responsible and take an Insurance Policy for transit-cum-storage-cum-erection for all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, erection, testing and commissioning. The bidder shall also take appropriate insurance during O&M period.

The Bidder shall also take insurance for Third Party Liability covering loss of human life, engineers and workmen and also covering the risks of damage to the third party/material/equipment/properties during execution of the Contract. Before commencement of the work, the Bidder will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of bidder.

15.0 WARRANTIES:

a) Material Warranty:

- i Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of sale to the original customer ("Successful Bidder")
- ii Defects and/or failures due to manufacturing
- iii Defects and/or failures due to quality of materials
- iv Non-conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option.

b) Performance Warranty:

The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25-year period and not more than 10% after ten years period of the full rated original output.

c) General:

The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide system warrantee covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of 25 years from the date of commissioning. SBI will not be responsible in any way for any claims whatsoever on account of the above.

TECHNICAL SPECIFICATIONS

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancellation of contract in full or part as decided by SBI & Competent Authority's decision will be final and binding on the bidder.

DEFINITION

A Grid Tied Solar Roof Top Photo Voltaic (SPV) system shall consist of following equipment's/components.

- Solar PV modules consisting of required number of PV modules.
- Grid interactive Power Conditioning Unit (Inverter, MPPT and Controls & Protections)
 - ✓ Mounting structures.
 - ✓ Junction Boxes.
 - ✓ Interconnection cables & links.
 - ✓ Cable trays/ UPVC Pipes for cable supports.
- Earthing and lightening protections.
- Remote Data Monitoring System.
- IR/UV protected PVC Cables, Interconnect switches and accessories.

Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during daytime. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

PLANNING AND DESIGNING:

1. The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labor. The bidder should submit the array layout drawings along with Shadow Analysis Report to SBI for approval.
2. SBI reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements.
3. The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submits three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT

Apart from Shadow analysis report of the roof & wind load calculation sheet, bidder must submit following drawings

- i The Contractor shall furnish the following drawings Award/Intent and obtain approval
- ii General arrangement and dimensioned layout
- iii Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc. iv. Structural drawing along with foundation details for the structure.
- iv Layout of solar Power Array

On approval of the General Arrangement drawings bidder shall be responsible for submission two sets of Engineering, electrical drawings and Installation and O&M manuals, technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment.

SOLAR PHOTOVOLTAIC MODULES:

- i. The PV modules used should be made in India.
- ii. The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS or equivalent IS.
- iii. PV modules must be tested and approved by one of the IEC authorized test centers.
- iv. Product warranty for 25 years (Both for Power and Performance) for material and workmanship
- v. Other general requirement for the PV modules and subsystems shall be the Following:

Type	Crystalline silicon (mono or multi)/ Concentrated PV Modules (CVP or HCVP)
Efficiency	$\geq 13\%$
Fill factor	$\geq 70\%$
Module frame	Frameless/ Non-corrosive and electrolytically compatible with the mounting structure material
Termination box	Thermo-plastic, IP 65, UV resistant
Blocking diodes	Schottky type
Module minimum rated power	The nominal power of a single PV module shall not be less than 240Wp.
Power output rating	To be given for standard test conditions (STC). I-V curve of the sample module shall be submitted.
Rated o/p power tolerance	$\pm 3\%$
Rated for wind loads	up to 2,400 Pa
Operating temperature	-40°C to 85°C

IDENTIFICATION AND TRACEABILITY

Modules deployed must use a RF 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).

- i Name of the manufacturer of the PV module
- ii Name of the manufacturer of Solar Cells.
- iii Month & year of the manufacture (separate for solar cells and modules)
- iv Country of origin (separately for solar cells and module)
- v I-V curve for the module Wattage, I_m , V_m and FF for the module
- vi Unique Serial No and Model No of the module
- vii Date and year of obtaining IEC PV module qualification certificate.
- viii Name of the test lab issuing IEC certificate.
- ix Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

ARRAY/ MOUNTING STRUCTURE

1. 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 anodization. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed
2. 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
3. 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.
4. The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m².
5. The minimum clearance of the structure from the roof level should be 300 mm. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.

Bidder can use Single axis tracking (East –West) to maximize the power output, on their own risk.

JUNCTION BOXES (JBs)

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes (JBs) shall be made of FRP/Powder Coated Aluminum. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b) 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.
- c) Each Junction Box shall have High Quality Suitable Capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes.

DC DISTRIBUTION BOARD:

DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection and compatible for MC4 connectors. 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 (DC surge protection device (SPD), class 2 as per IEC 60364-5-53). If a DC isolator is used instead of a DC circuit breaker, a DC fuse shall be installed inside the DC Distribution Box to protect the DC cable that runs from the DC Distribution Box to the Solar Grid Inverter.

AC DISTRIBUTION PANEL BOARD:

1. AC Distribution Panel Board (DPB) shall have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
2. All the termination works related to changeover switches; cabling work should be undertaken by the bidder as part of the project.
3. All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz

4. The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
5. All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
6. Should conform to Indian Electricity Act and rules (till last amendment).
7. All the 415 V AC or 230 volts' devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

Variation in supply voltage	+/- 10 %
Variation in supply frequency	+/- 3 Hz

PCU/ARRAY SIZE RATIO:

- a The combined wattage of all inverters should not be less than rated capacity of power plant under STC.
- b Maximum power point tracker shall be integrated in the PCU/ inverter to maximize energy drawn from the array.

PCU/ Inverter:

The PCU including MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter should also be DG set interactive. If necessary, Inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:

- ✓ Switching devices : IGBT/MOSFET
- ✓ Control : Microprocessor /DSP
- ✓ Nominal AC output voltage and frequency : 415V, 3 Phase, 50 Hz
- ✓ Grid Frequency Synchronization range : + 3 Hz or more
- ✓ Ambient temperature considered : 20° C to 50° C
- ✓ Humidity : 95 % Non-condensing
- ✓ Protection of Enclosure : IP-20(Minimum) for indoor.
: IP-65(Minimum) for outdoor.
- ✓ Grid Frequency Tolerance range : + 3 or more
- ✓ Grid Voltage tolerance : - 20% & + 15 %
- ✓ No-load losses : Less than 1% of rated power
- ✓ Inverter efficiency(minimum) : >93% (In case of 10kW or above)
- ✓ THD : < 3%
- ✓ PF : > 0.9
- ✓ Display type : LCD for data display. LCD / LED for status display
- Communication interface : RS 485 / RS 232 / RJ45

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

- iii. 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.

DATA ACQUISITION SYSTEM / PLANT MONITORING

1. Built-in meter and data logger to monitor plant performance through external computer (IoT) shall be provided for each of the solar PV plant.
2. **Solar Irradiance:** An integrating Pyranometer / Solar cell-based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.
3. **Temperature:** Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system
4. **Electrical Energy:** Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
 - i. AC Output current.
 - ii. AC Voltage.
 - iii. Output Power
 - iv. Power factor.
 - v. DC Input Voltage.
 - vi. DC Input Current.
 - vii. Time Active.
 - viii. Time disabled.
 - ix. Time Idle.
 - x. Power produced and feed-in
 - xi. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
5. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to 6 months and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
6. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
7. Computerized AC energy monitoring shall be in addition to the digital AC energy meter. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
8. All instantaneous data shall be shown on the computer screen. Software shall be provided for USB/ internet download and analysis of DC and AC parametric data for individual plant.
9. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner / SBI location with latest software/hardware configuration and service connectivity for online / real time data monitoring/control complete to be supplied and operation and maintenance/control to be ensured by the supplier. Provision for interfacing these data on SBI server and portal in future shall be kept.

CABLES

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

- i Temp. Range: -10°C to $+80^{\circ}\text{C}$.
- ii Voltage rating 1100V grade
- iii Flexible and excellent resistance to fire (FRLS), heat, cold, water, oil, abrasion, UV radiation.
- iv 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. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
- v 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 ferrule or by other means so that the cable easily identified.
- vi The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. 25years.
- vii Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified elsewhere in this document.
- viii The size of each type of DC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 1%.
- ix 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 %.

12.0 CONNECTIVITY

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time. Utilities may have voltage levels other than standard ratings, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.

METERING:

1. The bidirectional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.
2. The bidder must take approval/NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to SBI before commissioning of SPV plant.
3. Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

14.0 INTEGRATION OF PV POWER WITH GRID:

The output power from the inverters feeds it into the main electricity grid after synchronization. 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. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

For buildings or loads with diesel generator backup, the wiring of the solar grid inverter shall be such that the solar grid inverter cannot run in parallel with the diesel generator. This implies that the solar grid inverter must be connected to a distribution board on the grid side of the automatic or manual change-over switch as shown in typical wiring diagram.

Metering and grid connectivity of the roof top solar PV system under this scheme would be the responsibility of the Bidder in accordance with the prevailing guidelines of the concerned DISCOM and / or CEA (if available by the time of implementation). SBI could facilitate connectivity; however, the entire responsibility lies with bidder only.

15.0 POWER CONSUMPTION:

Regarding the generated power consumption, Total power generated shall be purchased by SBI, priority shall be given for internal consumption and thereafter any excess power shall be exported to grid. Calibrated Energy meter at the feed-in point shall be installed by the successful bidder for cumulative power consumption reading. Decisions of appropriate authority like DISCOM, state regulator may be followed.

PROTECTIONS

The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

LIGHTNING PROTECTION

The SPV power plants shall be provided with lightning & 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 (not to use existing lightning arrestors of the building). Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by using the metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

SURGE PROTECTION

Internal surge protection shall consist of "3" MOV type effective surge-arrestors connected from +ve and -ve terminals to earth (via Y arrangement). Any damage of the SBI appliances due to surge protection failure shall be the responsibility of successful bidder.

EARTHING PROTECTION

1. Each array structure of the PV yard should be grounded/ earthed properly as per IS:3043-1987. In addition, the lightning arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of SBI as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be double earthed properly.
2. Earth resistance shall not be more than 1 ohm. It shall be ensured that all the earthing points are bonded together (interlinked) to make them at the same potential.

GRID ISLANDING PROTECTION

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.”

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.

A manual disconnect 4pole 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.

18.0 TOOLS & TACKLES AND SPARES:

A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc along with spare set of PV modules be indicated, which shall be supplied along with the equipment. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished.

19.0 DANGER BOARDS AND SIGNAGES:

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery –cum- control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with SBI/ owner.

FIRE EXTINGUISHERS:

The firefighting system for the proposed power plant for fire protection shall be consisting of:

- a) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- b) Sand buckets in the control room

The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

23.0 SAFETY MEASURES:

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

24.0 OPERATION & MAINTENANCE (O&M)

The bidder shall be responsible for Operation and Maintenance of the Roof top Solar PV system for a period of 25 years (or) time period up to the transfer of ownership to SBI, during which SBI/ SBIIMSPL will monitor the project for effective performance in line with conditions specified elsewhere in the bid document.

PLANT PERFORMANCE EVALUATION

The successful bidder shall be required to meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the GHI levels of the location during the O&M period.

- ✓ Performance Ratio = 75%
- ✓ Capacity Utilization Factor = 15%

The bidder should send the periodic plant output details to SBI/ SBIIMSPL for ensuring the CUF. The PR will be measured at Inverter output level during peak radiation conditions.

26.0 ACTION WHERE THERE IS NO SPECIFICATION

In case of any class of work for which there is no specification mentioned, the same will be carried out in accordance with the Indian Standards Specifications (IS)/ MNRE/ NISE/ BEE standards subject to the approval of the Employer / SBIIMSPL.

27.0 OPERATION OF THE SYSTEM DURING WEEKENDS AND GENERAL HOLIDAYS AND CALCULATION OF CUF:

During grid failure, the SPV system stops generating. Any instances of grid failure need to be mentioned in the monthly report and those instances need to be authorized by local DISCOM. Then the period will be excluded in calculation of CUF.

Any taxes and duties shall be paid extra by the bidder as applicable on the SBI/ SBIIMSPL service charges and the bid processing fee.

QUALITY CERTIFICATION, STANDARDS AND TESTING FOR GRID-CONNECTED ROOFTOP SOLAR PV SYSTEMS/ POWER PLANTS

Quality certification and standards for grid-connected rooftop solar PV systems are essential for the implementation of this technology. Hence, all components of grid-connected rooftop solar PV system/ plant must conform to the relevant standards and certifications given below:

Solar PV Modules/ Panels	
IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61646 / Equivalent IS (Under Dev.)	Thin Film Terrestrial PV Modules
IEC 62108	Concentrator PV Modules & Assemblies
IEC 61701	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- Part 1/ IS 16170: Part 1	Photovoltaic (PV) module performance testing and energy rating –: Irradiance and temperature performance measurements, and power rating
IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH ₃) Corrosion Testing (As per the site condition like dairies, toilets)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, Part 2: Requirements for Testing
Solar PV Inverters	
IEC 62109-1, IEC 62109-2	Safety of power converters for use in photovoltaic power systems – Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems Part 2: Particular requirement for inverters. Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IEC/IS 61683 (as applicable)	Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)
IEC 62116/ UL 1741/ IEEE 1547 (as applicable)	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding Prevention Measures
IEC 60255-27	Measuring relays and protection equipment – Part 27: Product safety requirements
IEC 60068-2 / IEC 62093 (as applicable)	Environmental Testing of PV System – Power Conditioners and Inverters
Fuses	
IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit breakers (AC/DC): a) Low-voltage Switchgear and Control-gear, Part 1: General rules b) Low-Voltage Switchgear and Control-gear, Part 2: Circuit Breakers c) Low-voltage switchgear and Control-gear, Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units d) EN 50521: Connectors for photovoltaic systems – Safety requirements and tests
IEC 60269-6	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems
Surge Arrestors	

BFC 17-102:2011	Lightening Protection Standard
IEC 60364-5-53/ IS 15086-5 (SPD)	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control
IEC 61643-11:2011	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
Cables	
IEC 60227/IS 694, IEC 60502/IS 1554 (Part 1 & 2)/ IEC69947 (as applicable)	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems
(BT(DE/NOT)258)	mainly for DC Cables
Earthing/ Lightning	
IEC 62561	Series (Chemical earthing) (as applicable)
IEC 62561-1	Lightning protection system components (LPSC) - Part 1: Requirements for connection components
IEC 62561-2	Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes
IEC 62561-7	Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds
Junction Boxes	
IEC 60529 IEC 529	Junction boxes and solar panel terminal boxes shall be of the thermoplastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
Energy Meter	
IS 16444 or as specified by the DISCOMs	A.C. Static direct connected watt-hour Smart Meter Class 1 and 2 —Specification (with Import & Export/Net energy measurements)
Solar PV Roof Mounting Structure	
IS 2062/IS 4759	Material for the structure mounting
IEC 62548	PV arrays – Design requirements

QUALITY STANDARDS AND CERTIFICATIONS FOR A GRID-CONNECTED ROOFTOP SOLAR PV SYSTEM

Equivalent standards may be used for different components of the systems. In case of clarification, the following organizations/ agencies may be contacted:

- Ministry of New and Renewable Energy (MNRE)
- National Institute of Solar Energy (NISE)
- The Energy and Resources Institute (TERI)
- TUV Rheinland
- UL

COVERING LETTER

(The covering letter should be on the Letter Head of the Bidding Company)

Ref. No.

Date:

To

**The Assistant General Manager (Premises & Estate)
State Bank of India,
1st Floor, Local Head Office,
Motimahal Marg, Hazratganj,
Lucknow– 226001**

Sub: Bid for “IMPLEMENTATION OF GRID TIED ROOFTOP SOLAR PV SYSTEM ON OPEX (OPERATIONAL EXPENDITURE) MODEL AT 10 LOCATIONS BANK’S OWN BUILDING UNDER GEOGRAPHICAL AREA OF UP LUCKNOW CIRCLE.

Dear Sir,

We, the undersigned..... having read, examined and understood in detail the Tender Document for Implementation of Grid connected Roof Top Solar PV System Scheme in State of U.P. hereby submit our Bid comprising of Price Bid and Techno Commercial Bid. We confirm that neither we nor any of our Parent Company / Affiliate/Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid Tender Invitation.

1. We give our unconditional acceptance to the tender issued by Premises & Estate dept , LHO Lucknow as amended. This shall also be construed as a token of our acceptance to the Tender Documents including all its amendments and clarifications uploaded on SBI website.

We shall ensure that we execute such Tender Documents as per the provisions of the NIT and all provisions of such Tender Documents shall be binding on us.

2. Earnest Money Deposit

We have enclosed a EMD of Rs....., in the form of Demand Draft no.....dated..... as per Format from *(Insert name of bank providing DD)*..... and valid up to.....in terms of Clause of this Tender Document.

3. We have submitted our Price Bid strictly as per Terms & Conditions of this Tender, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format(s).

4. We have enclosed a declaration for the Project to the effect that neither we will compromise in terms of quality of work and service providing for the SBI, nor we shall misconduct in future with SBI for implementation of the project.

5. Acceptance

We hereby unconditionally and irrevocably agree and accept that the decision made by SBI in respect of any matter regarding or arising out of the Tender Document shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.

We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of projects of capacity offered by us.

6. Familiarity with Relevant Indian Laws & Regulations

We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the Tender Documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in Tender Conditions have been fully examined and considered while submitting the Bid.

7. We are enclosing herewith the Envelope (Covering letter, Processing fee receipt and EMD) and Envelope-II (Techno-Commercial documents) containing duly signed formats, each one duly sealed separately, in one original as desired by you in the Tender for your consideration.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the Tender and subsequent communications from SBI. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the Tender and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 6 month from the Bid deadline. We confirm that we have not taken any deviation to be deemed non-responsive.

Dated the.....day of.....,2021

Thanking you,

We remain,

Yours faithfully,

**Name, Designation and Signature of Authorized Person
in whose name Power of Attorney/Board Resolution
as per Clause is issued.**

ANNEXURE-II

GENERAL PARTICULARS OF THE BIDDER:

1	Name of the Company	
2	Registered Office Address	
3	Telephone, Telex, Fax No	
4	E-mail	
5	Web site	
6	Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
7	Year of Incorporation	
8	Bidding company PAN Number	
9	Bidding company GST Regn. Number	
10	Have the bidder/Company ever been debarred by any Govt. Dept. / Undertaking for undertaking any work.	
11	Reference of any document information attached by the Bidder other than specified in the RFS.	
12	Whether the Bidder wishes to form a Project Company for execution of work	Yes/ No/ May be
13	Bidding company is listed in India	Yes/ No

14	Details of the Ownership structure (Details of persons owning 10% or more of the Total Paid up equity of the Bidding Company)	
15	Details of the similar works completed within 5 years (mention minimum 3 major works)	1) 2) 3)
16	EMD DD No	
17	Validity of EMD	
18	<ul style="list-style-type: none"> • Banker E-mail ID, • FAX No of the banker • Correspondence address & Pin Code 	

(Signature of Authorized Signatory) With Seal

POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

(a) Power of Attorney to be provided by the Bidding Company in favour of its representative as evidence of authorized signatory’s authority.

Know all men by these presents, We..... *(name and address of the registered office of the Bidding Company as applicable)*..... do hereby constitute, appoint and authorize Mr./Ms. *(name & residential address)* who is presently employed with us and holding the position of as our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for IMPLEMENTATION OF GRID CONNECTED ROOF TOP SOLAR PV SCHEME (OPEX) IN STATE OF UTTAR PRADESH in India in response to the **Tender ID : LUC202106001 dated 15.06.2021** issued by SBI Premises & Estate Dept, Lucknow Circle including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the SBI may require us to submit.

The aforesaid Attorney is further authorized for making representations to the SBI, Lucknow Circle and providing information / responses to SBI, Lucknow Circle, Lucknow representing us in all matters before SBI, Premises & Estate dept, Lucknow Circle and generally dealing with concerned dept of SBI, LHO Lucknow in all matters in connection with this Bid till the completion of the bidding process as per the terms of the above mentioned RFS.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the RFS.

Signed by the within named

..... *(Insert the name of the executant company)*..... through the hand of Mr.....duly authorized by the Board (vide Board resolution No.....) to issue such Power of Attorney.

Dated this day of

Accepted

.....
Signature of Attorney

(Name, designation and address of the Attorney)

Attested

.....
(Signature of the executant)
(Name, designation and address of the executant)

.....
Signature and stamp of Notary of the place of execution

Common seal of..... has been affixed in my/our presence pursuant to Board of Director's Resolution dated..... (Board of Director's Resolution is also enclosed)

WITNESS

1.(Signature)

Name.....

Designation

2.(Signature)

Name.....

Designation

Notes:

- ✓ *The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.*
- ✓ *The person authorized under this Power of Attorney, in the case of the Bidding Company / Lead Member being a public company, or a private company which is a subsidiary of a public company, in terms of the Companies Act, 1956, with a paid up share capital of more than Rupees Five crores, should be the Managing Director / whole time director/manager appointed under section 269 of the Companies Act, 1956. or 203 of companies Act 2013 In all other cases the person authorized should be a director duly authorized by a board resolution duly passed by the Company.*
- ✓ *Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).*

FORM OF AGREEMENT

ARTICLES of AGREEMENT made this _____ day of _____ year 2021 between the **State Bank of India in corporated under State Bank of India act 1955** having its Corporate Centre at State Bank Bhavan, Madame Cama Road, Nariman Point Mumbai-400 021 and it's Local Head Office at Lucknow (Hereinafter referred to as the "Employer/Owner/client" which expression shall, unless excluded by or repugnant to the context, includes its successors and assigns) of the ONE PART and _____ of _____ (Hereinafter referred to as "Contractor" unless excluded by or repugnant to the context, includes its successors and assigns) of the OTHER PART.

WHEREAS the Employer intends to carry out **DESIGN, MANUFACTURE, SUPPLY, ERECTION, TESTING AND COMMISSIONING INCLUDING WARRANTY, OPERATION & MAINTENANCE OF GRID CONNECTED ROOF-TOP SOLAR PHOTOVOLTAIC AND SMALL SOLAR POWER PLANTS IN OPEX (OPERATIONAL EXPENDITURE) MODEL IN SELECTED PREMISES (OWNED) OF SBI IN STATE OF UTTAR PRADESH** and shall herein after referred to as "Project".

AND WHEREAS for the purpose of the above said project, the Employer invited sealed tenders from experienced, resourceful and bonafied contractors vide Notice Inviting **Tender ID: LUC202106001 dated 15.06.2021.**

WHEREAS the contractor submitted his Tender Documents containing Notice Inviting Tender, General notes, General Conditions of Contract, Special conditions, Schedule of approximate quantities and rates , Form of Agreement, Technical Specification, Approved manufacturers/ natural source of materials, Declaration, Specifications as in Schedule of Quantities etc. for the above said project, (Hereinafter collectively referred to as the "said conditions"), duly signed on each page as a token of his acceptance of the same, along with requisite Earnest Money Deposit.

AND WHEREAS out of the Tenders received, the Tender of the contractor was found to be most suitable for the project.

AND WHEREAS the Employer has accordingly issued the Letter of Allocation (No.....dt.....) to the contractor subject to his furnishing the requisite Security Deposit.

AND WHEREAS the Contractor has accepted the aforesaid Allocation Order vide his letter of acceptance No..... dt.....and has also deposited with the Employer a sum of Rs..... which forms the requisite Security Deposit.

NOW, therefore, it is hereby agreed to and between the parties as follows:

1) Contract documents

The following documents shall constitute the Contract Documents.

- I. This Article of Agreement.
- II. Tender Document submitted by the Contractor including the "said conditions", N.I.T and Schedule of quantity.
- III. All correspondence between the Employer and the Contractor from the date of issue of N.I.T and the date of issue of work order.
- IV. Letter of Allocation No.....dt.....

2) In consideration of the payment terms to the Contractor as hereinafter provided the Contractor shall
Signature of Contractor

upon and subject to the said conditions, execute and complete the project work shown upon the approved drawings etc. and upon successful commissioning of Solar PV system said Schedule of Quantities (Price Bid) shall be applied according to new Power Purchase Agreement (PPA).

3) Notwithstanding what are stated in the **N.I.T conditions of Tendering, Conditions of Contract** of herein stated before, the Employer reserves itself the right of altering the drawings and the nature of the work and addition to or omitting any items of work or of having portions of same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this contract.

4) As mentioned in Article 1 above, the **“said conditions”** shall be read and be treated as forming part of this agreement and parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and preferred.

5) General dispute arising under this agreement shall be referred to the Arbitration in a manner specified in the Conditions of the Contract and all legal disputes shall be limited within the territorial jurisdiction of the Lucknow thereto. The decision of the arbitration shall be final and binding on both the parties.

IN WITNESS WHEREOF THE PARTIES to their present have here under set and subscribed their hands, the day, month and year first above written.

Signed and delivered for and on behalf of

State Bank of India, Shri. _____ its duly authorized official, In the presence of –

1. (Name and Address)

2. (Name and Address)

Signed and delivered for and on behalf of

The Contractor _____ by Shri _____ his duly authorized official, in the presence of –

1. (Name and Address)

2. (Name and Address)

READ, UNDERSTOOD AND ACCEPTED

SIGNATURE OF THE CONTRACTOR WITH SEAL

DATE

DECLARATION

{To be printed on bidder's letter head and sent duly sealed & signed}

**The Assistant General Manager (Premises & Estate)
State Bank of India,
1st Floor, Local Head Office,
Motimahal Marg, Hazratganj,
Lucknow – 226001**

Dear sir,

I/We have inspected the sites mentioned in tender dated **IMPLEMENTATION OF GRID TIED ROOFTOP SOLAR PV SYSTEM ON OPEX (OPERATIONAL EXPENDITURE) MODEL IN OWNED/LEASED PREMISES OF SBI IN STATE OF UTTAR PRADESH** and I/We have made me/ us fully acquainted with the local conditions in and around the sites of works and drawings of works (prepared by self and approved by Employer), Accessories etc. complete.

I/We hereby declare that I/ We have carefully gone through the conditions laid down in the Notice Inviting Tender, General notes, General Conditions of Contract, Special conditions, Schedule of approximate quantities and rates , Form of Agreement, General Specification, Approved manufacturers/ natural source of materials (i.e. all parts of Technical bid), Technical Specifications of schedule of quantities (i.e. all parts of Price bid), and clearly understood all the same and on the basis of the same I/ We have quoted our rates in the Schedule of Quantities/BOQ attached with the tender documents.

We accept all the terms and conditions of tender documents. We will abide by the technical specification mentioned in the tender. We here by undertake to use only specified material/ make as per the tender schedule/ SBI's approved list. I/ We hereby declare, in particular that, during execution of all works at site; it will be my/ our sole responsibility to strictly adhere to/ meticulously follow the General Specification, Approved manufacturers/ natural source of materials, Technical Specifications of schedule of quantities, all drawings of layout and items.

For any type of deviation (to any of above or subsequent instructions), it will be my/ our responsibility to obtain the written instruction of the Engineer-in-charge for the same failing which it shall be deemed that I have carried out any such deviations at my own and I shall be duty bound to replace the all deviated material/ works from the site at my/ our cost as well as I shall be liable to penalized by the employer as deemed fit and for all such loses made thereof, I/ we shall not have any right to arbitrate in any manner.

I/ We hereby declare that I/ We shall obtain approvals from employer in time and also shall uniformly maintain such progress as may be directed by the employer to ensure completion of same within the target date/ time as mentioned in the tender document. Also, on successful commissioning of the Solar PV System we shall enter into PPA (Power Purchase Agreement).

Date:

Signature and seal of Contractor/ Tenderer

Witness:

1.

2.

FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)

{To be submitted separately for each location}

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

In consideration of the*[Insert name of the Bidder]*..... {hereinafter referred to as selected Successful Bidder(SB)} submitting the response to RFP inter alia for selection of the **DESIGN, MANUFACTURE, SUPPLY, ERECTION, TESTING AND COMMISSIONING INCLUDING WARRANTY, OPERATION & MAINTENANCE OF GRID CONNECTED ROOF-TOP SOLAR PHOTOVOLTAIC AND SMALL SOLAR POWER PLANTS IN OPEX (OPERATIONAL EXPENDITURE) MODEL IN SELECTED PREMISES (OWNED/ LEASED) OF SBI IN STATE OF UTTAR PRADESH TERRITORY** in response to the **Tender ID : LUC202106001 dated 15.06.2021** issued by Premises & Estate dept of SBI LHO Lucknow considering such response to the RFP of*[insert the name of the Successful Bidder]*.....

(which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and selecting the Solar Power Project of the Solar Power Developer and issuing Letter of allocation No..... dated..... to.....*(insert the name of the Successful Bidder)*..... as per terms of RFP and the same having been accepted by the selected SB or a Project Company, M/s *[{a Special Purpose Vehicle (SPV)/ Consortium formed for this purpose}, if applicable]*.

As per the terms of the RFP, the.....*{Bank Name & Address}*..... hereby agrees unequivocally, irrevocably and unconditionally to pay to Assistant General Manager Premises & Estate Department, SBI at Local Head Office, Lucknow forthwith on demand in writing from SBI or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees.....*[Total Value]*..... only, on behalf of M/s*(insert the name of the Successful Bidder)* *[(SB)/ Project Company]*

This guarantee shall be valid and binding on this Bank up to..... and including*[insert date of validity in accordance with Clause in instructions of this RFP]*.....and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to R s. _____ (In words Rupees only).

Our Guarantee shall remain in force until...../ SBI shall be entitled to invoke this Guarantee till

The Guarantor Bank hereby agrees and acknowledges that SBI shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by SBI, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to SBI.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by*(insert the name of the Successful Bidder)*..... *[(SB)/ Project Company as applicable]* and/or any other person.

The Guarantor Bank shall not require SBI to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against SBI in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Lucknow shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly SBI shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Successful Bidder(SB) / Project Company , to make any claim against or any demand on the Successful Bidder(SB)/ Project Company or to give any notice to the Successful Bidder(SB)/ Project Company or to enforce any security held by SBI or to exercise, levy or enforce any distress, diligence or other process against the Successful Bidder(SB)/ Project Company .

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. _____ (In words Rupees _____

only) and it shall remain in force until We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if SBI serves upon us a written claim or demand.

Signature _____
Name _____
Power of Attorney No. _____
Email ID _____

For

.....[Insert Name of the Bank]

Banker's Stamp and Full Address.

Dated this ____ day of ____, 20__

Witness:

1. Signature Name and Address

2. Signature Name and Address

Notes:

- ✓ *The Stamp Paper should be in the name of the Executing Bank and of appropriate value.*
- ✓ *The Performance Bank Guarantee (PBG) shall be executed by any of the Bank from the List of Nationalized/ Scheduled Banks other than SBI.*

PRICE BID

S. No.	Year of Operation	Tariff (Rs/kWh)	Discount Factor at 10.81%	Discounted Tariff (Rs/kWh)
C1	C2	C3	C4	C5= (C3) X (C4)
1	1st Year		1.000	
2	2nd Year		0.903	
3	3rd Year		0.815	
4	4th Year		0.735	
5	5th Year		0.664	
6	6th Year		0.599	
7	7th Year		0.540	
8	8th Year		0.488	
9	9th Year		0.440	
23	23rd Year		0.105	
24	24th Year		0.095	
25	25th Year		0.085	
	TOTAL		9.469	Sum of Dis- counted tariff
Levelized Tariff for 25 years (in Rs /kWh) =				$\frac{[\text{Sum of Discounted Tariff (Rs/kWh)}]}{9.469}$

Please note :

Firm whose levelized tariff found lowest shall be declared as successful bidder. However work order shall be placed for tariff quoted in C3 column to successful bidder. Price bid to be filled online only. No hardcopy to be submitted. Price bid of only those bidders shall be opened, who are meeting minimum eligibility criteria.

TYPICAL SOLAR PV POWER SYSTEM ARRANGEMENT (TENTATIVE)

