

SOLAR ENERGY CORPORATION OF INDIA
(A Government of India Enterprise)

Invites Request for Selection (RFS) of Bidders
for

Implementation of Grid Connected Roof Top Solar PV
Power Scheme in Warehouses in Selected States in India

(RWS Phase-I)

RFS No: SECI/Cont./RWS/75/2015

Dated: 16-04-2015



Solar Energy Corporation of India (SECI)

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April -2015

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SOLAR ENERGY CORPORATION OF INDIA

(A Government of India Enterprise)



RFS No: SECI/Cont./RWS/75/2015

Date:16/04/2015

Solar Energy Corporation of India (hereinafter called “SECI”), invites bids from the eligible bidders to participate in the Request for Selection (RFS) of Bidders for Design, manufacture, supply, erection, testing and commissioning including PPA with concern DISCOMs/Any other user, insurance,warranty, operation & maintenance for 25 years of Roof Top Solar PV power system in the warehouses (warehouses owned by various organizations like Central warehousing corporation, Food corporation of India, State Government organizations and some private companies which can have vacant roof space and vacant land in / around their warehouses) in selected States in India (RWS Phase-I).

For the implementation of above mentioned work, Bidders should submit their bid proposal along with all supporting documents complete in all aspect on or before **14-05-2015 up to 2.30 p.m** in the office of “SECI” in prescribed format.

Bidder shall submit bid proposal along with non-refundable processing fee, complete in all respect as per the Bid Information sheet. Techno-Commercial bids will be opened on **14-05-2015 at 3:00p.m** in presence of authorised representatives of bidders who wish to be present. Bid proposals received without or lesser than the prescribed processing fee,document fee and Bid Bond for the State will not be considered. In the event of any date indicated above is declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.

Bid documents which include Eligibility criteria, “Technical Specifications”, various conditions of contract, formats, etc. can be downloaded from SECI website www.seci.gov.in . Any amendment (s)/corrigendum/clarifications with respect to this Bid shall be uploaded on SECI website only. The Bidder should regularly follow up for any Amendment/Corrigendum/Clarification on the above website.

(Avnish Parashar)
Dy. Manager(C)

DISCLAMIER:

1. Though adequate care has been taken while preparing the RFS document, the Bidders/Applicants shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within twenty (20) days from the date of notification of RFS/Issue of the RFS documents, it shall be considered that the RFS document is complete in all respects and has been received by the Bidder.
2. Solar Energy Corporation of India (SECI) reserves the right to modify, amend or supplement this RFS document including all formats and Annexures.
3. While this RFS has been prepared in good faith, neither SECI nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFS, even if any loss or damage is caused by any act or omission on their part.

BID INFORMATION SHEET

<p>Document Description</p>	<p>a. The bidding process is under Rooftop Warehouse Scheme (RWS) - Phase-I for aggregate capacity of 73 MW. The projects shall be implemented on Build Own Operate basis which include sale of the Solar Power to the concerned state DISCOMs. Bidder can apply for projects <u>upto the maximum aggregate bid capacity 15 MWp only</u> as per Clause 2.4.2 of Section-I.</p> <p>b. Bidder can submit bids under competitive bidding to avail subsidy upto Rs. 2/kWh for supplying of power to the concern DISCOMs at fixed tariff of Rs. 5.5 per kWh for 25 years for the States mentioned in Clause 2.1.4 of Section-I of RFS.</p> <p>c. In the table of Clause 2.1.4, states are mentioned for 50MWp capacity only. For remaining 23 MWp capacity ,competitive bidding as per “a” &”b” above is applicable for the capacity proposed by the bidder as per their own choice in the covering letter.</p>
<p>RFS No. & Date</p>	<p>RFS No: SECI/Cont./RWS/75/2015 Dated:16/04/2015</p>
<p>Broad Scope of Work for Bidding</p>	<ul style="list-style-type: none"> • Identification of warehouses within 6 months’ time which includes submission of project sanction documents (successful bidder will sign PPA with concern DISCOMs, agreement with warehouse owner(s) and detailed project report) for the approval of SECI for issue of project specific sanction letter(s). • Design, manufacture, supply, erection, testing and commissioning including PPA with concern DISCOMs, insurance warranty, operation & maintenance for 25 years of Roof Top Solar PV power system as per RFS. • The successful bidders shall sign the rent agreement ,which includes roof of warehouses and vacant land (in and around the warehouses), with the rooftop owners(ware houses) at a fixed roof rent of Rs. 0.50/kWh of energy sold to DISCOMs for a period of 25 years.
<p>Pre-bid Conference/ Clarification Meeting</p>	<p>A pre-bid conference shall be held on 28/04/2015 at 11:00 A.M at SECI office, D-3, 1st floor, A-wing, Religare Building, District Centre, Saket, New Delhi-17. Only one person from the bidder company is</p>

	allowed to attend the same.
Last date & Time of Submission of Response of RFS	14/05/2015 up to 2.30 PM
Bid Opening (Techno-Commercial)	14/05/20-15 at 3:00 PM
Cost of the document (non-refundable)	Rs. 26,250/- (Rs. Twenty Six Thousand Two Hundred Fifty only) inclusive of VAT to be furnished through Demand Draft (DD) drawn in favour of "Solar Energy Corporation of India", payable at New Delhi along with Bid. Please refer Clause 3.11.1.1(A)(iii) for details.
Processing Fee (non-refundable)	Rs. 56,180/- (Rs. Fifty Six Thousand One Hundred Eighty only) inclusive of Service tax, for each State to be furnished through Demand Draft (DD) drawn in favour of "Solar Energy Corporation of India", payable at New Delhi along with Bid. Please refer Clause 3.11.1.1.(A)(iv) for details.
BID BOND	Based on the Bid capacity proposed by the bidder in the bid, Bid Bond shall be furnished for each State separately along with the response to RFS as per Clause 3.15 of Section-I for details
Performance Security(PBG)	PBG amount shall be furnished for each State separately by the successful bidder after issue of Letter of Allocation by SECI. Please refer Clause 3.16 of Section-I for details.
Name, Designation, Address and other details (For Submission of Response to RFS)	Avnish Parashar Dy. Manager(Contracts) Solar Energy Corporation of India D-3, A Wing, 1st Floor, Religare Building, District Centre, Saket, New Delhi-110017
Important Note: Prospective bidders are requested to remain updated for any notices/amendments/clarifications etc. to the RfS document through the website www.seci.gov.in . No separate notifications will be issued for such notices/amendments/clarification etc. in the print media or individually. All the information related to this RFS shall be updated in the SECI website www.seci.gov.in .	

1.0. DEFINITIONS & ABBREVIATIONS

In this “Bid / RFS Document” the following words and expression will have the meaning as herein defined where the context so admits:

- 1.1. “ **Affiliate**” shall mean a company that either directly or indirectly
 - a. controls or
 - b. is controlled by or
 - c. is under common control witha Bidding Company and “**control**” means ownership by one company of at least twenty six percent (26%) of the voting rights of the other company.
- 1.2. “**B.I.S**” shall mean specifications of Bureau of Indian Standards (BIS);
- 1.3. “**Bid**” shall mean the Techno Commercial and Price Bid in Format-B submitted by the Bidder along with all documents/credentials/attachments annexure etc., in response to this RFS, in accordance with the terms and conditions hereof.
- 1.4. “**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;
- 1.5. “**Bid Bond**” shall mean the unconditional and irrevocable bank guarantee to be submitted along with the Bid by the Bidder under Clause 3.16 of this RFS, in the prescribed Format- 3;
- 1.6. “**Bid Deadline**” shall mean the last date and time for submission of Bid in response to this RFS as specified in Bid information Sheet; or as amended, if any.
- 1.7. “**Bid Capacity**” shall means capacity offered by the bidder in his Bid under invitation.
- 1.8. “**CEA**” shall mean Central Electricity Authority.
- 1.9. “**Chartered Accountant**” shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949;
- 1.10. “**Competent Authority**” shall mean Managing Director (MD) of Solar Energy Corporation of India himself and/or a person or group of persons nominated by MD for the mentioned purpose herein;

- 1.11. **“Commissioning”** means Commencement of successful operation of the Project / Works by the Contractor, after carrying out Performance Test(s) as defined in RFS.
- 1.12. **“Company”** shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;
- 1.13. **“Capacity Utilization Factor” (CUF)** means the ratio of the annual output of the plant in kWh versus installed plant capacity for number of days. $CUF = \text{plant output in kWh} / (\text{installed plant capacity in kW} * 365 * 24)$.
- 1.14. **“Eligibility Criteria”** shall mean the Eligibility Criteria as set forth in Clause 3.3 of this RFS;
- 1.15. **“Financially Evaluated Entity”** shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria set forth in Clause 3.3.3 thereof;
- 1.16. **“IEC”** shall mean specifications of International Electro-technical Commission;
- 1.17. **“kWp”** shall mean Kilo-Watt Peak;
- 1.18. **“kWh”** shall mean Kilo-Watt-hour;
- 1.19. **“MNRE”** shall mean Ministry of New and Renewable Energy, Government of India;
- 1.20. **“Maximum Bid Capacity”** shall mean 15 MWp which is the maximum capacity for which the Bidder can submit its Bid;
- 1.21. **“Month”** shall mean calendar month
- 1.22. **“O&M”** shall mean Operation & Maintenance of Rooftop Solar PV system;
- 1.23. **“Owner of the project /Successful Bidder”** shall mean anyone who has ownership(including lease ownership also) of the warehouse roof and is the legal owner of all equipments of the project. Owner of the project can enter into a PPA with the concern DISCOM for supply of solar power for 25 years from the date of Commissioning of project.
- 1.24. **“Project capacity”** means Capacity in kWp offered by the Bidder for each Project consisting of single or multiple roof of warehouses. The project capacity specified is on “DC” output side only. However, to achieve minimum annual CUF, bidder are allowed to increase 15% of total allocated capacity for the state
- 1.25. **“Performance Ratio” (PR) means**
“Performance Ratio” (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.

PR= (Measured output in kW /Installed Plant capacity in kW * (1000 W/m²/Measured radiation intensity in W/m²).

- 1.26. **“Parent”** shall mean a company, which holds at least 51% equity either directly or indirectly in the Bidding Company or Project Company or a Member in a Consortium developing the Project
- 1.27. **“Project Company”** shall mean Company incorporated by the bidder as per Indian Laws in accordance with Clause no 3.4.
- 1.28. **“Project Sanction Documents”** shall mean the documents as specified in Annexure – A
- 1.29. **“Price Bid”** shall mean Envelope III of the Bid, containing the Bidder’s quoted subsidy in Rs./kWh as per the Format- B & Format- C of this RFS;
- 1.30. **“PPA”** shall mean Power Purchase Agreement with the concerned State DISCOMs by the successful bidder(s) for the state at fixed tariff of Rs. 5.5 per kWh for 25 years.
- 1.31. **“Qualified Bidder ”** shall mean the Bidder(s) who, after evaluation of their Techno Commercial Bid as per Clause 3.1 stand qualified for opening and evaluation of their Price Bid;
- 1.32. **“RFS”** shall mean Request for Selection (RFS)/Bid document/Tender document
- 1.33. **“Statutory Auditor”** shall mean the auditor of a Company appointed under the provisions of the Companies Act, 1956 or under the provisions of any other applicable governing law;
- 1.34. **“Successful Bidder(s) /Contractor/Project Developers(s)”** shall mean the Bidder(s) selected by SECI pursuant to this RWS Phase-I for Implementation of Grid Connected Roof Top Solar PV System in Warehouses as per the terms of the RFS Documents, and to whom an Letter of Allocation has been issued;
- 1.35. **“SECI”** shall mean Solar Energy Corporation of India, New Delhi (A Govt of India Enterprise) under MNRE;
- 1.36. **“SNA”** shall mean State Nodal Agency.
- 1.37. **“Subsidy”** shall mean subsidy amount quoted by L1 bidder of State in Rs. ___ /- per kWh in Price Bid Format as per RFS terms and conditions
- 1.38. **“Tendered Capacity”** shall mean the Total aggregate capacity in MW as indicated in Clause 2.1.4 proposed to be allocated by SECI to the Successful Bidders through this bidding process as per terms and conditions specified therein;

- 1.39. **“Total Subsidy”** shall mean the subsidy which will be calculated as the product of actual annual energy sold to DISCOM in kWh per 6 months and is limited for a period of 8 years with a ceiling of Rs. 29.50 lakhs/MW/year.
- 1.40. **“Ultimate Parent”** shall mean a company, which owns at least fifty one percent (51%) equity either directly or indirectly in the Parent and Affiliates.
- 1.41. **“Wp”** shall mean Watt Peak.
- 1.42. **“Warehouse”** shall mean Warehouses owned by various organisations like Central Warehousing Coproration, Food Corporation of India, State Warehousing Coproration and Private Companies which have vacant roof space and shall also include vacant land in/around their roofs in Selected States in India.
- 1.43. **1MWp** for the purpose of conversion in **kWp** shall be considered as 1000kWp.

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 sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

SECTION - I

A. INTRODUCTION, BID DETAILS AND INSTRUCTIONS TO THE BIDDERS

1. INTRODUCTION

- 1.1 MNRE launched a scheme for promotion of large scale grid-connected roof top solar PV projects for Warehouses in various States across the country on Pilot Basis and SECI has been designated as implementing agency for this scheme. The pilot scheme with aggregate capacity of 73 MWp is to be implemented on competitive bidding on required subsidy which will be provided on per kWh energy generated & sold by the successful bidders to concern DISCOMS [vide RFS.No. SECI/Cont./RWS/75/2015 dated 16/04/2015]. Bidder can submit bids for the State(s) mentioned in RFS as per Clause 2.1.4 below.
- 1.2 The pilot scheme targets installation of grid-connected roof top solar PV projects on roofs of warehouses. There are large number of warehouses owned by various organizations like Central Warehousing Corporation, Food Corporations of India, State Government organizations and some private companies which have huge vacant roof space and vacant land in and around their warehouse. Unlike industry and commercial organizations, they do not require much power of their own needs.
- 1.3 SECI, which expression shall also include its successors and permitted assigns, hereby invites interested companies to participate in the bidding process for the selection of Successful Bidder(s) for implementation of large scale grid-connected roof top Solar Photovoltaic Projects on the roofs of warehouses.
- 1.4 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.
- 1.5 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.

2.0 **BID DETAILS:**

2.1 The bids are invited under Rooftop Warehouse Scheme (RWS) Phase-1 for an aggregating capacity of **73 MWp. Bidder can apply in any State(s) as tabulated in Clause 2.1.4 below and upto the maximum bid capacity of 15 MWp as per Clause 2.4.2 of RFS.** The Bidder shall submit bid for 50% of Tendered capacity only for each state indicated in Sr No 1 to 6 of Table mentioned in Clause 2.1.4. However for Sr No 7 i.e for the remaining 23 MWp, bidder can submit bid(s) in the State(s) other than indicated in the table of clause 2.1.4. In the covering letter bidder(s) shall indicate the name of States and proposed capacity in which bid is submitted by them

2.1.1 **Bidders quoting less than or greater than 50 % of the tendered capacity in that states indicated in Sr No 1 to 6 of Table mentioned in Clause 2.1.4. shall be out-rightly rejected.** Competitive Bids on subsidy requirement are invited from the prospective bidders for the tendered capacity as indicated below against each state (including the proposed state and capacity by the bidder for 23 MWp) with a fixed tariff of Rs. 5.5/kWh. The projects shall be implemented on Build Own and Operate basis and sell the solar power to DISCOMs. The successful bidders shall sign the power purchase agreement (PPA) with the concerned Discoms at the fixed tariff of Rs. 5.50/kWh for a period of 25 years. The Successful bidders shall also sign the rent agreement with the rooftop owners(warehouses) at a fixed roof rent of Rs. 0.50/kWh of energy sold to DISCOMs for a period of 25 years. The rent shall be paid by the successful bidder to the roof top owner as per rent agreement terms and conditions.

The maximum subsidy which can be quoted by successful bidder under this scheme is Rs. 2/kWh. The quoted subsidy by the successful bidder will be available for a period of 8 years with a cap of 17% CUF i.e Rs. 29.50 lakhs/MW/year. The bidder quoted the lowest subsidy will be declared as Successful Bidder for the state and 50% of tendered capacity for that state will be allocated.

For Example: In case a bidder is quoted a subsidy of Rs. 1.18/kWh for the State of Punjab and actual annual energy sold to DISCOM is 1.4 million kWh/MW then the subsidy amount will be calculated as:

The total annual subsidy will be calculated as:

$$1.4 \times 10^6 \text{ kWh/year} * \text{Rs. } 1.18/\text{kWh} = \text{Rs. } 16.52 \text{ lakhs/year/MW}$$

This subsidy shall be available for 8 years. Every year the subsidy will be calculated on the actual annual energy sold to the concern DISCOM.

2.1.2 Successful bidders will sign PPA directly with the concerned State DISCOMs for 25 years at fixed tariff of Rs. 5.5/kWh for the State. The Successful bidders will sign a rooftop rent agreement with the rooftop owner at fixed rent of 50 paisa per kWh of energy generated & sold by the successful bidder to the

DISCOMs per year. The roof rent shall be paid by the successful bidder to the roof top owner as per rent agreement terms and conditions.

2.1.2.1 In case the bidder is also a rooftop owner, the bidder has to provide the proof of ownership to SECI.

2.1.2.2 Third party sale may be allowed where successful bidder can enter into a PPA with any of the power- offtaker/consumer other than the DISCOMS at a fixed rate of Rs 5.5/kWh subject to SECI approval. SECI reserves the right to consider or reject such proposal.

2.1.3 Subject to Clause 2.1.1 above, Bids with quoted subsidy more than Rs.2/- Per kWh will not be considered for evaluation and award.

2.1.4 The States, where the projects are required to be installed along with the respective capacities for each state (tendered capacity) is indicated in the table below.

LIST OF STATES AND CAPACITIES

Sr. No	State	Tendered Capacity (MWp)
1.	Andhra pradesh	5
2.	Haryana	10
3.	Punjab	20
4.	Telangana	5
5.	Tamil Nadu	5
6.	Uttar pradesh	5
7.	Other than the States as mentioned in serial no. 1 to 6 above	23
Total		73

2.2 Maximum 30% of the Allocated capacity in each state to the successful bidder shall be allowed to install on the vacant land in and around warehouses. SECI reserves the right to relax this condition and can allow more installation on ground.

2.3 SIZE OF THE PROJECTS:

2.3.1 The size of each project shall be in the range of **500kWp to 5.00 MWp** size. However, SECI reserves the right to relax the project size based on merit of case. One project may however comprise of single /several rooftop units. Each project can have single/ separate connection with the grid and can have single /separate metering point.

2.3.2 Further, Successful bidders to whom letter of allocation has been issued will be allowed to submit single proposal for an aggregate

capacity not less than 500kWp for approval and issue of sanction letter by SECI. Single sanction letter will be issued for the total aggregate capacity submitted by the bidder for approval as per above. However, at sole discretion of SECI, less than 500kWp project proposal may also be considered for sanctioning.

2.4 BID CAPACITY

2.4.1 **Bids shall be submitted for 50% of Tendered capacity only for each state indicated in Sr No 1 to 6 of Table mentioned in Clause 2.1.4.** Bids quoting less than or greater than 50% of the tendered capacity in that state shall be outrightly rejected. The intent is to allocate the tender capacity equally to the bidders in a State. However, in exceptional circumstances, Successful bidders can be more than two(2) in nos.

2.4.1.1 For the capacity indicated in Sr No 7 of Table mentioned in Clause 2.1.4, bidder shall submit bids for the “capacity and the States” of their own choice other than mentioned in the table of Clause 2.1.4. Further, Bidder as per their choice shall propose the capacity and name of bid out states in the Format-1 of the RFS.

2.4.2 Bidder is eligible to apply for a maximum aggregate capacity of 15 MWp for all the states indicated above. Offer of the Bidders quoting cumulative capacity more than 15 MWp shall be outrightly rejected.

2.4.3 In exceptional circumstances and at sole discretion of SECI, unutilized capacity (during initial allocation only) can be transferred to other State(s) having demand in excess of declared capacity and total capacity of the State(s) after transfer can be awarded to more than two bidders in a State equally at L1 price only. The allocation of capacity to a State shall start from the state where lowest bid is received and response is also higher than the tendered capacity in the state. For other states, allocation shall be done in the ascending order of the lowest bid received as per above subject to maximum allocation of 15 MWp to a bidder.

2.4.3.1 SECI reserves the right to allocate part capacity also subject to acceptance of the bidder.

3 INSTRUCTIONS TO THE BIDDERS

3.1 Bidder must meet the eligibility criteria independently as a Bidding Company or as a Bidding Consortium with one of the members acting as the Lead Member of the Bidding Consortium.

Bidder will be declared as a Qualified Bidder based on meeting the eligibility criteria and as demonstrated based on documentary evidence submitted by the Bidder in the Bid.

In case of a Bidding Consortium the Financial Eligibility criteria like Annual turnover or Net worth as indicated in Clause 3.3.3, shall be fulfilled by the Lead

Member or Parent Company of the Lead Member while the Technical Eligibility Criteria shall be fulfilled by consortium members. In case bidder is a consortium, a Consortium Agreement as per the Format-10 shall be furnished along with the bid.

Financial Consortium is not allowed in this Bidding Process. Consortium is only permitted for Technical partnership as per Format- 10. Further in-case where the bidding company has used the financial eligibility criteria of its parent company then it needs to be ensured that no change in the controlling equity of the Bidding company is done before 5 years from the date of commissioning of the sanctioned capacity requires prior approval of SECI.

All members of the consortium should be registered as a Company only.

However, Members of the Consortium may form the Project Company as specified in Clause 3.7. Bidder including its member of the consortium can submit one bid only.

3.2 USE OF TECHNICAL AND/OR FINANCIAL STRENGTH OF PARENT COMPANY

3.2.1 Bidder can use the technical and/or financial strength of its Parent Company or Affiliate to fulfil the Technical and/or Financial Eligibility criteria mentioned below. Members of consortium can also use the credentials of the parent company or Affiliate to fulfil the eligibility requirement.

3.2.2 Only Technical consortium is allowed for submission of Bids.

3.2.3. In above case, Bidders shall submit an Undertaking from the Parent Company as per Format- 9 and also furnish a certificate of relationship of Parent Company or Affiliate with the Bidding Company as per Format-8. Company Secretary Certificate towards shareholding pattern of the Parent Company and the Bidding Company along with a Board resolution from the Parent Company shall also be submitted.

3.3 ELIGIBILITY CRITERIA

3.3.1 GENERAL

- (a) 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.

3.3.2 TECHNICAL ELIGIBILITY CRITERIA:

- a. The Bidder should have installed & commissioned at least one Grid connected Solar PV Power Project having a capacity of not less than 50 kW which should have been commissioned at least six months prior to Techno-Commercial Bid Opening date. The list of project commissioned at least 6 months prior to Techno-Commercial Bid Opening date, indicating whether the project is grid connected, along with a copy of the Commissioning certificate and Work order / Contract / Agreement/ from the Client/Owner shall be submitted in support of Clause 3.3.2 (a) above.

3.3.3 FINANCIAL ELIGIBILITY CRITERIA:

- (a) The Bidder should have an Annual Turnover or Net worth as indicated below.
 - i. The Annual turnover of Rupees 5.0 Crore per MW in any one of the last 3 financial years preceding the Bid Deadline subject to the condition that the Bidder should at least have completed one financial year.

OR

- ii. Net worth equal to or greater than the value calculated at rate of Rs. 3.00 Crore per MW of capacity offered by the Bidder in its Bid. The Computation of Net worth shall be based on unconsolidated audited annual accounts of the last financial year immediately preceding the Bid Deadline. Share premium can be included in the Net-worth calculation in case of listed companies in India only.

In case of more than one Price Bid submitted by the Bidder, the financial eligibility criteria must be fulfilled by such Bidder for the sum total of the capacities being offered by it in its Price Bid.

For eg. In case quoted Bid capacity is less than 2.5 MW, Annual Turnover/Net worth requirements shall be on pro-rata basis.

The formula of calculation of net-worth shall be as follows:

Net-worth = (Paid up share capital) + {(Free reserves - Share premium) + Share premium of listed companies} - (Revaluation of reserves)-(Intangible assets) - (Miscellaneous expenditure to the extent not written off and carry forward losses).

For the purposes of meeting financial requirements, only unconsolidated audited annual accounts shall be used. However, audited consolidated annual accounts of the Bidder may be used for the purpose of financial requirements provided the Bidder has at least twenty six percent (26%) equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

Bidders shall furnish documentary evidence as per the **Format -7**, duly certified by Authorized Signatory and the Statutory Auditor / Practising Chartered Accountant of the Bidding Company in support of their financial capability.

3.4 INCORPORATION OF A PROJECT COMPANY

3.4.1 In case the Bidder wishes to incorporate a Project Company, in such a case, a Successful Bidder can incorporate a Project Company. Bidder shall be responsible to get all clearance required/obtained in the name of the Bidding Company transferred in the name of the Project Company.

3.4.2 The aggregate equity share holding of the Successful Bidder in the issued and paid up equity share capital of the Project Company shall not be less than fifty one percent (51%) up to a period of two(2) years from the date of commissioning of the entire Sanctioned Capacity of the Project Developer.

3.5 BID SUBMISSION BY THE BIDDER

3.5.1. The information and/or documents shall be submitted by the Bidder as per the formats specified in Section-IV & Section -V of this document.

3.5.2. Strict adherence to the formats wherever specified, is required. Wherever, information has been sought in specified formats, the Bidder shall refrain from referring to brochures /pamphlets. Non-adherence to formats and / or submission of incomplete information may be a ground for declaring the Bid as non-responsive. Each format has to be duly signed and stamped by the authorized signatory of the Bidder.

3.5.3. The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.3.1, 3.3.2 and 3.3.3 to the satisfaction of SECI and shall also furnish unconsolidated/consolidated audited annual accounts in support of meeting financial requirement, which shall consist of balance sheet, profit and loss account, profit appropriation account, auditors report, etc., as the case may be of Bidding Company or Financially Evaluated Entity for any of the last three(3) financial years immediately preceding the Bid Deadline which are used by the bidder for the purpose of calculation of Annual Turnover or of last Financial Year in case of Net Worth.

3.5.4. In case the annual accounts for the latest financial year are not audited and therefore the bidder cannot make it available, the applicant shall give certificate to this effect from their directors. In such a case, the Applicant shall provide the Audited Annual Reports for 3(Three) years preceding the year or from the date of incorporation if less than 3 years for which the Audited Annual Report is not being provided.

3.8. BID SUBMITTED BY A BIDDING COMPANY :

The Bidding Company should designate one person to represent the Bidding Company in its dealings with SECI. 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 (as per Format-6), authorizing the signatory of the Bid.

3.9. CLARIFICATIONS AND PRE-BID MEETING

3.9.1. The SECI 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 fax (and also soft copy by e-mail) to reach SECI at the address, date and time mentioned in Bid information sheet.

3.9.2. 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 SECI.

3.9.3. 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.

3.9.4. SECI is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

3.10. AMENDMENTS TO RFS BY SECI.

3.10.1. At any time prior to the deadline for submission of Bids, the SECI 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).

3.10.2. The clarification(s) / amendment(s) (if any) may be notified on SECI website www.seci.gov.in at least Two (2) days before the proposed date of submission of the Bid. If any amendment is required to be notified within Two (2) days of the proposed date of submission of the Bid, the Bid Deadline may be extended for a suitable period of time.

3.10.3. SECI 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.

3.10.4. In case any amendment is notified after submission of the Bid (prior to the opening of Techno-Commercial Bid. Bids received by SECI shall be

returned to the concerned Bidders on their request through registered post or courier and it will be for the Bidders to submit fresh Bids as the date notified by the SECI for the purpose.

- 3.10.5. All the notices related to this Bid which are required to be publicized shall be uploaded on www.seci.gov.in.

3.11. BIDDING PROCESS

3.11.1. BID FORMATS

- 3.11.1.1. The Bid in response to this RFS shall be submitted by the Bidders in the manner provided in Clause 3.3 & Clause 3.11.1.1. The Bid shall comprise of the following:

(A). ENVELOP- I (COVERING LETTER, BID PROCESSING FEE, BID BONDS AND BIDDER FORMAT EXCEL SHEET)

- i. Covering Letter indicating the Capacity quoted for each State as per the prescribed Format-1.
- ii. Copy of PAN and TAN certificates of Bidding company.
- iii. Cost of RFS document is Rs. 26,250/- inclusive of VAT
- iv. Bid processing fee @ Rs. 56,180/- for each State calculated in the manner as illustrated below:

For example No-1: In case Bidder is quoting for (3) States, then he shall furnish Processing fee of Rs. 1,68,540/- (Rs. 56180/- Per State x 3 States) irrespective of capacity of the state. However, processing fee for which the bids are being submitted by the bidder & cost of RFS document may be consolidated and a single DD may be furnished.

- v. Bid Bond, as per the prescribed Format-3 shall be submitted separately for each State for the offered capacity in a separate envelop as per Clause 3.15.
- vi. Checklist for Bank Guarantee submission requirements as prescribed in Format-5
- vii. Bidder shall enclose the CD/DVD containing the excel format "Bidder Format .xlsx" of Format 2, Format-A, Format-7 & Format-8 only. Name of the bidding company along with RFS No. shall be superscribed on CD/DVD also. Bidder shall download the excel sheet of above formats from the SECI website www.seci.gov.in. If there is any difference in the information furnished in duly signed hard copy of above formats and excel sheet then information containing in hard copy of formats will be considered final. (Format will be uploaded on SECI website shortly)

Note: All formats and relevant documents as required in the RFS shall be spiral bounded and should be flagged separately.

(B). ENVELOP- II TECHNO-COMMERCIAL DOCUMENTS

- i. Original power of attorney issued by the Bidding Company in favour of the authorized person signing the Bid, in the form attached hereto as Format-6 or standard power of attorney in favour of authorized person signing the Bid. **(Power of Attorney must be supplemented by Board Resolution to above effect for the company)**. However, SECI may accept general Power of Attorney executed in favour of Authorised signatory of the Bidder, if it shall conclusively establish that the signatory has been authorized by the Board of Directors to execute all documents on behalf of the Bidding Company.
- ii. General particulars of bidders as per Format-2
- iii. Shareholding certificate signed by the company secretary of the bidding company and shareholding certificate signed by the company secretary of the Parent company (if parent company credentials are used).
- iv. Document in support of meeting Eligibility Criteria as per Clause no. 3.3.
- v. Certificates of incorporation of Bidding company and parent company(if parent company credentials are used)
- vi. Consortium Agreement , if technical consortium is envisaged in the bid submitting by the Bidder .
- vii. Details for meeting Financial Eligibility Criteria as per Clause no. 3.3.3 in the prescribed Format-7 along with documentary evidence for the same.
- viii. If credentials of Parent company are being used by the Bidding company/lead member of the bidding consortium than Format 8 shall be furnished.
- ix. Undertakings from the Financially Evaluated Entity or its Parent Company /Ultimate Parent Company as per Format-9.
- x. Board Resolution of the Parent Company /Ultimate Parent Company of the Bidding company duly certified by the Company Secretary to provide the Performance Bank Guarantee (PBG) in the event of failure of the Bidding Company to do so.
- xi. Board resolution for Authorised signatory
- xii. Signed and stamped Copy of RFS Documents including amendments & clarifications by Authorised signatory on each page.

(C) ENVELOPE III- PRICE BID(S) AS PER SECTION –IV (Format B & Format C)

The Bidder shall inter-alia take into account the following while preparing and submitting the Price Bid duly signed by an authorized signatory.

- i.) The Bidder shall submit sealed Price Bid(s) for each State separately in the **Format B & Format C**. Each envelope shall be superscripted as “Price Bid forMW capacity forState .All the Price Bids shall be put in Envelope-III.Format B is applicable for the states indicated in Sr no 1 to 6 of table of Clause 2.1.4 and Format C is applicable for the States other than indicated in Sr no 1 to 6 of table of Clause 2.1.4.

3.12. BID DUE DATE

The Bidder should submit the Bids so as to reach the address indicated below by 1430 hrs (IST) on or before **14-05-2015**

D.M (Contracts)
Solar Energy Corporation of India
D-3, A Wing, 1st Floor, Religare Building
District Centre, Saket, New Delhi-110017

3.13. VALIDITY OF BID

- 3.13.1. The bid and the Price Schedule included shall remain valid for **a period of 18 months** from the date of techno-commercial bid opening, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof after the final deadline for submission of Bid. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting letter of allocation, SECI shall forfeit the Bid Bond furnished by him. *Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.*

- 3.13.2. In exceptional circumstances when letter of allocation is not issued, the SECI may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid Bond provided under Clause 3.15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Bond. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

3.13.3. METHOD OF BID SUBMISSION

- 3.13.3.1. Bids are required to be submitted in a single sealed cover envelope (Envelope IV) containing Envelope-I (Covering letter, Cost of RFS document & Processing fee and Bid Bonds) Envelope-II (Techno-Commercial documents) and Envelope III (Price Bids) each one duly

sealed separately. Envelope should contain the documents as detailed in Clause 3.11.1.1 above.

- 3.13.3.2. In case the Bidder is offering capacity in more than one State, the Price Bid for each State should be sealed in separated envelope and these envelopes shall be placed in Envelope III (Price Bids Envelope).
- 3.13.3.3. All the three envelopes shall be kept in a outermost Envelope-IV. All the envelopes should be superscribed as **“Bid for Grid connected Roof Top Solar PV Systems in warehouses in Selected States in India (RWS Phase-I)” _____Envelope-I (Covering envelope) / Envelope-II (Techno-Commercial Bid) / Envelope-III (Price Bids) along with the “BID DUE DATE” - (Strikeout whichever is not applicable)**
- 3.13.4. The Bidders have the option of sending their Bid either by registered post; or speed post; or courier; or by hand delivery, so as to reach SECI by the Bid Deadline. Bids submitted by telex/telegram/fax/e-mail shall not be considered under any circumstances. SECI shall not be responsible for any delay in receipt of the Bid. Any Bid received after the Bid Deadline shall be returned unopened. *It should be noted that except Envelope III, no other envelope shall contain any information/document relating to Price Bid.* SECI shall not be responsible for premature opening of the Price Bids in case of non-compliance of above.
- 3.13.5. All pages of the Bid, except for the Bid Bond, and any other document executed on non-judicial stamp paper, forming part of the Bid and corrections in the Bid, if any, must be signed by the authorized signatory on behalf of the Bidder. It is clarified that the same authorized signatory shall sign all pages of the Bid. However, any published document submitted with the Bid shall be signed by the authorized signatory at least on the first and last page of such document Bidders shall submit the Bid in original, duly signed by the their authorized signatory of the Bidder. No change or supplemental information to a Bid will be accepted after the Bid Deadline, unless the same is requested for by SECI.
- 3.13.6. If the outer cover Envelope IV or Envelope I (Covering Envelope) or Envelope-II (Techno-Commercial Envelope) Envelope III (Price Bids) is/are not closed/sealed and not superscribed as per the specified requirement, SECI will assume no responsibility for the Bid's misplacement or premature opening.
- 3.13.7. All the envelopes shall be sealed properly & shall indicate the Name & address of the Bidder. The Bid must be complete in all technical and commercial respect and should contain requisite certificates, drawings,

informative literature etc. as required in the Bid document. Each page of the Bid document should be signed & stamped. Bids with any type of change or modification in any of the terms/ conditions of this document shall be rejected. If necessary, additional papers may be attached by the Bidder to furnish/ submit the required information. Any term / condition proposed by the Bidder in his bid which is not in accordance with the terms and conditions of the RFS document or any financial conditions, payment terms, rebates etc. mentioned in Price Bid shall be considered as a conditional Bid and will make the Bid invalid.

3.14. **COST OF BIDDING**

3.14.1. The bidder shall bear all the costs associated with the preparation and submission of his offer, and the company will in no case be responsible or liable for those costs, under any conditions. The Bidder shall not be entitled to claim any costs, charges and expenses of and incidental to or incurred by him through or in connection with his submission of bid even though SECI may elect to modify / withdraw the invitation of Bid.

3.15. **BID BOND**

The Bidder shall furnish the Interest free Bid Bond @ Rs.20.00 Lakhs (Rupees Twenty Lakhs only) per MWp in the form of Bank Guarantee (BG) / Demand Draft drawn in favour of “Solar Energy Corporation of India”, payable at New Delhi. The initial validity of Bid Bond shall be for a period of **18 months from the Bid Deadline**, which shall be extended by the bidder as per the bid validity. The Bid Bond of unsuccessful bidders shall be returned within 30 days from the date of issue of Letter of Allocation(s) to successful bidders. **Separate Bid Bond shall be furnished for each State.** For a state, Bids submitted with Bid Bond Amount less than that required for “50 % of the tendered capacity for the State” shall not be considered.

The formula applicable to calculate the Bid Bond amount will be:

a) Bid Bond amount = (Rs. 20.00 Lakh) X Bid Capacity in MWp

Example: Participating for 5MWp in Haryana State, the bidder has to submit Bid Bond of Rs. 20.00 Lakh x 5 MWp = Rs. 1.Crore (Rupees One Crore Only).

3.15.1. The Bid Bond shall be denominated in Indian Rupees and shall:

- i. at the Bidder's option, be in the form of either a demand draft, or a bank guarantee from a List of banks as given in Annexure-B
- ii. be confirmed by the branch of the bank issuing the bank guarantee at New Delhi.

- iii. be submitted in its original form; copies will not be accepted; and remain valid for a minimum period of 12 months from the date of Techno Commercial bid opening, or beyond any period of extension subsequently requested under Clause 3.13.2.
- 3.15.2. the Successful Bidder shall sign and stamp the Allocation Letter and return the duplicate copy of the same to SECI within 15 days from the date of its issue.
- 3.15.3. The Bid Bond shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to SECI under following circumstances:
- a. Hundred percent (100%) of Bid Bond amount, if a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner during the period of Bid Validity specified in the RFS document and in accordance with the Clause 3.13.
 - b. Hundred percent (100%) of the Bid Bond amount, if the Successful Bidder fails to unconditionally accept the Allocation letter within 30 days from the date of its issue.
 - c. Hundred percent (100%) of the Bid Bond amount, if the Successful Bidder fails to furnish the “Performance Security” as per the Clause 3.16.

3.16. PERFORMANCE SECURITY/PERFORMANCE BANK GUARANTEE (PBG)

- 3.16.1. Within 30 days from the date of issue of Allocation letter, Successful Bidder shall furnish the Performance Security calculated in the same manner as Bid Bond amount for the allocated capacity only. ***PBG shall be submitted separately for each State.***

The formula applicable to calculate the PBG amount will be:

PBG amount for allocation in a State = (Rs. 20.00 Lakh) X Allocated Capacity in MWp in a State

Example: Allocating for 5MWp in State Haryana, the bidder has to submit PBG of Rs. 20.00 Lakh X 5 = Rs. 1 Crore(Rupees One Crore Only).

- 3.16.2. The Performance Security shall be denominated in Indian Rupees and shall be in one of the following forms:
- a. a demand draft, or a bank guarantee from the List of banks as given in Annexure-B
 - b. be confirmed by the branch of the bank issuing the bank guarantee at New Delhi.

3.16.3. The PBG shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to SECI.

- a. If the Successful Bidder is not able to identify the projects and submit Project Sanction Documents for the allocated capacity to the satisfaction of SECI, PBG amount, pro-rata to the capacity for which the Successful Bidder is not able to identify the Projects and submit Project Sanction Documents.
- b. If the Successful Bidder is not able to commission the projects for the allocated capacity to the satisfaction of SECI, PBG amount, pro-rata to the capacity not commissioned by the Successful Bidder. However, Hundred percent (100%) PBG amount furnished for the Sanctioned Capacity for the SECI identified locations, if the Successful Bidder fails to Commission the Projects(s) to the satisfaction of SECI.

Note: SECI Identified locations are those which are notified by SECI in the RFS with firm capacity and location only or for which letter/email has been issued by SECI to the Successful bidder.

- c. In all the above cases corresponding unidentified/non-commissioned capacity shall stand cancelled.
- d. If SECI service charges as per clause 3.23 is not paid with in 30 days of issue of sanction letter than PBG is liable to be forfeited.

3.16.4. The Performance Security shall be valid for a minimum period of 36 months from the date of issue of Allocation letter(s) and shall be renewed / extended till the completion of entire obligation of bidder under the contract.

3.16.5. Performance security shall be released after Twenty Five years of successful completion of operation & maintenance of the plant from the commissioning date.

3.17. OPENING OF BIDS

3.17.1. Envelope-I of the Bidders shall be opened at 1500 hours on Bid Deadline date at SECI office, in the presence of one representative from each of the Bidders who wish to be present.

3.17.2. Name of the Bidder, capacity offered for each State shall be read out to all the Bidders at the time of opening of Envelope-I and / or Envelope-II.

3.18. RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID

3.18.1. This RFS may be withdrawn or cancelled by the SECI at any time without assigning any reasons thereof. The SECI 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.

3.18.1.1. The SECI reserve the right to interpret the Bid submitted by the Bidder in accordance with the provisions of the RFS and make its own judgment regarding the interpretation of the same. In this regard the SECI shall have no liability towards any Bidder and no Bidder shall have any recourse to the SECI with respect to the selection process. SECI shall evaluate the Bids using the evaluation process specified in Section -I, at its sole discretion. SECI decision in this regard shall be final and binding on the Bidders.

3.18.1.2. SECI 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 SECI will be final.

3.19. ZERO DEVIATION

3.19.1. 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.

3.20. EXAMINATION OF BID DOCUMENT

3.20.1. The Bidder is required to carefully examine the Technical Specification, terms and Conditions of Contract, and other details relating to supplies as given in the Bid Document.

3.20.2. The Bidder shall be deemed to have examined the bid document including the agreement/contract, to have obtained information on all matters whatsoever that might affect to execute the project activity and to have satisfied himself as to the adequacy of his bid. The bidder shall be deemed to have known the scope, nature and magnitude of the supplies and the requirements of material and labour involved etc. and as to all supplies he has to complete in accordance with the Bid document.

3.20.3. Bidder is advised to submit the bid on the basis of conditions stipulated in the Bid Document. Bidder's standard terms and conditions if any will not be considered. The cancellation / alteration / amendment / modification in Bid documents shall not be accepted by SECI.

3.20.4. Bid not submitted as per the instructions to bidders is liable to be rejected. Bid shall confirm in all respects with requirements and conditions referred in this bid document.

B. CONDITIONS OF CONTRACT

3.21. SCOPE OF WORK

- 3.21.1. The scope of work for the bidder include Identification of warehouses, entering into the roof rent/lease agreement for 25 years with the rooftop owner, entering into the Power Purchase agreement (PPA) for 25 years with concern Distribution Company (DISCOM) at fixed tariff of Rs. 5.5 / kWh for the state, complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected rooftop warehouse solar PV project within 12 months from the date of issue of LoA and including insurance, warrenty and operation and maintenance (O&M) of the project for 25 years after commissioning.

3.22. SUBSIDY AMOUNT

- 3.22.1. The Fixed tariff of Rs. 5.5/kWh shall include all the costs related to above Scope of Work. 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, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training to owner and such other items and services required to complete the scope of work mentioned above.
- 3.22.2. The quoted subsidy amount shall remain firm and fixed and shall be binding on the Successful Bidder till completion of 8 years of operation thereafter SECI shall not pay any subsidy amount to successful bidder. However, the tariff will be paid by the concern DISCOMS to the bidder for a minimum period of 25 years as per the mutually agreed terms and conditons of PPA. The successful bidder will sign the rent agreement for 25 years with the rooftop owners at a fixed tariff of Rs 0.5/kWh. The terms and conditions (other then the conditions mentioned in the RFS document) of the PPA and rent agreement shall be mutually decided by the Successful bidder and the other concerned party.
- 3.22.3. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons. The Tariff of Rs. 5.5/kWh shall be inclusive of all duties and taxes, insurance etc .This fixed tariff shall be complete in all respect and no price variation /adjustment on any account shall be allowed.
- 3.22.4. 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), repowering, spares, consumables & other parts for 25 years.

3.22.5. The quoted subsidy on per kWh shall be specified on sanction letter of successful bidder for each state. The tariff and subsidy shall be in accordance with all terms, conditions, specifications and other conditions of the Contract as accepted by the SECI and incorporated into the sanction letter.

3.22.6. The Bidder shall complete the Price Bid in (Format-B) for each State (Section-IV) furnished in the RFS Documents.

3.23. **SECI SERVICE CHARGES**

3.23.1. SECI service charges shall be computed as 3 % of 70 % of Rs. 9.0 Crores per MWp of the allocated capacity for each State.

For example: if the successful bidder has sanctioned 1 MWp in AP then the SECI service charges shall be

SECI Service charges (in Crores) = $3\% \times 0.70 \times 9 \text{ Crores} \times 1 \text{ MWp}$ (Sanctioned capacity)

= Rupees 18.90 Lakhs only

3.23.2. SECI service charges are for site visits, inspection; liaison, monitoring etc. Taxes and duties shall be paid extra. SECI service charges are non-refundable and for each project the service charges has to be paid within 15 days from date of issuance of Sanction letter by SECI. Further, any delay beyond 15 days shall attract interest @ 1.25 % per month of the amount not paid, calculated on day to day basis till the full payment including interest is paid. SECI has the right to recover / adjust any unpaid SECI service charges including interest from the 1st instalment of subsidy due to the Successful Bidder. SECI at its sole discretion may cancel the Sanctioned capacity and forfeit 100% of Performance Security in case SECI service charges are not paid within 30 days of issue of Sanction Letter. SECI reserves the right to waive the interest for delayed submission on merit of the case basis.

3.24. **INSURANCE**

3.24.1. 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 Operation & Maintenance period.

3.25. 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.

3.26. WARRANTIES AND GUARANTEES

3.26.1. 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 warranty 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.

3.27. TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP

3.27.1. 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 Section- III (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.

3.27.2. The specifications of the components should meet the technical specifications mentioned in Section III.

3.27.3. 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/subsidy and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

3.28. OPERATION & MAINTENANCE (O&M)

The bidder shall be responsible for operation and maintenance of the Roof top Solar PV system in warehouse for 25 years. SECI will monitor the project effectively for a period of 8 years (till the disbursement of subsidy) in line with conditions specified elsewhere in the bid document. However, during O&M period, the bidder shall be responsible for minimum CUF and supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of defective modules, inverters, PCU's etc and maintaining log sheets for operation detail, deployment of staff for continuous operations and qualified engineer for supervision of O&M work, complaint logging & its attending.

3.29. METERING AND GRID CONNECTIVITY

Metering and grid connectivity of the roof top solar PV system in warehouse will be done at the nearest interconnection point of the DISCOM (11 kV or 33 kV substation) under this scheme. However, Bidder shall follow the prevailing guidelines of the concerned DISCOM and / or CEA (if available by the time of

implementation). SECI/SNA could facilitate connectivity; however the entire responsibility lies with Successful bidder only.

3.30. MINIMUM GUARANTEED GENERATION

The successful bidder shall be required to meet minimum guaranteed generation of 15% CUF. However, SECI shall pay subsidy up to 17% of annual CUF subject to cap of Rs. 29.50 lakhs/MW/year. The annual CUF shall in no case be less than 15%. Capacity Utilization Factor (CUF) of 15% should be maintained during the first 8 years of operation for release of total subsidy amount calculated on yearly basis. If generation is less than 15 % for the 1st year and subsequent year, then Liquidated damages/penalty will be applicable for shortfall in energy generation as per Clause 8. If there is any excess generation beyond 17% of annual CUF, than SECI shall not pay any subsidy for excess generation. However, successful bidder and DISCOMs may mutually agreed on their own terms and conditions for excess generation and minimum CUF for the remaining period (9th year onwards) till the end of 25 years. The bidder shall share the login id and password of the data logger for remote Monitoring of the SPV plant at SECI's end and will send the periodic plant output details to SECI for ensuring the CUF. Bidder shall also share the details of actual energy generated & sold to the DISCOMs. In the absence of the actual generation data, SECI will have right to stop / cancel the disbursement of the subsidy.

3.31. PROGRESS REPORT

The bidder shall submit the progress report monthly to SECI in Prescribed Proforma. SECI will have the right to depute his/their representatives to ascertain the progress of contract at the premises of works of the bidder.

3.32. PROJECT INSPECTION.

The project progress will be monitored by SECI and the projects will be inspected for quality at any time during commissioning or after the completion of the project either by officer(s) from SECI or any authorized agency/ experts. SECI may depute a technical person(s) from its list of empanelled experts for inspection, Third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufactures facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required.

3.33. CANCELLATION OF SUBSIDY

SECI will not release the subsidy for any shortcomings in commissioning as per technical specifications mentioned in RFS even if the bidder is meeting the Annual CUF requirement.

3.34. APPLICABLE LAW

The Contract shall be interpreted in accordance with the laws of the Union of India.

3.35. SETTLEMENT OF DISPUTE

3.35.1. If any dispute of any kind whatsoever arises between SECI and Successful bidder in connection with or arising out of the contract including without prejudice to the generality of the foregoing, any question regarding the existence, validity or termination, the parties shall seek to resolve any such dispute or difference by mutual consent. .

3.35.2. If the parties fail to resolve, such a dispute or difference by mutual consent, within 45 days of its arising, then the dispute shall be referred by either party by giving notice to the other party in writing of its intention to refer to arbitration as hereafter provided regarding matter under dispute. No arbitration proceedings will commence unless such notice is given. Any dispute in respect of which a notice of intention to commence arbitration has been given in accordance with Sub Clause 3.35.2, shall be finally settled by arbitration.

3.35.3. IN CASE THE CONTRACTOR IS A PUBLIC SECTOR ENTERPRISE OR A GOVERNMENT DEPARTMENT.

3.35.3.1. In case the Contractor is a Public Sector Enterprise or a Government Department, the dispute shall be referred for resolution in Permanent Machinery for Arbitration (PMA) of the Department of Public Enterprise, Government of India. Such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusive. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

3.35.4. IN ALL OTHER CASES

3.35.4.1. In all other cases, any dispute submitted by a party to arbitration shall be heard by an arbitration panel composed of three arbitrators, in accordance with the provisions set forth below.

- 3.35.4.2. The SECI and the Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within Thirty (30) days after the later of the two arbitrators has been appointed, the third arbitrator shall, at the request of either party, be appointed by the Appointing Authority for third arbitrator which shall be the President, Institution of Engineers.
- 3.35.4.3. If one party fails to appoint its arbitrator within thirty (30) days after the other party has named its arbitrator, the party which has named an arbitrator may request the Appointing Authority to appoint the second arbitrator.
- 3.35.4.4. If for any reason an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws as mentioned in Clause 3.34 (Applicable Law) and a substitute shall be appointed in the same manner as the original arbitrator.
- 3.35.4.5. Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue or arbitration shall be New Delhi.
- 3.35.4.6. The decision of a majority of the arbitrators (or of the third arbitrator chairing the arbitration panel, if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction as decree of the court. The parties thereby waive any objections to or claims of immunity from such enforcement.
- 3.35.4.7. The arbitrator(s) shall give reasoned award.
- 3.35.5. Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless they otherwise agree.
- 3.35.6. Cost of arbitration shall be equally shared between the Successful bidder or Contractor and SECI.

3.36. **FORCE MAJEURE**

- 3.36.1. Notwithstanding the provisions of clauses contained in this RFS document; the contractor shall not be liable to forfeit (a) Security deposit for delay and (b) termination of contract; if he is unable to fulfill his obligation under this contract due to force majeure conditions.
- 3.36.2. For purpose of this clause, "Force Majeure" means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes etc. Whether a "Force majeure"

situation exists or not, shall be decided by SECI and its decision shall be final and binding on the contractor and all other concerned.

3.36.3. In the event that the contractor is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond six months, SECI has the right to terminate the contract in which case, the security deposit shall be refunded to him.

3.36.4. If a force majeure situation arises, the contractor shall notify SECI in writing promptly, not later than 14 days from the date such situation arises. The contractor shall notify SECI not later than 3 days of cessation of force majeure conditions. After examining the cases, SECI shall decide and grant suitable additional time for the completion of the work, if required.

3.37. LANGUAGE

3.37.1. All documents, drawings, instructions, design data, calculations, operation, maintenance and safety manuals, reports, labels and any other data shall be in English Language. The contract agreement and all correspondence between the SECI and the bidder shall be in English language.

3.38. OTHER CONDITIONS

3.38.1. The Successful bidder shall not transfer, assign or sublet the work under this contract or any substantial part thereof to any other party without the prior consent of SECI in writing.

3.38.2. The Successful bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of SECI and owner of the Rooftop.

3.38.3. 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.

3.38.4. SUCCESSORS AND ASSIGNS:

In case the SECI or Successful bidder may undergo any merger or amalgamation or a scheme of arrangement or similar re-organization & this contract is assigned to any entity (ies) partly or wholly, the contract shall be binding mutatis mutandis upon the successor entities & shall continue to remain valid with respect to obligation of the successor entities.

3.38.5. SEVERABILITY:

It is stated that each paragraph, clause, sub-clause, schedule or annexure of this contract shall be deemed severable & in the event of the unenforceability of any paragraph, clause sub-clause, schedule or the remaining part of the paragraph, clause, sub-clause, schedule annexure & rest of the contract shall continue to be in full force & effect.

3.38.6. COUNTERPARTS:

This contract may be executed in one or more counterparts, each of which shall be deemed an original & all of which collectively shall be deemed one of the same instrument.

3.38.7. RIGHTS & REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES:

This contract is not intended & shall not be construed to confer on any person other than the SECI & Successful bidder hereto, any rights and / or remedies herein.

3.38.8. PRICE PREFERENCE FOR M.S.M.E/ STATE OR CENTRAL PSUS

There is no relaxation in terms of any conditions of the RFS or price preference or processing fee or Bid Bond or PBG for M.S.M.E/ State or Central PSUs.

3.38.9. CORRESPONDENCE

Bidder requiring any clarification of the bid documents may contact in writing or by e Mail as per table below:

Sl. No	Name	Contact Number	Email id
i.	Sh.Rajesh Jain	011-71989211	agmsolar@seci.gov.in
ii.	Ms. Anita Agrawal	011-71989226	anitaag@seci.gov.in
iii.	Sh. Avnish Parashar	011-71989238	contracts@seci.gov.in
iv.	Sh. T Ramraj	011-71989232	

SECTION-II

4. EVALUATION CRITERIA AND SUBSIDY DISBURSEMENT

(i) BID EVALUATION AND SUBSIDY DISBURSEMENT

i.1. BID EVALUATION

The evaluation process comprises the following four steps:

- Step I - Responsiveness check of Techno Commercial Bid
- Step II -Evaluation of Bidder's fulfilment of Eligibility Criteria as per Clause 3.3 of Section-I
- Step III -Evaluation of Price Bid
- Step IV -Successful Bidders(s) selection

i.2. RESPONSIVENESS CHECK OF TECHNO COMMERCIAL BID

The Techno Commercial Bid submitted by Bidders shall be scrutinized to establish responsiveness to the requirements laid down in the RFS subject to Clause 3.6.1, Clause 3.6.2, and Clause 3.6.3. Any of the following may cause the Bid to be considered "Non-responsive", at the sole discretion of SECI:

- a. Bids that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, power of attorney supported by a board resolution, applicable undertakings, format for disclosure, valid Bid Bond, etc.;
- b. Bid not signed by authorized signatory and /or stamped in the manner indicated in this RFS;
- c. Material inconsistencies in the information /documents submitted by the Bidder, affecting the Eligibility Criteria;
- d. Information not submitted in the formats specified in this RFS;
- e. Bid being conditional in nature;
- f. Bid not received by the Bid Deadline;
- g. Bid having Conflict of Interest;
- h. More than one Bidding Company using the credentials of the same Parent Company /Affiliate;
- i. Non submission of additional information or clarifications sought by SECI as applicable within the specified time;
- j. Bidder makes any misrepresentation.

Each Bid shall be checked for compliance with the submission requirements set forth in this RFS before the evaluation of Bidder's fulfilment of Eligibility Criteria is taken up. Clause 3.3 shall be used to check whether each Bidder meets the stipulated requirement.

5. PRELIMINARY EXAMINATION

- 5.1. The SECI will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and stamped and whether the Bids are otherwise in order.
- 5.2. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total Amount that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total amount shall be corrected. If there is a discrepancy between words and figures, the amount written in words will prevail.

6. EVALUATION OF BIDDER'S FULFILMENT OF ELIGIBILITY CRITERIA

- 6.1. Evaluation of Bidder's Eligibility will be carried out based on the information furnished by the Bidder as per the prescribed Formats and related documentary evidence in support of meeting the Eligibility Criteria as specified in Clause 3.3. Non-availability of information and related documentary evidence for the satisfaction of Eligibility Criteria may cause the Bid to be non-responsive.

6.2. EVALUATION OF PRICE BID

Price Bid (Envelope III) of the Qualified Bidders shall be opened in presence of the representatives of such Qualified Bidders, who wish to be present, on a date as may be intimated by SECI to the Bidders through SECI website www.seci.gov.in or Email. The evaluation of Price Bid shall be carried out based on the information furnished in Envelope III (Price Bid). The Price Bid submitted by the Bidders shall be scrutinized to ensure conformity with the RFS. Any Bid not meeting any of the requirements of this RFS may cause the Bid to be considered "Non-responsive" at the sole decision of the SECI.

- 6.2.1. In the Price bids for the for each State shall be evaluated separately as follows;
 - a. The subsidy quoted for each State shall be evaluated separately.
 - b. Since maximum subsidy available with SECI is Rs 2/kWh, so bids quoting above the maximum subsidy of Rs 2/kWh shall not be considered for evaluation and award.

6.3. SUCCESSFUL BIDDER(S) SELECTION:

6.3.1. SUCCESSFUL BIDDER(S) SELECTION FOR 50MWp CAPACITY INDICATED IN SR NO 1 TO 6 OF THE TABLE OF CLAUSE 2.1.4

- 6.3.1.1. Bids qualifying in Clause 3.3 shall only be evaluated in this stage.
- 6.3.1.2. The subsidy requirement quoted in all Price Bids of Qualified Bidders shall be ranked from the lowest to the highest for each State separately.
 - 6.3.1.2.1. Based on the subsidy(Rs.__/kWh) amount quoted by the bidders, SECI shall arrange the bids in the ascending order i.e. L1, L2, L3,L4, _ _ _ (L1 being the lowest Subsidy).
 - 6.3.1.2.2. The Bidder with the lowest subsidy shall be declared as the Successful Bidder for the state.
 - 6.3.1.2.3. For all the states, lowest bidder will be declared as the successful bidder. For further allocation, the L2 bidder will be asked to match the subsidy quoted by the L1 bidder. In case the L2 bidder refuses to match the L1 price then L3 bidder shall be offered to match L1 subsidy. The process will continue till the next bidder matches the L1 subsidy. The bidder who matches the L1 price will also be declared Successful bidder for that state.
 - 6.3.1.2.4. Similar process as per clause 6.3.2.3 will be adopted for all the States separately.
 - 6.3.1.2.5. All the qualified bidders of the State except the L1 bidder will be given 7 days from the date of notification of L1 price on SECI website to give their consent to execute the work at L1 subsidy failing which it will be assumed that they are not interested to match L1 price. If in case of more than one such response is received expressing their consent to match the L1 price and to execute the capacity in the State then the preference shall be given in the ascending order of the bid quoted by the bidder.ie first preference will be given to L2 then L3 and so on until entire capacity is allocated.

6.3.2. SUCCESSFUL BIDDER(S) SELECTION FOR 23MWp CAPACITY INDICATED IN SR NO 7 OF THE TABLE OF CLAUSE 2.1.4

- 6.3.2.1. Bids qualifying in Clause 3.3 shall only be evaluated in this stage.
- 6.3.2.2. The subsidy requirement quoted in all Price Bids of Qualified Bidders shall be ranked from the lowest to the highest for all States other then mentioned in table of Clause 2.1.4.

- 6.3.2.2.1. Based on the subsidy(Rs.__/kWh) amount quoted by the bidders, SECI shall arrange the bids in the ascending order i.e. L1, L2, L3,L4, _ _ _ (L1 being the lowest State where Lowest bid is received amongst all the states of 23MWp).
- 6.3.2.2.2. After selecting the L1 L2 L3... states, SECI shall SECI shall further arrange the bids in the “L1 state” in the ascending order i.e. L1’, L2’, L3’,L4’, _ _ _ (L1’ being the lowest Subsidy in “L1 state”). For all the bidders of the L1 state, capacity shall be allocated as proposed by them in the L1 state subject to matching of L1’ price of the State. L2’ bidder will be asked to match the subsidy quoted by the L1’ bidder of the L1 state. In case the L2’ bidder refuses to match the L1’ price then L3’ bidder shall be offered to match L1’ subsidy. The process will continue till the next bidder matches the L1’ subsidy. The bidder who matches the L1 price will also be declared Successful bidder for that state.
- 6.3.2.2.3. If any capacity remains as per Clause 6.3.2.2.2, then L2 state bidders shall be allocated capacity as per the methodology defined in Clause 6.3.2.2.2. The process will continue till entire capacity of 23MWp is allocated.
- 6.3.2.2.4. All the qualified bidders of the State except the L1 bidder will be given 7 days from the date of notification of L1 price on SECI website to give their consent to execute the work at L1 subsidy failing which it will be assumed that they are not interested to match L1 price. If in case of more than one such response is received expressing their consent to match the L1 price and to execute the capacity in the State then the preference shall be given in the ascending order of the bid quoted by the bidder.ie first preference will be given to L2 then L3 and so on until entire capacity is allocated.
- 6.3.3. Letter(s) of Allocation (LOA): The Letter(s) of Allocation (LOA) shall be issued to all such Successful Bidders(s) selected as per the provisions of this Clause 6.3.2
- 6.3.4. Each Successful Bidder shall acknowledge the LOA and return duplicate copy with signature & stamp of the authorized signatory of the Successful Bidder to the SECI within Thirty (30) days of issue of LOA.
- 6.3.5. If it comes to notice of SECI at any stage that the Successful Bidder, to whom the Letter of Allocation has been issued does not fulfil one or any of the conditions specified in Bid document redering them ineligible, the SECI reserves the right to annul/cancel the award of the Letter of Allocation of such Successful Bidder and forfeit the PBG/Bid Bond.

6.3.6. The SECI at its own discretion, has the right to reject any or all the Bids without assigning any reason whatsoever, at its sole discretion

6.3.7. There shall be no negotiation on the quoted subsidy requirement between the SECI and the Bidder(s), during the process of evaluation.

6.4. **INCREASE/DECREASE OF BIDDER'S ALLOCATED CAPACITY IN A STATE**

6.4.1. SECI reserves the right to increase twenty five percent (25%) of the Bidder's Allocated Capacity at its sole discretion and at the request of the Bidder.

6.4.2. In case bidder has requested for reduction in Allocated capacity, then upto 25% reduction of allocated capacity can be accepted by SECI without forfeiture of PBG at SECI sole discretion subject to the condition that bidder has received atleast sanction of 75% of allocated capacity for that state.

6.4.3. In case capacity is modified by SECI as per Clause 6.4.1 above, Successful bidder shall submit the equivalent amount of PBG to SECI within 30 days from the date of issue of allocation letter /sanction letter.

6.5. **TRANSFER OF CAPACITY**

6.5.1. SECI at its sole discretion may allow transfer of allocated capacity in full or part. However, such transfer shall generally be allowed from one state to another state as per Bidder request, if agreed by SECI.

6.5.2. Inter-state transfer of allocated capacity as per the request may be allowed, subject to above clause 6.5.1 at the subsidy quoted by Successful bidder of the transferor State or at the L1 price of the new State, whichever is lower.

6.5.3. Transfer of capacity as per Clause 6.5.1 and Clause 6.5.2 shall be done within the states indicated in table of Clause 2.1.3.

<p>For example-1: If the capacity is transferred from State AP where L1 subsidy is Rs. 1.5/kWh to the State Tamilnadu where L1 subsidy is Rs. 1.25/kWh then transferred capacity of the bidder shall be permitted at the subsidy @ Rs. 1.25 /kWh only.</p>

6.5.4. Amended Performance security (PBG pertaining to additional capacity allocated or capacity transferred shall be submitted by bidder within 30 days from the date of issue of such notification.

Note: Increase/decrease/transfer of the Successful Bidder Capacity at the time of sanction will be at the sole discretion of SECI.

6.6. NOTIFICATION TO SUCCESSFUL BIDDERS

- 6.6.1. The name of Successful Bidders shall be notified indicating the allocated capacity and the L1- subsidy of the each state on SECI website www.seci.gov.in and also shall be notified individually.

6.7. PROJECT ALLOCATION AND SANCTION

- 6.7.1. The identification of the projects (warehouses) at time of bidding is not mandatory. The Bidders, however, in their own interest are advised to have discussion with concern government agencies/private parties regarding availability of warehouses in the States and discussion with concern DISCOM to sign PPA for which they intend to Bid. Non-completion of formalities like signing of PPA and roofs identification of warehouses etc after allocation of project will result in forfeiture of Bid Bond/PBG amount submitted by them.
- 6.7.2. The Successful Bidders selected as described in Clause 6.3 above shall be issued Letter of Allocation (LOA) indicating the allocated capacity & L1- subsidy for the state etc.
- 6.7.3. The bidders who have been notified as Successful Bidders, shall be given 6 months from the date of issue of Letter of Allocation for identification of warehouses.
- 6.7.3.1. Preference should be given to SECI identified warehouse roof first. In the event of offer given by SECI to the Bidder to execute the project in the SECI identified warehouse, the time for submission of project sanction documents by the bidder to SECI will be 120 days from the date of issue of allocation letter which can be extended depending upon the merit of the case. Failure of non- compliance of same shall lead to forfeiture of PBG for that State in proportion to the capacity allocated in the SECI identified location.
- 6.7.3.2. Further, Successful Bidders can start submitting their Project sanction documents as soon as they receive LOA from SECI. Project sanction documents shall be submitted to SECI with minimum Project size of 500 kWp. If after 6 months, the successful bidder could not identify warehouse (s) capacity up to the allocated capacity and submit Project sanction documents, in such case PBG for unidentified allocated capacity may be forfeited and the unidentified allocated capacity gets cancelled and bidder including its affiliates/GROUP COMPANIES/ Parent / Ultimate parent company may be debarred to participate in SECI's future tenders for a period as decided by the competent authority of SECI. SECI can however, relax the condition of submission of project sanction submission documents within 6 months time as mentioned above.
- 6.7.3.3. Successful bidders shall share the time and date stamped photographs of the warehouses and location details with SECI before entering into any

legal agreement with the Owner of warehouse. This has to ensure that the location identified by the Successful bidder is freshly identified and strictly complying the norms provided in Clause 13.2 below.

- 6.7.4. For identification of projects, SECI or state nodal agency (SNA) may provide help. However the entire responsibility of finding the warehouses and sign PPA with concern DISCOMS lies with the Bidder only.
- 6.7.5. Onus of identifying the warehouses and sign PPA with concern DISCOMS and completing the other documentation like finalizing the Project report and entering into agreements with the warehouses owners and sign PPA lies with the Successful Bidder within the above mentioned time frame even for the warehouses identified by SECI for preferential installation.
- 6.7.6. After the Project Sanctioned Document have been submitted by the Successful Bidder/ Project Developer and accepted by SECI", SECI will issue the Sanction Letter(s) for the Project (s) indicating the subsidy amount(s) which will be disbursed in line with the provisions of the RFS document. The Bidder shall complete the roofs identification, submission of project sanction documents, design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of each project within 12 months from the date of issue of Allocation Letter.
- 6.7.7. If the Bidder fails to commission the project within specified time, penalty on per day basis calculated for the Performance Security on a 6 month's period would be levied. After 6 months, the project will get cancelled and the total PBG would be forfeited. Please refer Clause 8 & 9 below for details.

6.8. **SUBSIDY DISBURSEMENT:**

- 6.8.1. SECI will provide total subsidy as quoted by the L1 Bidder in the Price Bid in Rs./kWh for that state as calculated on 6 months basis for actual energy sold (kWh) to concern DISCOMS.

For Example 1 : if the L1 quoted subsidy is Rs. 1.45/kWh and actual annual energy sold to DISCOM is 1.4 million units/MW in the state of TamilNadu for the sanctioned capacity of 5 MWp, then total subsidy shall be calculated in the following manner;

Total subsidy for the year:

$$= 1.4 \text{ million units/year/MW} \times \text{Rs. } 1.45 / \text{kWh} \times 5 \text{ MW}$$

$$= 1.4 \times 10^6 \text{ kWh/year/MW} \times \text{Rs. } 1.45 / \text{kWh} \times 5 \text{ MW}$$

$$= \text{Rs. } 101.5 \text{ Lakhs/year}$$

This subsidy shall be available for 8 years. Every year the subsidy will be calculated on the actual annual energy sold to the concern DISCOM.

6.8.2. Total liability of SECI under this contract shall be limited to release of this

For Example 2 : If the L1 bidder quoted subsidy is Rs. 2/kWh (Maximum Subsidy) and actual annual energy sold to DISCOM is 1.66 million units/MW (@more than 17% CUF) in the state of TamilNadu for the sanctioned capacity of 5 MWp, then total subsidy shall be calculated in the following manner;

Total subsidy for the year :

$$= 1.489 \text{ (@17\% CUF) million units/year/MW} \times \text{Rs. } 2 / \text{ kWh} \times 5 \text{ MW}$$

$$= 1.489 \times 10^6 \text{ kWh/year/MW} \times \text{Rs. } 2 / \text{ kWh} \times 5 \text{ MW}$$

$$= \text{Rs. } 148.92 \text{ Lakhs/year}$$

This subsidy shall be available for 8 years. Every year the subsidy will be calculated on the actual annual energy sold to the concern DISCOM.

total subsidy calculated as per 6.8.1 for a period of 8 years only with capping of 29.5 lakhs/MW/year

6.8.3. The subsidy will be disbursed as follows.

- a) Subsidy shall be released on half yearly basis upto the period of 8 years. Eg. the first instalment shall be released after 6 months from the date of Commissioning of project.
- b) Subsidy shall be released to successful bidders on receipt of Joint meter reading certified from concern DISCOMS for total energy sold on monthly basis.
- c) Minimum generation of 15 % CUF should be maintained by the successful bidders during first eight years of operation. If generation is less than 15 % for this period then Liquidated damages will be applicable for shortfall in energy generation as per clause 8 and shall be adjusted while making subsequent payments to the bidder. Even if any payment is due, that will be adjusted from the PBG.
- d) SECI shall pay the subsidy calculated on 6 months basis without incurring any liability for delayed payment. .

SECI shall only provide subsidy for actual energy sold to concern DISCOM and certified by them. However, if there is any captive consumption in the warehouses, the warehouse/rooftop owner will be paying for the energy consumed to successful bidder on mutually agreed terms & conditions.

In any case, SECI shall neither interfere in their business affairs nor shall be liable for extra claim by Successful Bidder or warehouse Owner. For the sake of calculation of subsidy amount, year will be considered as 12 months period w.e.f. from the date of commissioning.

7. OTHER CONDITIONS

7.1. Bidder or owner of the building has to obtain all the necessary approvals/Consents/Clearances required for Erection, Testing, Commissioning and O&M of the project including Grid connectivity. SECI shall not have any responsibility in this regard.

7.2. Bid bond ,Cost of RFS document & Processing fee submission:

Bid bond shall be submitted separately for each State for the offered capacity in a separate envelop (along with Cost of RFS document and Processing fee) superscripted with name of State for which Bid is being quoted & other details .However, Processing fee,cost of RFS document for all the States for which the bid and or application are being submitted may be consolidated and a single DD may be furnished.

7.3. **TAX EXEMPTIONS:**

Price bids are invited inclusive of Taxes and duties. 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. SECI in no case will be responsible for providing any tax exemptions to the bidder.

7.4. **ELIGIBILITY OF STANDALONE SYSTEM:**

7.4.1. Standalone system is not allowed under this scheme. The system should be grid connected.

7.5. **REQUIREMENT OF APPROVALS ON MAKES OF THE COMPONENTS:**

7.5.1. The modules should be manufactured in India only. Rest of the components can be procured from any source. However these items should meet the Technical specification and standards mentioned in RFS.

7.6. **OPERATION OF THE SYSTEM DURING WEEKENDS AND GENERAL HOLIDAYS AND CALCULATION OF CUF:**

7.6.1. 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 certified by local DISCOM. Then the period will be excluded in calculation of CUF.

7.7. Taxes and duties shall be paid extra by the bidder as applicable on the SECI service charges and the bid processing fee.

8. LIQUIDATED DAMAGES (PENALTY) FOR DELAY IN PROJECT IMPLEMENTATION AND OPERATION

8.1. SECI will issue the sanction letter(s) for the Project (s) indicating the L1 subsidy in Rs. per kWh quoted/matched by successful bidder, which will be disbursed in line with the provisions of the RFS document. The Bidder shall complete the project identification (agreement with warehouse, PPA with concern DISCOM), design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of each project within 12 months from the date of issue of allocation letter.

8.1.1. If the bidder fails to commission the allocated capacity within 12 months from date of issue of allocation letter, Penalty on per day basis calculated for the Performance Security on a 6 months period would be levied. After 6 months allocated capacity will get cancelled and the PBG amount pro-rata to non-commissioned capacity would be forfeited.

Example: If a project of 500 kW is delayed by 36 days then the LD will be levied as given below.
$$\text{LD} = ((\text{Performance Security})/180 \text{ days}) * \text{delayed days}$$
$$= (15,00,000 / 180) * 36$$
$$= \text{Rs.} 3,00,000.$$

8.1.2. During the first 8 years period of operation after commissioning date, if there is any shortfall in minimum guaranteed generation as per clause 3.30 then penalty will be applicable for the project and will be levied as per example below:

Example: If 1 MW plant having the CUF of 14% during 2 year of operation then penalty will be levied as given below;
$$= \{ \text{Minimum 15\% CUF required to meet in (kWh/year)} \} - \{ \text{Total Energy Generation from Solar PV plant} \} \times \text{Rs } 0.5 / \text{kWh}$$
$$= (1314000 \text{ kWh} - 1226400 \text{ kWh}) \times \text{Rs. } 0.5 / \text{kWh}$$
$$= \text{Rs. } 43,800.0$$

9. TIME OF COMPLETION OF ALLOCATED CAPACITY:

9.1 Project completion shall be **12 months from the date of issue of allocation letter**. However, project identification time is limited upto 6 months from the date of issue of allocation letter within which bidder has to submit project sanction documents to the satisfaction of SECI. Failure of non-compliance of same shall lead to forfeiture of PBG for that State in proportion to the capacity not identified. In exceptional circumstance, SECI may consider to sanction beyond the 6 months period on the request of the bidder subject to their undertaking that the project will be commissioned within the 12 months from the issue date of LoA.

For example: if “A” has submitted the project sanction documents within 7 months’ time to the satisfaction of SECI and in exceptional circumstances it has been considered by SECI and sanction letter has been issued in the 7th month then total time left for project commissioning shall be 5 months only.

- 9.2 For any additional capacity, bidder shall complete/commission the capacity within 3 months from the date of issue of Allocation letter/Sanction letter. This will include submission of project sanction documents to the satisfaction of SECI.
- 9.3 The period of construction given in Time Schedule includes the time required for mobilisation as well as testing, rectifications if any, retesting and completion in all respects to the entire satisfaction of the Engineer-in-Charge.
- 9.4 A joint programme of execution of the Work will be prepared by the Engineer-in-Charge or its representative nominated for the purpose and Successful bidders based on priority requirement of this project. This programme will take into account the time of completion mentioned in clause 9.1 above and the time allowed for the priority Works by the Engineer-in-Charge.
- 9.5 Monthly/Weekly implementation programme will; be drawn up by the Engineer-in-Charge jointly with the Successful bidder, based on availability of Work fronts as per Clause 9.4 above. Successful bidder shall scrupulously adhere to these targets /programmes by deploying adequate personnel, tools and tackles and he shall also ensure supply of all materials of his scope of supply in good time to achieve the targets/programmes. In all matters concerning the extent of targets set out in the weekly and monthly programmes and the degree of achievements, the decision of the Engineer-in-Charge will be final and binding.
10. **USER ID FOR UPDATING THE PROJECT PROGRESS ON BI-WEEKLY BASIS**
- Successful bidder authorised representative in whose name PoA has been executed and submitted along with the bid shall be provided Password and User id for updating the project progress on **monthly** basis in the sanction letter/Allocation letter for the State. Successful bidder should update the info as per the requirement of the software tool .Non updating of the progress shall be considered as no progress and shall attract punitive actions as per the relevant provision of the Contract. However, the decision of Engineer –in – charge shall be final in this regard.

11. INSPECTION AND AUDIT BY THE GOVERNMENT

11.1. The Successful bidder shall permit the SECI or any agency nominated by SECI to inspect the Successful bidder's site, accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the SECI, if so required by the SECI any time.

12. COMMISSIONING /COMPLETION CERTIFICATE:

12.1. Application for completion/commissioning certificate:

When the Successful bidder fulfils his obligation under the Contract, he shall be eligible to apply for Completion Certificate. The Engineer-in-Charge shall normally issue to the Successful bidder the Completion Certificate within one month after receiving any application therefore from the Successful bidder after verifying from the completion documents and satisfying himself that the Work has been completed in accordance with and as set out in Contract documents. The Successful bidder, after obtaining the Completion Certificate, is eligible to avail the subsidy as per the Clause 6.9

12.1.1. DOCUMENT SUBMISSION FOR ISSUE COMMISSINONING/ COMPLETION CERTIFICATE :

For the purpose of Clause 12.1 above the following documents will be deemed to form the completion documents:

- a. Checklist for inspection of Roof top SPV power plants as per SECI format.
- b. Project completion report from successful bidder as per SECI format.

12.1.2. FINAL DECISION AND FINAL CERTIFICATE:

12.1.2.1. Upon completion of 25 years of O&M and subject to the Engineer-in-Charge being satisfied, the Engineer-in-Charge shall (without prejudice to the rights of the SECI to retain the provisions of relevant Clause hereof) otherwise give a certificate herein referred to as the Final Certificate to that effect and the Successful bidder shall not be considered to have fulfilled the whole of his obligations under Contract until Final Certificate shall have been given by the Engineer-in-Charge notwithstanding any previous entry upon the Work and taking possession, working or using of the same or any part thereof by the Owner of Roof/SECI.

12.2. DEDUCTIONS FROM THE CONTRACT PRICE:

12.2.1. All costs, damages or expenses which SECI 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 SECI. All such claims shall be billed by the SECI to the Contractor within 15 (fifteen) days of the receipt of the payment request and if not paid by the Successful bidder within the said period, the SECI may, then, deduct the amount from any moneys due i.e., Performance Security or becoming due to the contractor or Successful

bidder under the contract or may be recovered by actions of law or otherwise, if the Successful bidder fails to satisfy the SECI of such claims.

12.3. CORRUPT OR FRAUDULENT PRACTICES

The SECI requires that Successful Bidders/ Contractors should follow the highest standard of ethics during the execution of contract. In pursuance of this policy, the SECI:

- 12.3.1. defines, for the purposes of this provision, the terms set forth as follows :
- 12.3.2. “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the bid process or in contract execution; and
- 12.3.3. “fraudulent practice” means a misrepresentation of facts in order to influence a bid process or the execution of a contract to the detriment of the SECI/Govt scheme, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the SECI of the benefits of free and open competition;
- 12.3.4. will declare a firm ineligible/debarred, either indefinitely or for a specific period of time, a GOVT contract if at any time it is found that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government/ SECI schemes.

13. DEBARRED FROM PARTICIPATING IN SECI'S ROOF TOP TENDER

- 13.1. SECI 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 SECI's any future tender for a period as decided by the competent authority of SECI.
- 13.2. The Successful bidder must ensure that the ROOF TOP SOLAR PV SCHEME IN WAREHOUSES-(PHASE-I) subsidy is available for newly commissioned projects i.e. for the projects whose construction/despatch of equipment's have been started only after the issue of sanction letter/allocation letter .Any roofs on which projects has been installed or commissioned before the issue of allocation letter/sanction letter shall be construed as fraudulent activity in which case Successful bidder(s) may be debarred from participating in SECI's future tender for a period as decided by the Competent authority. However, such locations may be used for installation of additional capacity with the prior approval of competent authority.

SECTION-III TECHNICAL SPECIFICATIONS

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

14. DEFINITION

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

Solar PV system shall consist of following equipments/components.

- Solar PV modules consisting of required number of crystalline PV modules.
- Grid interactive Power Conditioning Unit with Remote Monitoring System
- Mounting structures
- Junction Boxes.
- Earthing and lightning protections.
- IR/UV protected PVC Cables, pipes and accessories
- Evacuation mechanism

14.1. SOLAR PHOTOVOLTAIC MODULES:

14.1.1. The PV modules used should be made in India.

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

- a) For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701
- b) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 280 Wp and above wattage. Module capacity less than minimum 280 watts should not be accepted

- c) Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
 - d) PV modules must be tested and approved by one of the IEC authorized test centers.
 - e) The module frame shall be made of corrosion resistant materials, preferably having anodized aluminum.
 - f) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. SECI/owners shall allow only minor changes at the time of execution.
 - g) Other general requirement for the PV modules and subsystems shall be the Following:
 - I. The rated output power of any supplied module shall have tolerance within +/- 3%.
 - II. The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
 - III. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.
 - IV. IV curves at STC should be provided by bidder.
- 14.1.3. Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each modules (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).

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

14.1.4. 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 ("Customer")

- 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 Owner's sole option
 - b) Performance Warranty:
 - i. 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.

15. **ARRAY STRUCTURE**

- a) Hot dip galvanized MS/Anodised Aluminium mounting structures may be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per orientation & inclination of shed of the Warehouse. However to accommodate more capacity the angle inclination may be adjusted until the plant meets the specified performance ratio requirements.
- b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (like Delhi-wind speed of 150 km/ hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to SECI as & when required. Suitable fastening arrangement such as grouting and calmping should be provided to secure the installation against the specific wind speed.
- c) The mounting structure shall be as per latest Indian Standards.
- d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminium 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.
- e) 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
- f) Regarding civil structures the bidder need to take care of the load baring capacity of the roof and need arrange suitable structures based on the quality of roof.
- g) The total load of the structure (when installed with PV modules) on the terrace should be less than 50 kg/m².
- h) The PV array must be equipped suitably with light weight and safe walk way for routine maintenance of solar power plant.

16. 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 GRP/FRP/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JBs 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. Single compression cable glands. Provision of earthings.
- c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / surge arrestors, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- d) Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification

17. DC DISTRIBUTION BOARD:

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

18. AC DISTRIBUTION PANEL BOARD:

- a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d) 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
- e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g) Should conform to Indian Electricity Act and rules (till last amendment).

- h) All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, 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

19. **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.

20. **PCU/ Inverter:**

As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the “Power Conditioning Unit (PCU)”. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter 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
- Output frequency : 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 5kW or above)
 - THD : < 3%
 - PF : > 0.9
- a) Three phase PCU/ inverter shall be used with each power plant system.
 - b) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
 - c) 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.
 - d) Built-in meter and data logger to monitor plant performance through external computer shall be provided.
 - e) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068- 2(1,2,14,30) /Equivalent BIS Std.
 - f) The charge controller/ MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS std. The junction boxes/ enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.
 - g) The PCU/ inverters should be tested from the MNRE approved test centres / NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be IEC approved by international test houses.

21. **INTEGRATION OF PV POWER WITH GRID:**

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. 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. Once the DG set comes into service PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

22. **DATA ACQUISITION SYSTEM / PLANT MONITORING**

- i. Data Acquisition System shall be provided for each of the solar PV plant.
- ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iii. Solar Irradiance: An integrating Pyranometer (Class II or better, along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.

- iv. Temperature: Temperature probes for recording the Solar panel temperature and ambient temperature to be provided complete with readouts integrated with the data logging system
- v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
 - a. AC Voltage.
 - b. AC Output current.
 - c. Output Power
 - d. Power factor.
 - e. DC Input Voltage.
 - f. DC Input Current.
 - g. Time Active.
 - h. Time disabled.
 - i. Time Idle.
 - j. Power produced
 - k. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. 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 a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
- vii. PV array energy production: Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. Energy meter along with CT/PT should be of 0.5 accuracy class.
- viii. 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.
- ix. 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.
- x. The time interval between two sets of data shall not be less than 15 minutes. (For eg. A max. of 4 samples of data shall be recorded per hour).Data Acquisition System shall have real time clock, internal reliable battery backup (2 hours) and data storage capacity to record data round the clock for a period of min. 1 year.
- xi. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
- xii. 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.
- xiii. All instantaneous data shall be shown on the computer screen.
- xiv. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.

- xv. Provision for Internet monitoring and download of data shall be also incorporated.
- xvi. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and environment monitoring system.
- xvii. Solar Radiation and Environment Monitoring System
- xviii. Computerized solar radiation and environment monitoring system shall be installed on one of the buildings along with the solar PV power plant.
- xix. The system shall consist of various sensors, signal conditioning, data acquisition, LCD display and remote monitoring.
- xx. Ambient temperature near PV array at the level of array plane shall be monitored on continuous basis.
- xxi. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
- xxii. Solar radiation and environment monitoring system shall have real time clock, internal reliable battery backup and data storage capacity to record data round the clock for a period of min. 1 year.
- xxiii. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner /SECI 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 SECI server and portal in future shall be kept.

23. TRANSFORMER & METERING:

The generated power is to be sold to the nearest DISCOM under the PPA arrangement, therefore all necessary hardware/software as per the requirement of concerned DISCOM shall be provided by the developer.

- a) Dry/oil type relevant kVA, 11kV/415V, 50 Hz Step up along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work.
- b) The bidirectional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.
- c) The bidder must take safety clearance from concerned CEIG and submit the same to SECI before commissioning of SPV plant.

POWER CONSUMPTION:

- a) The generated power shall be exported to grid and the power will be sold to the DISCOM at a fixed tariff of Rs. 5.5/kWh for a period of 25 years. A portion of generated power may also be used for captive consumption, if require.

24. PROTECTIONS

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

24.1. LIGHTNING PROTECTION

- a) 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. Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs)/ Surge protection devices (SPDs) and suitable earthing such that induced transients find an alternate route to earth.

24.2. SURGE PROTECTION

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

24.3. EARTHING PROTECTION

- a) Each array structure of the PV array should be grounded/ earthed properly as per IS:3043-1987. Earth Resistance shall be tested in presence of the representative of Department/SECI as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly.
- b) Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

24.4. GRID ISLANDING:

- a) In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands." Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.
- b) 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

25. CABLES

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

- i. Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- ii. Temp. Range: -10°C to $+80^{\circ}\text{C}$.
- iii. Voltage rating 660/1000V
- iv. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- v. Flexible
- vi. 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.
- vii. Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified.
- viii. The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. 25years.
- ix. Bidder to indicate size and length as per system design requirement. All the cables required for the plant provided by the bidder. Any change in cabling sizes if desired by the bidder/approved after citing appropriate reasons. All cable schedules/layout drawings approved prior to installation.
- x. 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. Cable trays, if any to be provided with covers. All cables conform to latest edition of IEC/ equivalent BIS Standards. BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V ,UV resistant for outdoor installation IS /IEC 69947.
- xi. 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%.
- xii. 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 %.

26. CONNECTIVITY

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code and amended from time to time. The connectivity for power evacuation shall be strictly as per the Guidelines of concerned SERC/DISCOM. Following criteria have been suggested

for selection of voltage level in the distribution system for ready reference of the solar suppliers (as per DERC).

Capacity Range	Connecting volatge
Upto to 10 kW	240 V- Single phase or 415 V – three phase as per the option of Solar power developer
Above 10 KW and upto 100 kW	415V – three phase
Above 100kW	At HT/EHT level (11kV/33kV/66kV)

- a) The maximum permissible capacity for rooftop shall be 1 MW for a single net metering point.
- b) Utilities may have voltage levels other than above, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.
- c) For large PV system (Above 100 kW) for commercial installation having large load, the solar power can be generated at low voltage levels and stepped up to 11 kV level through the step up transformer. The transformers and associated switchgear would require to be provided by the SPV bidders.

27. TOOLS & TACKLES AND SPARES:

- a) After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the bidder for maintenance purpose. List of tools and tackles to be supplied by the bidder for approval of specifications and make from SECI/ owner.
- b) 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

28. DANGER BOARDS AND SIGNAGES:

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

29. FIRE EXTINGUISHERS:

- a) The firefighting system for the proposed power plant for fire protection shall be consisting of:
- b) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- c) Sand buckets in the control room
- d) 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.

30. DRAWINGS & MANUALS:

- a) Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be maintained. Bidders shall provide complete 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.
- b) Approved ISI and reputed makes for equipment be used.
- c) For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to SECI/owners before progressing with the installation work

31. PLANNING AND DESIGNING:

- a) The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labor.

32. DRAWINGS TO BE MAINTAINED BY BIDDER AFTER AWARD OF CONTRACT

- a) The Contractor shall maintain the following drawings Award/Intent and obtain approval
- b) General arrangement and dimensioned layout
- c) Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- d) Structural drawing along with foundation details for the structure.
- e) Itemized bill of material for complete SV plant covering all the components and associated accessories.
- f) Layout of solar Power Array
- g) Shadow analysis of the roof

33. 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.

34. DISPLAY

The bidder has to display a board at the project site mentioning the following:

- i. Plant Name, Capacity, Location
- ii. Financial Assistance from SECI/MNRE

35. Evacuation Mechanism

35.1. The successful bidders shall be responsible for entire evacuation arrangement and synchronisation with the grid at appropriate voltage level as per DISCOM requirement including signing of PPA with the concerned DISCOM.

35.2. The availability of transmission network and interfacing with the nearest sub-station shall be in the scope of successful bidder, if such work is not included in the scope of respective state agency / central agency.

SECTION-IV

PRICE BID

(To be submitted in a separate envelope for each State _____)

Date: _____

RFS No: SECI/Cont./RWS/75/2015 dated 16-04-2015

Name of the State : _____,

Bid Capacity in: _____ MWp

State	50% of Tendered Capacity for the State	Quoted Subsidy (Rs./kWh)
(1)	(2)	(3)

Note:

- a. The subsidy shall be calculated up to three decimal places. However in case of a tie it may be expanded to break the tie.
- b. Format-Bis Applicable for the States mentioned in table of Clause 2.1.4 (Sr No 1 to Sr No 6)**

Yours faithfully

Date: Signature:.....

Place: Name.....

Business Address:

Designation:.....

(Company Stamp).....

SECTION-IV

PRICE BID

(To be submitted in a separate envelope)

Date: _____

RFS No: SECI/Cont./RWS/75/2015 dated 16-04-2015

Name of the State : _____,

Bid Capacity in: _____ MWp

State	Proposed Capacity for the State(in MWp)	Quoted Subsidy (Rs./kWh)
(1)	(2)	(3)

Note:

- a. The subsidy shall be calculated up to three decimal places.However in case of a tie it may be expanded to break the tie.
- b. Format-C is applicable for all proposed states other then the States mentioned in table of Clause 2.1.4 (Sr No 1 to Sr No 6)**

Yours faithfully

Date: Signature:.....

Place: Name.....

Business Address:

Designation:.....

(Company Stamp).....

SECTION -V

FORMATS FOR SUBMITTING RFS

Format-1

Covering Letter

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

Ref. No. _____ Date: _____

From: _____(Insert name and address of Bidding Company)

Tel.#:

Fax#:

E-mail address#

To

Solar Energy Corporation of India
(A Government of India Enterprise)
D-3, A Wing, 1st Floor
District Centre, Saket, New Delhi-110017

Sub: Bid for “Implementation of large scale grid-connected roof top solar PV projects in the warehouses in various States across the country RWS (Phase-I)”

Dear Sir,

We, the undersigned....[insert name of the ‘Bidder’] having read, examined and understood in detail the RFS Document for Implementation of Grid connected Roof Top Solar PV System Scheme in warehouses (**Phase-I**) in Selected States in India 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 RFS.

1. We give our unconditional acceptance to the RFS, dated.....and RFS Documents attached thereto, issued by Solar Energy Corporation of India, as amended. This shall also be construed as a token of our acceptance to the RFS Documents including all its amendments and clarifications uploaded on SECI website (www.seci.gov.in).

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

2. Bid Capacity For 50MWp and 23MWp

We have bid for the following capacities in various States and have accordingly submitted our Price Bids for the same

Sl.No	States	Bid Capacity in MWp
50MWp for the States (Andhra Pradesh, Haryana, Punjab, Tamil Nadu, Telangana & Uttar Pradesh)		
1		
2		
3		
:		
Sub Total		
23MWp for the any other States other than mentioned above		
1		
2		
3		
:		
Sub Total		
TOTAL:		
(SHALL NOT EXCEED 15 MWp)		

3. We have enclosed processing fee _____ and Cost of RFS document _____ (Bidder shall specify the details with amount and DD no) .

4. Bid Bond

1.1 We have enclosed a Bid Bond of Rs.....(Insert Amount), in the form of bank guarantee no.....(Insert number of the bank guarantee) dated.....[Insert date of bank guarantee] as per Formatfrom(Insert name of bank providing Bid Bond) and valid up toin terms of Clauseof this RFS. The offered quantum of power by us is.....kWp . (Insert total capacity offered).

(add details as per above for more than one Bid Bonds as applicable)

5. We have submitted our Price Bid(s) strictly as per Section IV of this RFS, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format(s).
6. In case we are a Successful Bidder, we shall furnish a declaration at the time of commissioning of the Project to the effect that neither we have availed nor we shall avail in future any subsidy other than received from SECI for implementation of the project.

7. Acceptance

We hereby unconditionally and irrevocably agree and accept that the decision made by Solar Energy Corporation of India in respect of any matter regarding or arising out of the RFS 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.

8. 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 RFS Documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in RFS have been fully examined and considered while submitting the Bid.

9. We are enclosing herewith the Envelope-I (Covering letter, Cost of RFS document, Processing fee and Bid Bonds) Envelope-II (Techno-Commercial documents) and Envelope III (Price Bids) containing duly signed formats, each one duly sealed separately, in one original as desired by you in the RFS for your consideration.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFS and subsequent communications from Solar Energy Corporation of India. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFS 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 12 month from the Bid deadline. We confirm that we have not taken any deviation so as to be deemed non-responsive.

Dated the _____ day of _____, 20....

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.

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 TAN 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 in the Format as below	
15	Bank guarantee No.(Bid Bond)	
16	Validity of Bid Bond	
17	Banker email address Correspondence address & Pin Code	

(Signature of Authorized Signatory)**With Seal**

Format-A

Name of the Equity holder	Type and Number of shares owned	% of equity holding	Extent of Voting rights

(Signature of Authorized Signatory)

With Seal

Stamp and Signature of the Director/ Company Secretary / Chartered Accountant

FORMAT FOR BID BOND

(To be submitted separately for each State)

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

Ref. _____

Bank Guarantee No. _____

Date: _____

In consideration of the -----[Insert name of the Bidder] (hereinafter referred to as 'Bidder') submitting the response to RfS inter alia for selection of the Project for the capacity of MW [*Insert Capacity*] in the State _____ (insert name of the State) in response to the RfS No. _____ dated ____ issued by Solar Energy Corporation of India (hereinafter referred to as SECI) and SECI considering such response to the RfS of [*insert the name of the Bidder*] as per the terms of the RfS, the _____ [*insert name & address of bank*] hereby agrees unequivocally, irrevocably and unconditionally to pay to SECI at [*Insert Name of the Place from the address of SECI*] forthwith on demand in writing from SECI or any Officer authorized by it in this behalf, any amount upto and not exceeding Rupees --- --- [*Insert amount not less than that derived on the basis of Rs. 30 Lakhs per MW of cumulative capacity proposed in a State__ (name of the State)] only, on behalf of M/s. _____ [*Insert name of the Bidder*] .*

This guarantee shall be valid and binding on this Bank up to and including _____ [*insert date of validity in accordance with Clause 3.15 of this RfS*] 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 Rs. _____ (Rs. _____ only). Our Guarantee shall remain in force until _____ [*insert date of validity in accordance with Clause 3.15 of this RfS*]. SECI shall be entitled to invoke this Guarantee till _____ [*Insert date which is 30 days after the date in the preceding sentence*].

The Guarantor Bank hereby agrees and acknowledges that the SECI 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 SECI, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to SECI.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by ----- [*Insert name of the Bidder*] and/or any other person. The Guarantor Bank shall not require SECI to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against SECI in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Delhi 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 SECI shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder or to enforce any security held by SECI or to exercise, levy or enforce any distress, diligence or other process against the Bidder.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. _____ (Rs. _____ only) and it shall remain in force until _____ [*Date to be inserted on the basis of Clause 3.15 of this RfS*] with an additional claim period of thirty (30) days thereafter. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if SECI serves upon us a written claim or demand.

Signature _____

Name _____

Power of Attorney No. _____

For

_____ [Insert Name of the Bank] _____

Banker's Stamp and Full Address.

Dated this _____ day of _____, 20__

FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)

{To be submitted separately for each State}

(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 RfS inter alia for selection of the Project for the capacity of MW in the state[Insert name of the state] under Roof Top Warehouse Scheme (Phase –I) in response to the RfS dated..... issued by Solar Energy Corporation of India (hereinafter referred to as SECI) and SECI considering such response to the RfS of[insert the name of the Successful Bidder] (which expression shall unless repugnant to the context or meaning thereof include its executers, administrators, successors and assignees) and selecting the Solar Power Project of the Solar Power Developer and issuing Letter of allocation No ----- to----- (insert the name of the Successful Bidder(SB)) as per terms of RfS and the same having been accepted by the selected SB or a Project Company, M/s ----- {a Special Purpose Vehicle (SPV) formed for this purpose}, if applicable]. As per the terms of the RfS, the _____ [insert name & address of bank] hereby agrees unequivocally, irrevocably and unconditionally to pay to SECI at _____ [Insert Name of the Place from the address of the SECI] forthwith on demand in writing from SECI or any Officer authorised by it in this behalf, any amount upto and not exceeding Rupees----- [Total Value] only, on behalf of M/s _____ [Insert name of the selected 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 3.16.4 of this RfS]. 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 Rs. _____ (Rs. _____ only).

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

The Guarantor Bank hereby agrees and acknowledges that SECI 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 SECI, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to SECI.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by -----[Insert name of the Successful Bidder(SB)/ Project Company as applicable] and/or any other person. The Guarantor Bank shall not require SECI to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against SECI in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Delhi 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 SECI 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 SECI 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. _____ (Rs. _____ 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 SECI serves upon us a written claim or demand.

Signature _____

Name _____

Power of Attorney No. _____

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:

1. The Stamp Paper should be in the name of the Executing Bank and of appropriate value.
2. The Performance Bank Guarantee(PBG) shall be executed by any of the Bank from the List of Banks enclosed as per Annexure-B

CHECK LIST FOR BANK GUARANTEES

SI.No.	Details of checks	YES/NO.
a)	Is the BG on non-judicial Stamp paper of appropriate value, as per applicable Stamp Act of the place of execution	
b)	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of Stamp paper under the Signature of Stamp vendor? (The date of purchase of stamp paper should be not later than the date of execution of BG and the stamp paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued. Also the Stamp Paper should not be older than six months from the date of execution of BG).	
c)	Has the executing Officer of BG indicated his name, designation and Power of Attorney No./Signing Power no. on the BG?	
d)	Is each page of BG duly signed / initialled by executant and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed Performa?	
e)	Does the Bank Guarantees compare verbatim with the Performa prescribed in the Bid Documents?	
f)	Are the factual details such as Bid Document No. / Specification No., / LOA No. (if applicable) / Amount of BG and Validity of BG correctly mentioned in the BG	
i)	Whether overwriting/cutting if any on the BG have been properly authenticated under signature & seal of executant?	

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 in ware houses in selected States in India (PHASE-I) in response to the RFS. No dated issued by Solar Energy Corporation of India (SECI), New Delhi 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 SECI may require us to submit. The aforesaid Attorney is further authorized for making representations to the Solar Energy Corporation of India, New Delhi and providing information / responses to SECI, New Delhi representing us in all matters before SECI, New Delhi and generally dealing with SECI, New Delhi 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. 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).

FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT (AS PER CLAUSE 3.3.3)**(To be submitted on the letterhead of Bidding Company / Lead Member)**

To,

Solar Energy Corporation of India
 (A Government of India Enterprise)
 D-3, A Wing, 1st Floor,
 District Centre, Saket
 New Delhi-110017

Dear Sir,

Sub: Bid for Implementation of Grid connected Roof Top Solar PV System scheme in ware houses selected States in India (Phase-I) in response to the RFS No: SECI/Cont./RWS /75 /2015 dated: 16-04-2015

1. We submit our Bid(s) for the total capacity of ...MWp (Insert total offered capacity in MWp and submit details of our Financial Eligibility Criteria as follows:

Bid Details

Sl.No	States	Bid Capacity in MWp
50MWp for the States (Andhra Pradesh, Haryana, Punjab, Tamil Nadu, Telangana & Uttar Pradesh)		
1		
2		
3		
:		
Sub Total		
23MWp for the any other States other than mentioned above		
1		
2		
3		
:		
Sub Total		
TOTAL:		
(SHALL NOT EXCEED 15 MWp)		

Note: 1MWp=1000kWp

2. We certify that the Financially Evaluated Entity (ies) had an Annual Turnover as follows:

The maximum Annual turnover of RupeesCrore per MW in any one of the last 3 financial years preceding the Bid Deadline subject to the condition that the Bidder should at least have completed one financial year .

OR

Net worth of Rs.....Crore computed as per instructions provided in Clause 3.3.3.

(Strike Out whichever Is Not Applicable)

Financial eligibility criteria

Name of Financially Evaluated Entity*	Relationship with Bidding Company**	Financial year	Year of Incorporation of the Bidding company	***Total Maximum Annual Turnover (Rs. Crore)	Net worth as per Clause 3.6.3 (in Rs. Crore)

* The Financially Evaluated Entity may be the Bidding Company itself.

** The column for “Relationship with Bidding Company” is to be filled only in case financial capability of Parent Company and/or Affiliate has been used for meeting Qualification Requirements.

*** Bidder shall furnish maximum annual turnover in any of the last three financial years.

Yours faithfully

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company.

Name:

Date:

Place:

(Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of Bidding Company.

Name:

Date:

Place:

Notes:

Audited consolidated annual accounts of the Bidder may also be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

Format-8

Format for certificate of relationship of Parent Company or Affiliate with the Bidding Company.

To,

.....

Dear Sir,

Sub: Bid for Implementation of Grid connected Roof Top Solar PV System Scheme in Warehouses in the selected States in India (RWS Phase-I).

We hereby certify that M/s.....,M/s.....,M/s.....are the Affiliate(s) /Parent Company of the Bidding Company as per the definition of Affiliate/Parent Company as provided in this RFS and based on details of equity holding as on seven (7) days prior to the Bid Deadline.

The details of equity holding of the Affiliate/Parent Company/Bidding Company or vice versa as on seven (7) days prior to the Bid Deadline are given as below:

Name of Bidding Company/applicant company	Name of the Affiliate of the Bidding Company/Applicant company/ Name of the Parent Company of the Bidding Company	Name of the Company having common control on the Affiliate and the Bidding Company	Percentage of Equity Holding of Parent Company in the Bidding Company/ Applicant company

*Strike out whichever is not applicable.

.....

(Insert Name and Signature of Statutory Auditor or practising Company Secretary of the Bidder)

**Undertaking from the Financially Evaluated Entity or its Parent Company/
Ultimate Parent Company**

**(On the Letter Head of the Financially Evaluated Entity or its Parent
Company/Ultimate Parent Company)**

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To,

.....

Dear Sir,

We refer to the RFS No.....dated.....for “Implementation of Grid connected Roof Top Solar PV System Scheme in warehouses in the selected States in India”(RWS-Phase-I).

“We have carefully read and examined in detail the RFS, including in particular, Clauseof the RFS, regarding submission of an undertaking, as per the prescribed Format ____of the RFS.

We confirm that M/s.....(Insert name of Bidding Company/) has been authorized by us to use our Technical and /or financial capability for meeting the Technical and/ or Financial Eligibility as specified in Clause....of the RFS referred to above.

We have also noted the amount of the Performance Guarantee required to be submitted as per Clause....of the RFS the(Insert the name of the Bidding Company) in the event of it being selected as the Successful Bidder”.

In view of the above, we hereby undertake to you and confirm that in the event of failure of(Insert name of the Bidding Company) to submit the Performance Guarantee in full or in part at any stage, as specified in the RFS, we shall submit the Performance Guarantee not submitted by(Insert name of the Bidding Company)”.

We have attached hereto certified true copy of the Board Resolution Whereby the Board of Directors of our Company has approved issue of this Undertaking by the Company.

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

Signature of Managing Director/Authorised signatory

Common seal ofhas been affixed in my/our presence pursuant to Board of Director’s Resolution dated.....

WITNESS

.....

(Signature)

Name.....

Designation.....

.....

(Signature)

Name.....

Designation.....

CONSORTIUM AGREEMENT

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

THIS Consortium Agreement (“Agreement”) executed on this _____ day of _____ 2015 between M/s [insert name of Lead Member] _____ a Firm / Company incorporated under the laws of _____ and having its Registered Office at _____ (hereinafter called the “Lead Member”, which expression shall include its successors, executors and permitted assigns)

and

M/s _____ a Firm / Company incorporated under the laws of _____ and having its Registered Office at _____ (hereinafter called the “Technical Member”, which expression shall include its successors, executors and permitted assigns), which expression shall include its successors, executors and permitted assigns)

WHEREAS, each Member individually shall be referred to as the “Member” and both the Members shall be collectively referred to as the “Members” in this Agreement.

WHEREAS the Solar Energy Corporation of India(hereinafter called SECI or SECI) , is registered under Section 8 of Companies Act, 2013 has invited response to RFS No. SECI/Cont./RWS/75/2015 dated 16-04-2015 for design, manufacture, supply, erection, testing and commissioning including PPA with DISCOMs, insurance, warranty, operation & maintenance for 25 years of Roof Top Solar PV power system in the warehouses in selected States in India (Phase-I).

WHEREAS the RFS documents stipulates that the Lead Member may enter into a Technical Consortium Agreement with another Company / Corporate entity to fulfill the Technical Eligibility Criteria as stipulated in the RFS document. The Members of the Bidding Consortium will have to submit a legally enforceable Consortium Agreement in a format enclosed with the RFS document.

NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:

In consideration of the above premises and agreements all the Members in this Consortium do hereby mutually agree as follows:

1. We, the Members of the Consortium and Members to the Agreement do hereby unequivocally agree that (M/s _____), shall act as the

Lead Member as defined in the RFS for self and agent for and on behalf of Technical Member _____.

2. The Lead Member is hereby authorized by the Technical Member of the Consortium to bind the Consortium and receive instructions for and on their behalf.
3. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
4. Subject to the terms of this Agreement, the Technical member shall be responsible for providing technical knowledge for “Design, manufacture, supply, erection, testing and commissioning including PPA with DISCOMs, insurance, warranty, operation & maintenance for 25 years of Roof Top Solar PV power system in the warehouses in selected States in India (Phase-I)” to the lead member.
5. In case of any breach of any commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
6. This Agreement shall be construed and interpreted in accordance with the Laws of India and courts at Delhi alone shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
7. It is hereby further agreed that in case of being shortlisted, the Members do hereby agree that they shall abide by the terms & conditions of the RFS document.
8. It is further expressly agreed that this Agreement shall be irrevocable and shall form an integral part of the RFS submitted to SECI and shall remain valid till completion of the job assigned to the Contractor.
9. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Members respectively from time to time in the response to RFS.
10. It is hereby expressly understood between the Members that no Member at any given point of time, may assign or delegate its rights, duties or obligations under this agreement without the explicit permission of SECI.
11. This Agreement

- (a) Has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
- (b) Sets forth the entire understanding of the Members hereto with respect to the subject matter hereof; and
- (c) May not be amended or modified except in writing signed by each of the Members and with prior written consent of SECI.

IN WITNESS WHEREOF, the Members have, through their authorised representatives, executed these present on the Day, Month and Year first mentioned above.

For M/s-----[Lead Member]

(signature, Name & Designation of the person authorized vide Board Resolution Dated [●])

Witnesses:

1) Signature-----

2) Signature -----

Name:

Name:

Address:

Address:

For M/s-----[Technical Member]

(signature, Name & Designation of the person authorized vide Board Resolution Dated [●])

Witnesses:

DOCUMENTS REQUIRED FOR PROJECT SANCTION

Following documents will be required to be submitted for project sanction:

1. Project Report (As per TOC provided by SECI)
(Project report should contain the following TOC)
 - Context / background / Introduction
 - Project objectives
 - Target beneficiaries
 - Project strategy / Approach of work & methodology
 - Environmental Impact Assessment, if required.
 - Site details including photographs with date & time stamping
 - Solar resource assessment
 - Technology selection (Module, Inverter and BOS)
 - Design , Simulation, BOM and layout of SPV plant
 - Grid connectivity and metering scheme
 - Means of financing and project budget
 - Financial, Economic & Risk Analysis
 - Time frame / schedule of implementation

2. Rent Agreement between the bidder and the warehouses owner(s) as per RFS terms and conditions. (Notarised original agreement on stamp paper of appropriate value should be enclosed).

Rent Agreement shall generally have reference to the SECI's RFS No. and Letter of Allocation, legal Rights to successful bidder for operate and maintain the plant for 25 years, rent value, site access for the developer, and, site access for SECI and DISCOMs officials for the entire plant life, as per the RFS Document etc and provisions as per terms and conditions.

3. Power Purchase Agreement(PPA) between successful bidder and concern DISCOMs

PPA shall generally have reference to the SECI's RFS No. and Letter of Allocation. In addition, it shall indicate the completion period, subsidy, fixed tariff for 25 years, payment terms , Minimum CUF along with other conditions of contract like insurance, warranty, Liquidated damages force majeure, arbitration, jurisdiction, governing law, site access for the developer, certified Joint meter reading by successful bidder and DISCOMS for every months for release of subsidy on 6 months basis, obligation of the successful bidder regarding providing of data to SECI as per the RFS Document etc.

4. CEIG certificate for safety clearance.

(Not mandatory during project identification, however mandatory for project commissioning/operation.)

List of Banks

1. SCHEDULED COMMERCIAL BANKS	2. OTHER PUBLIC SECTOR BANKS
SBI AND ASSOCIATES	1. IDBI Bank Ltd.
1. State Bank of India	3. FOREIGN BANKS
2. State Bank of Bikaner & Jaipur	1. Bank of America NA
3. State Bank of Hyderabad	2. Bank of Tokyo Mitsubishi UFJ Ltd.
4. State Bank of Indore	3. BNP Paribas
5. State Bank of Mysore	4. Calyon Bank
6. State Bank of Patiala	5. Citi Bank N.A.
7. State Bank of Travancore	6. Deutsche Bank A.G
NATIONALISED BANKS	7. The HongKong and Shanghai Banking Corpn. Ltd.
1. Allahabad Bank	8. Standard Chartered Bank
2. Andhra Bank	9. Societe Generale
3. Bank of India	10. Barclays Bank
4. Bank of Maharashtra	11. Royal Bank of Scotland
5. Canara Bank	12. Bank of Nova Scotia
6. Central Bank of India	13. Development Bank of Singapore (DBS, Bank Ltd.)
7. Corporation Bank	14. Credit Agricole Corporate and Investment Bank
8. Dena Bank	4. SCHEDULED PRIVATE BANKS
9. Indian Bank	1. Federal Bank Ltd.
10. Indian Overseas Bank	2. ING Vysya Bank Ltd.
11. Oriental Bank of Commerce	3. Axis Bank Ltd.
12. Punjab National Bank	4. ICICI Bank Ltd.

13. Punjab & Sind Bank	5. HDFC Bank Ltd.
14. Syndicate Bank	6. Yes Bank Ltd.
15. Union Bank of India	7. Kotak Mahindra Bank
16. United Bank of India	8. IndusInd Bank Ltd
17. UCO Bank	9. Karur Vysya Bank
18. Vijaya Bank	
19. Bank of Baroda	