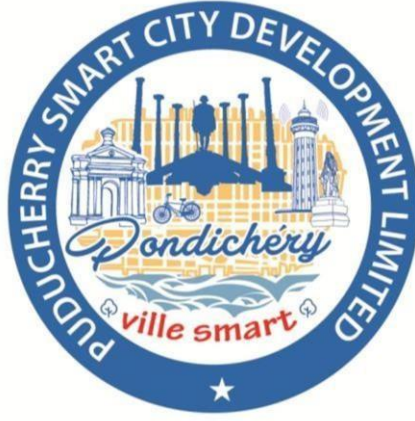


# PUDUCHERRY SMART CITY DEVELOPMENT LIMITED



## REQUEST FOR SELECTION OF BIDDER (RFS) RFS

NO: 015 /PSCDL/SOLAR ROOFTOP/2021-22

*Project Name:*

*Grid connected Rooftop Solar PV Systems*

**Name of Work:**

**Site survey, investigation, Design, Engineering, Energy Supply, Installation, Testing, Commissioning, Synchronizing and Maintenance of Grid Connected Roof Top Solar PV Systems on Net Metering Basis on the Roofs of Various Government Buildings in ABD area of Puducherry Smart City Mission.**

**Dated: 26 /11 /2021**

**THE CHIEF EXECUTIVE OFFICER**

PUDUCHERRY SMART CITY DEVELOPMENT LIMITED No.2.

Bussy street, Old court building,

Puducherry- 605001

Phone : 0413-2224433, 2224434

E-Mail : [pondysmartcity@gmail.com](mailto:pondysmartcity@gmail.com)

[pscdlectl@gmail.com](mailto:pscdlectl@gmail.com)

**RFS Notification**

**Puducherry Smart City Development Limited**

**Bids are invited from the Eligible Bidders for the following Works**

RFS No:015/PSCDL/Solar Roof Top /2021-22

**Name of the work:**

Site survey, investigation ,Design, Engineering, Supply, Installation, Testing, Commissioning, Synchronizing and Maintenance of Power Grid Connected Roof Top Solar PV Systems On Net Metering Basis On the Roofs of Various Government Buildings in ABD area of Puducherry.

The proposals can be submitted online through e-tendering process through e-procurement portal [http:// pudutenders.gov.in](http://pudutenders.gov.in) from 26/11/2021 onwards.

Pre bid meeting on: 3/12/2021

For Communication contact us through mails: [pscdlectl@gmail.com](mailto:pscdlectl@gmail.com).

**The Chief Executive Officer,**  
Puducherry Smart City Development Ltd,  
No.2, Bussy Street, Old Court Building,  
Puducherry-605001

**PUDUCHERRY SMART CITY DEVELOPMENT LIMITED  
(PSCDL)**

**COMPETITIVE BIDDING (ICB) FOR RFS**

**Key Dates**

<b>S. No.</b>	<b>Activity</b>	<b>Key Date*</b>	<b>Time</b>
1	Release of RFP	26/11/2021	16:00
2	RFP Availability on Website	26/11/2021	16:00
3	Last date of receipt of queries on RFP	2/12/2021	17:00
4	Pre-bid Meeting date Venue: PSCDL,PUDUCHERRY	3/12/2021	11:00
5	Posting of response to queries	10/12/2021	17:00
6	Last date for submission of Bids - Electronically	16/12/2021	17:00
7	Physical Submission	16/12/2021	16:00
8	Date of opening of technical bids	17/12/2021	11:00
9	Date of opening of Commercial bids	Will be intimated	
10	Officer Inviting Bids	CEO/PSCDL/PUDUCHERRY	

\* If the Date happens to fall on a holiday, next working day will be considered

**For more details contact:**

**Email:** pscdlelectl@gmail.com

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**DISCLAMIER:**

1. Though adequate care has been taken while preparing the RFS document, the Bidders/Applicants shall satisfy them 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 fifteen (15) 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. PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (PSCDL) reserves the right to cancel, modify, amend or supplement this RFS document including all formats and Annexure at any moment of time. No queries will be entertained in this respect.
3. While this RFS has been prepared in good faith, neither PSCDL 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.

## Letter of Invitation

**RFS NO:** 015/PSCDL/Solar Roof Top /2021-22

**Name of the SPV:** PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (PSCDL)

**Project Name:** Grid connected Rooftop Solar PV Systems

**Name of Work:** site survey, investigations, Design, Engineering, Energy Supply, Installation, Testing, Commissioning, Synchronizing and Maintenance of Power Grid Connected Roof top Solar PV Systems on Net Metering Basis on the roofs of various government buildings in ABD area of Puducherry City .

**Dear Mr. /Ms.:**

1. The PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL) (hereinafter called "Employer") is implementing Smart City Projects in Puducherry City under Smart City Mission.
2. PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL) invites bids from the eligible bidders to participate in the Request for Selection of Bidders for **"Site survey, investigation ,Design, Engineering, Energy Supply, Installation, Testing, Commissioning, Synchronizing and Maintenance of Power Grid Connected Roof Top Solar PV Systems On Net Metering Basis On the Roofs of Various Government Buildings in Puducherry City "**.
3. The bids shall be accepted only through e-tendering process.
4. For the implementation of above mentioned work, Bidders should submit their bid proposal/application along with all supporting documents complete in all aspect on or before{date and time specified in page 2 of this document} in prescribed format by on line.
5. Bidder shall submit bid proposal along with non-refundable processing fee, bid document fees and Bid security declaration certificate in all respect as per the Bid Information sheet.
6. Techno-Commercial bids will be opened {date and time specified in page 2 of this document}in presence of authorized representatives of bidders/applicants who wish to be present. Bid proposals received without or lesser than the prescribed processing fee and Bid Bond will not be considered. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.
7. Bid documents which include Eligibility criteria, "Technical Specifications", various conditions of contract, formats, etc. can be downloaded from website: [http:// pudutenders.gov.in](http://pudutenders.gov.in) any amendment (s)/corrigendum/clarifications with respect to this Bid shall be uploaded on this website only. The Bidder should regularly follow up for any Amendment/Corrigendum/Clarification on the above website.

8. The Bid will be rejected in case the Bidder has submitted the conditional bid and /or the specifications of the terms to be supplied are not complied with RFS.

**The Chief Executive Officer,**  
Puducherry Smart City Development Ltd,  
No.2, Bussy Street, Old Court Building,  
Puducherry-605001



### **BID INFORMATION SHEET**

Document Description	This RFS document comprises for “ <b>Bidding process for unit rate per KWp</b> ” with bidding for RESCO model.
RFS NO.	RFS No:015/PSCDL/Solar Roof Top /2021-22
Broad Scope of Work for Bidding	Site survey, investigation ,Design, Engineering, Energy Supply, Installation, Testing, Commissioning, Synchronizing and Maintenance of Power Grid Connected Roof Top Solar Pv Systems On Net Metering Basis On the Roofs of Various Government Buildings in puducherry City .
Pre-bid Conference/ Clarification Meeting	Refer to “Key dates”
Last date & Time of Submission of Response of RFS	Refer to “Key dates”
Bid Opening (Techno-Commercial)	Refer to “Key dates”
Bid Document fees	Rs.5000/- (Rupees five Thousand only) and is non-refundable through Online e- Tendering Payment Gateway only ( <a href="https://pudutenders.gov.in">https://pudutenders.gov.in</a> )
BID SECURITY	Bid security is exempted to all the bidders. However , the bid security declaration has to be submitted by the bidder in lieu of Bid security/EMD.
Performance Security(PBG)	PBG amount shall be furnished by the successful bidder after issue of Letter of Allocation by PSCDL. Please refer Clause 3.12 of Section-I for details.

<b>Name, Designation,</b> <b>Address and other details</b> <b>(For Submission of Response to RFS)</b>	Bid to be submitted online through e-procurement platform of Government of Puducherry and hard copies have to be submitted at <b>o/o</b> <b>THE CHIEF EXECUTIVE OFFICER,</b> <b>PSCDL,</b> <b>NO2 BUSSY STREET,</b> <b>PUDUCHERRY-605001</b>
<p><b>Important Note:</b> Prospective Bidders are requested to remain updated for any Notices/amendments/clarifications etc. to the RFS document through the website <u><a href="http://pudutenders.gov.in">http://pudutenders.gov.in</a></u> No separate notifications will be issued for such notices/amendments/clarification etc., in the print media or individually.</p> <p>All the information related to this RFS will be updated on the above Website.</p>	

## 1. **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 with
- A 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. “**ABD**” Shall mean Area Based Development in the Smart city proposals.
- 1.3. “**Benchmark cost**” shall mean per Wp cost defined by MNRE for solar power plants without battery. For the purpose of this RFS, the bench mark cost as given in the enclosures with this RFP.
- 1.4. “**B.I.S**” shall mean specifications of Bureau of Indian Standards (BIS);
- 1.5. “**Bid/Tender**” shall mean the Techno Commercial and Price Bid 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.
- 1.6. “**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;
- 1.7. “**Bid Bond/SECURITY**” shall mean the bid security declaration certificate in lieu of EMD to be submitted by the bidder, as per the standard format.
- 1.8. “**Bid Deadline**” shall mean the last date and time for submission of Biding response to this RFS as specified in Bid information Sheet;
- 1.9. “**Bid Capacity**” shall means capacity offered by the bidder in his Bid under invitation.
- 1.10. “**CEA**” shall mean Central Electricity Authority.
- 1.11. “**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;
- 1.12. “**Competent Authority**” shall mean CHIEF EXECUTIVE OFFICER of PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (PSCDL) himself and/or a person or group of persons nominated by Chairman, PSCDL,PUDUCHERRY for the mentioned purpose herein;
- 1.13. “**Commissioning**” means Successful operation of the Project / Works by the Contractor, for the purpose of carrying out Performance Test(s) as defined in RFS.
- 1.14. “**Company**” shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;
- 1.15. “**Capacity Utilization Factor**” (**CUF**) shall mean the ratio of actual energy generated by Solar Photovoltaic project over the year to the equivalent energy output at its rated capacity

over the yearly period. (**CUF = actual annual energy generated from the plant in kWh / (installed plant capacity in kW \* 365 \* 24).**

- 1.16. **“Eligibility Criteria”** shall mean the Eligibility Criteria as set forth in Clause 3.3 of this RFS;
- 1.17. **“Financially Evaluated Entity”** shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria set forth in Clause 3.3.2 hereof;
- 1.18. **“IEC”** shall mean specifications of International Electro-technical Commission;
- 1.19. **“kWp”** shall mean kilo-Watt Peak;
- 1.20. **“kWh”** shall mean kilo-Watt-hour;
- 1.21. **“PSCDL”** shall mean Puducherry Smart City Development Limited, Puducherry. (Special Purpose Vehicle - SPV)
- 1.22. **“Levelised tariff”** shall mean the tariff offered by the bidder for 25 years for the scope of work as per RFS document subject to the maximum Levelised tariff of 25 years as per clause 2.1.2 of Section - I.
- 1.23. **“MNRE”** shall mean Ministry of New and Renewable Energy, Government of India;
- 1.24. **“Model”** shall mean RESCO model which includes energy sale which shall not exceed the beyond the Levelised ceiling tariff as referred in the clause no. 2.1.2 of Section - I.
- 1.25. **“[Name of the Organization]”** shall mean Puducherry Smart City development Limited, (PSCDL), Puducherry.
- 1.26. **“Net –worth”** shall mean as per Company Act 2013 and amendments if any.
- 1.27. **“O&M”** shall mean Operation & Maintenance of Rooftop Solar PV system for 25 years;
- 1.28. **“Owner of project”** shall mean anyone who has ownership of the roof (including in the form of lease) and is the legal owner of all equipment of the project OR the Successful bidder who has taken the roof on mutually agreed terms and conditions from the roof top owner(s) and enters into a PPA with the consumer(s) for supply of solar power for at least 25 years from the date of Commissioning of project.
- 1.29. **“Project Cost / Project Price”** shall mean the price offered by the Bidder for the Scope of work as per RFS document.
- 1.30. **“Project capacity”** means Capacity in MWp offered by the Bidder consisting of single or multiple roof tops. The project capacity specified is on “DC” output Side only.
- 1.31. **“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.  $PR = (\text{Measured output in kW} / \text{Installed Plant capacity in kW} * (1000 \text{ W/m}^2 / \text{Measured radiation intensity in W/m}^2))$ .
- 1.32. **“Parent company”** shall mean a company, which holds more than 50% equity either directly or indirectly in the Bidding Company or Project Company or a Member in a Consortium developing Project.
- 1.33. **“Project Company”** shall mean Company incorporated by the bidder as per Indian Laws in

accordance with Clause no 3.4 of section – I.

- 1.34. **“Project sanctioned documents”** shall mean the documents in the Annexure – A.
- 1.35. **“Price Bid”** shall mean Envelope III of the Bid, containing the Bidder’s quoted Price as per the Section- IV of this RFS;
- 1.36. **“Qualified Bidder ”** shall mean the Bidder(s) who, after evaluation of their Techno Commercial Bid as per Clause 3.3 stand qualified for opening and evaluation of their Price Bid;
- 1.37. **“RFS”** shall mean Request for Selection (RFS)/Bid document/Tender document
- 1.38. **“RESCO”** shall mean Renewable Energy Service Companies;
- 1.39. **“RESCO model”** shall mean where the bidders intend to take a roof to owned by some other entity on mutually agreed terms and conditions from the roof top owner(s) and enters into the PPA with rooftop owner / DISCOM / others for supply of Solar power for 25 years from the date of Commissioning of project.
- 1.40. **“Rooftop Solar PV”** shall mean The Solar PV systems installed on the Flat /Slanted roof shall be covered under this scheme. In addition, the systems installed on the elevated platform on metallic or concrete structure (above 10feet from ground in case sufficient shadow free rooftop is not available) shall also be considered under this scheme. In addition, 40% of the rooftop solar PV sanctioned Capacity for a site may also be installed on ground, in case sufficient shadow free rooftop is not available.
- 1.41. **“SCP” shall mean Smart City Proposal of Puducherry.**
- 1.42. **“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;
- 1.43. **“Successful Bidder(s) /Contractor/Project Developers(s)”** shall mean the Bidder(s) selected by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL) pursuant to this RFS for Implementation of Grid Connected Roof Top Solar PV System as per the terms of the RFS Documents, and to whom an Allocation Letter has been issued;
- 1.44. **“SNA”** shall mean State Level Nodal Agency.
- 1.45. **“Subsidy”** shall mean **rebate applicable as per MNRE** of Project Cost quoted by the Successful Bidder as sanctioned by MNRE, Govt. of India and disbursed by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL).
- 1.46. **“Tendered Capacity”** shall mean the Total aggregate capacity in MW as indicated in Clause 2.4, proposed to be allocated by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL) to the Successful Bidder through this bidding process as per terms and conditions specified therein;
- 1.47. **“Ultimate Parent Company”** shall mean a company, which directly or in directly owns at least Twenty Six Percent(26%) paid up equity capital in the bidding company and / or the financially evaluated entity shall be under the direct control or indirectly under the common control of such company.
- 1.48. **“Wp”** shall mean Watt Peak.

1.49. **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

### INTRODUCTION, BID DETAILS AND INSTRUCTIONS TO THE BIDDERS

#### 1. INTRODUCTION

- 1.1. Puducherry was selected as smart city in the Smart city competition. As per the smart city guide lines, 10% of the town energy consumption shall depend on the renewable energy. Puducherry being state headquarters, it has more number of government buildings. It is proposed to install solar power over the roof tops. The scope of works consists of **“Site survey, investigation ,Design, Engineering, Energy Supply, Installation, Testing, Commissioning, Synchronizing and Maintenance of Power Grid Connected Roof Top Solar Pv Systems On Net Metering Basis On the Roofs of Various Government Buildings in ABD area of Puducherry city”** . ( **“Rooftop Solar PV” shall mean The Solar PV systems installed on the Flat /Slanted roof shall be covered under this scheme. In addition, the systems installed on the elevated platform on metallic or concrete structure (above 10feet from ground in case sufficient shadow free rooftop is not available) shall also be considered under this scheme)**
- 1.2. **Bidder can:** Submit bids under **RESCO** Model for the Public Buildings in the ABD area of Puducherry .
- 1.3. The scheme targets installation of grid-connected roof top solar PV projects on the roofs of (Government offices/ Hospitals / Educational Institutions etc.,) (List enclosed as Annexure - L). The generated solar power may be utilized for captive application and the surplus power will be fed directly to the grid. The scheme aims to reduce the fossil fuel based electricity load on main grid and make building self-sustainable from the point of electricity, to the extent possible.
- 1.4. **PSCDL**, 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 under Smart City scheme in the ABD of Puducherry ,area indicated herein under.
- 1.5. 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.
- 1.6. 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. **BID DETAILS:**

- 2.1. Bids in RESCO Model: The bidding process under this RFS of the rooftop scheme is for RESCO Model.



2.1.1. Bids are invited from the prospective bidders to furnish year by year tariff for the unit rate of Wp for 25 years from the date of commissioning of the project. Tariff stream quoted by the bidder shall then be levelised with a discounting rate of 8.67%. Bid will be awarded based on the lowest Levelised tariff for 25 years.

**2.1.2. Maximum allowable Levelised tariff for 25 years cost for RESCO Model assuming the discounting rate of 8.67% is at the rate of Rs.4.68/- per kWh.**

2.1.3. The bids with Levelised tariff in excess of above said Levelised tariffs shall be outrightly rejected. Calculation of Levelised tariff is provided in Annexure-C.

### **SIZE OF THE PROJECTS:**

2.1.4. The size of project unit starts from 3kWp and above for identified locations of concerned urban local bodies /DISCOMs. One project unit may however comprise of several rooftop units. Size of one project should be minimum one rooftop if one rooftop is not feasible and as per the site conditions other rooftop could be connected. Each rooftop unit can separately connect with the grid and may have separate bi-directional meters whose cost has to be borne by the bidder.

### **2.3 BID CAPACITY:**

2.4 Total Bid capacity will be likely to be approximately 1100KWp. This capacity can be increased or decreased depending on the availability of rooftop area of government buildings. Bidder shall quote in its price bid for a capacity of 1100KWp as per clause 6.3. If single tender is received, additional capacity of allocation can be considered by PSCDLL depending upon the bidder's eligibility criteria and performance of the service provider.

### **3. INSTRUCTIONS TO THE BIDDERS:**

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

3.1.1. 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 along with the Bid.

3.1.2. In case of a Bidding Consortium, the Financial Eligibility criteria like Annual turnover or Net worth as indicated in Clause 3.3.2 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.

3.1.3. In case bidder submitting bid through consortium, a Consortium Agreement as per the Format-10 shall be furnished along with the bid.

3.1.4. The maximum members allowed in consortium are limited to 2. Each member in consortium shall have completed minimum 1 no. of similar project of capacity not less than 50kW. And all members in consortium together shall satisfy the total eligible capacity.

3.1.5. Further in case where the bidding company has used the financial eligibility criteria of its parent company then it needs to be ensured that any change in the controlling equity of

the Bidding Company requires prior approval of PSCDL.

3.1.6. All the Member of the Consortium may form the Project Company as specified in Clause 3.4.

3.1.7. Bidder including its member of the consortium should submit one bid only.

## **3.2 ELIGIBILITY CRITERIA**

### **3.2.1 GENERAL:**

The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment there to or anywhere in the world and engaged in the business of Solar Power. Limited Liability partnership (LLP) shall be allowed for bidding. A copy of certificate of incorporation shall be furnished along with the bid in support of above.

Bidder Should Have Experience With on Grid System with Government/Public Sector/Autonomous or Private Institutes during Last 3 Years from the Date of Month in Which Bid has Been Invited.

Bidder should have State Office to Address Regional Requirements. In-case the bidder does not have office presently, Bidder has to give undertaking at bidding stage that he will setup office after the LOA and before the award of the contract.

Bidder is required to Submit Certificate of Compilation of on Grid Solar Power Projects as a Proof of Meeting Qualifying Criteria duly certified by Govt agency or by producing the subsidy certificate etc...

Bidder Should Be Registered In Commercial Tax department, Puducherry. In case the bidder does not have registration presently, he has to give undertaking at bidding stage that he will setup office after the LOA and before the award of the contract.

Bidder Should Not be Black Listed in Any of the Government Department/ PSUs.

Bidder Can be Registered With MSME and NSIC Certificate to be Submitted as a Proof

Bidder Must be a Channel Partner of MNRE Certificate to be Submitted as a Proof

It return/ Balance sheet Must be Submitted as a Proof of Financial Turnover certified by a chartered accountant.

### **TECHNICAL :**

#### **3.2.1.1**

a) The Bidder shall be a registered Manufacturing Company of PV panels or the manufacturer's authorized dealers or registered Electrical Contractor having Electrical License from any of the licensing board in Union of India in appropriate class

b) The Bidder in their own name should have satisfactorily executed the work of similar nature in any of the SEB's/Public Utilities /Municipalities in India during last Seven (7) years ending last day of month previous to the one in which bids are invited as a prime Contractor /manufacturer/dealer.

i) Three similar works each costing not less than 40% of the capacity of 1100KWp (Each single P.O shall be 40% of the estimated capacity)

OR

ii) Two similar works each costing not less than 60% of the estimated capacity of 1100KWp (Each single P.O shall be 60% of the estimated capacity)

OR

iii) One similar work costing not less than 80% of the estimated capacity of 1100KWp.

### 3.2.2 Financial CRITERIA:

3.2.2.1 The Bidder should have an minimum Average Annual Turnover in the last 3 financial years **(2017-18, 2018-19 & 2019-20): Rs.120.00 Lakhs (Copies of the Balance Sheet Signed By CA to be Submitted)**

3.2.2.2 In case of consortium, the lead member should have each bidder 50% of the eligible turnover as given in clause 3.2.2.1 as average turnover in last 3 financial years **(2017-18, 2018-19, & 2019-20)**

3.3.2.1 10% weightage per year on the annual turnover will be considered for bringing the turnover to the current year.

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

### 3.3 INCORPORATION OF A PROJECT COMPANY

3.3.1 In case the Bidder wishes to incorporate a Project Company, in such a case, Bidder if selected as 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.

3.3.2 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 Project Developer.

### 3.4 BID SUBMISSION BY THE BIDDER

3.4.1 The Consultant shall submit a signed and complete Proposal comprising the documents and forms. The submission shall be physically (hard Copy) as well as online.

3.4.2 An authorized representative of the Consultant shall sign the original submission letters in the required format for the Qualification Documents, Technical Proposal and the Financial Proposal and shall initial all pages as required. The authorization shall be in the form of a written power of

attorney attached to the Qualification Documents Proposal. **However bids submitted online will be the final.**

### 3.4.3 Note to the Bidder for e tendering:

In participation in e-tendering of Employer, it is mandatory for prospective Bidder to get registered on website [www.pudutenders.gov.in](http://www.pudutenders.gov.in). Thus, it is advised to all prospective Bidders to get registration by making on line registration fees. It is mandatory that the Bidder is required to sign their bids online using Digital Signature Certificates, so the same should be obtained the same at the earliest if not obtained already.

For further information regarding issue of Digital Signature Certificate, the Bidder may visit website [www.pudutenders.gov.in](http://www.pudutenders.gov.in) it is to be noted that it may take upto 7 to 10 working days for issue of Digital Signature Certificate. Employer shall not be responsible for any delay in issue of Digital Signature Certificate.

If Bidder is bidding first time for e-tendering, then it is obligatory on the part of Bidder to fulfill all formalities such as registration, obtaining Digital Signature Certificate etc. well in advance.

Bidder must positively complete online e-tendering procedure at <http://pudutenders.gov.in>

For any type of clarifications Bidder can visit

[www.pondysmartcity.gov.in](http://www.pondysmartcity.gov.in), <http://pudutenders.gov.in>.

**The proposals shall be submitted physical as well as online only as indicated above.**

The original proposal, both technical and Financial Proposals shall contain no interlineations or overwriting, except as necessary to correct errors made by the Bidder themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be submitted as per the formats provided in the RFS.

An authorized representative of the Bidder shall initial all pages of the original Technical Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign. The Technical Proposal shall be submitted in Physical form in original and the scanned copy of the original in pdf form shall be uploaded on the Employers website duly digitally signed. The signed Technical Proposal shall be marked "ORIGINAL". **The financial Proposal shall be submitted online only and shall be signed digitally.**

The original Technical Proposal shall be placed in a sealed envelope clearly marked "TECHNICAL PROPOSAL" followed by the name of the Assignment/job. The envelopes containing the Technical Proposals, EMD, cost of bid documents, power of authority and proof of processing fees paid online shall be placed into an outer envelope and sealed physically as well as digitally as applicable. **The technical proposal, EMD declaration certificate, power of authority, document fee and proof of on line purchase of bid document and processing fee shall be submitted in Physical form (hard copy)** along with 3 copies and scanned copy of the technical proposal and EMD, power of authority shall be submitted online be sealed digitally. The Financial Proposal shall be submitted online only and shall be sealed digitally. This outer envelope of the physical submission shall bear the submission address, name of

assignment/reference number be clearly marked “**DO NOT OPEN, BEFORE***[insert the time and date of the opening indicated in the Data sheet/key dates]*”. The Employer shall not be responsible for misplacement, losing or premature opening if the outer envelope is not sealed and/or marked as stipulated. This circumstance may be case for Proposal rejection. If the Financial Proposal is not submitted online digitally sealed, this will constitute grounds for declaring the Proposal non-responsive.

The Proposals must be sent to the address/addresses indicated in the Data sheet and received by the Employer no later than the time and the date indicated in the Data sheet, or any extension to this. Any proposal received by the Employer after the deadline for submission shall be returned unopened.

**3.4.4 The Bidder must submit the following:**

**3.5.4.1 Physical Submission:** (One Original and 3 copies of the original Technical proposals): Original Copy of Technical proposal, EMD, Power of Authority, cost of bid documents and proof of online payment bid processing fee.

**3.5.4.2 Online submission**

- a) Scanned copy of original Technical proposal, EMD declaration certificate, Power of Authority, cost of bid documents in pdf format Financial Proposal
- b) The information and/or documents shall be submitted by the Bidder as per the formats specified in Section-IV & Section V of this document.
- c) 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.
- d) The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.3 to the satisfaction of PSCDL 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, auditor's 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 date of submission of bid which are used by the bidder for the purpose of calculation of Annual Turnover or of last Financial Year in case of Net Worth.

**3.5.4.3** 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 Three(3) 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.

**3.5 BID SUBMITTED BY A BIDDING COMPANY :**

The Bidding Company should designate one person to represent the Bidding Company in its correspondences with PSCDL.

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.

### **3.6 CLARIFICATIONS AND PRE-BID MEETING**

- 3.6.1** The PSCDL 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 soft copy by e-mail to reach PSCDL at the address, date and time mentioned in Bid information sheet.
- 3.6.2** 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 PSCDL.
- 3.6.3** 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.
- 3.6.4** PSCDL is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

### **3.7 AMENDMENTS TO RFS**

- 3.7.1** At any time prior to the deadline for submission of Bids, the PSCDL 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).
- 3.7.2** The clarification(s) / amendment(s) (if any) will be notified on web portal of <http://pudutenders.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.
- 3.7.3** PSCDL 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.
- 3.7.4** All the notices related to this Bid which are required to be publicized will be uploaded on web portal of <http://pudutenders.gov.in>.

### **3.8 BIDDING PROCESS**

#### **3.8.1 BID FORMATS**

- 3.9.1.1** The Bid in response to this RFS shall be submitted by the Bidders in the manner provided in Clause 3.5 & Clause 3.9.1.1. The Bid shall comprise of the following:

**(A). ENVELOP- I (COVERING LETTER, BID DOCUMENT FEES, BIDDER SECURITY DECLARATION CERTIFICATE)**

- i. Covering Letter indicating the Capacity quoted as per the prescribed Format-1.
- ii. Copy of PAN and TAN certificates of bidding company.
- iii. Bid document fee @ Rs. 5,000/-

- iv. Bid Bond/ EMD fee is exempted for all the bidders. However bid security declaration certificate shall be submitted in lieu of bid security.
- v. Checklist for Bank Guarantee submission requirements as prescribed in Format- 5

[Note: All formats and relevant documents as required in the RFS shall be spiral bounded and should be flagged separately. Details of flag should be mentioned in the covering letter.]

**(B). ENVELOP- II TECHNO-COMMERCIAL DOCUMENTS**

- i. Original power of attorney issued by the Bidding Company in favor of the authorized person signing the Bid, in the form attached hereto as Format-6 or standard power of attorney in favor of authorized person signing the Bid.  
**(Power of Attorney must be supplemented by Board Resolution to above effect for the company).** However, PSCDL may accept general Power of Attorney executed in favor of Authorized 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. Certificates of incorporation of bidding consortium, if technical consortium is envisaged in the bid submitted by bidder.
- vii. Details for meeting Financial Eligibility Criteria as per Clause no. 3.3.2 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 Authorized signatory
- xii. Signed and stamped Copy of RFS Documents including amendments & clarifications by Authorized signatory on each page.

**(C) ENVELOPE III- PRICE BID(S) AS PER SECTION-IV FOR BID SUBMISSION UNDER RESCO**

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 Price Bid for 'Price Bid'format for RESCO Model only by online.

#### **(D) BID DUE DATE**

The Bidder should submit the Bids so as to reach the address indicated on or before *as specified in Page-2, at the o/o Chief Executive officer., PSCDL, NO 2 Bussy street,Puducherry-605001*

### **3.9 VALIDITY OF BID**

- 3.9.1** The bid and the Price Schedule included shall remain valid for **a period of 180days** from the duedate of submission of bid, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting letter of allocation, PSCDL shall forfeit the Bid Bond furnished by him.
- 3.9.2** In exceptional circumstances when letter of allocation is not issued/, when the bid could not be able to finalize/ could not able to open financial bid, the PSCDL 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 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. **In case, if the bidder rejects to give consent for extension of bid validity, other bidders will be considered for evaluation of tender.**

### **3.9.3 METHOD OF BID SUBMISSION**

- 3.10.3.1** Bids are required to be submitted in a single sealed cover envelope containing Envelope-I (Covering letter, Processing fee and Bid security declaration certificate),and Envelope-II (Techno-Commercial documents) each one duly sealed separately. Envelope should contain the documents as detailed in Clause 3.9 above.
- 3.10.3.2** Both the two envelopes shall be kept in an outermost Envelope. All the envelopes should be super scribed as **"Bid for Implementation of Grid connected Roof Top Solar PV System Scheme in ABD area of Puducherry Municipality"**
- Envelope-I (Covering envelope) / Envelope-II (Techno-Commercial Bid) along with the "BID DUE DATE".**
- 3.9.4** The Bidders have the option of sending the hard copy of bid documents by registered post; or speed post; or courier; or by hand delivery, so as to reach PSCDL by the Bid Deadline. Bid documents submitted by telex/telegram/fax/e-mail shall not be considered under any circumstances. PSCDL 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 , no envelope shall contain any information/document relating to Price Bid.***
- 3.9.5** 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 orsupplemental information to a Bid will be accepted after the Bid Deadline, unless the



same is requested for by PSCDL.

**3.9.6** If the outer cover envelope or Envelope I (Covering Envelope) or Envelope-II (Techno-Commercial Envelope) is/are not closed/sealed and not super scribed as per the specified requirement, PSCDL will assume no responsibility for the Bid's misplacement or premature opening.

**3.9.7** 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.

### **3.10 COST OF BIDDING**

**3.10.1** 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 PSCDL may elect to modify / withdraw the invitation of Bid.

### **3.11 BID Security.**

**Bid security/EMD is exempted for all the bidders. However bid security certificate shall be submitted by the Bidder in lieu of Bid security/EMD as per the standard format.**

### **3.12 PERFORMANCE SECURITY / PERFORMANCE BANK GUARANTEE (PBG)**

**3.12.1** Within 15 days from the date of issue of Allocation letter, Successful Bidder shall furnish Performance Security for the allocated at the rate of Rs 22.50 Lakhs x capacity allocation in MWp

**3.12.2** Further, any delay beyond 15 days shall attract interest @ 1.25 % per month on the total amount, calculated on day to day basis. PSCDL at its sole discretion may cancel the allocated capacity and forfeit 100% of Bid bond, in case Performance security is not submitted within 60 days of issue of Allocation Letter as per Clause 3.12.3(c). However, total project completion period shall remain same. Part PBG shall not be accepted.

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

- a. A bank guarantee from the List of banks as given in Annexure-B
- b. Be confirmed for payment by the branch of the bank giving the bank guarantee.

**3.12.4** The PBG shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to PSCDL

- a. If the Successful Bidder is not able to identify the projects and submit Project Sanction Documents to the satisfaction of PSCDL, 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 to the satisfaction of PSCDL, PBG amount, pro-rata to the capacity not commissioned by the Successful Bidder. However, Hundred percent (100%) PBG amount furnished for the Sanctioned Capacity, if the Successful Bidder fails to Commission the Projects(s) to the satisfaction of PSCDL, for the already identified locations, which are notified by PSCDL in the RFS or otherwise and for which Allocation letter/Sanction letter has been issued.
  - c. In all the above cases corresponding unidentified/non-commissioned capacity shall stand cancelled.
- 3.12.5** The Performance Security shall be valid for a minimum period of 5Years from the date of issue of Allocation letter(s) and shall be renewed / extended till the completion of 25 years of O&M from the date of commissioning.

### **3.13 OPENING OF BIDS**

- 3.13.1** All the technical bids are opened on line on the date specified in page 2 of the document. And all the documents as specified in the earlier pages will be down loaded. The down loaded will be considered for evaluation.
- 3.13.2** However Envelope-I of the Bidders shall be opened at Specified in Page 2 of the document hours on Bid Deadline date at PSCDL office, in the presence of one representative from each of the Bidders who wish to be present.
- 3.13.3** Name of the Bidder, shall be read out to all the Bidders at the time of opening of Envelope-I and /or Envelope-II.

### **3.14 RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID**

- 3.14.1** This RFS may be withdrawn or cancelled by the PSCDL at any time without assigning any reasons thereof. The PSCDL 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.
- 3.15.1.1** The PSCDL 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 PSCDL shall have no liability towards any Bidder and no Bidder shall have any recourse to the PSCDL with respect to the selection process. PSCDL shall evaluate the Bids using the evaluation process specified in Section -I, at its sole discretion. PSCDL decision in this regard shall be final and binding on the Bidders.
- 3.15.1.2** PSCDL 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 PSCDL will be final.

### **3.15 ZERO DEVIATION**

- 3.15.1** 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.

**3.16 EXAMINATION OF BID DOCUMENT**

- 3.16.1** 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.
- 3.16.2** 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 labor involved etc. and as to all supplies he has to complete in accordance with the Bid document.
- 3.16.3** 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 PSCDL.
- 3.16.4** Bid not submitted as per the instructions to bidders is liable to be rejected. Bid shall confirm all respects with requirements and conditions referred in this bid document.

## SECTION II GENERAL CONDITIONS OF CONTRACT

### 3.17 SCOPE OF WORK

- 3.17.1** The scope of the work for the bidder include Identification of buildings/leasing rooftop of buildings for 25 years, Acknowledgement of Intimation to Distribution Company (DISCOM) , here i t i s referred a s Electricity department, Government of Puducherry, as per Annexure-I for grid connectivity, site survey, investigations , complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected rooftop solar PV project including operation and maintenance O&M of the project for a period of 25 years after commissioning of the projects as per PSCDL's acceptance.( **“Rooftop Solar PV” shall mean The Solar PV systems installed on the Flat /Slanted roof shall be covered under this scheme. In addition, the systems installed on the elevated platform on metallic or concrete structure (above 10feet from ground in case sufficient shadow free rooftop is not available) shall also be considered under this scheme)**

### 3.18 LEVELISED TARIFF

- 3.18.1** The Levelised tariff 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 25year's 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 and such other items and services required to complete the scope of work mentioned above.
- 3.18.2** The Levelised tariff quoted is on lump sum turnkey basis and the bidder is responsible for the total Scope of Work described at Clause 3.18.1 above.
- 3.18.3** The Levelised tariff shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work for payment of subsidy if any amount irrespective of his actual cost of execution of the project. 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 whatsoever.
- 3.18.4** The Levelised tariff shall be inclusive of all duties and taxes, insurance etc .The prices quoted by the firm shall be complete in all respect and no price variation /adjustment is allowed. However, statutory variation of taxes and duties may be paid by the rooftop owner.
- 3.18.5** The operation & maintenance of Solar Photovoltaic Power Plant would include wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors / Power Conditioning Unit (PCU), spares, consumables & other parts for a period of 25 years under RESCO model.
- 3.18.6** The Levelised tariff shall be specified in sanction letter based on Successful Bidder's quote. The project cost shall be in accordance with all terms, conditions, specifications and other

conditions of the Contract as accepted by the PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL)and incorporated into the sanction letter.

**3.19** The Bidder shall complete the Price Bid for RESCO as per Format furnished in the RFS Documents.

**3.20 PSCDL SERVICE CHARGES**

Service charges of PSCDL shall be computed as 5% the tariff per KWh. The above charges are exclusive of Service Tax which shall be paid extra as per applicable norms at the time of payment. **The PSCDL service charges are non-refundable**

**3.21 INSURANCE**

**3.21.1** 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 O&M period.

**3.21.2** 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.

**3.22 WARRANTIES AND GUARANTEES**

**3.22.1** The Bidder shall warrant that the goods supplied under this contract are new Material from MNRE Approved supplier/vendors, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide system warrantee covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of 25 years from the date of commissioning. The successful bidder has to transfer all the Guarantees /Warrantees of the different components to the Owner of the project (PSCDL). The responsibility of operation of Warrantee and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be joint responsibility of the Successful bidder and the owner of the project and PSCDL will not be responsible in any way for any claims whatsoever on account of the above. All the guarantee terms are as per MNRE specifications.

**3.23 TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP**

**3.23.1** 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 theMNRE shall be used.

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

- 3.23.3** 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 and within the time schedule for efficient and smooth operation and maintenance of the Solar PV plant.

**3.24 OPERATION & MAINTENANCE (O&M) GUIDELINES TO BE MANDATORILY FOLLOWED BY BIDDERS**

- 3.24.1** The bidder shall be responsible for all the required activities for successful operation and maintenance of the Rooftop Solar PV system for a period of 25 years from the date of commissioning of the plant.
- 3.24.2** For system sizes *above 25 kWp*, below mentioned guidelines, shall be followed. In addition, O&M practices shall be strictly followed as per Annexure D. For projects *up to 25 kWp*, the O&M guidelines to be mandatorily followed by bidders shall be as per Annexure E.
- 3.24.3** O&M of Solar Power Plant shall be compliant with grid requirements to achieve committed energy generation.
- 3.24.4** Deputation of qualified and experienced engineer/ technicians till the O&M period at project site.
- 3.24.5** Periodic cleaning of solar modules.
- 3.24.6** Periodic checks of the Modules, PCUs and Boss shall be carried out as a part of routine preventive and breakdown maintenance.
- 3.24.7** Immediate replacement of defective Modules, Invertors/PCUs and other equipment as and when required.
- 3.24.8** Supply of all spares, consumables and fixtures as required. Such stock shall be maintained for all associated equipment's and materials as per manufacturer/ supplier's recommendations.
- 3.24.9** The entire equipment testing instrument required for Testing, Commissioning and O&M for the healthy operation of the Plant shall be maintained by the Bidder. The testing equipment's must be calibrated once every 2 years from NABL accredited labs and the certificate of calibration must be kept for reference as required.
- 3.24.10** If negligence/ mal-operation on part of the Bidder's operator results in failure of equipment, such equipment should be repaired/ replaced by the Bidder free of cost.
- 3.24.11** The person in charge present at site from bidder's side shall take a joint meter reading in the presence of rooftop owner on a **daily basis**. Furnishing generation data ( each month to PSCDL positively by 1<sup>st</sup> week of every month for the previous month. Failure to adhere may result in non-disbursal of subsidy if any .
- 3.24.12** Online Performance Monitoring, controlling, troubleshooting, maintaining of logs & records. A maintenance record register is to be maintained by the operator with effect from Commissioning to record the daily generation, regular maintenance work carried out as well as any preventive and breakdown maintenance along with the date of maintenance, reasons for the breakdown, duration of the breakdown, steps taken to attend the breakdown, etc.
- 3.24.13** For any issues related to operation & maintenance, a toll-free number shall be made available to the rooftop owner/ plant owner to resolve within 72 hours. If not attended within such stipulated

time, a complaint may be raised to PSCDL, pursuant to which, a penalty of Rs. 10,000 for full month or more shall be imposed for a system capacity above 100 kWp. Repetition of such instances for more than 2 times a year may lead to the stop the next tranche of payment by the PSCDL. Further, if the outage of the plant is more than 30 days continuously, then the 50% PBG amount shall be encashed by PSCDL and if the outage is exceeding more than 60 days than complete PBG amount shall be encashed by PSCDL. This will be applicable till 25 years of O&M as per the Scope of the RFS.

- 3.24.14** If any jobs covered in O&M Scope as per RFS are not carried out by the contractor/ Bidders during the O&M period, the PSCDL shall take appropriate action as deemed fit. PSCDL reserves the right to make surprise checks/ inspection visits at its own or through authorized representative to verify the O&M activities being carried out by the Bidder. Failure to adhere to above guidelines, will result in penal action including debarring from participation in next tender.

### **3.25 METERING AND GRID CONNECTIVITY**

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

### **3.26 PLANT PERFORMANCE EVALUATION**

The successful bidder shall be required to meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the GHI levels of the location during the O&M period. PR should be shown minimum of 75% at the time of inspection for initial commissioning acceptance to qualify. Minimum CUF of 15% should be maintained for a period of 25 years. The bidder should send the periodic plant (fort nightly) output details to PSCDL for ensuring the CUF. The PR will be measured at Inverter output level during peak radiation conditions.

### **3.27 PROGRESS REPORT**

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

### **3.28 Submission of Project Completion Report (PCR)**

The bidder shall submit the Project Completion Report in (soft copy and signed copy) after commissioning of the project as per the Scope of RFS to PSCDL as per the Format given in **Annexure F**. Non submission of the report shall be considered as "Breach of Contract" and shall attract punitive actions as per the relevant provisions of the Contract including non-release of subsidy if any. However, the decision of PSCDL shall be final in this regard.

### **3.29 Submission of O&M Report (OMR)**

The bidder shall submit the Monthly O&M Report mandatorily to PSCDL as per the Format enclosed at **Annexure G**. Non submission of the report shall be considered as "Breach of

Contract” and shall attract punitive actions as per the relevant provisions of the Contract including non-release of subsidy if any . However, the decision of PSCDL shall be final in this regard.

### **3.30 PROJECT INSPECTION.**

The project progress will be monitored by PSCDL and PED 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 PSCDL or any authorized agency/ experts designated / authorized by PSCDL from time to time. PSCDL shall depute a technical person(s) from its list of empanelled experts/ agencies updated from time to time for inspection, Third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufacturer's facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required. The cost of Inspection shall be borne by Vendor only. The projects shall be inspected at any time during commissioning or after the completion of the project(s) as follows:

#### **Project Capacity up to 25 kWp**

Inspection shall be carried out by Inspecting officer(s) nominated by PSCDL, PSCDL officials or BEE Certified Energy Auditors or any other agencies to be notified by PSCDL from time to time.

#### **Project Capacity above 25 kWp to 100 kWp**

Inspection shall be carried out by Inspecting officer(s) nominated by PSCDL, PSCDL officials, or from the officials of PED or any other agencies to be notified by PSCDL from time to time.

#### **Project Capacity from 101 kWp to 500 kWp**

Inspection shall be carried out by Inspecting officer(s) nominated by PSCDL, PSCDL officials, or from the officials of following listed agencies/bodies

1. Govt./NABL accredited agencies/Labs,
2. Electricity Department, Government of Puducherry
3. CPRI,
4. Project Management Consultants
5. REAP, Govt of PUDUCHERRY
6. Any other agencies/bodies to be notified by PSCDL on time to time.

### **3.31 CANCELLATION OF SUBSIDY if any:**

PSCDL will not release the payment for any shortcomings in commissioning as per technical specifications mentioned or for performance ratio (PR) below the specified limit (75%) after commissioning. Also PBG shall be forfeited in case Average CUF falls below 15% during entire O&M period.

### **3.32 APPLICABLE LAW**

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

### **3.33 SETTLEMENT OF DISPUTE**



**3.34 If any dispute of any kind whatsoever arises between PSCDL 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.**

3.33.1. 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 3.33.2, shall be finally settled by arbitration.

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

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.

**3.36 IN CASE THE CONTRACTOR IS NOT A PUBLIC SECTOR ENTERPRISE OR A GOVERNMENT DEPARTMENT.**

- 3.35.1** 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.
- 3.35.2** The PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (PSCDL) (SPV) 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 latter 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.
- 3.35.3** 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** 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 3.32 (Applicable Law) and a substitute shall be appointed in the same manner as the original arbitrator.
- 3.35.5** Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue

or arbitration shall be Puducherry .

**3.35.6** 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.

**3.35.7** The arbitrator(s) shall give reasoned award.

**3.35.8** Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless they otherwise agree.

**3.35.9** Cost of arbitration shall be equally shared between the Successful bidder or Contractor and PSCDL.

### **3.37 FORCE MAJEURE**

**3.37.1** 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.

**3.37.2** 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 PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (PSCDL) and its decision shall be final and binding on the contractor and all other concerned.

**3.37.3** 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, PSCDL has the right to terminate the contract in which case, the security deposit shall be refunded to him.

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

### **3.38 LANGUAGE**

**3.38.1** 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 PSCDL and the bidder shall be in English language.

### **3.39 OTHER CONDITIONS**

**3.39.1** 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 PSCDL in writing.

**3.40 SUCCESSORS AND ASSIGNS:**

**3.40.1** In case the PSCDL 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.

**3.41 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.

**3.42 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.

**3.43 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 PSCDL & Successful bidder hereto, any rights and / or remedies herein.

**3.43. PREFERENCE FOR M.S.M.E/ STATE OR CENTRAL PSUS**

As per the Public Procurement Policy for Micro and Small Enterprise (MSEs) order 2012, issued vide Gazette Notification number 503, dated 23.03.2012 by Ministry of Micro, Small and Medium Enterprise of Govt. of India, and specific to this tender, MSEs must be registered with any of the following agencies/bodies shall be exempted from bid bond submission on production of valid registration certificate.

- (i) District Industries Centre (DIC) /Udhyog Aadhaar
- (ii) National Small Industries Corporation (NSIC)

MSME participating in the tender must submit the certificate of registration with any one of the above agencies. The registration certificate issued from any of the above agencies must be valid as on close date of the tender.

The MSEs, who have applied for registration or renewal of registration with any of the above agencies/ bodies, but have not obtained the valid certificate as on close date of the tender, are not eligible for exemption/preference.

**3.44 CORRESPONDENCE**

Bidder requiring any clarification on bid documents may contact in writing or by Fax /E Mail given in page 2 of this document. Verbal clarifications and information given by the PSCDL or its employees or its Representatives shall not be in any way entertained.

**3.45 Power Purchase Agreement**

The Successful bidder has to enter into the Power Purchase Agreement with the owner of the roof and PSCDL/ PED as per the PPA agreement format given in **Annexure M**

## **SECTION – III EVALUATION CRITERIA OF BIDS**

### **4 BID EVALUATION**

#### **4.1 BID EVALUATION**

The evaluation process comprises the following four steps:

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

#### **4.2. 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 3.3. Any of the following may cause the Bid to be considered "Non-responsive", at the sole discretion of PSCDL

- 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 Member of a Bidding Company using the credentials of the same Parent Company /Affiliate;
- i. Bidder delaying in submission of additional information or clarifications sought by PSCDL as applicable;
- 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 fulfillment 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. PSCDL 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.
- 5.3. If there is a discrepancy between the unit price Quoted online tender, and unit price quoted in envelope no. III, The rate quoted through online 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 of the Qualified Bidders shall be opened **online** in presence of the representatives of such Qualified Bidders, who wish to be present, on a date as may be intimated by PSCDL to the Bidders through PSCDL website [www.pudutenders.gov.in](http://www.pudutenders.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 PSCDL.

#### 6.2.1. RESCO

The tariff quoted shall be evaluated as follows;

- a. The tariff shall be evaluated separately on Levelised tariff basis quoted.
- b. Since the maximum allowable Levelised tariff over 25 years assuming the discounting rate of 8.67% only **Rs. 4.68kwh** (As per JERC ORDER), so bidder submitting bid above the maximum allowable project cost shall be rejected.

### 6.3. SUCCESSFUL BIDDER(S) SELECTION

- 6.3.1. Bids qualifying in Clause 3.3 shall only be evaluated in this stage.
- 6.3.2. Based on the Levelised Tariff quoted in all Price Bids of Qualified Bidders shall be ranked in the ascending order. (Automatic selection will be done in online tenders)
- 6.3.3. For all purposes, lowest bidder will be declared as the successful bidder. It is proposed to allot the project capacity as follows.

#### 6.3.4. Allocation of Capacity

- a. 1 MW to the lowest bidder i.e. L1

- b. Each bidder who is willing to execute at L1 price and allotment will be done as per the ascending order (as per the original bidding at the time of tendering). Preference will be given to the L1.**
  - c. If none of the L2, L3 and L4s are not willing to execute at L1 price, if L1 is willing to execute the balance project capacity, L1 will be considered for the entire capacity.**
- 6.3.5 The qualified bidders except the L1 bidder will be given 10 days from the date of notification of L1 price on PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (PSCDL) website and also through e mails to give their consent to execute the work at L1 price, failing which it will be assumed that they are not interested to match L1 price. In case of more than one such response is received expressing their consent to match the L1 price and to execute the capacity then the preference shall be given in the ascending order of the bid quoted by the bidder. i.e. first preference will be given to L2 then L3 and so on until entire capacity is allocated. The bidder who matches the L1 price will also be declared Successful bidder.
- 6.3.6 L1 bidder will be given 20 days time for entering into the agreement. If L1 bidder does not turn up within 20 days from the date of issue of Letter of Acceptance, L2 Bidder will be invited.
- 6.3.7 Letter(s) of Allocation (LOA): The Letter(s) of Allocation (LOA) shall be issued to all Bidders selected as per the provisions of this Clause 6.3.2
- 6.3.8 Each Successful Bidder shall acknowledge the LOA and return duplicate copy with signature & stamp of the authorized signatory of the Successful Bidder to the PSCDL within 7 (seven) days of issue of LOA.
- 6.3.9 If the Successful Bidder, to whom the Letter of Allocation has been issued, does not fulfill any of the conditions specified in Bid document, the PSCDL reserves the right to annul/cancel the award of the Letter of Allocation of such Successful Bidder and forfeit the PBG/Bid Bond and can award the work to the other bidder as per the original list of preferences i.e., L2, L3, L4.....
- 6.3.10 In any instance, if only one bidder submits the bid that too for a part capacity. In such cases, PSCDL at its sole discretion may allocate the additional capacity equal to the bid capacity to the same bidder based on the bidder's consent. If the capacity still remains, PSCDL may invite consent from the other successful bidders for executing the balance unallocated capacity and the same may be allocated to the other interested bidders depending upon their consent. The capacity will be allocated as per the methodology mentioned above and as per PSCDL's discretion.
- 6.3.11 The PSCDL at its own discretion, has the right to reject any or all the Bids without assigning any reason whatsoever, at its sole discretion.
- 6.3.12 There shall be no negotiation on the levelized tariff between the PSCDL and the Bidder(s), during the process of evaluation.
- 6.4. INCREASE/DECREASE OF BIDDER ALLOCATED CAPACITY**
  - 6.4.1. PSCDL reserves the right to increase/decrease the Bidder(s) Allocated Capacity up to fifty percent

(50%) of the allocated capacity at the sole discretion of PSCDL on the request of the allotted bidders at L1 price.

- 6.4.2. In case bidder has requested for reduction in Allocated capacity/ due to non willingness of the owners of the buildings, then up to 50% reduction of allocated capacity only can be accepted by PSCDL without forfeiture of PBG at PSCDL sole discretion subject to the condition that bidder has received at least sanction of 75% of allocated capacity.
- 6.4.3. In case capacity is modified by PSCDL as per Clause 6.4.1 & 6.4.2 above, Successful bidder shall submit the equivalent amount of PBG/Amended PBG to PSCDL within 30 days from the date of issue of allocation letter /sanction letter.

#### **6.5. TRANSFER OF CAPACITY**

- 6.5.1. In case a Successful Bidder is facing genuine difficulty in execution of project as per letter of allocation. PSCDL shall allow transfer of allocated capacity in full or part duly forfeiting the deposits.
- 6.5.2. Amended Performance security (PBG pertaining to additional capacity allocated or capacity transferred shall be submitted by bidder within 15 days from the date of issue of such notification.)
- 6.5.3. The decision of the PSCDL is the final in this regard.

**Note: It is the prerogative of PSCDL to increase/decrease/transfer the Successful Bidder allocated capacity on bidder's request.**

#### **6.6 NOTIFICATION TO SUCCESSFUL BIDDERS.**

The name of Successful Bidders shall be notified indicating the allocated capacity and the awarded project price on the website and also shall be notified individually through letter of allocation.

#### **6.7 MAXIMUM CHARGEABLE TARIFF FOR ENERGY SALE UNDER RESCO MODEL**

Energy sale will be allowed under RESCO model also and the maximum chargeable Levelised tariff (per year) is up to **Rs. 4.68/kWh** for 25 years.

#### **6.8. PROJECT ALLOCATION AND SANCTION**

- 6.8.1. The identification of the projects (roof tops) at time of bidding is not mandatory. The Bidders, however, in their own interest are advised to make a preliminary survey of availability of roof tops in the city for which they intend to Bid, as well as issue of Grid connectivity, as non- availability of roof tops and non-completion of other formalities after allocation of project will result in forfeiture of Bid Bond/PBG amount submitted by them. However the available shade free roof top areas in Area Based Development (ABD) area of Puducherry Municipality are enclosed for reference.
- 6.8.2. The Successful Bidders selected as described in Clause 6.3 above shall be issued Letter of Allocation (LOA) indicating Levelised tariff.
- 6.8.3. The bidders, who have been notified as Successful Bidders, shall be given 12 months from the date of issue of Letter of Allocation for commissioning of the allocated capacity in which roofs identification is also in the bidder's scope. However the list of shadow free area over public buildings is enclosed along with this document.
- 6.8.3.1. Preference should be given to PSCDL identified roofs first. In the event of offer given by PSCDL to the Bidder to execute the project in the PSCDL identified roof, the time for submission of project



sanction documents by the bidder to PSCDL will be 30 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

- 6.8.3.2. Further, Successful Bidders can start submitting their Project sanction documents as soon as they receive LOA from PSCDL. Project sanction documents shall be submitted to PSCDL. If after 3 months, the successful bidder could not identify and commission the rooftop(s) 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 PSCDL's future tenders for a period as decided by the competent authority of PSCDL.
- 6.8.3.3. Successful bidders shall share the time and date stamping photographs of the roofs and location details with PSCDL before entering into any legal agreement with the Owner. This has to ensure that the location identified by the Successful bidder is freshly identified and strictly complying the norms.
- 6.8.4. For identification of projects, PSCDL or state level nodal agency (SNA) i.e., REAP may provide help. However the entire responsibility of finding the buildings lies with the Bidder.
- 6.8.5. Onus of identifying the buildings/rooftops and completing the other documentation like finalizing the Project report and entering into agreements with the buildings/rooftops owners lies with the Successful Bidder with above mentioned time frame even for the buildings/rooftops identified by PSCDL for preferential installation.
- 6.8.6. After the Project Sanctioned Document have been submitted by the Successful Bidder/ Project Developer and accepted by PSCDL, PSCDL will issue the Sanction Letter(s) for the Project (s). The Bidder shall complete the design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of project within 12 months from the date of issue of allocation Letter.
- 6.8.7. 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 12 months, the project will get cancelled and the total PBG would be forfeited. Please refer Clause 8 & 9 below for details.

#### **6.9. ACHIEVEMENT-LINKED INCENTIVES DISBURSEMENT: DELETED**

##### **. 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. PSCDL shall not have any responsibility in this regard.
- 7.2. Bid bond and Bid document fee submission:

Bid bond shall be submitted in a separate envelop (along with Bid document fee) superscripted with name of PUDUCHERRY SMART CITY DEVELOPMENT LIMITED for which Bid is being quoted & other details .However, Processing fee shall be paid online at the time of tendering.

### 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 Dept of Govt. of India by the bidder. PSCDL 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 Solar PV system stops generating. Any instances of grid failure need to be mentioned in the monthly report and those instances need to be authorized by local DISCOM. Then the period will be excluded in calculation of CUF.

7.7. Taxes, duties and service charges are included in the rates of the *bid processing fee*.

## 8. LIQUIDATED DAMAGES(LD) FOR DELAY IN PROJECT IMPLEMENTATION

8.1. PSCDL will issue the sanction letter(s) for the Project (s) in line with the provisions of the RFS document. The Bidder shall complete identification of the roof(s), "submission of project sanction documents as per the requirement of PSCDL", Design, Engineering, Manufacture, Supply, storage, civil work, erection, testing & commissioning of each project within 12 months from the date of issue of Allocation letter.

8.2 If the bidder fails to commission the sanctioned project within specified time, Liquidated Damages on per day basis calculated for the Performance Security on a 12 months period would be levied. After 12 months the project will get cancelled and the total PBG amount would be forfeited.

Ex: If a project is delayed by 36 days then the Liquidated Damages will be levied as given below.

Liquidated Damages = ((Performance Security)/180 days)\*delayed days = (PBG amount /180)\*36

## 9. TIME OF COMPLETION OF ALLOCATED CAPACITY:

9.1 Project completion shall be **12 months from the date of issue of allocation letter**. Failure of non-compliance of same shall lead to forfeiture of PBG in proportion to the capacity not identified.

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 PSCDL.

9.3 The period of construction given in Time Schedule includes the time required for mobilization as

well as testing, rectifications if any, retesting and completion in all respects to the entire satisfaction of the PSCDL.

9.4 A joint program of execution of the Work will be prepared by the PSCDL or its representative nominated for the purpose and Successful bidders based on priority requirement of this project. This program will take into account the time of completion mentioned in clause 9.1 above and the time allowed for the priority Works by the PSCDL.

9.5 Monthly/Weekly implementation program will; be drawn up by the PSCDL 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 /program by deploying adequate personnel, tools and tackles and he shall also supply himself all materials of his scope of supply in good time to achieve the target. In all matters concerning the extent of targets set out in the weekly and monthly program and the degree of achievements, the decision of the PSCDL will be final and binding.

#### **10. USER ID FOR UPDATING THE PROJECT PROGRESS ON BI-WEEKLY BASIS**

Successful bidder authorized 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.. 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 PSCDL shall be final in this regard. User id and passwords shall be provided to the PSCDL, DISCOM to check the daily production and performance.

#### **11. INSPECTION AND AUDIT BY THE GOVERNMENT**

11.1. The Successful bidder shall permit the PSCDL 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 PSCDL, if so required by the PSCDL any time.

#### **12. COMMISSIONING /COMPLETION CERTIFICATE:**

12.1. Application for completion/commissioning certificate:

When the Successful bidder fulfills his obligation under the Contract, he shall be eligible to apply for Completion Certificate. The PSCDL 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 if any as per the Clause 6.9

##### **12.1.1. DOCUMENT SUBMISSION FOR ISSUE COMMISSIONING/ 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 PSCDL format.
- b. Project completion report from successful bidder as per PSCDL/MNREformat
- c. Project completion/satisfaction certificate from roof top owners/project developers.

**12.1.2. FINAL DECISION AND FINAL CERTIFICATE:**

12.1.2.1. Upon completion of 25 years of O&M and subject to the PSCDL being satisfied, the PSCDL shall (without prejudice to the rights of the PSCDL 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 PSCDL 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/PSCDL.

**12.2. DEDUCTIONS FROM THE CONTRACT PRICE:**

12.2.1. All costs, damages or expenses which PSCDL 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 PSCDL. All such claims shall be billed by the PSCDL 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 PSCDL 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 PSCDL of such claims.

**12.3. CORRUPT OR FRAUDULENT PRACTICES**

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

- 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 PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL)/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 PSCDL 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/ PSCDL schemes.

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

13.1. PSCDL 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 PSCDL's any future tender for a period as decided

by the competent authority of PSCDL.

- 13.2. The Successful bidder must ensure that the ROOF TOP SOLAR PV SCHEME- subsidies available for newly commissioned projects i.e. for the projects whose construction/dispatch 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 PSCDL'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-IV

### TECHNICAL SPECIFICATIONS

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancellation of subsidy in full or part as decided by PSCDL. 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, Junction boxes, Distribution boxes and switches. 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 equipment's /components.

Solar PV modules consisting of required number of **Crystalline** PV cells.

Grid interactive Power Conditioning Unit with Remote Monitoring System Mounting structures

Junction Boxes.

Earthing and lightening protections.

IR/UV protected PVC Cables, pipes and

accessories

#### 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.
- b) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 200 Wp and above wattage. Module capacity less than minimum 200 Wp shall not be accepted.
- c) Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- i. PV modules must be tested and approved by one of the IEC authorized test centers.

- ii. The module frame shall be made of corrosion resistant materials, preferably/ SHALL BE anodized aluminum.
- iii. The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. PSCDL/owners shall allow only minor changes at the time of execution.
- iv. 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. I-V curves at STC should be provided by bidder.

#### **Solar PV modules**

Plants installed in high dust geographies , must have the solar modules tested with relevant dust standards (Applicable standard would be IEC 60068-2-68).

14.1.3. Modules deployed must use a **RF identification tag**. The following information must be mentioned in the RFID used on each module. This should be inside the laminate only.

- 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 Owners 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 mounting structures may be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum insulation. However to accommodate more capacity the angle inclination may be reduced 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 Puducherry -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 PSCDL. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed.
- c) The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.
- d) Structural material shall be corrosion resistant and electrolytic ally compatible with the materials used in the module frame, its fasteners, and nuts and bolts. **Aluminum structures also can be used which can withstand the wind speed of respective wind zone.** Necessary protection towards rusting need to be provided either by coating or anodization.
- e) Aluminum frames should be avoided for installations in coastal areas.
- f) 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
- g) Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.
- h) The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m<sup>2</sup>.
- i) The minimum clearance of the structure from the roof level should be 300 mm.
- ii) Minimum thickness of the hot dip galvanization 70 micron
- iii) Bidder shall specify installation details of PV modules and support structure with appropriate diagram and drawings for approvals before starting the execution work
- iv) Foundation base legs of the structure are made of fixed and grouted into PCC foundation



column with 1:2:4 cement concrete

#### **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 Aluminum /cast aluminum alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single / double compression cable glands. Provision of earthlings. It should be placed at 5 feet height or above for ease of accessibility.
- c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, 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.
- e) All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

#### **17. DC DISTRIBUTION BOARD:**

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

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
- d) 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, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory

Variation in supply Voltage	+/- 10 %
Variation in supply Frequency	+/- 3 Hz

- 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.

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:

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<b>Inverter efficiency (minimum)</b>	>97% (In case of 10 KW or above without in-built galvanic isolation)
<b>THD</b>	> 90% (In case of less than 10 kW)
<b>PF</b>	< 3%
	> 0.9

- a) Inverter phases will be decided as per site condition along with specifications of MNRE. Three phase PCU/ inverter shall be used with each power plant system (10kW and/or above) but in case of less than 10kW single phase inverter can be used.
- 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) **Anti-islanding** (Protection against Islanding of grid): The PCU shall have anti-islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.
- f) Successful Bidders shall be responsible for galvanic isolation of solar roof top power plant (>100kW) with electrical grid or LT panel.
- g) In PCU/Inverter, there shall be a direct current isolation provided at the output by means of a suitable isolating transformer. If Isolation Transformer is not incorporated with PCU/Inverter, there shall be a separate Isolation Transformer of suitable rating provided at the output side of PCU/PCU units for capacity more than 100 kW.
- h) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
- i) 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.
- j) The 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.
- k) The PCU/ inverters should be tested from the MNRE approved test centers/ NABL/ BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

## 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 above 10 kWp capacity.
- ii. Online monitoring shall be provided with GPRS. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iii. Solar Irradiance: An integrating Pyranometer / Solar cell based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.
- iv. Temperature: Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system
  - a. The following parameters are accessible via the operating interface display in real time separately for solar power plant: 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.
  - v. 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.
- vi. 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.
- vii. 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.
- viii. 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.

- ix. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
- x. 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.
- xi. All instantaneous data shall be shown on the computer screen.
- xii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
- xiii. Provision for instantaneous Internet monitoring and download of historical data shall be also incorporated.
- xiv. 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 temperature monitoring system.
- xv. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
- xvi. 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.
- xvii. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner / PSCDL 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 bidder.
- xviii. The bidders shall be obligated to push real-time plant monitoring data on a specified intervals (say 15 minute) through open protocol at receiver location (cloud server) in XML/JSON format, preferably. Suitable provision in this regard will be intimated to the bidders.

## **22 METERING:**

- i. The bidirectional electronic energy meter (0.5 S classes) shall be installed for the measurement of import/Export of energy.
- ii. The bidder must intimate to the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to PSCDL before commissioning of SPV plant.
- iii. The bidder must Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

## **23 POWER CONSUMPTION:**

- i. Regarding the generated power consumption, priority need to give for internal consumption first and thereafter any excess power can be exported to grid. Finalization of tariff is not under the purview of PSCDL or MNRE. Decisions of appropriate authority like DISCOM, state regulator may be followed.

## **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 standards. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.
- b) **Grounding to be done using adequate no of earth pits**
- c) **Earth resistance must be measured by a qualified and licensed electrical contractor and submitted resistance values confirm IEE regulations.**

#### **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).

#### **24.3 EARTHING PROTECTION**

- a) Each array structure of the PV yard should be grounded/ earthed properly as per IS: 3043-1987. In addition the lightning arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of Department/PSCDL 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 4-pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

#### **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°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 shall not exceed 2%.
- vii. For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used.
- viii. For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.
- ix. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in color.
- x. The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
- xi. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers
- xii. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo- plastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm<sup>2</sup> copper; the minimum AC cable size shall be 4.0 mm<sup>2</sup> copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires.
- xiii. 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. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter.
- xiv. Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in color.
- xv. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
- xvi. The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant shall be provided by the bidder. Any change in cabling sizes if desired by the bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation.

- xvii. Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below: 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.
- xviii. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.
- xix. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

## 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 of the State and amended from time to time. Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting voltage
Up to 10 Kw	240V-single phase or 415V-threephase at the option of the Consumer
Above 10kW and up to 100 kW	415V - three phase
Above 100kW	At HT/EHT level(11kV/22 KV) as per DISCOM rules

- 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 is 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/22KV 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 PSCDL.
- 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.



- (c) For large PV system (Above 100 kW) for installation having large load, the solar power can be generated at low voltage levels and step up to 11 kV /22KV/ or above level through the step up transformer for exporting the generated solar power to the grid, if required. The transformers and associated switchgear would require to be provided by the SPV bidders.

**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 signage shall be provided one each at battery -cum- control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with PSCDL/ owner.

**29. FIRE EXTINGUISHERS:**

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

- a) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- b) Sand buckets in the control room
- c) 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 supplied. 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 PSCDL/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 labour. The bidder should submit the array layout drawings along with Shadow Analysis Report to PSCDL/Owner for approval.
- b) PSCDL reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements.
- c) The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submits three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

**32. DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT**

- a) The Contractor shall furnish 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. SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUAL ENERGY REQUIREMENT**

The Solar PV system on the rooftop of the selected buildings will be installed for meeting up to 90% of the annual energy requirements depending upon the area of rooftop available and the remaining energy requirement of the office buildings will be met by drawing power from grid at commercial tariff of DISCOMs

**34. 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.

**35. DISPLAY BOARD**

The bidder has to display a board at the project site (above 25 kWp) mentioning the following:

- a. Plant Name, Capacity, Location, Type of Renewable Energy plant (Like solar wind etc.), and Date of commissioning, details of tie-up with transmission and distribution companies, Power generation and Export FY wise.
- b. Financial Assistance details from PSCDL/MNRE/Any other financial institution apart from loan. This information shall not be limited to project site but also be displayed at site offices/head quarter offices of the successful bidder.
- c. The size and type of board and display shall be approved by PSCDL before site inspection.

40. Please refer **Annexure-L** for IEC standards to be mandatorily adhered.

**SECTION-V****PRICE BID FOR RESCO****(To be submitted online only)****RFS NO. 015/PSCDL/Solar Roof Top /2021-22**

<b>Year of Operation</b>	<b>Tariff (Rs/kWh)</b>	<b>Discount Factor as per jerc norms</b>	<b>Discounted Tariff (Rs/kWh)</b>
Year 1 w.e.f. date of commercial operation to 31 <sup>st</sup> March of immediately succeeding financial year		1.000	X1
Year 2 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.92	X2
Year 3 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.85	X3
Year 4 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.78	X4
Year 5 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.72	X5
Year 6 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.66	X6
31 <sup>st</sup> Year 7 w.e.f 1 <sup>st</sup> April to March of immediately succeeding financial year		0.61	X7
Year 8 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.56	X8
Year 9 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.51	X9
Year 10 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.47	X10
Year 11 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.44	X11
Year 12 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.40	X12
Year 13 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.37	X13

Year of Operation	Tariff (Rs/kWh)	Discount Factor as per jerc norms	Discounted Tariff (Rs/kWh)
Year 14 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately Succeeding financial year		0.34	X14
Year 15 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.31	X15
Year 16 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.29	X16
Year 17 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.26	X17
Year 18 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.24	X18
Year 19 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.22	X19
Year 20 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.21	X20
Year 21 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.19	X21
Year 22 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.17	X22
Year 23 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.16	X23
Year 24 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.15	X24
Year 25 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.14	X25
Total		$X = X1 + X2 + X3 + \dots + X_{25}$	
Levelised Tariff for 25 years (in Rs /kWh) = $X / 10.97$			
Levelised Tariff for 25 years in words			

**Note:**

The Levelised tariff shall be calculated up to two decimal places.

However in case of a tie it may be expanded to break the tie.

Tariff stream quoted by the bidder shall be levelised with a discounting rate of 8.67% .

Maximum allowable tariff shall be 4.68/KWH.

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Business Address:

(Company Stamp) \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name \_\_\_\_\_

Designation \_\_\_\_\_

**Format 1**

**SECTION -VI FORMATS FOR SUBMITTING RFS**

**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**

**CHIEF EXECUTIVE OFFICER**

PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

No.2. Bussy street, Old court building,

Puducherry- 605001

**Sub: Bid for “Implementation of Grid connected Roof Top Solar PV System Scheme in Puducherry Municipal Corporation, as per RFS”**

Dear Sir,

1. 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 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.

2. We give our unconditional acceptance to the

3. RFS, dated.....and RFS

Documents attached thereto, issued by Puducherry smart city development limited, as amended. As a token of our acceptance to the RFS Documents, the same have been initialed by us and enclosed to the Bid. We shall ensure that we execute such RFS Documents as per the provisions of the RFS and provisions of such RFS Documents shall be binding on us.

**4. Bid Capacity**

We have bid for the above project under RESCO model as per RFS terms and conditions

**5. Bid Bond**

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 Format .....from ..... (Insert name of bank providing Bid Bond) and valid up to .....in terms of Clause .....of this RFS.

6. We have submitted our Price Bid 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).
7. 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 PSCDL for implementation of the project.

#### **8. Acceptance**

We hereby unconditionally and irrevocably agree and accept that the decision made by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED 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 fulfill our obligations with regard to execution of projects of capacity offered by us.

#### **9. 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.

#### **10. Contact Person**

Details of the contact person are furnished as under:

Name : .....

Designation : .....

Company : .....

Address : .....

Phone Nos. : .....

Fax Nos. : .....

E-mail address : .....

\*\*\* We are enclosing herewith the Envelope-I (Covering letter, Processing fee and Bid Bonds etc as per clause 3.12 of the RFS) (through Offline) and Envelope-II (Techno-Commercial documents)

(through online) and Envelope III (Price Bids) (through online) containing duly signed formats, each one duly sealed separately, in one original as desired by you in the RFS for your consideration as per clause 3.9 of the RFS.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFS and subsequent communications from Puducherry smart city development limited. 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 8 months 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 /Declaration (Annexure 6).**



## Format-2

### General Particulars of the Bidder

Name of the Company	
Registered Office Address	
E-mail	
Web site	
Authorized Contact Person(s) with name, designation, Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
Year of Incorporation	
debarred By any Govt. Dept. / Undertaking for undertaking any work. Reference of any document information attached by the Bidder other than specified in the RFS. Whether the Bidder wishes to forma	
Project Company for execution of work Bidding company is listed in India 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	
Whether company is MSME as on the bidding date as per clause 3.3.1 and 3.43	Yes/No

### Format-A (Shareholding certificate)

(Signature of Authorized Signatory)

Name of the Equity holder	Type and Number of shares owned	% of equity Holding	Extent of Voting Rights

(Signature of Authorized Signatory)

With Stamp

(Signature of Company Secretary/Director/Chartered Accountant)

**Format-3**  
**Format for Bid Bond**

(To be on Rs. 100/-non-judicial stamp paper)

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 **under RESCO model in ABD area of the Puducherry municipality** as indicated in RFS) in response to the RS No. \_\_\_\_\_ dated \_\_\_\_\_ issued by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (hereinafter referred to as PSCDL) and PSCDL 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 PSCDL at [Puducherry smart city development limited, Puducherry] forthwith on demand in writing from PSCDL or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees \_\_\_\_\_ (words) 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 3.12 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 3.12 of this RFS] NO:----- shall be entitled to invoke this Guarantee till \_\_\_\_\_ [Insert date which is 30 day after the date in the preceding sentence] -

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

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 PSCDL to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against PSCDL in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Puducherry 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 PSCDL 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 PSCDL 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 3.12 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 PSCDL 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-4

##### **Format for Performance Bank Guarantee (PBG)**

(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 Puducherry Smart City Corporation Limited) submitting the response to RFS inter alia for selection of the Project **under RESCO model** in Puducherry Municipality under Roof Top scheme in response to the RFS no..... dated ..... issued by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (hereinafter referred to as

PSCDL) and PSCDL considering such response to the RFS of

.....[insert the name of the selected Solar Power Developer] (which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and selecting the Solar Power Project of the Solar Power Developer and issuing Letter of allocation No ----- to (Insert Name of selected Solar Power Developer) as per terms of RFS and the same having been accepted by the selected SPD 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 PSCDL at [Puducherry smart city development limited, Puducherry-605001] forthwith on demand in writing from PSCDL or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees [Total Value]

only, on behalf of M/s \_\_\_\_\_ [Insert name of the selected Solar Power Developer / Project Company]

This guarantee shall be valid and binding on this Bank up to and including..... 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. \_\_\_\_\_

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

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

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by----- [Insert name of the selected bidder]. The Guarantor Bank shall not require PSCDL to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor

Bank have any recourse against PSCDL in respect of any payment made hereunder

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Puducherry 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 PSCDL shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the selected Solar Power Developer / Project Company , to make any claim against or any demand on the Successful bidder or to give any notice to the selected Solar Power Developer / Project Company or to enforce any security held by PSCDL or to exercise, levy or enforce any distress, diligence or other process against the selected Solar Power Developer / 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 PSCDL 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 Format-4

**Format-5**

**Check List for Bank Guarantees**

<b>Sl. No.</b>	<b>Details of checks</b>	<b>YES/NO</b>
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 / initialed by executants and whether stamp of Bank is affixed thereon? Whether the last	
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., / LOI No. (if applicable) / Amount of BG and Validity of BG correctly mentioned in the BG	
G	Whether overwriting/cutting if any on the BG have been properly authenticated under signature & seal of executants?	
H	Contact details of issuing bank including email id, mobile number etc.	



**Format-6**

**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 response to the RFS No .....dated ..... issued by PUDUCHERRY SMART CITY DEVELOPMENT LIMITED(PSCDL), Puducherry 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 PSCDL may require us to submit. The aforesaid Attorney is further authorized for making representations to the Puducherry smart city development limited, Puducherry and providing information / responses to PSCDL, Puducherry representing us in all matters before PSCDL, Puducherry and generally dealing with PSCDL, Puducherry in all matters in connection with Bid till the completion of the bidding process as per the terms of the above mentioned NIT.

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 NIT.

**Signed by the within named**

..... (Insert the name of the executants

**company)Through the hand of**

**Mr.** .....

Duly authorized by the Board 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 executants)  
(Name, designation and address of the executants)

.....

**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.....**

**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 executants(s) and the same should be under common seal of the executants 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 executants(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 executants(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 executants(s).

## FORMAT-7

### Financial Eligibility Criteria Requirement (As Per Clause 3.3)

(To be submitted on the letterhead of Bidding Company)

To,

**CHIEF EXECUTIVE OFFICER**

PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

No.2. Bussy street, Old court building,  
Puducherry- 605001.

Dear sir

Sub: Bid for Implementation of Grid connected Roof Top Solar PV System scheme in response to the  
RFS No: PSCDL/

We submit our Bid under RESCO model for which details of our Financial Eligibility Criteria  
Requirements are as  
follows.

Further, we certify that the Financially Evaluated Entity (ies) had an Annual Turnover

or

Net worth (strike out whichever is not applicable) of Rs.....Crores computed as per  
instructions provided in

Clause 3.3 of this RFS based on unconsolidated audited annual accounts (refer Note-1 below) any of  
the last 5

Years immediately preceding the Bid Deadline.

Name of Financially Evaluated Entity*	Relationship with Bidding Company**	Financial year	Year of Incorporation	Annual Turnover(Rs. Crores)	Net worth as per Clause3.4.2 (in Rs. Crores)

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

\*\* The column for "Relationship with Bidding Company" is to be filled in only in case financial capability of

Parent Company and/or Affiliate has been used for meeting Qualification Requirements.

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,

**CHIEF EXECUTIVE OFFICER**

PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

No.2. Bussy street, Old court building,

Puducherry- 605001

.....

....Dear Sir,

Sub: Bid for Implementation of Grid connected Roof Top Solar PV System Scheme.

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	Name of the Affiliate of the Bidding 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

\*Strike out whichever is not applicable.

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

## Format-9

**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,

**CHIEF EXECUTIVE OFFICER**

PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

No.2. Bussy street, Old court building,

Puducherry- 605001

Dear Sir,

We refer to the RFS No.....dated ..... for "Implementation of Grid connected Roof Top Solar PV System Scheme".

"We have carefully read and examined in detail the RFS, including in particular, Clause of the RFS, regarding submission of an undertaking, as per the prescribed Format at Annexure.....of the RFS.

We confirm that M/s.....(Insert name of Bidding Company/) has been authorized by us to use our financial capability for meeting the 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 Authorized Signatory

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

**WITNESS**

.....

..... (Signature)

Name.....

Designation.....

.....

(Signature)

Name.....

.....

Designation.....

**Format-10**  
**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 \_\_\_\_\_ 2016 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 PUDUCHERRY SMART CITY DEVELOPMENT LIMITED (hereinafter called PSCDL), has invited response to RFS No.

\_\_\_\_\_ dated for design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of Roof Top Solar PV power system.

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 Warranty, Operation & Maintenance" 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 Puducherry 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 PSCDL 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 PSCDL.
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 PSCDL.

IN WITNESS WHEREOF, the Members have, through their authorized 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-----

Name:

Address:

2) Signature -----

Name:

Address:



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

(signature, Name & Designation of the person authorized vide Board Resolution Dated

[•])

Witnesses:

## **Annexure-A**

### **DOCUMENTS REQUIRED FOR PROJECT SANCTION**

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

1. Agreement between the bidder and the owner of the Project and Building/Roof top (Notarized original agreement on stamp paper of appropriate value should be enclosed).
2. All Agreement shall generally have reference to the PSCDL's RFS No. and Letter of Allocation and provisions as per terms and conditions, technical specification and performance parameter in line with the PSCDL's RFS Document against which Letter of Allocation has been issued. In addition, it shall indicate the price / tariff payable by the roof top Owner to the developer, payment terms, completion period along with other conditions of contract like insurance, warranty, force majeure, arbitration, jurisdiction, governing law, site access for the developer, and, site access for PSCDL officials for the entire plant life, obligation of the roof top owner regarding providing of data to PSCDL as per the RFS Document etc.
3. Intimation to the concerned DISCOM for grid connectivity as per Annexure-M.Undertaking of Successful Bidder on stamp Paper fo-3 pages only) as per Format r indemnification of PSCDL shall be furnished in case approval of CEA is only furnished for grid connectivity.(Not mandatory during project identification, however mandatory for project commissioning/operation).
4. Summary Project Report (2 at **Annexure H**.
5. **PSCDL Service Charges:** DD/ Bankers cheque for an amount as per clause no 3.20, drawn in favour of Puducherry smart city development limited, Puducherry , payable at Puducherry against payment of PSCDL Service Charges.

**Annexure-B**  
**List of Banks**

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

## **Annexure-B**

### **List of Banks**

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	

## Annexure-C

### Reference of Calculation of Levelised Tariff

Year of Operation	Tariff (Rs/kWh)	Discount Factor As per jerc norm	Discounted Tariff (Rs/kWh)
(1)	(2)	(3)	4=(2)X(3)
Year 1 w.e.f. date of commercial operation to  31st March of immediately succeeding financial year		1.000	X1
Year 2 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.92	X2
Year 3 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.85	X3
Year 4 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.78	X4
Year 5 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.72	X5
Year 6 w.e.f 1 <sup>st</sup> April to			

Year of Operation	Tariff (Rs/kWh)	Discount Factor AS PER JERC NORM	Discounted Tariff (Rs/kWh)
(1)	(2)	(3)	4=(2)X(3)
31 <sup>st</sup> March of immediately succeeding financial year		0.66	X6
Year 7 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup>  March of immediately succeeding financial year		0.61	X7
Year 8 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.56	X8
Year 9 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.51	X9
Year 10 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.47	X10
Year 11 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup>  March of immediately succeeding financial year		0.44	X11
Year 12 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup>			

Year of Operation	Tariff (Rs/kWh)	Discount Factor AS PER JERC NORM	Discounted Tariff (Rs/kWh)
(1)	(2)	(3)	4=(2)X(3)
March of immediately succeeding financial year		0.40	X12
Year 13 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.37	X13
Year 14 w.e.f 1 <sup>st</sup> April to 31 <sup>s</sup> March of immediately Succeeding financial year		0.34	X14
Year 15 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.31	X15
Year 16 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.29	X16
Year 17 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.26	X17
Year 18 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately		0.24	X18

Year of Operation	Tariff (Rs/kWh)	Discount Factor at 8.67%	Discounted Tariff (Rs/kWh)
(1)	(2)	(3)	4=(2)X(3)
succeeding financial year			
Year 19 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.22	X19
Year 20 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.21	X20
Year 21 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.19	X21
Year 22 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.17	X22
Year 23 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.16	X23
Year 24 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.15	X24



Year of Operation	Tariff (Rs/kWh)	Discount Factor (AS PER JERC NORM)	Discounted Tariff (Rs/kWh)
(1)	(2)	(3)	4=(2)X(3)
Year 25 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.14	X25
Total		10.97	X=X1+X2+X3+.....+X25
Levelised Tariff for 25 years(in Rs /kWh)=X/10.97			
Levelised Tariff for 25 years in words			

Note:

- The Levelised tariff shall be calculated up to three decimal places. However in case of a tie it may be expanded to break the tie.
- Tariff stream quoted by the bidder shall be Levelised with a discounting rate of 8.67% only.
- Maximum allowable Levelised tariff as per clause 2.1.2, 6.7
- Proposals not in conformity with above provisions will be rejected.
- The tariff quoted by the bidder shall be less than the PED/JERC rate during the entire lifetime of the project period. However, if the tariff is more than the PED/JERC rate than the minimum of the two rates shall be collected.

Date ..... Signature of the Authorized signatory

Place: .....Printed Name.....

Business Address:                      Designation:.....  
(Company Stamp).....

## **Annexure-D**

### **Operation and Maintenance Guidelines of Grid Connected PV Plants**

For the optimal operation of a PV plant, maintenance must be carried out on a regular basis.

All the components should be kept clean. It should be ensured that all the components are fastened well at their due place.

Maintenance guidelines for various components viz. solar panels, inverter, wiring etc. are discussed below:

#### **1. SOLAR PANELS**

Although the cleaning frequency for the panels will vary from site to site depending on soiling, it is recommended that

- ☐ The panels are cleaned at least once every fifteen days. Any
- ☐ bird droppings or spots should be cleaned immediately. Use
- ☐ water and a soft sponge or cloth for cleaning.
- ☐ Do not use detergent or any abrasive material for panel cleaning.
- ☐ Isopropyl alcohol may be used to remove oil or grease stains.
- ☐ Do not spray water on the panel if the panel glass is cracked or the back side is perforated.
- ☐ Wipe water from module as soon as possible.
- ☐ Use proper safety belts while cleaning modules at inclined roofs etc.
- ☐ The modules should not be cleaned when they are excessively hot. Early morning is particularly good time for module cleaning.
- ☐ Check if there are any shade problems due to vegetation or new building. If there are, make arrangements for removing the vegetation or moving the panels to a shade-free place.
- ☐ Ensure that the module terminal connections are not exposed while cleaning; this poses a risk of electric shock.
- ☐ Never use panels for any unintended use, e. g. drying clothes, chips etc.
- ☐ Ensure that monkeys or other animals do not damage the panels.

#### **2. CABLES AND CONNECTION BOXES**

- ☐ Check the connections for corrosion and tightness.
- ☐ Check the connection box to make sure that the wires are tight, and the water seals are not damaged.
- ☐ There should be no vermin inside the box.
- ☐ Check the cable insulating sheath for cracks, breaks or burns. If the insulation is damaged, replace the wire.
- ☐ If the wire is outside the building, use wire with weather-resistant insulation.

- ☐ Make sure that the wire is clamped properly and that it should not rub against any sharp edges or corners.
- ☐ If some wire needs to be changed, make sure it is of proper rating and type.

### 3. INVERTER

- ☐ The inverter should be installed in a clean, dry, and ventilated area which is separated from, and not directly above, the battery bank.
- ☐ Remove any excess dust in heat sinks and ventilations. This should only be done with a dry cloth or brush.
- ☐ Check that vermin have not infested the inverter. Typical signs of this include spider webs on ventilation grills or wasps' nests in heat sinks.
- ☐ Check functionality, e.g. automatic disconnection upon loss of grid power supply, at least once a month.
- ☐ Verify the state of DC/AC surge arrestors, cable connections, and circuit breakers.

### 4. SHUTTING DOWN THE SYSTEM

- ☐ Disconnect system from all power sources in accordance with instructions for all other components used in the system.
- ☐ Completely cover system modules with an opaque material to prevent electricity from being generated while disconnecting conductors.
- ☐ To the extent possible, system shutdown will not be done during day time or peak generation.

### INSPECTION AND MAINTENANCE SCHEDULE

Component	Activity	Description	Interval	By
PV Module	Cleaning	Clean any bird droppings / Dark spots on module	Immediately	User/Technician
	Cleaning	Clean PV modules with plain water or mild dishwashing detergent. Do not use brushes, any Types of solvents, abrasives, or harsh Detergents.	Fortnightly or as per the site Conditions	User/Technician
	Inspection (for plants >100 kWp)	Use infrared camera to inspect for hot spots; bypass diode failure	Annual	Technician
PV Array	Inspection	Check the PV modules and rack for any damage.  Note: down location and serial number of damaged modules.	Annual	User/Technician

Component	Activity	Description	Interval	By
	Inspection	Determine if any new objects, Such as vegetation growth, are Causing shading of the array And move them if possible.	Annual	User/Technician
	Vermin Removal	Remove bird nests or vermin From array and rack area.	Annual	User/Technician
Junction Boxes	Inspection	Inspect electrical boxes for corrosion or intrusion of water or insects. Seal boxes if required. Check position of switches and breakers. Check operation of all protection devices.	Annual	Electrician
Wiring	Inspection	Inspect cabling for signs of cracks; defects lose connections, overheating, arcing, short or open circuits, and ground faults.	Annual	Electrician
Inverter	Inspection	Observe Instantaneous operational indicators on the faceplate of the inverter to ensure that the Amount of power being generated is typical of the conditions. Inspect Inverter housing or shelter for physical Maintenance, if required.	Monthly	Electrician
Inverter	Service	Clean or replace any air filters.	As needed	Electrician
Instruments	`Validation	Spot-check monitoring instruments (pyranometer etc.) With standard instruments To ensure that they are Operational and within specifications.	Annual	PV Specialist
Transformer	Inspection	Inspect transformer oil level, temperature gauges, breather, Silica gel, meter, connections etc.	Annual	Electrician
Tracker (if present)	Inspection	Inspect gears, gear boxes, bearings As Required.	Annual	Technician
	Service	Lubricate tracker mounting Bearings, Gearbox as required.	Bi-annual	Technician

Component	Activity	Description	Interval	By
Plant Spare Parts	Monitoring Management	Daily Operation and performance Monitoring Manage inventory of spare parts.	Daily  As needed	Site in charge  Site in charge
Log Book	Documentation	Document all O&M activities in a Workbook available to all service personnel	Continuous	Site in charge

#### **Operation and Maintenance Guidelines of Grid Connected PV Plants**

- ☐ Periodic cleaning of solar modules, preferably once every fortnight.
- ☐ O&M of Solar Power Plant shall be compliant with grid requirements to achieve committed energy generation.
- ☐ Periodic checks of the Modules, PCUs and BoS shall be carried out as a part of routine preventive and breakdown maintenance.
- ☐ Immediate replacement of defective Modules, Invertors/PCUs and other equipment as and when required.
- ☐ Supply of all spares, consumables and fixtures as required. Such stock shall be maintained for all associated equipment and materials as per manufacturer/ supplier's recommendations.
- ☐ All the equipment testing instrument required for Testing, Commissioning and O&M for the healthy operation of the Plant shall be maintained by the Bidder. The testing equipment must be calibrated once every 2 years from NABL accredited labs and the certificate of calibration must be kept for reference as required.
- ☐ If negligence/ mal-operation on part of the Bidder's operator results in failure of equipment, such equipment should be repaired/ replaced by the Bidder free of cost.
- ☐ If any jobs covered in O&M Scope as per RFS are not carried out by the contractor/ Bidders during the O&M period, the PSCDL shall take appropriate action as deemed fit.
- ☐ PSCDL reserves the right to make surprise checks/ inspection visits at its own or through authorized representative to verify the O&M activities being carried out by the Bidder. Failure to adhere to above guidelines will result in penal action including debarring from participation in next tender.

## Annexure- E

### Quality Certification, Standards and Testing for Grid-connected Rooftop Solar PV Systems/Power Plants

Quality certification and standards for grid-connected rooftop solar PV systems are essential for the successful mass-scale implementation of this technology. It is also imperative to put in place an efficient and rigorous monitoring mechanism, adherence to these standards. Hence, all components of grid-connected rooftop solar PV system/ plant must conform to the relevant standards and certifications given below:

IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61701	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- Part 1/ IS 16170: Part 1	Photovoltaic (PV) module performance testing and energy rating -: Irradiance and temperature performance measurements, and power rating
IEC 62716	Photovoltaic (PV) Modules - Ammonia (NH <sub>3</sub> ) Corrosion Testing(As per the site condition like dairies, toilets)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction, Part 2: Requirements for Testing
IEC 62804	Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation. IEC TS 62804-1: Part 1: Crystalline silicon (mandatory for applications where the system voltage is > 600 VDC and advisory for installations where the system voltage is < 600 VDC)
IEC 62759-1	Photovoltaic (PV) modules - Transportation testing, Part 1: Transportation and shipping of module package units
<b>Solar PV Inverters</b>	
IEC 62109-1, IEC 62109-2	Safety of power converters for use in photovoltaic power systems -
	Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems
	Part 2: Particular requirements for inverters. Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IEC/IS 61683 (as applicable)	Photovoltaic Systems - Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100>Loading Conditions)

BS EN 50530 (as applicable)	Overall efficiency of grid-connected photovoltaic inverters: This European Standard provides a procedure for the measurement of the accuracy of the maximum power point tracking (MPPT) of inverters, which
	are used in grid-connected photovoltaic systems. In that case the inverter energizes a low voltage grid of stable AC voltage and constant frequency. Both the static and dynamic MPPT efficiency is considered.
IEC 62116/ UL 1741/ IEEE 1547 (as applicable)	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding Prevention Measures
IEC 60255-27	Measuring relays and protection equipment - Part 27: Product safety requirements
IEC 60068-2 (1, 2, 14, 27, 30 & 64)	Environmental Testing of PV System - Power Conditioners and Inverters a) IEC 60068-2-1: Environmental testing - Part 2-1: Tests - Test A: Cold b) IEC 60068-2-2: Environmental testing - Part 2-2: Tests - Test B: Dry heat c) IEC 60068-2-14: Environmental testing - Part 2-14: Tests - Test N: Change of temperature d) IEC 60068-2-27: Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock e) IEC 60068-2-30: Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) e) IEC 60068-2-64: Environmental testing - Part 2-64: Tests - f) Test Fh: Vibration, broadband random and guidance
IEC 61000 - 2,3,5(as applicable)	Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) testing of PV Inverters
<b>Fuses</b>	
IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit breakers (AC/DC): a) Low-voltage Switchgear and Control-gear, Part 1: General Rules b) Low-Voltage Switchgear and Control-gear, Part 2: Circuit Breakers c) Low-voltage switchgear and Control-gear, Part 3: Switches, disconnections, switch-disconnections and fuse-combination Units d) EN 50521: Connectors for photovoltaic systems - Safety requirements and tests

IEC 60269-6	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy Systems
<b>Surge Arrestors</b>	
IEC 62305-4	Lightening Protection Standard
IEC 60364-5-53/ IS 15086-5 (SPD)	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and Control
IEC 61643- 11:2011	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
<b>Cables</b>	
IEC 60227/IS 694, IEC 60502/IS 1554 (Part 1 & 2)/ IEC69947	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems (BT(DE/NOT)258), mainly for DC Cables
<b>Earthing /Lightning</b>	
IEC 62561 Series(Chemical earthing)	IEC 62561-1 Lightning protection system components (LPSC) - Part 1: Requirements for connection components IEC 62561-2 Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes IEC 62561-7 Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds
<b>Junction Boxes</b>	
IEC 60529	Junction boxes and solar panel terminal boxes shall be of the thermo-plastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
<b>Energy Meter</b>	
IS 16444 or as specified by the DISCOMs	A.C. Static direct connected watt-hour Smart Meter Class 1 and 2 – Specification (with Import & Export/Net energy measurements)



<b>Solar PV Roof Mounting Structure</b>	
IS 2062/IS 4759	Material for the structure mounting

Note- Equivalent standards may be used for different system components of the plants. In case of clarification following person/agencies may be contacted.

Ministry of New and Renewable Energy (Govt. of India)

National Institute of Solar Energy

The Energy & Resources Institute

UVR heinland and UL

## Annexure

### **Project Report Format**

#### **Format for Summary Project Report for Grid Connected Rooftop and Small Solar PV Power Plants**

1. Name of Bidder
2. RFS no.
3. Project details (Site location & Address)
4. Brief about the Rooftop Solar Power Generation System
5. Details of the beneficiary
6. Specifications of the Components and Bill of Material/ Quantities

<b>Sl. No</b>	<b>Component</b>	<b>Specifications</b>	<b>Quantity</b>	<b>Make</b>
A	Solar PV module			
A.1	Aggregate Solar PV capacity (kWp)			
B	Grid Tie inverter (Type and Capacity)			
B.1	Aggregate Inverter capacity (kVA)			
C	Module mounting structure (Certified by a Structural Engineer(Mandatory for 10 kWpto 500 kWp)			
D	Array Junction Box			
E	AC Distribution Board			
F	Cable (All type)			
G	Earthing Kit(maintenance free)			
H	Meters			
I	Online monitoring system			
J	Any other component			
K	Transformer			

7. Unit cost of solar power generation
8. Cost benefit analysis, payback period
9. Expected output/annum

10. Respective drawings for layout, electrical wiring connections, earthing, components etc.
11. Connectivity details with grid and metering arrangement (with sketch diagram)
12. Copy of electricity bill of the beneficiary and consumer number
13. Any other information
14. Documentary proof regarding beneficiary type

.

## Annexure G

### Monthly O & M Report

Month and year:

Name of the bidder:

RFS ref no.:

Project Capacity:

Address of the

site: Part A

Component	Activity	Description	Date	Name/ Signature	*Remarks
PV module	Cleaning	Immediate clean any bird droppings/ dark spots on modules			
	Cleaning	Clean PV modules with plain water or mild dishwashing detergent			
	Inspection (for plants > 100KWp)	Infrared camera inspection for hot spots: bypass diode failure			
PV Array	Inspection	Check the PV modules and rack for any damage			
	Inspection	If any new object, such as vegetation growth etc., are causing shading of the array. Remove if any			
	Vermin removal	Remove bird nests or vermin from array and rack area			
Junction boxes	Inspection	Inspect electrical boxes for corrosion, intrusion of water or vermin			
		Check position of switches and Breakers			
		Check status of all protection devices.			

		Inspect cabling for sign of cracks, defects ,lose connections, corrosion			
Wiring	Inspection	Overheating, arcing, short or open circuits and faults			
inverters	Inspections	Observe instantaneous operational indicators on the faceplate			
		Inspect inverter housing or shelter for any physical maintenance			
		Check for connections tightness			
inverters	Service	Clean or replace any air filter			
Instruments	Validations	Verify monitoring instruments (pyranometer etc..) with standard instruments to verify their operation within tolerance limits			
Transformer	Inspection	Inspect transformer oil level, temperature gauges, breather, silica gel, meter, connections etc			
Plant	Monitoring	Daily operations and performance and monitoring			
Spare parts	Managements	Manage inventory of spare parts			
Log book	Documentation	Maintain daily log records			
TRACKERS (if any )	Inspection	Inspect gears , gear boxes , bearing and motors			
	service	Lubricate bearing, gears as required			

\*Provide details of any replacement of systems/components, damages, plant/inverter shut down (planned/forced), breakdown, etc under remarks.

\*Daily register is to be maintained by the bidder at each location greater than 50 kWp. The same

may be inspected by PSCDL or its authorized representative at any time 25 years of O&M period. The Register will have the information about the daily generation, Inverter downtime if any, Grid outages.

**Part B**

<b>Date</b>	<b>Generation kWh</b>	<b>Grid outage (hh:mm)</b>	<b>Inverter down period (hh:mm)</b>	<b>Remarks</b>
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
--				
--				

Total generation for the month in kWh:

Cumulative generation since commissioning in kWh:CUF for month in %:

Cumulative CUF since commissioning in %:Date:

## Annexure H

### Project Completion Report for Grid-Connected Rooftop

Financial year * :			
Approval No. * :			
Proposal Title :			
Installed by agency :			
Project initiated by :			
Title of the Project* :		Capacity (kWp)*:	
Category of the organization / beneficiary* :		Name of the contact person* :	
Address of contact person* :			
State* :		District/City* :	
Mobile* :		Email* :	
Telephone No. :	STD code-	Website :	
<b>Other info</b>			
Electricity Distribution Company Name :			
Electricity consumer account no. as per electricity bill :		as on Date :	



**Bank Details of Beneficiary**

Name of A/c holder :

Name of Bank :

Name of Branch and Address :

Bank IFSC Code :

9 Digit Micr Code :

Type of Account :

Account No. :

Aadhaar Card Number :

**Technology Description & System Design /Specification****(Compliance to BIS/IEC Standards is mandatory)**

<b>1. Module</b>		
Capacity/Power of each PV Module(Wp)* :	1. Capacity/Power 2. Capacity/Power	1. Nos: 2. Nos:
Cumulative Capacity of		

Modules(KWp):		
Solar cell technology :		
Module efficiency (in Percentage) :		

<b>2. Inverters</b>		
Type of inverter :		
Make of inverter :		
Capacity/Power of each PCU/inverters (VA)* :	Capacity/Power Nos.	
Capacity/Power of PCU/inverters (KVA) :		
Inverter efficiency (Full load) :		
(in percentage)		
<b>3. Metering Arrangement</b>		
Details of Metering		
Type of Meter* :		
Make of Meter :		
<b>5. Other information</b>		
Units of electricity generated by the solar plant as per meter (in KWh):		
<b>Monitoring Mechanism :</b>		

No. of personnel to be trained in O&M :		
Task & Expected Schedule(in Months) :		
Grid connectivity level		
Grid connectivity level phase* :		Grid connectivity level Voltage* :
Costing of Project		
Hardware cost :	Rs.	Total Cost of Installation (Rs) :
<b>Means of Finance</b>		
Envisaged Central Financial Assistance from MNRE*	Rs.	
Subsidy from states if any	Rs.	
Contribution of Beneficiaries*	Rs.	
Other Source (s) of Funding	Rs.	

## Annexure I

### Intimation to DISCOM for Implementation of Grid Connected Rooftop Solar PV Plant under \_\_\_\_\_ Scheme

To,

Date:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (Designated Officer, DISCOM)

1.	Name of SPD/Implementing Agency			
2	Name of the Consumer*			
<b>Site Details*</b>				
3	Address of the Rooftop Project Site:*	H No:		
		Street Name:		
		Village Name:		
		District Name:		
		State:		
		Pin Code:		
4	Phone/Mobile No.			
5	Email Id:			
6	Electricity Consumer No. *			
7	*Category (Please)	Residential	Commercial	Industrial
		Educational	Government	Others, Specify
8	Installed Plant Capacity (kWp)*			
9	Connected load (kVA)*			
10	Voltage level at interconnection*	415 V	11 kV	above 11 Kv
11	Nearest Transformer Details	Location:		Capacity:
12	Details of Inverter with Anti-Islanding			
	Protection*	Make:	Capacity:	
	Phase (Φ): (Please)	Single phase	3-Phase	
	Galvanic Isolation (Please )	Inside Inverter	Outside Inverter	

13	Both AC and DC components of the SPV power plants Earthed*:				
14	CEIG Inspection required*		Yes	No	
15	If, Yes, Inspection date *				
	(Attach copy of CEIG Certificate)				
16	Bank Account details	Account No.			
		Bank		Branch	
17	Date of Grid Synchronization*				
18.	Net metering and grid connectivity	Applied on:			
	(Attach Acknowledgment from DISCOM, if received)	Fees Deposited On:			

\*to be provided mandatorily

It is certified that the information furnished above is true to the best of my knowledge.

Consumer /Authorized Signatory of  
Implementing Agency on behalf of consumer

Copy To:

Engineer In-charge, Puducherry smart city development limited, Puducherry -533001

## Annexure - J

### Undertaking from the Bidding Company on their Letter Head

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To,

**CHIEF EXECUTIVE OFFICER**

PUDUCHERRY SMART CITY DEVELOPMENT LIMITED

No.2. Bussy street, Old court building,

Puducherry- 605001

Dear Sir,

We refer to the RFS No.....dated .....for "Implementation of 1.1MW Grid connected Roof Top Solar PV System Scheme in Puducherry in PUDUCHERRY U.T in India".

We have carefully read and examined in detail the RFS, including its amendments and clarifications as available on PSCDL website.([www.pudutenders .gov.in](http://www.pudutenders.gov.in))

We confirm that M/s ..... (Insert name of Bidding Company/) has fulfilled all the requirements of MSME Act and as per the acknowledgement/certificate of MSME provided by .....(Insert name of Authority who has provided the MSME Certificate), we are eligible for execution of the Solar PV project for which the bid has been submittedby us in pursuance to the PSCDL's RFS No.....dated.....

Further, we are complying and will continue to comply all terms and conditions of acknowledgement/certificate of MSME until any further orders from the MSME authority. Any change in the acknowledgement/certificate of MSME, submitted to PSCDL, shall be immediately appraised to PSCDL for their any further decision in this regard.

Further, we are also eligible for the benefits provided under MSME Act, 2006 and any further order issued by Govt. of India in this regard prior to last date of bid submission for the aforementioned RFS.

In case any information provided/documents submitted or anything material or otherwise is found w.r.t above undertaking, PSCDL shall have the right to cancel the capacity allocated/sanctioned to us and forfeit the Performance Bank Guarantee submitted by us. In addition to above, we (including our affiliate/parent/assigns) may also be debarred by PSCDL to participate in any future tender.

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/Authorized signatory  
(with company Stamp)**



## **Annexure-K**

### **Format for registration at CPM (centralized project monitoring system) for Submission of project sanctioned documents**

- 1) **Organization Name:**
  - a. **First Name :**
  - b. **Last Name:**
  - c. **Designation:**
- 2) **User Name: s**
  - a. **Password\*:**
  - b. **Confirm password\*:**
  - c. **Email ID\*:**
- 3) **Phone No.:**
  - a. **Mobile No.\*:**
  - b. **Role\*:**
  - c. **Status\*:**

4) **Address:**

5) **Project Type:**

#### **II. BANK DETAIL:**

- 1) **Aadhaar Number:**
  - a. **Bhamashah Number:**
  - b. **Voter ID Number:**
  - c. **Driving License Number:**
- 2) **BANK Name:**
  - a. **Bank Branch:**
  - b. **Bank Account Number:**
  - c. **IFSC code:**
- 3) **VAT Number:**
  - a. **Registration Number:**
  - b. **PAN Number:**
  - c. **TIN Number:**

Note - \* marks filled are mandatory

**ANNEXURE – K**

**POWER PURCHASE AGREEMENT FOR**

***Project Name:***                    ***Grid connected Rooftop Solar PV Systems***

***Name of Work:***                **Design, Engineering, Energy Supply, Installation,  
Testing, Commissioning, Synchronizing and  
Maintenance of Power Grid Connected Roof top  
Solar PV Systems on Net Metering Basis on the  
Roofs of various Public Buildings and in Puducherry City.**

**AT PUDUCHERRY ,BETWEEN ROOF TOP OWNER AND**

-

## **TABLE OF CONTENTS**

<b>S.No.</b>	<b>Description</b>	<b>Page No.</b>
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24	Annexure1 -Bank Details	
25	Annexure2-Severity Level of damages and deed Generation period allotted to Power Producer	

This Power Purchase Agreement is executed on the day of 2021 at Puducherry Between ("ROOF TOP OWNER") - Puducherry (here in after referred to as "Purchaser")

AND

M/s (Name of Power Producer) (CIN No. \_\_\_\_\_), a company  
Incorporated

under the Companies Act, 1956 having its registered office at (complete address) (here in after referred to as "Power Producer" which expression shall, unless repugnant to the meaning or context here of, be deemed to include its successors and assigns)

This Power Purchase Agreement is executed on ----- (date), 2021 at  
Puducherry

Between

("ROOF TOP OWNER") -Puducherry (here in after referred to as "Purchaser")

AND

M/s (Name of Powers Producer) (CIN No. \_\_\_\_\_), a company  
incorporated under the Companies Act, 1956 having its registered office at (detail address) (here in after referred to as "Power Producer" which expression shall, unless repugnant to the meaning or context here of, be deemed to include its successors and assigns)

The ROOF TOP OWNER and Power Producer are each individually referred to as a "Party" and collectively as the "Parties".

WHEREAS:

- A. The Power Producer has been notified as successful bidder by ("PSCDL") for "Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance of --KWp Rooftop Solar PV System at (building name)" (Project) and as per Technical Specification & other details of **RFS.NO.[PSCDL/**
- B. The Power Producer is engaged in the business of building and operating power plants, including grid connected rooftop power projects.
- C. The Power Producer has agreed to install and operate a solar photovoltaic power plant of..... KWp capacity at the Premises place for installation after due inspection of the Premises as defined here in after and supply the entire Solar Power of the Project to Purchaser on the terms and conditions contained in this Agreement.
  - a. The Purchaser has agreed to purchase the entire Solar Power of the Project on the terms and conditions contained in this Agreement.

NOW THEREFORE in consideration of the mutual promises, conditions and covenants set forth herein, the Parties hereby agree as below:

## 1. Definitions and Interpretation

## 1.1 Definitions

In addition to other capitalized terms specifically defined elsewhere in the Agreement or unless the context otherwise requires, the following words and phrases shall be defined as follows:

- (a) "Actual Monthly Production" means the amount of energy recorded by the Main Metering System during each calendar month of the Term, pursuant to Section 5.2;
- (b) "Affiliate" means with respect to any specified Person, any other Person directly or indirectly controlling, controlled by or under common control with such specified Person')
- (c) "Agreement" means this Power Purchase Agreement executed here of, including the schedules, amendments, modifications and supplements made in writing by the Parties from time to time.
- (d) "Applicable Law" means, with respect to any Person, any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, guideline, Governmental Approval, consent or requirement or any Governmental Authority in India having jurisdiction over such Person or its property, enforceable by law or inequity, including the interpretation and administration thereof 1:4 such Government Authority.
- (e) "Assignment" has the meaning set forth in Section 14.1 :
- (f) "Business Day" means any day other than Sunday or any other day on which banks in Puducherry are required or authorized by Applicable Law to be closed for business:
- (g) "Commercial Operation Date" has the meaning set forth in Section 4.3(b)
- (h) "Consents, Clearances and Permits" shall mean all authorization, licenses, approvals, registrations, permits, waivers, privileges, acknowledgements, agreements or concessions required to be obtained From or provided by any concerned authority for the purpose of setting up of the generation facilities and/or supply of power:
- (i) "Deemed Generation" has the meaning set forth in Section 5.3 (c)
- (j) "Delivery Point" shall be the single point, at allocation mutually agreed by the Parties in line with applicable regulation/rules where Solar Power is delivered by the Power Producer from the System to the Purchaser.
- (k) "Dispute" has the meaning set forth in Section 17.7 (b);
- (l) "Disruption Period" has the meaning set forth in Section 5.3 (c)
- (m) "Distribution Utility" means the local electric distribution owner and operator providing electric distribution and inter connection services to Purchaser at the Premises ;
- (n) "Due Date" has the meaning set forth in Section 7.4 ;
- (o) "Effective Date" has the meaning set forth in Section 2
- (p) "Estimated Remaining Payments" means as of any date, the estimated remaining Solar Power Payments to be made through the end of the applicable Term, as reasonably determined by the Power Producer in accordance with Section 7.1
- (q) "Expiration Date" means the date on which the Agreement terminates by reason of expiration of the Term.

- (r) "Force Majeure Event" has the meaning set forth in Section 11.1
- (s) "Governmental Approval" means any approval, consent, franchise, permit, certificate, resolution, concession, license or authorization issued by or on behalf of any applicable Governmental Authority for the purpose of setting up of the Project and / or for sale and purchase of Solar Power of the Project pursuant to the Agreement.
- (t) "Governmental Authority" means any central; state, regional, district, town, city, or municipal government, whether domestic or foreign, or any department, agency, bureau, or other administrative, regulatory or judicial body of any such Government. Indemnified Persons" means the Purchaser Indemnified Parties or the Power Producer-indemnified Parties, as the context requires.
- (u) "Insolvency Event" means with respect to a Party, that either
  - (i) Such party has (A) applied for or consented to the appointment of, or the taking of possession by, a receiver, custodian, trustee, administrator, liquid at or on the likes of itself or of all or a substantial part of its assets or business; (B) been unable to pay its debts as such-debts become due; (C) made a general assignment for the benefit of its creditors, (D) commenced a voluntary proceeding under any insolvency or bankruptcy law;(E)filed a petition seeking to take advantage of any other law relating to the bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; or (F) taken any corporate or other action for the purpose of effecting any of the foregoing; or
  - (ii) It is clarified that a dissolution or liquidation will not be an Insolvency Event if such dissolution or liquidation is for the purpose of a merger, consolidation or reorganization, and the resulting company retains credit worthiness similar to the dissolved or liquidated entity and expressly assumes all obligations of the dissolved and liquidated entity under this Agreement and is in a position to the perform them.
- (v) Deleted.
- (w) "Installation Work" means the construction and installation of the System and the Start- up, testing and acceptance (but not the operation and maintenance) there of; all performed by or for the Power Producer at the Premises.
- (x) "Invoice Date has the meaning set forth in Section 7.2.
- (aa) "Losses" means all losses, liabilities, claims, demands, suits, causes of action, judgments, awards, damages, clean up and remedial obligations, interest, fines, fees, penalties, costs and expenses (including all attorneys' fees and other costs and expenses incurred in defending any such claims or other matters or in asserting or enforcing and indemnity' obligation)
- (bb) "Main Metering System" means all meter(s) and metering devices owned by the Power Producer and installed at the Delivery point for measuring and recorded the delivery and receipt of energy.
- (cc) "Metering Date" means the first Business day of each calendar month subsequent to the month in which the Solar Power is generated by the Power Producer. The billable units shall be equal to the difference between the meter reading on the Metering Date and the meter reading on the previous month's Metering Date.
- (dd) "Party" or Parties" has the meaning set forth in the preamble to this Agreement.(ee) "Performance Ratio"
- (ff)"Person" means an individual, partnership, corporation,, Limited Liability Company, business trust, Joint Stock Company, trust, unincorporated association, joint venture, firm, or other entity, or a Governmental Authority.
- (gg) "Power Producer Default" has the meaning set forth in Section 12.1(a).
- (hh) "Power Producer Indemnified has the meaning set forth in Section 16.2.
- (ii)"Premises" means the premises described in Schedule1 to this Agreement. For the avoidance of doubt, the Premises include, the entirety of any and underlying real property located at

the address described in Schedule 1 to this Agreement.

(jj) "Purchase Date" means the date on which title to the System transfers to the Purchaser pursuant to the Purchaser exercising its purchase option under Section 3.2.

(kk) "Purchase Price" means the fee payable Purchaser to the Power Producer under the circumstances described in Section 3.2

(ll) "Purchaser Default" has the meaning set forth in Section 12.2 (a).

(mm) "Purchaser Indemnified Parties" has the meaning set forth in Section 16.1

(nn) "Representative" has the meaning set forth in Section 15.1.

(oo) "Scheduled Complete Date" has the meaning set forth in section 4.1 (g)

(pp) "NOT USED"

(qq) "Selectee" means, a new company (i) proposed by the Lenders read with Schedule III here of and approved by the Purchaser (ii) or proposed by the Purchaser in accordance with Schedule III hereof and approved by the Lenders, for substituting the Power Producer for the residual period of the Agreement by amendment of the Agreement or by execution of a fresh power purchase agreement in accordance with the terms and conditions contained in the said Schedule.

(rr) "Solar Power" means the supply of electrical energy output from the System.

(ss) "Solar Power Payment" has the meaning set forth in Section 7.1.

(tt) "System" includes the integrated assembly of photovoltaic panels, mounting, assemblies, inverters, converters, metering, lighting fixtures, transformers, ballasts, disconnects, combiners, switches, wiring devices and wiring, and all other material comprising the Installation Work.

(uu) "System Operations" means the Power Producer's operation, maintenance and repair of the System performed in accordance the requirement here in.

(vv) "Tariff" means the price per kWh set forth in Schedule II here to.

(ww) "Term" has the meaning set forth in Section 3.1:

## **1.2 interpretation**

(a) Unless otherwise stated, all references made, in this Agreement to "Sections", "Clauses" and "Schedules" shall refer respectively to Sections, clauses and Schedules of this Agreement. The Schedules to this Agreement form an integral part of this Agreement and shall have effect as though they were expressly set out in the body of this Agreement.

(b) In the Agreement, unless the context otherwise requires (i) words imparting singular connotation shall include plural and vice versa: (ii) Words "include", "includes", and "including" mean include, includes and including" without limitation" and (iii) the words "here of", "here to", "here in" and "here under" and words of similar import refer to the Agreement as a whole and not to any particular provision of the Agreement.

## **2. Effective Date**

This Agreement shall be effective on the day that falls one Business Day after the date of signing of this Agreement.

## **3. Terms and Termination**

### **3.1 Term**

The term of the Agreement shall commence on the Effective Date and shall continue for twenty five (25) years from the Commercial Operations Date (the "Term"), unless and until terminated earlier pursuant to the provisions of the Agreement. After the Term, the ownership of the

System shall be transferred to the Purchaser free of cost.

### **3.2 Purchase Option/ Purchase Obligation**

So long as a Purchaser default shall not have occurred and be continuing, Purchaser has -the option to purchase the System by paying the Power Producer the Purchase price as per Schedule III to this Agreement. To exercise its purchase option, the Purchaser shall not less than Ninety(90)days prior to the proposed Purchase Date, provide written notice to the Power Producer of Purchaser's intent to exercise its option to purchase the System on such purchase date: In the event Purchaser confirms its intention to exercise the purchase option in writing to the Power Producer, (i)Purchaser shall pay the applicable purchase price to the Power Producer on the Purchase Date, and such payment shall be made in accordance with any written instructions delivered to Purchaser by the Power Producer for payments under the Agreement, and (ii) the Parties shall promptly execute all documents necessary to (A) cause title to the System to pass to Purchaser on the Purchase Date, free and clear of all liens and (B) assign all vendor warranties for the System to Purchaser. Upon execution of the documents and payment of the applicable purchase price in each case as described in the preceding sentence, the

Agreement shall terminate automatically and the Purchaser shall become the owner of the System. Upon such termination, the Power Producer shall offer' its operations and maintenance ("O&M") services to the Purchaser and the Parties may enter into an O&M agreement in this regard. The terms and conditions of the O&M agreement will be negotiated in good faith between the Parties.

### **3.3 Conditions of the Agreement prior to installation**

In the event that any of the following events or circumstances occur prior to the Commercial Operation Date, the Power Producer may terminate the Agreement, in which case neither Party shall have any liability to the other except for any such liabilities that may have occurred prior to such termination.

- (a) There has been a, material adverse change in the rights of Purchaser to occupy the Premises or the Power Producer to install' the System at the Premises.
- (b) The Power Producer has determined that there are easements, CCR s or other liens or encumbrances that would materially impair or prevent the installation, operation, maintenance or removal of the System. If any dispute arises before commercial operation date, the same shall be resolved under clause,17.7(c)

## **4 Construction, Installation, Testing and Commissioning of the System.**

### **4.1 Installation Work**

The Power Producer will cause the Project to be designed, manufactured, supplied, engineered, erected, tested and commissioned, operated & maintained and constructed substantially in accordance with RFS.

- a) and the sanction letter issued by PSCDL. The Power Producer shall provide to the Purchaser a bill of materials listing the major equipment constituting the System. Such bill of materials shall be provided within 30 days of the Commercial Operation Date.

- b) The Power Producer shall have access as reasonably permitted by the Purchaser to perform the Installation Work at the Premises in a manner that minimizes inconvenience to and



interference with the use of the Premises to the extent commercially practical.

- c) It is agreed between the Parties that the Power Producer shall commission the System with a capacity of KWp. Power Producer may construct a System of smaller size if it receives only part approval of government subsidies or for any other material commercial reason, as mutually agreed between the Parties in writing. In the event a System of smaller capacity is eventually agreed to be installed, the clauses pertaining to Purchase Price as set out under this Agreement shall be adjusted proportionately as per mutual agreement between the Parties in writing.
- d) The Power Producer shall provide and lay the dedicated electrical cables for transmission of Solar Power from the System up to the Delivery Point. Transmission or distribution of Solar Power beyond this point will be the responsibility of the Purchaser. The Delivery Point shall be where the Main Metering System is located.
- e) Unless otherwise agreed between the Parties, the Power Producer shall not do (a) chipping of rooftop; or (b) water proofing of roof to be disturbed
  - (c) Carry out any other modification of the Premises without the written consent of the Purchaser. The Power Producer shall maintain general cleanliness of area around the Project during construction and operation period of the Project. In case any damages is caused to the equipment/facilities owned by the Purchaser due to the Power Producer, the same shall be made good rectified by the Power Producer at their cost.
- f) The Power Producer shall, within fifteen (15) days of the Effective Date, submit to the Purchaser shop drawings of the Project for approval ("Shop Drawings"). The drawings will have to be approved from the Power Purchaser within 3 days from the submission of the drawings: If the Purchaser has any objection/recommendation in the Shop Drawings, he shall communicate the same to Power Producer within a period often (10) days of the date of submission, of the Shop Drawings.  
Any delay will extend the Effective Date and such approval shall not be unreasonably withheld.
- g) Subject to any punch-list items which shall be agreed by the, Purchaser as not being material to completion of the Project, the Power Producer agrees that it shall achieve the completion of the Project/Commissioning of the Project within 6 months from the Effective Date ("Scheduled Completion Date"). Any delays on account of the Purchaser that may cause hindrance or delay in execution of the Project shall not be included in the set period of 6 months. Purchaser shall ensure that sufficient load is available at the Delivery Point to ensure synchronization and drawl of power from System.
- h) If the Power Producer is unable to commence supply of Solar Power to the Purchaser by the Scheduled Completion Date, other than for the reasons specified in Article 11 and 12.2 (Force Majeure or Purchaser Default), the Power Producer or its contractor shall pay to PSCDL genuine pre-estimated liquidated damages for the delay in. such commencement of supply of Solar Power as per the clause of the PSCDL RFS appended as Schedule VI to this Agreement.
- i) The Purchaser shall ensure that all arrangements and infrastructure for receiving Solar Power beyond the Delivery Point are ready on or prior to the Commercial Operation Date and is maintained in such state in accordance with applicable laws through the Term of the Agreement.
- J) Power Producer shall fulfil all obligations undertaken by it under this Agreement.

#### **4.2 Approvals and Permits**

Each of the Parties shall assist the other Party in obtaining all necessary Government Approvals, third party approvals and permits including but not limited to those listed in

Schedule V here to and any waivers, approvals or releases required pursuant to any applicable CCR.

#### **4.3 System Acceptance Testing**

- (a) The Power Producer shall give 10 days advance notice to conduct the testing of the Project and shall conduct testing of the Project in the presence of Purchaser's designated representative.
- (b) If the results of such testing indicate that the System is capable of generating electric energy (at full rated KWp) for 5 continuous hours using such instruments and meters as have been installed for such purposes, then the Power Producer shall send a Written notice to Purchaser to that effect, and the date of successful conducting such tests and injection of Power at Delivery Point shall be the "Commercial Operation Dated"

#### **5 System Operations**

- 5.1 The Power Producer as Owner and Operator The System will be legally and beneficially owned by the Power Producer and will be operated and maintained and, as necessary, repaired by the Power Producer at its sole cost and expense. Replacement of spare parts if any shall be responsibility of Power Producer for the complete period of Agreement. If any repair or maintenance costs incurred by the Power Producer as a result of Purchaser's breach of its obligations, shall be reimbursed in full by Purchaser Power Producer shall not be responsible for any work done by others on any part of the System/Project authorized by the Purchaser and not authorized in advance by the Power Producer in writing. Power Producer shall not be responsible for any loss, damage, cost or expense arising out of or resulting from improper operation or maintenance of the System by Purchaser or any one instructed to do such work by Purchaser. In the event of a problem with the System, as a result of the Purchaser actions for which Power Producer is not responsible as provided in this Agreement, Purchaser may choose and pay Power Producer for diagnosing and correcting the problem at Power Producer or Power Producer's contractors standard rates. Standards rates and charges may be taken from market for comparisons by the power purchaser.

#### **5.2 Metering**

- (a) The Power producer shall install the Main Metering System with due certification for the measurement of electrical energy produced by the System.
- (b) The meter will be read by Power Producer's personnel on the Metering date. The authorized representative of the Purchaser shall be present at the time of meter reading. Both the Parties shall sign a joint meter Reading report. However, in case the Joint meter reading report is not signed in the first three business days of any month due to non -availability of the Purchaser's authorized representative, the report signed by the Power Producer shall be considered as Joint Meter Reading Report. The Parties agree that such Joint meter reading Report shall be final and binding on the Parties.
- (c) The Main Metering System at the Delivery Point and any additional meters required by Applicable Law shall be tested, maintained and owned by the Power Producer-In case of malfunctioning of main metering system at delivery point, deemed generation shall be paid up to 3 days only, and after that no payment shall be made till meter is replaced by new one or repaired.

- (d) The Power Producer shall connect the Solar output to the existing system as per the

requirements of Discom

(e) The Purchaser may, at its own discretion, install a check meter, at its cost, to verify the measurements of the Main Metering System.

(f) The title to the Solar Power supplied by the Power Producer shall pass to the Purchaser at the Delivery Point.

(g) Power Producer shall be responsible for transformer etc." if required"& metering as per clause 23 of RFS no.(reference to be quoted)

### 5.3 System Disruptions

(a) Availability of premises: Purchaser will provide full access of the site to Power Producer for installation, operation and maintenance of solar power plant during the period of Agreement. Power Purchaser will also provide restricted access of the Premises to Power Producer for operation and maintenance of solar power plant.

(b) Purchaser will not provide/construct any structure within its Premises or around its premises which shades the solar panels effecting the generation of the energy during the Agreement period.

(c) Roof Repair and other System Disruptions In the event that (a)the Purchaser repairs the Premises' roof for any reason not directly related to damage, if any, caused by the System, and such repair required the Partial or complete temporary disassembly or movement of the System, or (b)any act or Omission of Purchaser or Purchaser's employees, Affiliates, agents or subcontractors (collectively, a "Purchaser Act") result in a disruption or out age in System production, and such event sat tribute able to Purchaser(except Force majeure, then, in either case) Purchaser shall (i)pay the Power Producer for all work required by the Power Producer to disassemble or move the System and re-assemble the system after completion of the repair work and (ii)continue to make all payments for the Solar Power during such period of System disruption (the "Disruption Period").For the purpose of calculating Solar Power Payments and lost revenue for such Disruption Period, Solar Power shall be deemed to have been produced at the average rate. For the first year, the generation of a particular month (in which the deemed generation needs to be calculated)

will be used for calculating the average, 2<sup>nd</sup> year onwards, the generation data of the previous year, corresponding month will be referred.("Deemed Generation"), Power producer shall inform about the' disruption or out age in System production, for reasons attributable to purchaser in' writing with date and time of such occurrences, and Purchaser's liability shall start from the date of intimation for above of disruption or outage in system production, on account of Purchaser.

## 6 Delivery of Solar Power

6.1 Purchaser Requirement: Purchaser agrees to purchase one hundred percent (100%) of the Solar Power generated by the System and made available

by the Power Producer to Purchaser at the Delivery Point during each relevant month of the Term. In the event that the Purchaser is unable to off take 100% of the electricity generated, when it is generated, then Deemed Generation will apply only in case following conditions:

3.3 Grid Failure from DISCOM.

3.4 Power Outage-No reference voltage available for synchronization.

3.5 In the event Power Producer is generating power more than the available load, and the Purchaser is not able to export or record the excess units generated.

3.6 Faults in the equipments of the Purchaser eg., Net meter Cables, Equipments etc., which may stop the feeding/record of the Solar Power generated.

#### 6.2 Estimated Annual Production

The annual estimate of Solar Power with respect to the System for any given year as determined pursuant to this Section shall be the "Estimated Annual Production". The Estimated Annual Production for each year of the Initial Term is set forth in Schedule IV hereof.

#### 6.3 Suspension of Delivery

Power Producer shall be entitled to suspend delivery of electricity from the System to the Delivery Point for the purpose of maintaining and repairing the System up on giving one week's advance written notice to the Purchaser except in the case of emergency repairs. Such suspension of Service shall not constitute a breach of this Agreement provided that the Power Producer shall use commercially reasonable efforts to minimize any interruption in service to the Purchaser. However, any preventive maintenance shall be done only during the period when plant is not generating.

### 7 Tariff and Payments

7.1 Consideration Purchaser shall pay to the Power Producer a monthly payment (the "Solar Power Payment") for the Solar Power generated by the System as per the Metering clause 5.2(b) above during each calendar month of the Term equal to the actual Monthly Production as recorded in Joint Meter Reading Report for the System for the relevant month multiplied by the Tariff irrespective of (i) whether any or all units of Solar Power has been drawn, consumed or utilized by Purchaser and/or (ii) whether any Solar Power has been injected, whether inadvertently or otherwise, into the grid of the Distribution Utility.

The Power Producer will bill the Purchaser for each KWh metered as above at the Delivery Point, at the Tariff prevailing at that point of time.

As detailed in Schedule-II, the Tariff will be equal to Rs.....Levelized tariff as per PSCDL allocations.

The 'year' Considered shall be the financial year which April 1<sup>st</sup> to 31<sup>st</sup> March of every year as per PSCDL

Schedule II provides a detailed year on year tariff schedule.

#### 7.2 Invoice

The Power Producer shall invoice Purchaser on the first day of each month (each, an "Invoice Date") commencing on the first Invoice Date to occur after the Commercial Operation Date, for the Solar Power Payment in respect of the immediately preceding month. The last invoice shall include production only through the Expiration Date of this Agreement.

7.3 The invoice to the purchaser shall include.

(a) The Solar Power calculations for the relevant billing period.

- (b) Supporting data, documents and calculations in accordance with this Agreement.
- 7.4 Time of payment Purchaser shall pay all amounts due here under within 60Days (as per RFS) after the date of the receipt of the invoice via email or post ("Due Date").
- 7.5 Method of payment Purchaser shall make all payments under the Agreement by electronic funds transfer only in immediately available funds to the account designated by the Power Producer from time to time. The current account details are mentioned in Annexure1. All payments made here under shall be non-refundable, subject to the applicable tax deduction at source, and be made free and clear of any other tax, levy, assessment; duties or other charges and not subject to reduction, set-off, or adjustment of any kind. Further, if any taxes and duties are leviable currently or in future, such taxes and duties shall be paid by the Purchaser over and above the solar electricity tariff mentioned in this agreement. Such taxes and duties could include, but not restricted to Electricity Duty, Tax on Sale of Electricity (TOSE). If the Purchaser deducts any tax at source, the Purchaser will issue a tax credit certificates as per law.

2 Late Payment Surcharge/Early Payment Discount

In case payment of any invoice is delayed by the Purchaser beyond its Due Date, a later payment surcharge shall be payable by Purchaser to the Power Producer at the rate of 1.25% per month ("Late Payment Surcharge") calculated on the amount of outstanding payment, calculated on a day today basis for each day of the delay, compounded on monthly rests. Late Payment Surcharge shall be claimed by the Power Producer, through its subsequent invoice. If the Purchaser pays within 10 working days (as against credit of --- days available to him), then an early payment discount of 0.5% of the invoice value can be deducted by the Purchaser while making such early payment.

- 7.7 Disputed Payments: In the event that the Purchaser disputes an invoice, it shall give notice of such a dispute within 15 days of receiving the invoice setting out details of the disputed amount. The Purchaser shall pay by the Due Date 100% of any undisputed amount and in case the invoice is disputed, the Purchaser shall pay an amount based on average consumption of last three consecutive undisputed invoices. Amount so recovered shall be subject to final adjustment on resolution of the dispute. Thereafter, the Parties shall discuss and try to resolve the disputed amount within a week of receipt of such notice of dispute. If the Parties resolve the dispute, an appropriate adjustment shall be made in the next invoice. If the dispute has not been resolved by the date of the next invoice the dispute shall be referred to a committee of one member from each of Purchaser and Power Producer, If the dispute is still-not resolved by the next following invoice it shall be referred to Arbitration as provided in the present Agreement.

7.8 Not used

**7.9 Change in Law:**

- (a) For the Purpose of this section 7.9, the term "Change in Law" shall mean the occurrence of any of the following events after the Effective date, resulting into any additional recurring/ non-recurring expenditure by the Power Producer or any income to the Power Producer.

- (i) The enactment, coming into effect, adoption, promulgation, amendment, modification or repeal (without re-enactment or Consolidation) in India, of any Law, including rules and regulations framed pursuant to such Law: or
- (ii) A change in the interpretation of any Law by any Governmental Authority having the

- legal power to interpret or apply such Law, or any competent court; or
- (iii) The imposition of a requirement, for obtaining any Government Approvals which was not required earlier; or
- (iv) A change in the terms and conditions prescribed for obtaining any Government Approvals or the inclusion of any new terms or conditions for Obtaining such Government Approvals; or
- (v) Any introduction of any tax made applicable for supply of power by the Power Producer as per the terms of this Agreement. Any benefit due to change in tax on the sale of solar energy shall be passed onto Purchaser.
- (vi) However change in the rate of any existing tax will not be considered a change in law.  
Any risk of change of tax rate what so ever related to the work lies with the power producer.
- (vii) Any benefit arising due to change in above para (i) to (vi) shall be assed on to the Purchaser.  
But not include any change in any withholding tax on income or dividends distributed to the shareholders of the Power Producer.
- (b) Application and Principles for computing impact of Change in Law:

While determining the consequence of Change in Law under this Article7.9, the Parties shall have due regard to the Principle that the purpose of compensating the Party affected by such Change. In Law, is to restore through monthly bill payment, to the extent contemplated in this Article7.9, the affected Party to the same economic position as if such Change in Law has not occurred and such impact shall be mutually decided in writing.

- (c) Solar Power Payment Adjustment Payment on account of Change in Law Subject to provisions mentioned above, the adjustment in Solar Power Payment shall be effective from:
  - 2 The date of adoption, promulgation, amendment, re-enactment or repeal of the Law or Change in Law; or
  - 3 The date of order/judgment of the competent court; of tribunal or Governmental Authority, if the Change in law is on account of a change in interpretation of Law.

## **8 General Covenants**

### **8.1 Power Producer's Covenants**

The Power Producer covenants and agrees to the following:

- (a) Notice of Damage or Emergency: The Power Producer shall (a) promptly notify Purchaser if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System, (b) immediately notify Purchaser once it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises.
- (b) System Condition: The Power Producer shall take all actions reasonably necessary to ensure that the System is capable of providing Solar Power at a commercially reasonable continuous rate: Subject to there being no Purchaser Default, the Power Producer' shall provide 24x7 offsite/offsite monitoring and maintenance of the System throughout the period of this agreement at no additional cost.

- (c) The System shall meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the daily normalized irradiance levels of the location during the O&M period. PR shall be minimum of 75% at the time of inspection for initial Project acceptance.
- (d) Governmental Approvals: While providing the Installation work, solar Power and System Operations, the Power Producer shall obtain and maintain and secure all Governmental Approval required to be obtained  
And maintained and secured by the Power Producer and to enable the Power Producer to perform such obligations
- (e) The interconnection of the rooftop solar system with the network of the distribution licensee shall be made as per the technical standards for connectivity of distributed generated resources regulations as may be notified by the competent authority. The interconnection of the rooftop solar system shall be as per the contracted load and/or respective voltage level applicable to the Purchaser as per the provisions of the guidelines issued by the competent authority.
- (f) Health and Safety: The Power Producer shall take all necessary and reasonable safety precautions with respect to providing the installation Work, Solar Power, and System Operations that shall comply with all Applicable Law pertaining to the health and safety of persons and real and personal property.

### **8.2 Power Producer's Representatives**

During the subsistence of this Agreement, the Power Producer undertakes to respond to all questions, concerns and complaints of the Purchaser regarding the System in a prompt and efficient manner. The Power Producer designates the following individual as its representative pertaining

to performance of this Agreement till the Commercial Operation Date: Name:

Telephone:

Email:

The Power Producer designates the following individuals as its representative and primary point of contact pertaining to performance of this Agreement following the Commercial Operation Date till termination:

Name: \_\_\_\_\_ Telephone:

Email:

### **8.3 Purchaser's Covenants**

Purchaser covenants and agrees to the following:

- (a) Notice of Damage or Emergency: Purchaser shall (a) promptly notify the Power Producer if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System; (b) immediately notify the Power Producer once it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises.
- (b) Liens: Purchaser shall not directly or indirectly cause, create, incur, assume or suffer to exist any Liens on or with respect to the System or any interest therein. If Purchaser breaches its obligations under this Clause, it shall immediately notify the Power Producer in writing, and shall promptly cause such Lien to be discharged and released of record without any cost to the Power Producer, and shall indemnify the Power Producer against all costs and expenses (including reasonable attorney's fees and court costs) incurred in discharging and releasing such Lien.
- (c) Consents and Approvals: Purchaser shall ensure that any authorizations required of Purchaser under this Agreement, including those required for installation of System at the Premises and

to drawl consume Solar Power are provided in timely manner. The Purchaser shall cooperate with the Power Producer to obtain such approvals, permits, rebates or other financial incentives.

- (d) Access to Premises Grant of License: Purchaser here by grants to the Power Producer a license co-terminus with the Term, containing all the rights necessary for the Power Producer to use portions of the Premises for the installation, operation and maintenance of the System pursuant to the terms of this Agreement, including ingress and egress rights to the Premises for the Power Producer and its employees and authorized representatives and access to electrical panels and conduits to interconnect or disconnect the System with the Premises electrical wiring with the consent and approval of the Purchaser's authorized representative identified by the Purchaser. Photo ids. Will be provided by the Power Producer. Power Purchaser will assist in availing permissions to the site.

- 3.10 Security: The building which has enhanced security of Solar Power System Purchaser will keep the premises locked. In spite of these measures, if any damages to the System takes place due to theft or vandalism then the same shall be claimed or reimbursed through insurances by Power producer. In case of theft and vandalism acts, the Purchaser will assist the Power Producer in procedures of filing FIRs, insurance claims and any other related activities. Whenever, the damages to the System occurs (except due to negligence of Power Producer) then the same shall be jointly assessed by both the Parties and a severity level will be decided, which will further decide the duration offered to the Power Producer to correct the damage, and the Power Producer shall be paid the amount on the basis of 'Deemed

generation' for such a period. Power Producer shall be entitled to any insurance proceeds received for damages in this clause. Severity level and period offered can be referred to in Annexure2. Purchaser will not conduct activities on, in or about the Premises that have areas on able likelihood of causing damage, impairment or otherwise adversely affecting the System. If System is damaged due to any such activity or through any other agency contracted by the Purchaser directly or indirectly, such a damage will be borne by the Purchaser. Regardless of whether Purchaser is owner of the Premises or leases the Premises from a landlord, Purchaser here by covenants that (a) the Power Producer shall have access to the Premises and System during the Term of this Agreement, and (b) neither Purchaser nor Purchaser's landlord will interfere or handle any of the Power Producer's equipment or the System without written authorization from the Power Producer.

- 3.11 Temporary storage space during installation: Purchaser shall provide sufficient space at the Premises for the temporary storage and. staging of tools, materials and equipment and for the parking of construction crew vehicles and temporary Construction, trailers and facilities reasonably necessary during the Installation Work, System Operations and access for rigging and material handling.

Sunlight Easements: Purchaser will take all reasonable actions as necessary to prevent other building, structures or floor a from over shadowing or otherwise blocking access of sun light to the System, including but not limited to-such actions as may be reasonably necessary to obtain a solar access easement for such purpose.

Evacuation—Purchaser shall off take 100% of the Solar Power generated from the Delivery Point, and pay all invoices raised by the Power Producer under this Agreement by the Due Date and pay interest on delayed payments, if any, as per this Agreement.

Power Purchaser at zero cost shall arrange Raw Water at a given. Point as per the requirements of the Power Producer, for periodic cleaning of the solar panels (Litres -



twice a month).

(k) Auxiliary Power—The Purchaser shall provide sufficient auxiliary power to the Power Producer for the maintenance and operation of its system, if available and possible, at the rate Purchaser is paying to the Discom /PED .

- (l) Relocation—If one or more of the Solar Power Plant panels needs to be temporarily moved or its generation suspended, for any other reason requested by the Power Purchaser, the Power Purchaser will be responsible for pre-agreed costs on actuals only, arising from moving, disassembling and re-installing/commissioning the Solar Power Plant, as agreed between the Parties. The Power Producer will be responsible for providing detailed documentary proof of the actual pre-agreed costs borne for such relocation/disassembling. Within 30 days of these satisfactory documents being provided by the Power Producer, the Purchaser shall reimburse these pre-agreed expenses in full, and delayed payment beyond the date mentioned above will attract Late Payment charges as described in Clause 7.6. During any interruption in generation during such relocation, the Purchaser will continue to be billed as per Deemed Generation, during the period of interruption, for the affected Solar Power Plant(s).

## **9 Representations & Warranties**

### **9.1 Representations and Warranties Relating to Agreement Validity**

In addition to any other representations and warranties contained in the Agreement, each Party represents and warrants that:

- (a) It is duly organized and validly existing and in good standing in the jurisdiction of its incorporation ;
- (b) It has the full right and authority to enter into, execute, deliver, and perform its obligations under the Agreement.
- (c) It has taken all requisite corporate or other action to approve the execution, delivery, and performance of the Agreement;
- (d) The Agreement constitutes its legal, valid and binding obligation enforceable against such Party in accordance with its terms;
- (e) There is not litigation, action, proceeding or investigation pending or, to the best of its knowledge, threatened before any court or other Governmental Authority by, against, affecting or involving any of its business or assets that could reasonably be expected to adversely affect its ability to carry out the transactions contemplated herein; and
- (f) Its execution and performance of the Agreement and the transactions contemplated hereby do not constitute a breach of any term or provision of, or a default under (i) any contractor agreement to which it or any of its Affiliates is a party or by which it or any of its Affiliates or its or their property is bound, (ii) its organizational documents, or (iii) any Applicable Laws.

## **10 Taxes and Governmental Fees**

## **10.1 Purchaser obligations**

Purchaser shall pay for any taxes, fee or charges imposed or authorized by any Governmental Authority in future (as on date no such taxes/fees/charges are being levied) on sale of the Solar Power to Purchaser pursuant to clause 7. The Power Producer shall not if Purchaser in writing with a detailed statement of such amounts, which shall be invoiced by the Power Producer in the monthly bills and payable by Purchaser. Purchaser shall timely report, make filings for, and pay any and all sales, use, income or other taxes, and any other amounts assessed against it due to its purchase of the Solar Power. This Section 10.1 excludes taxes specified in Section 10.2.

## **10.2 Power Producer Obligations**

The Power Producer shall be responsible for all income taxes and any and all franchise fees or similar fees as assessed against it due to its ownership of the System. The Power Producer shall not be obligated for any taxes payable by or assessed against Purchaser based on or related to Purchasers over all income or revenues.

## **11 . Force Majeure**

### **11.1 Definition**

"Force Majeure Event" means any actor event that prevents the affected Party from performing its obligation in accordance with the Agreement, if such actor event is beyond the reasonable control of the affected Party and such Party had been unable to overcome such actor event with the exercise of due diligence (including the expenditure of reasonable sums). Subject to the foregoing conditions, "Force Majeure Event" shall include without limitation the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning, volcanic eruption and earthquakes; (ii) explosions or fire rising from lightning or other causes unrelated to the acts or omissions of the Party seeking to be excused from performance; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, epidemic, terrorist acts, or rebellion. A Force Majeure Event shall not be based on the economic hardship of either Party. In case of any damage because of force majeure event, the System shall be repaired/commissioned at its own cost by the Power Producer.

**11.2 Excused Performance:** Except as otherwise specifically provided in the Agreement, neither Party shall be considered in breach of the Agreement or liable for any delay or failure to comply with the Agreement, if and to the extent that such delay or failure is attributable to the occurrence of a Force Majeure Event; provided that the Party claiming relief under this Section 11 shall immediately (i) notify the other Party in writing of the existence of the Force Majeure Event, (ii) exercise all reasonable efforts necessary to minimize delay caused by such Force Majeure Event, (iii) notify the other Party in writing of the cessation or termination of said Force Majeure Event and (iv) provided, however, that Purchaser shall not be excused from making any payments and paying any unpaid amounts due in respect of Solar Power delivered to Purchaser prior to the Force Majeure Event performance interruption.

**11.3 Termination as a Consequence of Force Majeure Event.** If a Force Majeure Event shall have occurred that has affected the Power Producer's performance of its obligations here under and that has continued for a continuous period of one hundred eighty (180) days, then Purchasers shall be entitled to terminate the Agreement and if such Force Majeure Event continues for further ninety (90) days period, the Agreement shall automatically terminate. Upon such termination for a Force Majeure Event, neither Party shall have any liability to the other (other than any such liabilities that have accrued prior to such termination).

## **12. Default**

## 12.1 Power Producer Defaults and Power Purchaser Remedies

A) 12.1.1 Power Producer Defaults: The following events shall be defaults with respect to the Power Producer (each, a "Power Producer Default").

(i) An Insolvency Event shall have occurred with respect to the Power Producer;

(ii) Failure, to achieve Commissioning of the System within 6 months of the Effective Date; and

(iii) The Power Producer breaches any material term of the Agreement and

(A) If such breach can be cured with in sixty (60) days after Purchaser's written notice of such breach and the Power Producer fails to cure the same; or (B) the Power Producer fails to commence and pursue a cure with in such sixty (60) days period if a longer cure period is needed.

### 12.1 (b) Purchaser's Remedies:

(i) If a Power Producer Default described in Section 12.1 (a) has occurred and discontinuing, in addition to other remedies expressly provided here in, and subject to Section 13, Purchaser shall have a right to deliver a notice of its intention to terminate this Agreement ("Purchaser Preliminary Default Notice"), which shall specify in reasonable detail, the circumstances giving rise to the issue of such notice.

(ii) Upon the occurrence and continuation of Power Producer Default and the failure by the Power Producer to cure such default with in the applicable cure period specified in this Article; the Purchaser shall be at liberty avail the services of any other firm / successful bidder.

(iii) Following the issue of Purchaser Preliminary Default Notice, it shall be the responsibility of the Parties to discuss as to what steps shall be taken with. A view to mitigate the consequences of the relevant Power Producer's default having regard to all the circumstances: If the Power Producer Default is not cured within a period of sixty (60) days of the issue of Purchaser Preliminary Default Notice or any other such period mutually agreed upon by the Parties, the Purchaser shall have the right to terminate this Agreement by issuing a Purchaser Termination Notice.

(iv) Upon the delivery of the Purchaser Termination Notice, this Agreement shall stand terminated. The Power Producer shall have the liability to make payment within sixty (60) days from the date of Purchaser Termination Notice towards compensation to Purchaser equivalent to the difference between the Tariff and the grid rate notified by the relevant Government Authority for that point in time multiplied by the estimated Solar Power generated for a period of two (2) years following the termination, considered on normative capacity utilization factor.

(v) If the Power Producer fail to move the System from the Premises within one month from the date of termination, the Purchaser shall be entitled to dispose of the System in any manner it deems fit.

(vi) The Power Purchaser may exercise any other remedy it may have at law or equity or under the Agreement.

## 12.2 Power Purchaser Defaults and Power Producer's Remedies

A. Purchaser Default: The following events shall be defaults with respect to Purchaser (each, a "Purchaser Default")

- (i) An Insolvency Event shall have occurred with respect to Purchaser;
  - (ii) Purchaser breaches any material term of the Agreement if (A) such breach can be cured within sixty (60) days after the Power Producer's notice of such breach and Purchaser fails to so Cure, or (B) Purchaser Fails to commence and pursue said cure within such sixty (60) days period if a longer cure period is needed; and
  - (iii) Purchaser fails to pay the Power Producer any undisputed amount or, if the amount is disputed, an amount based on average consumption of last three consecutive undisputed invoices to the Power Producer under Section 7.7 of this Agreement within sixty (60) days from the receipt of notice from the Power Producer of such past due amount
- 12.2 (B) Power Producer's Remedies: If a Purchaser Default described in Sections 12.2 (a) has occurred and is continuing, in addition to other remedies expressly provided here in, and subject to Section 13, the Power Producer shall be entitled to terminate this Agreement by serving a fifteen (15) days' notice and upon such termination, (A) the Power Producer shall be entitled to receive from Purchaser the Purchase Price. The Purchase Price payable shall be the Purchase Price Specified in Schedule III that falls on such date. Upon the payment of the Purchase Price, the Power Producer shall cause the title of the System to transfer to the Purchaser and (b) the Power Producer may exercise any other remedy it may have at law or equity or under the Agreement.

### **13 Limitations of Liability**

- 13.1 Except as expressly provided here in, neither Party shall be liable to the other Party or its Indemnified Persons for any special, punitive, exemplary, indirect, or consequential damages, losses or damages for lost revenue or lost profits, whether foreseeable or not, arising out of, or in connection with the Agreement.
- 13.2 Subject to the provisions of the Agreement, the Power Producer shall be solely responsible for the manner in which its obligations under this Agreement are to be performed. All employees and representatives of the Power Producer, or contractors engaged by the Power Producer in connection with Power Producer and shall not be deemed to be employees, representatives, contractors of the Purchaser. Nothing contained in the Agreement or in any agreement or contract executed by the Power Producer shall be construed to create any contractual relationship between any such employees, representatives or contractors and the Purchaser.
- 13.3 Notwithstanding any liability or obligation that may arise under this Agreement, any loss, damage, liability, payment, obligation or expense which is insured or not or for which the Purchaser can claim compensation under any insurance policy, shall not be charged to or payable by the Purchaser.

### **14 Assignment & Novation**

- 14.1 Assignment: Notwithstanding anything contained herein the Power Producer has the right to assign or any of its rights under this Agreement (including rights over any assets hereunder), to any third party including, though not restricted to any lender, equipment less or other party ("Assignment"), with the consent of the Power Purchaser. The Power Purchaser shall not unreasonably withhold such consent. In the event of such assignment, the Purchaser will be able to hold the Power Producer as well as the party to whom the benefits under this contract are assigned, to be jointly and severally responsible for performing the obligations under this

contract. Further, in the event of assignment, the Purchaser agrees to make the payments due to the Power Producer under this agreement, directly to the assignee, upon receipt of such notice by the Power Producer.

If the Power Producer were to sell the Solar Power Plant, then the new buyer(s) would need to abide by this Agreement. Further, the Power Producer reserves the right to assign whole or part of the assets to lenders/ leasing companies. Purchaser may assign its rights under this Agreement, without the prior consent of Power Producer, to an Affiliate or any successor in interest to Purchaser, whether by way of merger, re organization or sale of assets (including any sale of a line of business). This Agreement shall inure to the benefit of and be binding upon Purchaser and its successors or assigns. However, any such actions as intended by the Power Producer under Article 14.1 and Article 14.2 shall be binding on Power Purchaser, if there are zero material inconsistencies present in the contract provisions during the time of assignment /novation, else, it shall be construed as default in contract and appropriate actions shall be taken as deemed fit.

Novation: The Parties agree and acknowledge that the Power Producer may intend to novate the Agreement to a party, and has the right to transfer any or all of its rights and obligations under this Agreement to a party or any other

Third party ("New Party"), with the consent of the Power Purchaser. The Power Purchaser shall not unreasonably withhold such consent. Upon Novation, the New Party shall automatically and without any further action be entitled to all the same rights and assume the same obligations, under this Agreement, as if it were originally a party to this Agreement. Further, the Purchaser hereby agrees and undertakes that, promptly upon receiving a request from the Power Producer, the Purchaser shall execute such further writings, deeds and /or agreements and take all such further actions as may be necessary for effecting or implementing the transfer of any or all of the Power Producer's rights and / or obligations under this Agreement to the New Party. If the parties agree to do Novation then separate Novation agreement shall be executed.

### 3.14 Notices

Unless otherwise provided in the Agreement, all notices and communications concerning the Agreements shall be in writing and addressed to the Parties at the address set forth below:  
Power Producer's address and contact details:

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Purchaser's address and contact details:

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### 14.2 Notice

Unless otherwise provided here in, any notice provided for in the Agreements shall be hand

delivered, sent by registered post, or by courier delivery, or transmitted by facsimile and shall be deemed delivered to the addressee or its office when received at the address for notice specified above when hand delivered or sent to courier delivered or sent by courier delivery, upon posting if sent by registered post and upon confirmation of sending when sent by facsimile on the next Business Day.

## **15. Confidentiality**

### **15.1 Confidentiality obligation**

- (a) If the Power Producer provides confidential information, including business plans, strategies, financial information, proprietary, patented, licensed, copy righted or trademarked information, and/or technical information regarding the, design, operation and maintenance of the System ("Confidential Information") to Purchaser or, if in the course of performing under the Agreement or negotiating the Agreement Purchaser learns Confidential Information regarding the facilities or plans of the Power Producer, Purchaser shall (a) protect the Confidential information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, except in the negotiation and performance of the Agreement. Notwithstanding the above, Purchaser may provide such Confidential Information to its officers, directors, manager, employees and Affiliates (collectively "Representatives"), in each case whose access is reasonably necessary for purposes of the Agreement. Each such recipient of confidential information shall be informed by Purchaser of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. Purchaser shall be liable for any breach of this provision by any entity to whom it improperly discloses Confidential Information. All Confidential Information shall remain the property of the Power Producer and shall be returned to it after Purchaser's need for it has expired or upon the request of the Power Producer.
- (b) If the Purchaser provides confidential information, including business plans, strategies, financial information, proprietary, patented, licensed, copyrighted or trademarked information, ("Confidential Information") to the Power Producer or, if in the course of performing under the Agreement or negotiating the Agreement the Power Producer learns Confidential Information regarding the facilities Or plans of the Purchaser, the Power Producer shall (a) protect the Confidential Information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, excepting then negotiation and Performance of the Agreement. Notwithstanding the above, the Power Producer may provide such Confidential Information to its officers, directors, managers, employees and Affiliates (collectively, "Representatives"), in each case whose access is reasonably necessary for purposes of the Agreement. Each such recipient of Confidential. Information shall be informed by the Power Producer of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. The Power Producer shall be liable for any breach, of this provision by any entity to whom it improperly discloses Confidential Information. All Confidential Information shall remain the property of the Purchaser and shall be returned to it after the Power Produce's need for it has expired or upon the request of the Purchaser.

Permitted Disclosures

Not with standing any other provision contained herein, neither Party shall be Required to hold confidential any information that

- (a) Becomes publicity available other than through the receiving Party.
- (b) Is required to be disclosed under Applicable Law or pursuant to a validity issued notice or required filing, but a receiving Party subject to any such requirement shall promptly notify the disclosing Party of such requirement
- (c) Is independently developed by the receiving Party or
- (d) Becomes available to the receiving Party without restriction from a third party under no obligation of confidentiality...

## **16 Indemnity**

### **16.1 Power Producer's Indemnity**

Subject to Section13, the Power Producer agrees that it shall indemnify and hold harmless Purchaser and its members, officers, employees, students, casual labours, persons permitted' to run any business or service, such as canteens, stores, photocopy units, banks, post office, courier service, hospital and to any lawful visitors (collectively, the "Purchaser Indemnified Parties") from and against any and all Losses incurred by the Purchaser Indemnified Parties

To the extent arising from or out of the following any claim for or arising out of any injury to Or death of any Person or Loss or damage to Property of any Person to the extent arising out of the Power Producer's negligence or will full misconduct. The Power Producer shall not, however, be required to reimburse or indemnify any Purchaser Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Purchaser indemnified Party.'

### **16.2 Purchaser's Indemnity**

Subject to Section13, Purchaser agrees that it shall indemnity, defend and hold harmless the Power Producer, its permitted successors and assigns and their respective directors, officers, employees, contractors, sub- contractors, and agents (collectively, the "Power Producer indemnified Parties") from and against any and all Losses incurred by the Power Producer Indemnified Parties to the extent arising from or out of any claim for or arising out of any injury to or death or any Person or loss or damage to property of any Person to the extent arising out of Purchaser's negligence or willful misconduct. Purchaser shall not, however, be required to reimburse or indemnify any rowel Producer Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Power Producer Indemnified Party.

## **17. Miscellaneous**

### **17.1 Amendments**

This Agreement may only be amended, modified or, supplemented by an instrument in writing executed by duly authorized representatives of the Power Producer and Purchaser.

## 17.2 Goodwill and Publicity

Neither Party shall use any name, trade name, service mark or trademark of the other Party in any promotional or advertising material without the prior written consent of such other Party. The Parties shall coordinate and cooperate with each other when making public announcements related to the execution and existence of this Agreement, and each Party shall have the right to promptly review, comment upon and approve any publicity materials, press releases and other public statements by the other Party that refer to, or that describe any aspect of, this Agreement; provided that no such publicity releases or other public statements (except for filings or other statements or releases as may be required by applicable law) shall be made by either Party without the prior written consent of the other Party. Without limiting the generality of the foregoing and whether or not the consent of the other Party is required or obtained, all public statements must accurately reflect the rights and obligations of the Parties under this Agreement.

## 17.3 Industry Standards

Except as otherwise set forth herein, for the purpose of the Agreement, the normal standards of performance with in the solar photovoltaic power generation Industry in the relevant market shall be the, measure of whether a Party's performance is reasonable and timely. Unless expressly defined here in, words having well-known technical or trade meanings shall be so construed.

## 17.4 Cumulative Remedies

Except as set forth to the contrary herein, any right or remedy of the Power Producer or Purchaser shall be cumulative and without prejudice to any other right or remedy.

## 17.5 No Waiver

The failure of the Power Producer or Purchaser to enforce any of the provisions of the Agreement, or the waiver thereof, shall not be construed as a general waiver or relinquishment on its part of any such provision in any other instance or of any other provision in any instance.

## 17.6 Survival

The obligations under Section 8.1(d) (Power Producer Covenant), Sections 8.3(d), (e), (f) and (g) (Purchaser Covenants), Section 10 (Taxes and Governmental Fees), Section 13 (Limitation of Liability) Section 12.2 (Notices), Section 15 (Confidentiality), or pursuant to other provisions of this Agreement that, by their nature and context, are intended to survive. Termination of this Agreement shall survive the expiration or termination of this Agreement for any reason.

## 17.7 Governing Law & Jurisdiction

(a) This Agreement shall be governed by and construed in accordance with the laws of India. The Parties agree that the courts in Delhi shall have jurisdiction over any action or proceeding arising under the Agreement.

In the event of any Dispute, difference of opinion or dispute or claim arising out of or relating to this Agreement or breach, termination or the invalidity thereof, shall firstly be attempted to be resolved by conciliation. The procedure as mentioned in



ROOFTOP OWNER Works Manual prevalent at the time of such dispute is to be followed to carry out the said conciliation.

(c) Arbitration Procedure:

- (i) In case of any dispute arising out of this Agreement or otherwise, between the parties here to, ROOFTOP OWNER manual dispute resolution methodology will be used. A period of not more than 15 days will be allotted at each stage of resolution. Upon failure to resolve the said dispute through conciliation the dispute shall be referred to arbitration and the Chief Engineer ROOFTOP OWNER, may appoint an arbitrator from the panel of arbitrators of MOUD. The arbitrator(s) shall be appointed within a period of 30 days from the date of receipt of written notice/demand of appointment of arbitrator from either Party. The cost of the arbitration will be shared equally by Power. Producer and the Purchaser.
- (ii) The venue of such arbitration shall be Delhi/Puducherry . The arbitral award shall be binding on both Parties. The arbitration proceedings shall be governed by the Indian Arbitration and Conciliation Act, 1996, as amended from time to time including provisions enforce at the time the reference is made.
- (d) During the dispute resolution period, both the Parties shall continue to perform their respective obligations as per provisions of the Agreement.
- (e) This Section 17 is severable from the rest of this Agreement and shall remain in effect even if this Agreement is terminated for any reason.

17.8 Severability

If any term, covenant or condition in the Agreement shall, to any extent, be invalid or unenforceable in any respect under Applicable Law, the remainder of the Agreement shall not be affected thereby, and each term, covenant or condition of the Agreement shall be valid and enforceable to the fullest extent permitted by Applicable Law and if appropriate, such invalid or unenforceable provision shall be modified or replaced to give effect to the underlying intent of the Parties and to the intended economic benefits of the Parties.

17.9 Successors and Assigns

This Agreement and the rights and obligations under the Agreement shall be binding upon and shall inure to the benefit of the Power Producer and Purchaser and their respective successors and permitted signs.

17.10 Counterparts

This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument.

17.11 Independent Service Provider

This Agreement is on a principal to principal basis between the parties here to Nothing contained in this Agreement shall be construed or deemed to create any association, partnership or joint venture or employer employee relationship or principal-agent relationship in any manner whatsoever between the Parties

17.12 Non-Exclusive Agreement

This Agreement is on non-exclusive basis. The Purchaser is free to engage any other service provider's or may entrust services similar to those provided by the Power Producer under this Agreement to any other person/s, provided the Power Producer's rights under this Agreement

are not affected in any manner

#### 17.13 Entire Agreement

This Agreement constitutes the entire agreement between the Parties here to with respect of the subject matter of this Agreement and supersedes all prior agreements and undertakings; written or oral, with respect to the subject matter here of except as otherwise expressly provided here in. The Schedules annexed to this Agreement so form a part of this Agreement.

#### 17.14 Insurance

The Power Producer shall maintain at its own costs, throughout the tenure of this Agreement and any extensions there of all mandatory insurance coverage for adequate amount including but not restricted to comprehensive general liability insurance including theft and vandalism, covering the System and accidental losses, bodily harm, injury, death of all individuals employed/assigned by the Power Producer to perform the services required under this Agreement.

#### 17.15 Annual accounts reconciliation shall be conducted annually between the Power Producer and Purchaser.

IN WITNESS WHERE OF the Parties have caused the Agreement to be duly executed through their duly authorized representatives as of the date set forth above.

FOR & ON BEHALF OF

PSCDL

Signature :

Name:

Designation:

FOR & ON BEHALF OF

POWER

PRODUCER

Signature :

Name :

Designation :

WITNESES

1 Signature :

Name :

Designation:

Signature :

Name :

Designation :

1) Signature :

Name :

Designation :

2) Signature :

Name :

Designation :

## SCHEDULE 1

Description of the Premises:

	Premises Overview
Segment	Office Building
Type of Roof	Flat Concrete
Hours of Operation	12 Hours, 7 Days a week
Security	Gated Complex with dedicated round the clock Security

Capacity and Area Requirement	
Capacity	Kwp <sub>W</sub>
Module Area	sqr mtr(PV Syst)
Number of Building	Roof
Capacity	

## SCHEDULE II FEES

Following are the details of the tariff agreed between the parties.

Purchase shall pay power producer for solar power at the rate equal to INR\_/KWh which is the levelized tariff as per PSCDL allocation.

Year wise tariff is as follows.

year 1	
year 2	
year 3	
year 4	
year 5	
year 6	
year 7	
year 8	
year 9	
year 10	
year 11	
year 12	
year 13	
year 14	
year 15	
year 16	
year 17	
year 18	
year 19	
year 20	
year 21	
year 22	
year 23	
year 24	
year 25	

The fees and payment details are provided in detail under clause7 of this agreement.

### SCHEDULE III

The following is the purchase value of the system over a period of 25 years. This may be applicable under the following conditions.

1. The Power Purchaser terminates the PPA before the 25 years PPA Tenure
2. The Power Purchaser wishes to own the Project before the Tenure of the PPA.
3. The Solar Project is relocated or shifted owing to demolition of the Building, damage to the building, change of city plans or any other reason.

The Price reference taken for calculating the total cost of the system is as per RFS rates for the state of. Has used the CERC guidelines for arriving at the Project cost.

Purchase Price for.....Kwp system @ As per ceiling rates given in RFS.	
Year	Salvage Value(Rs.)
1st year	100%
2nd year	96%
3rd year	92%
4th year	88%
5th year	84%
6th year	80%
7th year	76%
8th year	72%
9th year	68%
10th year	64%
11th year	60%
12th year	56%
13th year	52%
14th year	48%
15th year	44%
16th year	40%

17thyear	36%
18thyear	32%
19thyear	28%
20thyear	24%
21thyear	20%
22ndyear	16%
23rd year	12%
24thyear	8%
25thyear	4%

ANNEXURE - L

**Bid-Security Declaration**

To

THE CHIEF EXECUTIVE OFFICER  
PUDUCHERRY SMART CITY DEVELOPMENT LIMITED,  
PUDUCHERRY

Reference: (1) RFS No: \_\_\_\_\_,  
(2) Our Bid No. \_\_\_\_\_ dt.

I/We , ..... irrevocably declare as under:

I/We understand that, as per Clause..... of Tender/bid conditions, bids must be supported by a Bid Security Declaration in lieu of Earnest Money Deposit.

I/We hereby accept that I/We may be disqualified from bidding for any contract with you for a period of **Three years** from the date of disqualification as may be notified by you (without prejudice to PSCDL's rights to claim damages or any other legal recourse ) if,

- 1) I am /We are in a breach of any of the obligations under the bid conditions,
- 2) I/We have withdrawn or unilaterally modified/amended/revised, my/our Bid during the bid validity period specified in the form of Bid or extended period, if any.
- 3) On acceptance of our bid by PSCDL, I/we fail to deposit the prescribed Security Deposit or fails to execute the agreement or fails to commence the execution of the work in accordance with the terms and conditions and within the specified time.

Signature:

Name & designation of the authorized person signing the Bid-Securing Declaration Form:

Duly authorized to sign the bid for and on behalf of: \_\_\_\_\_ (complete name of Bidder)

Dated on \_\_\_\_\_ day of \_\_\_\_\_ month, \_\_\_\_\_ year.

(Note: In case of a consortium, the Bid Security Declaration must be in the name of all partners of the consortium that submits the bid).

## ANNEXURE – M

The Proposed buildings are as mentioned :

Sl.No	Name of the proposed buildings for Installation of rooftop solar system	Total Roof area (Sq.m)	Area of power generation (Sq.m)
1	<b>Public Works epartment</b>		
	a) SAO office	349.4	261.75
	b) Circle -1 office	249.29	186.75
	c) Executive Engineer Office (Planning)	298.82	223.5
2	Government Hospital building	2619	2088
3	Calve college	714	555
4	VOC School – new	414	300
5	Suselabhai girls higher secondary school	299	232.5
6	Thillavalurgovt girls higher secondary school	860.25	633.75
7	Old Court Building, Bussy street	255	178.5
8	Chinnayapuram Housing Project	1848.6	1386
9	Indira Gandhi Sports Complex	2803.2	2100
10	Vaithikuppam Community Hall	32.62	195
11	TV Nagar Community Hall	252	26.25
12	Vazhaikulam Community Hall	45.7	34.5
13	Rajiv Gandhi Hospital	4994	3500
<b>Total Area</b>		<b>16034.88</b>	<b>11901.5</b>



