

# **W A P C O S L I M I T E D**

(A Government of India Undertaking)

Invites Request for Selection (RFS) of Bidders

For

**Implementation of Grid Connected  
Roof Top Solar PV System Scheme**

on behalf of

Department of Energy, Uttarakhand Secretariate,  
in  
Uttarakhand States of India

On the Roofs of Govt. Buildings suitable for the  
Projects

Under RESCO model

RFS No: WAPCOS/PMD/UK/SOLAR/2016

Dated: 27-10-2016



**W A P C O S L I M I T E D**

(A Government of India Undertaking)

A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg,  
NEW DELHI-110001

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## **W A P C O S L I M I T E D**

(A Government of India Undertaking)

**Projects Management Division, A-101, 10<sup>th</sup> Floor, Himalaya House,  
23 KG Marg, NEW DELHI- 110001.**

**Ph:+91-11-23312524, Fax: +91-11-23322948, Email:buildings@wapcos.co.in,**

### **TENDER NOTICE**

**RFS No: WAPCOS/PMD/UK/SOLAR/2016**

**Date: 27-10-2016**

**WAPCOS LIMITED (A Govt. of India Undertaking) under the Ministry of Water Resources, River Development & Ganga Rejuvenation,** invites bids from the eligible bidders to participate in the Request for Selection (RFS) for Site selection, Lease agreement with the rooftop owner/authority, design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance for a period of 25 years of Roof Top Solar PV power system in the State of Uttarakhand of India on the roofs of all Govt. Buildings.

For the implementation of above mentioned work, Bidders should submit their bid proposal along with all supporting documents complete in all aspect on or before 15-11-2016 up to 3.00 P.M in the office of **The Dy. Chief Scientist, Projects Management Division, A-101, 10<sup>th</sup> Floor, Himalaya House, 23, KG Marg, New Delhi, Pin: 110001. Ph:+ 91-11-23312524, Fax: +91-11-23322948, Email: buildings@wapcos.co.in,** in prescribed format.

Bidder shall submit bid proposal along with **non-refundable processing fee**, complete in all respect **as per the Bid Information sheet**. Techno-Commercial bids will be opened on 16-11-2016 at 3:30 P.M in presence of authorized representatives of bidders who wish to be present. Bid proposals received without the prescribed processing fee and Bid Bond will be rejected. 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.

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

**DISCLAMIER:**

1. Though adequate care has been taken while preparing the RFS document, the Bidders shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within ten (10) 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. WAPCOS reserves the right to modify, amend or supplement this RFS document including all formats and Annexures.
3. While this RFS has been prepared in good faith, neither WAPCOS nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFS, even if any loss or damage is caused by any act or omission on their part.

**BID INFORMATION SHEET**

<b>Document Description</b>	The bidding process under this RESCO Model of the rooftop scheme is for 40 MWp
<b>RFS No. &amp; Date</b>	RFS No: WAPCOS/PMD/UK/SOLAR/2016 dated 27.10.2016
<b>Broad Scope</b>	<ul style="list-style-type: none"> <li>• Identification of Govt. Buildings rooftops and submission of Site Survey Report in details with drawings and other required documents with showing the adjustment of maximum SPV Array capacity at the site within 3 months from the date of work order issued &amp; Lease Agreement with Rooftop owner/Authority for 25 years.</li> <li>• Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing &amp; Commissioning of the grid connected rooftop Solar PV Project including Operation and Maintenance (O&amp;M) of the project for a period of 25 years after commissioning of projects .</li> <li>• Material procured for the purpose will have to be stored at any such location as the bidder deems suitable from the consideration of material inspection too.</li> </ul>
<b>Pre-bid Conference/ Clarification Meeting</b>	A pre-bid conference shall be held on 09-11-2016 at 02:30 A.M at WAPCOS office, <b>A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg, NEW DELHI, Pin: 110001. Ph: +91-11-23312524, Fax: +91-11-23322948.</b> Only one person from the bidder company is allowed to attend the same.
<b>Last date &amp; Time of Submission of Response of RFS</b>	<b>17-11-2016</b> up to 3.00 PM
<b>Bid Opening (Techno-Commercial)</b>	<b>17-11-2016</b> up to 3.30 PM
<b>Bid Processing Fee (non-refundable)</b>	Rs. 28,500/- (Rupees Twenty Eight Thousand Five Hundred Only) all inclusive. This to be furnished through Demand Draft (DD) drawn in favor of " <b>WAPCOS LIMITED</b> ", payable at New Delhi along with Bid.
<b>BID BOND</b>	Based on the Bid capacity proposed by the bidder in the bid, Bid Bond shall be furnished for different cities in the State as listed out in the RFS separately along with the response to RFS as per Clause 3.14 of Section-I for details

<b>Performance Security (PBG)</b>	PBG amount Rs.3,000/- per KWp (Rupees Three Thousand only) shall be furnished on the basis of bid capacity applied by successful bidder within 10 days from the date of allocation by WAPCOS. The PBG shall be in the form of BG from Nationalized banks only in favor of WAPCOS LIMITED.
<b>Name, Designation, Address and other details (For Submission of Response to RFS)</b>	<b>Dy. Chief Scientist, Projects Management Division, A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg, NEW DELHI-110001. Ph:+91-11-23312524, Fax: +91-11-23322948 Email:buildings@wapcos.co.in</b>
<b><u>Important Note:</u></b> Prospective bidders are requested to remain updated for any notices/amendments/clarifications etc. to the RFS document through the website <a href="http://www.wapcos.co.in">www.wapcos.co.in</a> . No separate notifications will be issued for such notices/amendments/clarification etc. in the print media or individually. All the information related to this RFS shall be updated in the WAPCOS website <a href="http://www.wapcos.co.in">www.wapcos.co.in</a>	

## **1.0. DEFINITIONS & ABBREVIATIONS**

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

**1.1. “ Affiliate”** shall mean a company that either directly or indirectly

- a) controls or
- b) is controlled by or
- c) is under common control 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. “B.I.S”** shall mean specifications of Bureau of Indian Standards (BIS);

**1.3. “Bid”** 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.

**1.4. “Bidder/Bidding Company”** shall mean Bidding Company submitting the Bid. Any reference to the Bidder includes Bidding Company / including its successors, executors and permitted assigns as the context may require”;

**1.5. “Bid Bond”** shall mean the unconditional and irrevocable bank guarantee to be submitted along with the Bid by the Bidder under Clause 3.14 of this RFS, in the prescribed Format- 3;

**1.6. “Bid Deadline”** shall mean the last date and time for submission of Bid in response to this RFS as specified in Bid information Sheet;

**1.7. “Bid Capacity”** shall means capacity offered by the bidder in his Bid under invitation.

**1.8. “CEA”** shall mean Central Electricity Authority.

**1.9. “Chartered Accountant”** shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949;

**1.10. “Commissioning”** means Successful operation of the Project / Works by the Contractor, for the purpose of carrying out Performance Test(s) as defined in RFS.

**1.11. “Company”** shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;

- 1.12. **“Capacity Utilization Factor” (CUF)** means the ratio of the annual output of the plant in kWh versus installed plant capacity for number of days.  $CUF = \text{plant output in kWh} / (\text{installed plant capacity in kW} * 365 \times 24)$ .
- 1.13. **“Eligibility Criteria”** shall mean the Eligibility Criteria as set forth in Clause 3.4 of this RFS;
- 1.14. **“Financially Evaluated Entity”** shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria set forth in Clause 3.4.3 hereof;
- 1.15. **“IEC”** shall mean specifications of International Electro-technical Commission;
- 1.16. **“KWp”** shall mean Kilo-Watt Peak (100mw/cm sq. & 25 deg. C temp).
- 1.17. **“KWh”** shall mean Kilo-Watt-hour;
- 1.18. **“MNRE”** shall mean Ministry of New and Renewable Energy, Government of India;
- 1.19. **“Maximum Bid Capacity”** shall mean 40 MWp which is the maximum capacity for which the Bidder can submit its Bid.
- 1.20. **“Model(s)”** RESCO model
- 1.21. **“O&M”** shall mean Operation & Maintenance of Rooftop Solar PV system;
- 1.22. **“Owner of project”** shall mean anyone who has ownership of the roof (in lease form also) and is the legal owner of all equipment’s of the project OR the Successful bidder under Part-II 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.
- 1.23. **“Levellized Tariff”** shall mean the tariff offered by the Bidder for 25 years the Scope of work as per RFS document.
- 1.24. **“Project capacity”** means Capacity in KWp allocated to the Bidder for different sites consisting of single or multiple roof tops. The project capacity specified is on “DC” output Side only.
- 1.25. **“Performance Ratio” (PR) means** “Performance Ratio” (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.  $PR = (\text{Measured output in KW} / \text{Installed Plant capacity in KWp} * (1000 \text{ W/m}^2 / \text{Measured radiation intensity in W/m}^2))$ .
- 1.26. **“Parent Company”** shall mean a company that holds at least twenty six percent (26%) of the paid-up equity capital directly or indirectly in the Bidding Company as the case may be;



- 1.27. **“Project Company”** shall mean Company incorporated by the bidder as per Indian Laws in accordance with Clause no 3.5.
- 1.28. **“Project Sanction Documents”** shall mean the documents as specified in Annexure – A
- 1.29. **“Price Bid”** shall mean Envelope III of the Bid, containing the Bidder’s quoted Price as per the Section- IV of this RFS;
- 1.30. **“Qualified Bidder ”** shall mean the Bidder(s) who, after evaluation of their Techno Commercial Bid as per Clause 3.4 stand qualified for opening and evaluation of their Price Bid;
- 1.31. **"RFS"** shall mean Request for Selection (RFS)/Bid document/Tender document
- 1.32. **“RESCO”** shall mean Renewable Energy Service Companies
- 1.33. **“RESCO model”** shall mean where the bidders intend to take a roof top owned by some other entity on mutually agreed terms and conditions from the roof top owner(s) and enters into the PPA with rooftop owner / DISCOM /others Govt. of Uttarakhand Department for supply of Solar power for 25 years from the date of Commissioning of project.
- 1.34. **“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;
- 1.35. **“Successful Bidder(s) /Contractor/Project Developers(s)”** shall mean the Bidder(s) selected by WAPCOS pursuant to this RFS Phase-V of different states of India for Implementation of Grid Connected Roof Top Solar PV System as per the terms of the RFS Documents, and to whom Letter of Allocation has been issued;
- 1.36. **“SNA”** shall mean State Nodal Agency.
- 1.37. **“Tendered Capacity”** shall mean the Total aggregate capacity of 40 MWp in the states Uttarakhand of India, proposed to be allocated by WAPCOS on behalf of Govt. of Uttarakhand on behalf of to the Successful Bidder through this bidding process as per terms and conditions specified therein;
- 1.38. **“Ultimate Parent Company”** shall mean a company which directly or indirectly owns at least twenty six percent (26%) paid up equity capital in the Bidding Company) and/or in the Financially Evaluated Entity and such Bidding Company and /or the Financially Evaluated Entity shall be under the direct control or indirectly under the common control of such company;
- 1.39. **“Wp”** shall mean Watt Peak

## **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.
6. Wherever, documentary evidence is required, Bidder/Bidding Company or Financially Evaluated Entity shall produce the same as per relevance and applicability

## SECTION - I

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

#### 1.0. INTRODUCTION

- 1.1. On behalf of Department of Energy, Govt. of Uttarakhand, WAPCOS intends to implementation of the grid-connected roof top solar PV projects on the Govt. of Uttarakhand buildings. WAPCOS has been designated as implementation partner for this scheme. This scheme with aggregate capacity of 40 MWp in various buildings across the State envisages installation of grid-connected roof top solar PV projects on the roofs. The generated solar power will be utilized for captive application and the surplus power will be fed to the grid. The scheme aims to reduce the fossil fuel based electricity and make building self-sustainable from the point of electricity, to the extent possible.
- 1.2. On behalf of Uttarakhand Govt., WAPCOS, 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 this pilot scheme in the State.
- 1.3. 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.
- 1.4. The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect the carrying out the works in line with the scope of work specified elsewhere in the document at the offered rates and to have satisfied himself to the sufficiency of his bid. The bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures and as to what all works he has to complete in accordance with the bid documents irrespective of any defects, omissions or errors that may be found in the bid documents.

#### 2.0. **BID DETAILS:**

- 2.1. The bidding process under this Phase-V of the rooftop scheme is for 40 MWp capacity under RESCO model in the state. Bidder shall submit bids minimum for the 5.0 MWp or more up to the capacity of 20 MW only. Bid with capacity less than 5.0 MWp shall be out rightly rejected.

Sl. No.	States	Capacity in MWp	Minimum capacity for which bidder shall bid in the State in MWp
1	UTTARAKHAND	40	5
<b>Total Capacity</b>		<b>40</b>	

### 2.1.1. **Bids in RESCO Model:**

Bids are invited from the prospective bidders for the max. Tendered Capacity of 40MWp in different cities of the state of Uttarakhand. Capacity will be allocated based on the lowest levelized tariff for 25 years quoted by the bidder for different cities of the state of Uttarakhand subject to Clause 6.3.5 of RFS.

**Maximum allowable levelized tariff for this part is Rs.6.90 Per KWh** and the bids with levelized tariff in excess of Rs.6.90 Per KWh will be rejected. Tariff stream quoted by the bidder shall further confirm to the following:

- i. Tariff in the first 3 years shall not exceed Rs.5.9 Per kWh.
- ii. Tariff in any year shall either be equal to or more than the tariff in the immediately preceding year.
- iii. Tariff shall be flexible (on either side) on the basis of Change of Electricity tariff time to time in the State as per Govt. norms.

2.2. Bids not in conformity with above provisions will not be considered.

### 2.3. **SIZE OF THE PROJECTS:**

2.3.1. The minimum size of each project shall be in the range up to **100 kWp**. One project shall comprise of one roof only. Each roof top unit can separately connect with the grid and may have separate meters.

2.3.2. Further, Successful bidders to whom letter of allocation has been issued will be allowed to submit single proposal for an aggregate capacity not less than 5.0MWp for approval and issue of sanction letter by WAPCOS. Single sanction letter will be issued for the total aggregate capacity submitted by the bidder for approval as per above.

### 2.4. **BID CAPACITY**

2.3.3. The Bidder shall apply for different cities of the State of Uttarakhand. **Bids shall be submitted for 5.0 MWp minimum of Tendered capacity indicated in Table in Clause 2.1.** Bids quoting less than 5.0 MWp or greater than 40 MWp shall be out-rightly rejected. The intent is to allocate the tender capacity equally to the bidders in the State and encourage wide participation.

2.4.1. Offer of the Bidders quoting cumulative capacity less than 5.0 MWp or more than 40MWp shall be out rightly rejected.

2.4.2. In exceptional circumstances and at sole discretion of WAPCOS, unutilized capacity (during initial allocation only) can be transferred to other having demand in excess of declared capacity and total capacity of the State after transfer can be awarded to **more than two bidders** in a State equally at L1 price only.

2.4.3. WAPCOS reserves the right to allocate part capacity also subject to acceptance of the bidder.

## 3.0. **INSTRUCTIONS TO THE BIDDERS**

3.1 Bidder must meet the eligibility criteria independently as Bidding Company or as a Bidding Consortium with one of the members acting as the Lead Member of the Bidding Consortium. Bidder will be declared as a Qualified Bidder based on

meeting the eligibility criteria and as demonstrated based on documentary evidence submitted by the Bidder in the Bid.

In case of a Bidding Consortium the Financial Eligibility criteria like Annual turnover or Net worth as indicated in Clause 3.4.3, shall be fulfilled by the Lead Member or Parent Company of the Lead Member while the Technical Eligibility Criteria shall be fulfilled by consortium members. In case bidder is a consortium, a Consortium Agreement as per the Format-10 shall be furnished along with the bid.

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

However, Members of the Consortium may form the Project Company as specified in Clause 3.5. Bidder including its member of the consortium can submit one bid only.

- 3.3. Bidder can however use the technical and financial strength of its Parent Company to fulfill the Technical and/or Financial Eligibility criteria mentioned below. In such case, Bidders shall submit an Undertaking from the Parent Company as per Format - 9 and also furnish a certificate of relationship of Parent Company or Affiliate with the Bidding Company as per Format-8, Company Secretary certificate towards shareholding pattern of the Parent Company and the Bidding Company along with a Board resolution from the Parent Company.

### 3.4. ELIGIBILITY CRITERIA

#### 3.4.1. GENERAL

The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto and engaged in the business of Solar Power.

**A copy of certificate of incorporation shall be furnished along with the bid in support of above.**

#### 3.4.2. TECHNICAL ELIGIBILITY CRITERIA:

The Bidder and or its technical partner (in case of consortium/technical partnership) should have designed, supplied, installed & commissioned at least three Grid connected Solar PV Power Project either ground mounted or rooftop based having a cumulative capacity of not less than 0.50 MWp, which should have been commissioned at least six months prior to Techno-Commercial Bid Opening date. The list of project commissioned at least 3 months prior to Techno-Commercial Bid Opening date, indicating whether the project is grid connected, along with a copy of the Commissioning certificate and Work order / Contract / Agreement from the Client/Owner shall be submitted in support of Clause 3.4.2 above.

### 3.4.3. FINANCIAL ELIGIBILITY CRITERIA:

The Bidder should have an Annual Turnover or Net worth as indicated below.

<b>S.No.</b>	<b>BID CAPACITY (MWp)</b>	<b>ANNUAL TURNOVER (Rs. in Cr.)</b>	<b>NET WORTH (Rs. in Cr.)</b>
1.	5.00	16.25	8.15
2.	10.00	32.50	16.25
3.	15.00	48.75	24.38
4.	20.00	65.00	32.50

Note: For each MW beyond 5MW/10MW/15MW, additional turnover of **Rs. 3.25 Crores** and net-worth of **Rs. 1.625 Crores** is required.

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

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

### 3.5. INCORPORATION OF A PROJECT COMPANY

3.5.1. 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.

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

### 3.6. BID SUBMISSION BY THE BIDDER

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

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

signatory of the Bidder.

3.6.3. The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.4.1, 3.4.2 and 3.4.3 to the satisfaction of WAPCOS and shall also furnish unconsolidated/consolidated audited annual accounts in support of meeting financial requirement, which shall consist of unabridged balance sheet, profit and loss account, profit appropriation account, auditors report, etc., as the case may be of Bidding Company or Financially Evaluated Entity for any of the last three(3) financial years immediately preceding the Bid Deadline which are used by the bidder for the purpose of calculation of Annual Turnover or of last Financial Year in case of Net Worth.

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

### 3.7. **BID SUBMITTED BY A BIDDING COMPANY**

The Bidding Company should designate one person to represent the Bidding Company in its dealings with WAPCOS. 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.

### 3.8. **CLARIFICATIONS AND PRE-BID MEETING**

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

3.8.2. 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 WAPCOS.

3.8.3. 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.

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

### 3.9. **AMENDMENTS TO RFS BY WAPCOS.**

3.9.1. At any time prior to the deadline for submission of Bids, the WAPCOS 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).

3.9.2. The clarification(s)/amendment(s) (if any) may be notified on WAPCOS website

[www.wapcos.co.in](http://www.wapcos.co.in) at least Seven (7) 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.

3.9.3. WAPCOS 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.

3.9.4. In case any amendment is notified after submission of the Bid (prior to the opening of Techno-Commercial Bid. Bids received by Employer shall be returned to the concerned Bidders on their request through registered post or courier and it will be for the Bidders to submit fresh Bids as the date notified by the WAPCOS for the purpose.

3.9.5. All the notices related to this Bid which are required to be publicized shall be uploaded on [www.wapcos.co.in](http://www.wapcos.co.in).

### 3.10. BIDDING PROCESS

#### 3.10.1. BID FORMATS

3.10.1.1. The Bid in response to this RFS shall be submitted by the Bidders in the manner provided in Clause 3.6 & Clause 3.10.1.1. The Bid shall comprise of the following:

#### **(A). ENVELOPE- I (COVERING LETTER, BID PROCESSING FEE AND BID BONDS)**

- i. Covering Letter as per prescribed Format-1.
- ii. **Bid processing fee @ Rs. 28,500/- inclusive of all taxes:**
- iii. Bid Bond, as per the prescribed Format-3 shall be submitted separately for different Cities State for the tendered capacity of Cities in a separate envelope as per Clause 3.14.
- iv. Checklist for Bank Guarantee submission requirements as prescribed in Format- 5.

#### **(B). ENVELOPE- 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 incorporated under Company Act 1956 or Company Act-2013).** However, Employer 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. Certificate of Incorporation of Bidding company/Bidding consortium/parent company as applicable.
- iii. General particulars of bidders as per Format-2
- iv. Bidder's composition and ownership structure as per prescribed Format-A as Shareholding certificate certified by Director/practicing Chartered Accountant / Company Secretary and Authorized signatory of the company.



- v. Document in support of meeting Eligibility Criteria as per Clause no. 3.4.1 & 3.4.2.
- vi. Details for meeting Financial Eligibility Criteria as per Clause no. 3.4.3
- vii. Undertakings from the Financially Evaluated Entity or its Parent Company /Ultimate Parent Company as per Format-9, if applicable.
- viii. Format 8, if applicable, supported by Board Resolution of the Parent Company/Ultimate Parent Company of the Bidding Company duly certified by the Company Secretary or Authorized signatory to provide the Performance Bank Guarantee (PBG) in the event of failure of the Bidding Company to do so.
- ix. Format 10, if applicable.
- x. 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**

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

The Bidder shall submit sealed Price Bid for different states of India separately in the **Format B only**. Each envelope shall be super scribed as "Price Bid for MWp capacity (Strike out whichever not applicable) .All the Price Bids shall be put in Envelope-III.

#### **3.11. BID DUE DATE**

The Bidder should submit the Bids so as to reach the address indicated below by 15:00 hrs (IST) on or before **17-11-2016**

**Dy. Chief Engineer (Projects),**  
**Projects Management Division,**  
 A-101, 10<sup>th</sup> Floor,  
 Himalaya House, 23 KG Marg,  
 New Delhi-110001,  
 Ph:+91-11-23312524, Fax: +91-11-23322948,  
 Email:buildings@wapcos.co.in

#### **3.12. VALIDITY OF BID**

- 3.12.1. The bid and the Price Schedule included shall remain valid for **a period of 12 months** from the date of techno-commercial bid opening, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting letter of allocation, WAPCOS shall forfeit the Bid Bond furnished by him. *Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.*
- 3.12.2. In exceptional circumstances when letter of allocation is not issued, the WAPCOS may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid Bond provided under Clause 3.14 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Bond. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

### 3.12.3. METHOD OF BID SUBMISSION

- 3.12.3.1. Bids are required to be submitted in a single sealed cover envelope containing Envelope-I (Covering letter, Processing fee and Bid Bonds) Envelope-II (Techno-Commercial documents) and Envelope III (Price Bids) each one duly sealed separately. Envelope should contain the documents as detailed in Clause 3.10 above.
- 3.12.3.2. All the three envelopes shall be kept in a outermost Envelope-IV. All the envelopes should be superscribed as **“Bid for Implementation of Grid connected Roof Top Solar PV System Scheme of Different Cities in the states of Uttarakhand” Envelope-I (Covering envelope) / Envelope-II (Techno-Commercial Bid) / Envelope-III (Price Bids) (Strikeout whichever is not applicable) along with the “BID DUE DATE”**.
- 3.12.3.3. The Bidders have the option of sending their Bid either by registered post; or speed post; or courier; or by hand delivery, so as to reach WAPCOS by the Bid Deadline. Bids submitted by telex/telegram/fax/e-mail shall not be considered under any circumstances. WAPCOS shall not be responsible for any delay in receipt of the Bid. Any Bid received after the Bid Deadline shall be returned unopened. *It should be noted that except Envelope III, no other envelope shall contain any information/document relating to Price Bid.* WAPCOS shall not be responsible for premature opening of the Price Bids in case of non-compliance of above.
- 3.12.3.4. All pages of the Bid, except for the Bid Bond, and any other document executed on non-judicial stamp paper, forming part of the Bid and corrections in the Bid, if any, must be signed by the authorized signatory on behalf of the Bidder. It is clarified that the same authorized signatory shall sign all pages of the Bid. However, any published document submitted with the Bid shall be signed by the authorized signatory at least on the first and last page of such document Bidders shall submit the Bid in original, duly signed by the their authorized signatory of the Bidder. No change or supplemental information to a Bid will be accepted after the Bid Deadline, unless the same is requested for by WAPCOS.
- 3.12.3.5. If the outer cover envelope or Envelope I (Covering Envelope) or Envelope-II (**Techno-Commercial Envelope**) Envelope III (Price Bids) is not closed and not transcript as per the specified requirement, WAPCOS will assume no responsibility for the Bid’s misplacement or premature opening.
- 3.12.3.6. 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.

### 3.13. COST OF BIDDING

3.13.1. 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 submission of bid even though WAPCOS may elect to modify / withdraw the invitation of Bid.

### 3.14. BID BOND/EMD:

**The Bidder shall furnish the Interest free Bid Bond @ Rs.15.00 Lakhs (Rupees Fifteen Lakhs only) per MWp in the form of Bank Guarantee (BG) / Demand Draft drawn in favor of "WAPCOS LIMITED", payable at New Delhi. The initial validity of Bid Bond shall be for a period of 6 months from the Bid Deadline, which shall be extended by the bidder as per the bid validity. If the bidder fails to extend the bid bond validity as per above on request by WAPCOS then entire Bid bond may be forfeited.** The Bid Bond of unsuccessful bidders shall be returned within 30 days from the date of issue of Letter of Allocation(s) on bidder's request. Bid bond(s) of Successful bidder shall be released after the receipt of PBG in the format prescribed by WAPCOS and after the receipt of confirmation of their PBG's from their respective banker.

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

$$\text{a) Bid Bond amount} = (\text{Rs. 15.00 Lakh}) \times \text{Bid Capacity in MWp}$$

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

- i. at the Bidder's option, be in the form of either a demand draft, or a bank guarantee from a List of banks as given in Annexure-B
- ii. be confirmed for payment by the branch of the bank giving the bank guarantee at New Delhi.
- iii. be submitted in its original form; copies will not be accepted; and remain valid for a minimum period of 6 months from the date of Techno Commercial bid opening, or beyond any period of extension subsequently requested under Clause 3.12.2.

3.14.2. The Successful Bidder shall sign and stamp the Letter of allocation and return the signed & stamped duplicate copy of the same to WAPCOS within 30 days from the date of its issue.

3.14.3. The Bid Bond shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to WAPCOS under following circumstances:

- a) Hundred percent (100%) of Bid Bond amount, if a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner during the period of Bid Validity specified in the RFS document and in accordance with the Clause 3.12.2.
- b) Hundred percent (100%) of Bid Bond amount , if the Successful Bidder

fails to unconditionally accept the Allocation letter within 15 days from the date of its issue.

- c) Hundred percent (100%) of Bid Bond amount, if the Successful Bidder fails to furnish the "Performance Security" as per the Clause 3.15.

### 3.15. **PERFORMANCE SECURITY/PERFORMANCE BANK GUARANTEE (PBG)**

3.15.1. Within 30 days from the date of issue of Allocation letter, Successful Bidder shall furnish the Performance Security calculated in the same manner as Bid Bond amount for the allocated capacity only.

The formula applicable to calculate the PBG amount will be:

**PBG amount for W.B = (Rs.30.00 Lakh) X Allocated Capacity in MWp in the State. (Thirty Lakh per MWp) for a minimum period of 5 years.**

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

- a) a demand draft, or a bank guarantee from the List of banks as given in Annexure-B
- b) be confirmed for payment by the branch of the bank giving the bank guarantee at New Delhi.

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

- a) If the Successful Bidder is not able to identify the projects and submit Project Sanction Documents to the satisfaction of WAPCOS, 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 WAPCOS, PBG amount, pro-rata to the capacity not commissioned by the Successful Bidder shall be forfeited. 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 WAPCOS, for the already identified locations, which are notified by WAPCOS in the RFS or otherwise and for which allocation letter/sanction letter has been issued shall be forfeited.
- c) In all the above cases corresponding unidentified/non-commissioned capacity shall stand cancelled.

3.15.4. The Performance Security shall be valid for a minimum period of 18 months from the date of issue of Allocation letter(s) and shall be released after 5 years from the date of commissioning with the compliance of entire obligations in the contract.

### 3.16. **OPENING OF BIDS**

3.16.1. Envelope-I, of the Bidders shall be opened at 15:30 hours on Bid Deadline date at the venue indicated herein above, in the presence of one representative from each of the Bidders who wish to be present.

3.16.2. Name of the Bidder, price details of the Bid bond and capacity offered for Different states of India shall be read out to all the Bidders at the time of opening of Envelope-I and Envelope-II.

**3.17. RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID**

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

3.17.1.1. The WAPCOS 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 WAPCOS shall have no liability towards any Bidder and no Bidder shall have any recourse to the WAPCOS with respect to the selection process. WAPCOS shall evaluate the Bids using the evaluation process specified in Section -I, at its sole discretion. WAPCOS decision in this regard shall be final and binding on the Bidders.

3.17.2. WAPCOS 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 of bid by WAPCOS will be full and final.

**3.18. ZERO DEVIATION**

3.18.1. 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.

**3.19. EXAMINATION OF BID DOCUMENT**

3.19.1. 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.

3.19.2. 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.

3.19.3. 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 WAPCOS.

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

## CONDITIONS OF CONTRACT (GCC)

### 3.20. SCOPE OF WORK

3.20.1. The scope of work for the bidder includes Identification and authorization/agreement from authority of building rooftop in consultation with WAPCOS/Govt. of Uttarakhand for 25 years (**Authorization certificate from building owner/authority**), Obtaining No Objection Certificate (NOC)" from Site selection, Lease agreement with the rooftop owner/authority, Distribution Company (DISCOM) for grid connectivity, 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.

### 3.21. LEVELLIZED TARIFF

3.21.1. The Levellized Tariff of 25 years shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a "single responsibility" basis such that the total Bid Price covers all the obligations mentioned in the Bidding Documents in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for a period of 25 years, goods and services including spares required if any during O & M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training and such other items and services required to complete the scope of work mentioned above.

3.21.2. The Levellized tariff for 25 years quoted is on lump sum turnkey basis and the bidder is responsible for the total scope of work described at Clause 3.20.1 above.

3.21.3. The Levellized tariff for 25 years shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work for payment of subsidy 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.

3.21.4. The Levellized tariff for 25 years 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 shall be payable

3.21.5. 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.

3.21.6. The Levellized tariff for 25 years for Part-II shall be specified in sanction letter based on Successful Bidder's quote @Rs/KWh for each project. The project cost shall be in accordance with all terms, conditions, specifications and other conditions of the Contract as accepted by the WAPCOS and incorporated into the sanction letter.

3.21.7. The Bidder shall complete the Price Bid (Format-B) for different cities in the

State (Section-IV) furnished in the RFS Documents.

**3.22. WAPCOS SERVICE CHARGES**

3.22.1. For tariff based competitive bidding shall be invited for the levelled tariff of 25 years, the service charges of WAPCOS shall be computed as **7.0 % of 85% of Rs.6.50 Crores per MWp** of the sanctioned capacity.

3.22.2. WAPCOS service charges are for site visits, inspection; liaison, monitoring etc. Taxes and duties shall be paid extra. **The WAPCOS service charges are non-refundable and for each project the service charges has to be paid within 15 days from date of issuance of Sanction letter by WAPCOS.** Further, any delay beyond 15 days shall attract interest @ 1.25% per month of the amount not paid, calculated on day to day basis till the full payment including interest is paid. WAPCOS at its sole discretion may cancel the Sanctioned capacity and forfeit 100% of Performance Security in case WAPCOS service charges are not paid within 30 days of issue of Sanction Letter.

**3.23. INSURANCE**

3.23.1. 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.

3.23.2. 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.

**3.23.3. WARRANTEES AND GUARANTEES**

3.23.4. The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide 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. 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 WAPCOS will not be responsible in any way for any claims whatsoever on account of the above.

**3.24. TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP**

3.24.1. The Site Survey, design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards as detailed in the Section- III (Technical specifications) of the bid document. Where appropriate Indian Standards and

Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.

3.24.2. The specifications of the components should meet the technical specifications mentioned in Section III. Pre-delivery inspections shall be carried by WAPCOS experts at the manufacture's plant before dispatching the material/equipment/good to the site. All expenses towards this shall be borne by the bidder.

3.24.3. 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 SPV plant.

### **3.25. OPERATION & MAINTENANCE (O&M)**

3.25.1 The bidder shall be responsible for operation and maintenance of the Roof top Solar PV system for a period of 25 years for this model projects. During this period, the bidder shall be responsible for supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of defective modules, inverters, PCU's etc and maintaining log sheets for operation detail, deployment of staff for continuous operations and qualified engineer for supervision of O&M work, complaint logging & its attending.

### **3.26. METERING AND GRID CONNECTIVITY**

3.26.1 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. WAPCOS/SNA could facilitate connectivity; however the entire responsibility lies with bidder only.

### **3.27. PLANT PERFORMANCE EVALUATION**

3.27.1 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 of the project. Minimum CUF of 15% should be maintained for a period of 5 years for fulfilling one of condition for release of PBG. The bidder should send the periodic plant output details to WAPCOS for ensuring the CUF. The PR will be measured at Inverter output level during peak radiation conditions. Mode of submission of reports should be electronic and in Real-time. The period of submission of reports should be clearly mentioned.

### **3.28. PROGRESS REPORT**

3.28.1 The bidder shall submit the progress report monthly to WAPCOS in Prescribed Performa. WAPCOS will have the right to depute their representatives to ascertain the progress of contract at the premises of works of the bidder.

### **3.29. PROJECT INSPECTION.**

3.29.1 The project progress will be monitored by WAPCOS and the projects will be inspected for quality at any time during implementation and commissioning or



after the completion of the project either by officer(s) from WAPCOS or any authorized agency/ experts.

3.29.2 WAPCOS may depute a technical person(s) from its list of empanelled experts for inspection, Third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufactures facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required.

### **3.30. APPLICABLE LAW**

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

### **3.31. SETTLEMENT OF DISPUTE**

3.31.1. If any dispute of any kind whatsoever arises between WAPCOS 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. .

3.31.2. If the parties fail to resolve, such a dispute or difference by mutual consent, within 45 days of its arising, then the dispute shall be referred by either party by giving notice to the other party in writing of its intention to refer to arbitration as hereafter provided regarding matter under dispute. No arbitration proceedings will commence unless such notice is given. Any dispute in respect of which a notice of intention to commence arbitration has been given in accordance with Clause 3.32, shall be finally settled by arbitration.

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

3.32.1 In case the Contractor is a Public Sector Enterprise or a Government Department, the dispute shall be referred for resolution in Permanent Machinery for Arbitration (PMA) of the Department of Public Enterprise, Government of India. Any dispute or difference arising out of this Agreement shall be amicably settled between the Parties.

3.32.2 In case of non-settlement of dispute or difference, the matter shall be within 30 days referred to arbitrator as per Clause 19.3 herein below as provided in Government of India, Ministry of Heavy Industries and Public Enterprises, Department of Public Enterprises letter No-DPE/4(10)/2001-PMA-GL1 dated 22.01.2004 and its subsequent amendments thereof .

3.32.3 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.

### **3.32.4 IN ALL OTHER CASES**

- 3.32.4.1 In all other cases, any dispute submitted by a party to arbitration shall be heard by an arbitration panel composed of three arbitrators, in accordance with the provisions set forth below.
- 3.32.4.2 The WAPCOS and the Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within Thirty (30) days after the later of the two arbitrators has been appointed, the third arbitrator shall, at the request of either party, be appointed by the Appointing Authority for third arbitrator which shall be the President, Institution of Engineers.
- 3.32.4.3 If one party fails to appoint its arbitrator within thirty (30) days after the other party has named its arbitrator, the party which has named an arbitrator may request the Appointing Authority to appoint the second arbitrator.
- 3.32.4.4 If for any reason an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws and a substitute shall be appointed in the same manner as the original arbitrator.
- 3.32.4.5 Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue or arbitration shall be New Delhi.
- 3.32.4.6 The decision of a majority of the arbitrators (or of the third arbitrator chairing the arbitration panel, if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction as decree of the court. The parties thereby waive any objections to or claims of immunity from such enforcement.
- 3.32.4.7 The arbitrator(s) shall give reasoned award.
- 3.32.4.8 Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless they otherwise agree.
- 3.32.4.9 Cost of arbitration shall be equally shared between the Successful bidder or Contractor and WAPCOS.

### **3.33. FORCE MAJEURE**

- 3.33.1 Notwithstanding the provisions of clauses contained in this RFS document; the contractor shall not be liable to forfeit (a) PBG for delay and (b) termination of contract; if he is unable to fulfill his obligation under this contract due to force majeure conditions.
- 3.33.2 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 WAPCOS and its decision shall be final and binding on the contractor and all other concerned.

3.33.3 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, WAPCOS has the right to terminate the contract in which case, the PBG shall be refunded to him.

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

### **3.34. LANGUAGE**

3.34.1 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 WAPCOS and the bidder shall be in English language.

### **3.35. OTHER CONDITIONS**

3.35.1 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 WAPCOS in writing up to minimum period of 5 years from the date of commissioning of the project.

3.35.2 The Successful bidder or its subcontractors shall not display the photographs of the work and not take advantage through publicity of the work without written permission of WAPCOS and owner of the Rooftop.

3.35.3 The Successful bidder or its subcontractors shall not make any other use of any of the documents or information of this contract, except for the purposes of performing the contract.

3.35.4 WAPCOS will not be bound by any Power of Attorney granted/ issued by the Successful bidder or its subcontractors or by any change in the composition of the firm made during or subsequent to the execution of the contract. However recognition to such Power of Attorney and change (if any) may be given by WAPCOS after obtaining proper legal advice, the cost of which will be chargeable to the Successful bidder concerned.

### **3.35.5 SUCCESSORS AND ASSIGNS:**

In case the WAPCOS 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.

**3.35.6 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.

**3.35.7 COUNTERPARTS:**

3.38.1 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.

**3.35.8 RIGHTS & REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES:**

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

**3.35.9 PRICE PREFERENCE FOR M.S.M.E/ STATE OR CENTRAL PSUs**

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

**3.35.10 CORRESPONDENCE**

Bidder requiring any Techno-Commercial clarification of the bid documents may contact in writing or by Fax /E Mail.

<b>Name</b>	<b>Contact Number</b>	<b>Email id</b>
Sh. Prabhakar Sati Dy. Chief Scientist	011-23322944 011-23312524	<u>wss@wapcos.co.in</u>
Sh. Parveen Kumar Senior Engineer	011-23312524 011-23322944	<u>wss@wapcos.co.in</u>

Verbal clarifications and information given by the WAPCOS or its employees or its Representatives shall not be in any way entertained.

## SECTION-II

### **4. BID EVALUATION CRITERIA**

#### **(i) BID EVALUATION**

##### **i.1. BID EVALUATION**

The evaluation process comprises the following four steps:

Step I - Responsiveness check of Techno Commercial Bid

Step II - Evaluation of Bidder's fulfillment of Eligibility Criteria as per Clause 3.4 of Section-I

Step III - Evaluation of Price Bid

Step IV - Successful Bidders(s) selection

##### **i.2. RESPONSIVENESS CHECK OF TECHNO COMMERCIAL BID**

The Techno Commercial Bid submitted by Bidders shall be scrutinized to establish responsiveness to the requirements laid down in the RFS subject to Clause 3.4.1, Clause 3.4.2, and Clause 3.4.3. Any of the following may cause the Bid to be considered "Non-responsive", at the sole discretion of WAPCOS:

- 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, 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 WAPCOS 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 3.4 shall be used to check whether each Bidder meets the stipulated requirement.

## 5. PRELIMINARY EXAMINATION

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

## 6. EVALUATION OF BIDDER'S FULFILMENT OF ELIGIBILITY CRITERIA

- 6.1. Evaluation of Bidder's Eligibility will be carried out based on the information furnished by the Bidder as per the prescribed Formats and related documentary evidence in support of meeting the Eligibility Criteria as specified in Clause 3.4. Non-availability of information and related documentary evidence for the satisfaction of Eligibility Criteria may cause the Bid to be non-responsive.

### 6.2. EVALUATION OF PRICE BID

Price Bid (Envelope III) of the Qualified Bidders shall be opened in presence of the representatives of such Qualified Bidders, who wish to be present, on a date as may be intimated by WAPCOS. 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 WAPCOS.

#### 6.2.1. RESCO MODEL

- a. The Price bids for different cities of the State shall be evaluated on a single pattern.
- b. Since the maximum **allowable levellized tariff is Rs 6.9/KWh**, so bids above the maximum allowable price shall also be rejected.
- c. The levellized tariff shall be calculated up to three decimal places.

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

### **6.3. SUCCESSFUL BIDDER(S) SELECTION**

6.3.1. Bids qualifying in Clause 3.4 shall only be evaluated in this stage.

6.3.2. Levellised Tariff requirement quoted in all Price Bids of Qualified Bidders shall be ranked from the lowest to the highest.

6.3.3.1. Based on the price bid quoted by the bidders, WAPCOS shall arrange the bids in the ascending order ie L1, L2, L3, \_ \_ \_ (L1 being the lowest levellized tariff).

6.3.3.2 The lowest bidder will be declared as the successful bidder. For further allocation, the L2 bidder will be asked to match the price quoted by the L1 bidder. In case the L2 bidder refuses to match the L1 price then L3 bidder shall be offered to match L1 price. The process will continue till the next bidder matches the L1 price. The bidder who matches the L1 price will also be declared Successful bidder for that state.

6.3.3.3 All the qualified bidders of the State except the L1 bidder will be given 7 days from the date of notification of L1 price to give their consent to execute the work at L1 tariff failing which it will be assumed that they are not interested to match L1 price. If in case of more than one such response is received expressing their consent to match the L1 price and to execute the capacity in the State then the preference shall be given in the ascending order of the bid quoted by the bidder. ie first preference will be given to L2 then L3 and so on until entire capacity is allocated. WAPCOS at its sole discretion can increase the timeline as indicated above.

6.3.3.4 Each Successful Bidder shall acknowledge the LOA and return duplicate copy with signature of the authorized signatory of the Successful Bidder to the WAPCOS.

6.3.3.5 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 WAPCOS reserves the right to cancel the award of the Letter of Allocation of such Successful Bidder.

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

6.3.9. There shall be no negotiation on the quoted levellized tariff between the WAPCOS and the Bidder(s), during the process of evaluation.

#### **6.4. INCREASE/DECREASE OF BIDDER ALLOCATED CAPACITY**

6.4.1. In case total allocated capacity to all successful bidders is less/more than 40 MW, WAPCOS reserves the right to increase/decrease the Bidder Allocated Capacity by up to twenty five percent (25%) for different cities of the State at the sole discretion of WAPCOS.

6.4.2. In case capacity is enhanced by WAPCOS as per Clause 6.4.1 above, Successful bidder shall submit the equivalent amount of PBG to WAPCOS within 30 days from the date of issue of Sanction letter, failing which sanctioned capacity shall stand cancelled.

#### **6.5. NOTIFICATION TO SUCCESSFUL BIDDERS**

6.5.1. The name of Successful Bidders shall be notified indicating the allocated capacity through letter of allocation.

#### **6.6. PROJECT ALLOCATION AND SANCTION**

6.6.1. 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 for Govt. buildings for which they intend to Bid and as prescribed in the RFS, 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.

6.6.2. The Successful Bidders selected as described in Clause 6.3 above shall be issued Letter of Allocation (LOA) indicating the allocated capacity & Project Cost etc.

6.6.3. The bidders who have been notified as Successful Bidders, shall be given 3 months from the date of issue of Letter of Allocation for identification of roof top. Preference should be given to WAPCOS identified roofs first.

6.6.4. In the event of offer given by WAPCOS to the Bidder to execute the project in the WAPCOS identified roof, the time for submission of project sanction documents by the bidder to WAPCOS will be 3 months 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 in proportion to the capacity allocated in the WAPCOS identified location.

6.7.3.1. If after 3 months, the successful bidder could not identify rooftop(s) capacity up to the allocated capacity and submit Project sanction documents, in such case PBG for unidentified allocated capacity shall be forfeited and the allocated capacity gets cancelled and bidder including its affiliates/Group Companies/ Parent / Ultimate parent company may be debarred to participate in WAPCOS's future tenders for a period as decided by the competent authority of WAPCOS.



- 6.7.3.2. Successful bidders shall share the time and date stamping photographs of the roofs and location details with WAPCOS 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 provided in Clause 13.2 below.
- 6.7.4. For identification of projects, WAPCOS or state nodal agency (SNA) may provide help. However the entire responsibility of finding the buildings lies with the Bidder.
- 6.7.5. On us 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 within the above mentioned time frame even for the buildings/rooftops identified by WAPCOS for preferential installation.
- 6.7.6. After the Project Sanctioned Document have been submitted by the Successful Bidder/ Project Developer and accepted by WAPCOS, WAPCOS 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 each project within 9 months from the date of issue of letter of allocation.
- 6.7.7. If the Bidder fails to commission the sanctioned project within specified time, penalty/LD on per day basis calculated for the Performance Security on a 6 month's period would be levied. After 6 months, the project will get cancelled and the total PBG would be forfeited.
- 6.7.8. If there is unutilized capacity available with the Successful Bidder in any State, the same can be utilized by the Successful Bidder in other Governments buildings (including PSU's, Hospitals, Schools, Colleges & All Panchayati Raj buildings) after approval of WAPCOS.

Tentative list of the Govt. buildings as attached **Annexure J**.

## 7.1. **OTHER CONDITIONS**

- 7.1.1 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. WAPCOS shall not have any responsibility in this regard.

## 7.3. **TAX EXEMPTIONS:**

- 7.3.1 Price bids are invited inclusive of Taxes and duties. However, Tax exemptions including certificates of any sort, if available may be dealt with the concerned Dep't of Govt of India by the bidder. WAPCOS 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 interactive.

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

7.5.1. The modules and rest of the components should meet the Technical specification and standards mentioned in RF and shall be approved by WAPCOS.

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

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

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

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

8.1. WAPCOS will issue the sanction letter(s) for the Project (s) indicating the subsidy amount(s) which will be disbursed in line with the provisions of the RFS document. The Bidder shall complete the Govt. buildings roofs identification, submission of project sanction documents as per the requirement of WAPCOS Engineer-in-Charge, design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of each project within 9 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 6 months period would be levied. After 6 months the project will get cancelled and the total PBG amount would be forfeited.

Ex: If a project of 500 kW is delayed by 36 days then the Liquidated Damages will be levied as given below.

Liquidated Damages = ((Performance Security)/180 days)\*delayed days = (15,00,000 /180)\*36 = Rs.3, 00, 000.

#### **9. TIME OF COMPLETION OF SANCTIONED CAPACITY**

9.1 The Bidder shall complete the roofs identification, submission of project sanction documents as per the requirement of WAPCOS Engineer-in- Charge design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of sanctioned project(s) within **9 months** from the date of issue of

allocation letter(s). In case of delay beyond scheduled commissioning period, the bidder shall be liable for Liquidated Damages as per Clause 8.

9.1.1. 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 Engineer-in- Charge.

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

9.1.3. Monthly/Weekly implementation programme will; be drawn up by the Engineer- in-Charge jointly with the Successful bidder, based on availability of Work fronts as per **Clause 9.1.2** above. Successful bidder shall scrupulously adhere to these targets /programmes 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 targets/programmes. In all matters concerning the extent of targets set out in the weekly and monthly programmes and the degree of achievements, the decision of the Engineer-in-Charge will be final and binding.

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

Successful bidder authorised representative in whose name PoA has been executed and submitted along with the bid shall be provided Password and User id for updating the project progress on biweekly basis in the sanction letter/Allocation letter for the City. Successful bidder should update the info as per the requirement of the software tool .Non updating of the progress shall be considered as no progress and shall attract punitive actions as per the relevant provision of the Contract. However, the decision of Engineer –in – charge shall be final in this regard.

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

11.1. The Successful bidder shall permit the WAPCOS 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 WAPCOS, if so required.

## **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 Engineer-in-Charge shall normally issue to the Successful bidder the Completion Certificate within one month after receiving any application therefore from the Successful bidder after verifying from the completion documents and satisfying himself that the Work has been completed in accordance with and as set out in Contract documents.

### **12.1.1. DOCUMENT SUBMISSION FOR ISSUE OF 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 WAPCOS format.
- b. Project completion report from successful bidder as per WAPCOS format
- 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 Engineer-in-Charge being satisfied, the Engineer-in-Charge shall (without prejudice to the rights of the WAPCOS to retain the provisions of relevant Clause hereof) otherwise give a certificate herein referred to as the Final Certificate to that effect and the Successful bidder shall not be considered to have fulfilled the whole of his obligations under Contract until Final Certificate shall have been given by the Engineer-in-Charge notwithstanding any previous entry upon the Work and taking possession, working or using of the same or any part thereof by the Owner of Roof/WAPCOS.

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

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

### **12.3. CORRUPT OR FRAUDULENT PRACTICES**

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

12.3.1. Definitions, 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 WAPCOS/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 WAPCOS of the

benefits of free and open competition; 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/ WAPCOS schemes.

### **13.0 DEBARRED FROM PARTICIPATING IN WAPCOS'S ROOF TOP TENDER**

13.1. WAPCOS 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 WAPCOS's any future tender for a period as decided by the competent authority of WAPCOS.

13.2. The Successful bidder must ensure that 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 WAPCOS'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.

### **14.0 DISMANTLING/SHIFTING/REMOVAL OF SYSTEM:**

This clause shall be implemented with the mutual discussion/agreement between the Bidder and Rooftop owner/authority or as per Lease Agreement (**Annexure-I**)

### **15.0 EXIT FROM THE PROJECT:**

After successful completion of 25 years of the project, the entire system shall be the property of building owner/authority. The building owner will maintain & use the system for their own use. In case the building owner is not interested to use the system, the bidder will remove the system from the rooftop of owner's sites with the permission of the building owner/authority. During the project period and exit from the project, all the terms and conditions as per LEASE AGREEMENT WITH ZERO LEASE RENTAL/Authorization Certificate (Annexure-I) shall be maintained by the Bidder.

## SECTION-III

### TECHNICAL SPECIFICATIONS

**The proposed projects shall be commissioned as per the technical specifications given below.**

#### 14. DEFINITION

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables and switches. 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/components.
- Solar PV Array consisting of required number of **Crystalline** Photovoltaic Modules Connected in series and parallel.
- Grid interactive Power Conditioning Unit with Data logger, Compute interface & Remote Monitoring System
- Mounting structures
- Junction Boxes/Combiner 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 not less than 250 Wp.

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-2- requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.

- a. For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701
- b. The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum **250** Wp and above wattage. Module capacity less than minimum **250** watts should not be accepted
- c. Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.

- d. PV modules must be tested and approved by one of the IEC authorized test centres.
- e. The module frame shall be made of corrosion resistant materials, preferably having anodized aluminum.
- f. The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. WAPCOS/owners shall allow only minor changes at the time of execution.
- g. Other general requirement for the PV modules and subsystems shall be the Following:
  - i. The rated output power of any supplied module shall have tolerance of +3% & - 0%..
  - 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.

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

- a. Name of the manufacturer of the PV module b) Name of the manufacturer of Solar Cells.
- b. Month & year of the manufacture (separate for solar cells and modules)
- c. Country of origin (separately for solar cells and module)
- d. 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
- e. Date and year of obtaining IEC PV module qualification certificate.
- f. Name of the test lab issuing IEC certificate.
- g. Other relevant information on traceability of solar cells and module as per ISO
- h. 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 Ten (10) 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 (Three Positions Seasonal Tracker):-**

- 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 insolation. 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 Delhi-wind speed of 150 km/ hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to WAPCOS. 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, nuts and bolts. **Aluminium structures also can be used which can withstand the wind speed of respective wind zone.** Necessary protection towards rusting need to be provided either by coating or anodization.
- e. The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels
- f. Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.
- g. The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m<sup>2</sup>.
- h. The minimum clearance of the structure from the roof level should be 300 mm.

**16. JUNCTION BOXES (JBs)**

- a. The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JBs shall be such that input & output termination can be made through suitable



cable glands.

- b. Copper bus bars/terminal blocks housed in the junction box with suitable termination threads Conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single /double compression cable glands. Provision of earthings. It should be placed at 4-5 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

**17. DC DISTRIBUTION BOARD:**

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

**18. AC DISTRIBUTION PANEL BOARD:**

- a. AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b. All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- c. The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d. All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air -insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e. The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- f. All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g. Should conform to Indian Electricity Act and rules (till last amendment).
- h. All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

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

## 19. PCU/ARRAY SIZE RATIO:

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

## 20. PCU/ Inverter:

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

- Switching devices : IGBT/MOSFET
- Control: Microprocessor /DSP
- Nominal AC output voltage and frequency : 415V, 3 Phase, 50 Hz (In case single phase inverters are offered, suitable arrangement for balancing the phases must be made.)
- Output frequency : 50 Hz
- Grid Frequency Synchronization range : + 3 Hz or more
- Ambient temperature considered : -20<sup>o</sup> C to 50<sup>o</sup> C
- Humidity : 95 % Non-condensing
- Protection of Enclosure : IP-20(Minimum) for indoor.: IP-20 (Minimum for Indoor
  - IP-65(Minimum) for outdoor
- Grid Frequency Tolerance range : + 3 or more
- Grid Voltage tolerance : - 20% & + 15 %
- No-load losses : Less than 1% of rated power
- Inverter efficiency (minimum) : >93% ( In case of 10KW or above )
- Inverter efficiency (minimum ) : > 90% (In case of less than 10 KW)
- THD : < 3%
- PF : > 0.9

- a) 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) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068- 2(1,2,14,30) /Equivalent BIS Std.
- f) The charge controller (if any) / MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS std. The junction boxes/ enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.
- g) The PCU/ inverters should be tested from the MNRE approved test centres / NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

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

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

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

- i. Data Acquisition System shall be provided for each of the solar PV plant.
- ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iii. Solar Irradiance: An integrating Pyranometer / 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
- v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:

- a. AC Voltage.
  - b. AC Output current. c. Output Power
  - d. Power factor.
  - e. DC Input Voltage. f. DC Input Current. g. Time Active.
  - h. Time disabled. i. Time Idle.
  - j. Power produced
  - k. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
  - vii. PV array energy production: Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. Energy meter along with CT/PT should be of 0.5 accuracy class.
  - viii. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.
  - ix. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
  - x. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
  - xi. xi. 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.
  - xii. xii. All instantaneous data shall be shown on the computer screen.
  - xiii. xiii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
  - xiv. xiv. Provision for Internet monitoring and download of data shall be also incorporated.
  - xv. xv. Remote Server and Software for centralized Internet monitoring system shall
  - xvii. 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.
  - xviii. xvi. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
  - xix. xvii. 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.
  - xx. xviii. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner /WAPCOS location with latest software/hardware configuration and service connectivity for online / real time data monitoring/control complete to be supplied and operation and

maintenance/control to be ensured by the supplier. Provision for interfacing these data on WAPCOS server and portal in future shall be kept.

**23. TRANSFORMER “IF REQUIRED” & METERING:**

- a) Dry/oil type relevant KVA, 11KV/415V, 50 Hz Step up along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work.
- b) The bidirectional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.
- c) The bidder must take approval/NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to WAPCOS before commissioning of SPV plant.
- d) Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

**24. POWER CONSUMPTION:**

- a) 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 WAPCOS or MNRE. Decisions of appropriate authority like DISCOM, state regulator may be followed.

**25. PROTECTIONS**

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

**25.1. LIGHTNING PROTECTION**

- a) The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

**25.2. 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).

### 25.3. **EARTHING PROTECTION**

- a) Each array structure of the PV yard should be grounded/ earthed properly as per IS:3043-1987. In addition the lighting arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of Department/WAPCOS 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.

### 25.4. **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.

## 26. **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:  $-10^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ .
- iii. Voltage rating 660/1000V
- iv. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- v. Flexible
- vi. Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
- vii. Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified.
- viii. The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. 25years.

- ix. The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant provided by the bidder. Any change in cabling sizes if desired by the bidder/approved after citing appropriate reasons. All cable schedules/layout drawings approved prior to installation.
- x. Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. 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.
- xi. The size of each type of DC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 1%.
- xii. The size of each type of AC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2 %.

## 27. 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.

<b>Plant Capacity Connection Voltage</b>	
Up to 10 kW	240V-single phase or 415V-three phase at the option of the consumer
Above 10kW and up to 100 kW	415V – three phase
Above 100kW	At HT/EHT level (11kV/33kV/66kV) as per DISCOM rules

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

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

## **29. 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 WAPCOS/ owner.

## **30. 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.

## **31. 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 wapcos/owners before progressing with the installation work



**32. PLANNING AND DESIGNING:**

- a) The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labor. The bidder should submit the array layout drawings along with Shadow Analysis Report to WAPCOS/Owner for approval.
- b) WAPCOS 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 submit three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

**33. 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

**34. 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.

**35. 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.

**36. DISPLAY BOARD**

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

- a. Plant Name, Capacity, Location, Type of Renewable Energy plant (Like solar wind etc.), Date of commissioning, details of tie-up with transmission and distribution companies, Power generation and Export FY wise, financial institution.
- b. 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 Engineer-in-charge before site inspection.

**SECTION-IV****PRICE BID FOR RESCO****MODEL**

(To be submitted in a separate envelope for Different cities of the State  
Uttarakhand super scribing name)

RFS No: \_\_\_\_

Year of Operation	Tariff (Rs/kWh)	Discount Factor at 11%	Discounted Tariff (Rs/kWh)
(1)	(2)	(3)	4=(2)X(3)
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		0.901	X2
Year 3 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.812	X3
Year 4 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.731	X4
Year 5 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.659	X5
Year 6 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.593	X6
Year 7 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.535	X7
Year 8 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.482	X8
Year 9 w.e.f 1 <sup>st</sup> April to 31 <sup>st</sup> March of immediately succeeding financial year		0.434	X9

<b>Year 10 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.391	X10
<b>Year 11 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.352	X11
<b>Year 12 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.317	X12
<b>Year 13 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.286	X13
<b>Year 14 w.e.f 1st April to 31s March of immediately Succeeding financial year</b>		0.258	X14
<b>Year 15 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.232	X15
<b>Year 16 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.209	X16
<b>Year 17 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.188	X17
<b>Year 18 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.170	X18
<b>Year 19 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.153	X19
<b>Year 20 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.138	X20
<b>Year 21 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.124	X21
<b>Year 22 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.112	X22
<b>Year 23 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.101	X23
<b>Year 24 w.e.f 1st April to 31st March of immediately succeeding financial year</b>		0.091	X24

Year 25 w.e.f 1st April to 31st March of immediately succeeding financial year		0.082	X <sup>25</sup>
<b>Total</b>		9.351	$X=X_1+X_2+X_3+\dots+X_{25}$
<b>Levellized Tariff for 25 years(in Rs /kWh)=X/9.351</b>			
<b>Levellized Tariff for 25 years in words</b>			

**NOTE:**

- The levellized 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 levellized with a discounting rate of 11% only.
- Maximum allowable levellized tariff for this part is Rs.6.9 Per Wh.
- Tariff in the first three years shall not exceed Rs.5.9 Per kWh.
- Tariff in any year shall either be equal to or more than the tariff in the immediately preceding year.
- Bids not in conformity with above provisions will be rejected.

Date: ..... Signature:.....

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

Business

Designation:.....

Stamp).....

Address:

(Company

**SECTION -V**  
**FORMATS FOR SUBMITTING RFS**

**Format-A**

**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**

**Dy. Chief Scientist  
Projects Management Division,  
A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg,  
New Delhi-110001.  
Ph:+91-11-23322944,  
Fax: +91-11-23322948, Email:buildings@wapcos.co.in,**

**Sub: Bid for “Implementation of Grid connected Roof Top Solar PV System Scheme in different States of India on the roofs of CPWD as per RFS ( Phase-V)”**

Dear Sir,

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

We give our unconditional acceptance to the RFS, dated.....and RFS Documents attached thereto, issued by Solar Energy Corporation of India, as amended. As a token of our acceptance to the RFS Documents, the same have

**2. 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. The offered quantum of power by us is

\_kWp in Part-II. (Insert total capacity offered).

3. 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).
4. 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 WAPCOS for implementation of the project.

**5. Acceptance**

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

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

**6. Familiarity with Relevant Indian Laws & Regulations**

We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the 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.

**7. Contact Person**

Details of the contact person are furnished as under:

Name : ..... Designation :

..... Company :

..... Address :

..... Phone Nos. :

Fax Nos. : .....

E-mail address : .....

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

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFS and subsequent communications from Solar Energy Corporation of India. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFS and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 12 month from the Bid deadline. We confirm that we have not taken any deviation so as to be deemed non-responsive.

Dated the \_day of \_,20....

Thanking you,

We remain,

Yours faithfully,

**Name, Designation and Signature of Authorized Person in whose name Power of Attorney/Board Resolution.**

**Format-A (Shareholding certificate)**

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 )**



**GENERAL PARTICULARS OF THE BIDDER**

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

(Signature of Authorized Signatory)

**With Stamp**

**FORMAT FOR BID BOND/EMD****FORM OF PERFORMANCE SECURITY**

WAPCOS Limited,  
76-C, Sector 18,  
Gurgaon-122015.

In consideration of \_\_\_\_\_ (Employer's name) (hereinafter referred to as "the Employer") which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to \_\_\_\_\_ (Solar Power Developer's name & address) (hereinafter referred to as "the Developer " which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) a **contract**, by issue of Employer's Notification of Award No. \_\_\_\_\_ dt. \_\_\_\_\_ and the same having been unequivocally accepted by the Developer, resulting into a contract valued at Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) for \_\_\_\_\_ (name of work) (hereinafter called " the contract") and the Developer having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire contract equivalent to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) (5 % of the said value of the Contract to the Employer.

We, \_\_\_\_\_ (name & address of bank) (hereinafter referred to as "the Bank" which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any or, all monies payable by the Developer to the extent of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as aforesaid at any time upto \_\_\_\_\_ without any demur, reservation, contest , recourse or protest and/or without any reference to the Developer. Any such demand made by the Employer on the bank shall be conclusive and binding notwithstanding any difference between the Employer and the Developer or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall continue to be enforceable till the Employer discharges this guarantee.

We the said Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the Employer certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Developer and accordingly discharges the guarantee.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from, time to time to extend the time for performance of the Contract by the Developer. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Developer and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Developer or any other course or

remedy or security available to the Employer. The bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank. The guarantee shall not be affected by a change in the constitution of the bank or of the employer.

The bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the Developer and notwithstanding any security or other guarantee that the Employer may have in relation to the Developer's liabilities.

We The Said Bank do hereby declare that we have absolute and unconditional power to issue this guarantee in your favour under the Memorandum and Articles of Association or such other constitutional documents of the Bank and the undersigned have full power to execute this guarantee under the Power of Attorney/ Post Approval Authorization dated \_\_\_\_\_ of the bank granted to him / us by the Bank. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the powers of the bank or its officials and the guarantee shall be deemed to have been issued as if the bank and its officials have all the powers and authorization to give this guarantee on behalf of the bank.

We the said bank do hereby certify the genuineness and appropriateness of the Stamp paper and stamp value used for issuing the guarantee. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the stamp paper or its stamp value.

We the said bank do hereby declare that our payments hereunder shall be made to you , free and clear of and without and deduction, reduction on account of any reasons including any and all present and future taxes, levies, charges of withholding whatsoever imposed or collected with respect thereto.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to Rs. \_\_\_\_\_(Rupees \_\_\_\_\_ only) and it shall remain in force upto and including \_\_\_\_\_ and shall be extended from time to time for such period as may be desired by \_\_\_\_\_ (Name of Employer) to whom this bank guarantee has been given .

Notwithstanding anything contained herein

i) Our liability under this guarantee shall not exceed Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only);

ii) This bank guarantee shall be valid upto \_\_\_\_\_; and

iii) our liability to make payment shall arise and we are liable to pay the guaranteed amount or any part thereof

under this guarantee, only and only if you serve upon us a written claim or demand in terms of the guarantee on or before \_\_\_\_\_(**indicate a date six months after validity of guarantee**).

Dated this \_\_\_\_\_ day of \_\_\_\_\_ at New Delhi.

**FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)****FORM OF PERFORMANCE SECURITY**

WAPCOS Limited,  
76-C, Sector 18,  
Gurgaon-122015.

In consideration of \_\_\_\_\_ (Employer's name) (hereinafter referred to as "the Employer") which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to \_\_\_\_\_ (Solar Power Developer's name & address) (hereinafter referred to as "the Developer " which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) a **contract**, by issue of Employer's Notification of Award No. \_\_\_\_\_ dt. \_\_\_\_\_ and the same having been unequivocally accepted by the Developer, resulting into a contract valued at Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) for \_\_\_\_\_ (name of work) (hereinafter called " the contract") and the Developer having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire contract equivalent to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) (5 % of the said value of the Contract to the Employer.

We, \_\_\_\_\_ (name & address of bank) (hereinafter referred to as "the Bank" which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any or, all monies payable by the Developer to the extent of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as aforesaid at any time upto \_\_\_\_\_ without any demur, reservation, contest , recourse or protest and/or without any reference to the Developer. Any such demand made by the Employer on the bank shall be conclusive and binding notwithstanding any difference between the Employer and the Developer or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall continue to be enforceable till the Employer discharges this guarantee.

We the said Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the Employer certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Developer and accordingly discharges the guarantee.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from, time to time to extend the time for performance of the Contract by the Developer. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Developer and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Developer or any other course or remedy or security available to the Employer. The bank shall not be released of its

obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank. The guarantee shall not be affected by a change in the constitution of the bank or of the employer.

The bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the Developer and notwithstanding any security or other guarantee that the Employer may have in relation to the Developer's liabilities.

We The Said Bank do hereby declare that we have absolute and unconditional power to issue this guarantee in your favour under the Memorandum and Articles of Association or such other constitutional documents of the Bank and the undersigned have full power to execute this guarantee under the Power of Attorney/ Post Approval Authorization dated \_\_\_\_\_ of the bank granted to him / us by the Bank. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the powers of the bank or its officials and the guarantee shall be deemed to have been issued as if the bank and its officials have all the powers and authorization to give this guarantee on behalf of the bank.

We the said bank do hereby certify the genuineness and appropriateness of the Stamp paper and stamp value used for issuing the guarantee. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the stamp paper or its stamp value.

We the said bank do hereby declare that our payments hereunder shall be made to you , free and clear of and without and deduction, reduction on account of any reasons including any and all present and future taxes, levies, charges of withholding whatsoever imposed or collected with respect thereto.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) and it shall remain in force upto and including \_\_\_\_\_ and shall be extended from time to time for such period as may be desired by \_\_\_\_\_ (Name of Employer) to whom this bank guarantee has been given .

Notwithstanding anything contained herein

i) Our liability under this guarantee shall not exceed Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only);

ii) This bank guarantee shall be valid upto \_\_\_\_\_; and

iii) our liability to make payment shall arise and we are liable to pay the guaranteed amount or any part thereof

under this guarantee, only and only if you serve upon us a written claim or demand in terms of the

guarantee on or before \_\_\_\_\_ (indicate a date six months after validity of **guarantee**).

Dated this \_\_\_\_\_ day of \_\_\_\_\_ at New Delhi.

**CHECK LIST FOR BANK GUARANTEES**

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

Authorized Sign.

Stamp.

**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 the State\_ Uttarakhand in response to the RfS No ..... dated ..... issued by WAPCOS LIMITED (WAPCOS), New Delhi including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the WAPCOS may require us to submit. The aforesaid Attorney is further authorized for making representations to the WAPCOS LIMITED (WAPCOS), New Delhi and providing information / responses to WAPCOS, New Delhi representing us in all matters before WAPCOS, New Delhi and generally dealing with WAPCOS, New Delhi 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 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 executant)**

**(Name, designation and address of the executant)**

.....

**Signature and stamp of Notary of the place of execution  
Common seal of ..... has been affixed in my/our presence  
pursuant to Board of Director’s Resolution dated.....**

**WITNESS**

1. ....

**(Signature)**

**Name.....**

**Designation .....**

2. ....

**(Signature)**

**Name.....**

**Designation .....**

**Notes:**

The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

The person authorized under this Power of Attorney, in the case of the Bidding Company / Lead Member being a public company, or a private company which is a subsidiary of a public company, in terms of the Companies Act, 1956, with a paid up share capital of more than Rupees Five crores, should be the Managing Director /



whole time director/manager appointed under section 269 of the Companies Act, 1956. In all other cases the person authorized should be a director duly authorized by a board resolution duly passed by the Company.

Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

**FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT (AS PER CLAUSE 3.4)**

**(To be submitted on the letterhead of Bidding Company)**

To,

**Dy Chief Scientist,  
Project Management Division,  
A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg,  
NEW DELHI- 110001.  
Email:buildings@wapcos.co.in,**

Dear Sir,

Sub: Bid for Implementation of Grid connected Roof Top Solar PV System scheme in response to the RFS No: WAPCOS/PMD/829/2016 dated: 19-09-2016

We submit our Bid/Bids for the total capacity of 5.0/40 MWp 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.....Crore computed as per instructions provided in Clause 3.4.3 of this RFS based on unconsolidated audited annual accounts (refer Note-1 below) any of the last 3 Years immediately preceding the Bid Deadline.

<b>Name of Financially Evaluated Entity*</b>	<b>Relationship with Bidding Company**</b>	<b>Financial year</b>	<b>Year of Incorporation</b>	<b>Annual Turnover (Rs. Crore)</b>	<b>Net worth as per Clause 3.4.3 (in Rs. Crore)</b>

\* 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: .....

**Format-8**

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

To,

**Dy Chief Scientist,  
Project Management Division,  
A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg,  
NEW DELHI- 110001.  
Email:buildings@wapcos.co.in,**

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:

<b>Name of Bidding Company</b>	<b>Name of the Affiliate of the Bidding Company/ Name of the Parent Company of the Bidding Company</b>	<b>Name of the Company having common control on the Affiliate and the Bidding Company</b>	<b>Percentage of Equity Holding of Parent Company in the Bidding Company</b>

\*Strike out whichever is not applicable.

.....

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

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

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

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To,

**Dy Chief Scientist,  
Project Management Division,  
A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg,  
NEW DELHI- 110001.  
Email:buildings@wapcos.co.in,**

Dear Sir,

We refer to the RFS No.....dated.....for "Implementation of Grid connected Roof Top Solar PV System Scheme"(Roof top- Phase-V).

"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 Chief Executive Officer/Managing Director**

**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.....**

**DOCUMENTS REQUIRED FOR PROJECT SANCTION**

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

1. Project Report (As per TOC provided by WAPCOS)

2. (Project report should contain the following TOC)

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

2. Agreement between the bidder and the owner of the Project and Building/Roof top (Notarised original agreement on stamp paper of appropriate value should be enclosed).

All Agreement shall generally have reference to the WAPCOS's RFS No. and Letter of Allocation and provisions as per terms and conditions, technical specification and performance parameter in line with the WAPCOS'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 WAPCOS officials for the entire plant life, obligation of the roof top owner regarding providing of data to WAPCOS as per the RFS Document etc.

3. No Objection Certificate from the concerned DISCOM for grid connectivity and/or CEIG approval in case, CEIG approval is suffice for grid connectivity.

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

4. Original Power Purchase Agreement as per WAPCOS format.

**List of Banks**

<b>1. SCHEDULED COMMERCIAL BANKS</b>	13. Punjab & Sind Bank
<b>SBI AND ASSOCIATES</b>	14. Syndicate Bank
1. State Bank of India	15. Union Bank of India
2. State Bank of Bikaner & Jaipur	16. United Bank of India
3. State Bank of Hyderabad	17. UCO Bank
4. State Bank of Indore	18. Vijaya Bank
5. State Bank of Mysore	19. Bank of Baroda
6. State Bank of Patiala	<b>2. OTHER PUBLIC SECTOR BANKS</b>
7. State Bank of Travancore	1. IDBI Bank Ltd.
<b>NATIONALISED BANKS</b>	<b>3. SCHEDULED PRIVATE BANKS</b>
1. Allahabad Bank	1. Federal Bank Ltd.
2. Andhra Bank	2. ING Vysya Bank Ltd.
3. Bank of India	3. Axis Bank Ltd.
4. Bank of Maharashtra	4. ICICI Bank Ltd.
5. Canara Bank	5. HDFC Bank Ltd.
6. Central Bank of India	6. Yes Bank Ltd.
7. Corporation Bank	7. Kotak Mahindra Bank
8. Dena Bank	
9. Indian Bank	
10. Indian Overseas Bank	
11. Oriental Bank of Commerce	
12. Punjab National Bank	

**INDICATIVE DATA SHEET FOR ROOF TOP AREA FOR GOVT. BUILDINGS OF  
UTTARAKHAND**

<b>S.No.</b>	<b>Name of the Building</b>	<b>Total Roof Top Area (Sq. Mtr.)</b>	<b>Shadow free Useful area</b>	<b>Capacity (KWp)</b>	<b>Cumulative Capacity (KWp)</b>	<b>Name of CITY</b>
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						



**PROJECT REPORT FORMAT**

**Format for Summary Project Report  
for**

**Grid Connected Rooftop and Small SPV 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>Specification s</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 101			
D	Array Junction Box			
E	AC Distribution Board			
F	Cable (All type)			
G	Earthing Kit (maintenance free)			
H	Meters			
I	Online monitoring			
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
11. Documentary proof regarding beneficiary type as per clause 1.2 of the RfS

**(The above information should be limited up to 2-3 pages only)**

**Monthly O & M Report**

**Month and year**

**Name of bidder**

**RFS ref No.:**

**Project:**

**Capacity:**

**Address of the  
site:**

**Part A**

<b>Component</b>	<b>Activity</b>	<b>Description</b>	<b>Date</b>	<b>Name / Signature</b>	<b>*Remarks</b>
PV Module	Cleaning	Immediately clean any bird droppings/ dark spots on module.			
	Cleaning	Clean PV modules with plain water or mild dishwashing detergent.			
	Inspection (for plants > 100 kWp)	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 objects, 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	<input type="checkbox"/> Inspect electrical boxes for corrosion, intrusion of water or vermin. <input type="checkbox"/> Check position of switches and breakers. <input type="checkbox"/> Check status of all protection devices.			
Wiring	Inspection	Inspect cabling for signs of cracks, defects, loose connections, corrosion, overheating, arcing, short or open circuits, and ground faults.			
Inverter	Inspection	<input type="checkbox"/> Observe instantaneous operational indicators on the faceplate. <input type="checkbox"/> Inspect Inverter housing or shelter for any physical maintenance. <input type="checkbox"/> Check for connection tightness.			
Inverter	Service	Clean or replace any air filters.			
Instruments	Validation	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 Operation and Performance Monitoring.			
Spare Parts	Management	Manage inventory of spare parts.			
Log Book	Documentation	Maintain daily log records.			
Tracker (if any)	Inspection	Inspect gears, gear boxes, bearings, motors.			
	Service	Lubricate bearings, gear 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 WAPCOS or its authorised representative at any time 5 years of O&M period. The Register will have the information about the daily generation, Inverter downtime if any, Grid outages.

**DAILY/MONTHLY GENERATION REPORT.**

<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				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Total generation for the month in kWh:

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

Cumulative CUF since commissioning in %:

Date: Signature of the Authorized Signatory of the Bidder

<b>Project Completion Report for Grid-Connected Rooftop</b>			
Financial year * :			
Approval No. * :			
Proposal Title :			
Installed by agency :			
Project initiated by :			
<b>Title of the Project* :</b>		Capacity (kWp)*:	
<b>Category of the organization / beneficiary* :</b>		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		as on Date :	
<b>Bank Details of Beneficiary</b>			
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. :			
Adhar Card Number :			
<b>Technology Description &amp; System Design /Specification (Compliance to BIS/IEC Standards is mandatory)</b>			
<b>1. Module</b>			
Capacity/Power of each PV Module(Wp)* :	1. Capacity/Power		1. Nos:
	2. Capacity/Power		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 informations</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	
<b>Costing of Project</b>			
Hardware cost :	Rs.	Total Cost of Installation :	Rs.
<b>Means of Finance</b>			
Envisaged Central Financial Assistance from MNRE*	Rs.		
Incentive from states if any	Rs.		
Contribution of Beneficiaries*	Rs.		
Other Source (s) of Funding	Rs.		



**Annexure-G****Intimation to DISCOM for Implementation of Grid Connected Rooftop Solar PV Plant under Scheme**

To, Date

(Designated Officer, DISCOM)

\*to be provided mandatorily

It is certified that the information furnished above is true to the best of my knowledge. Consumer /Authorised Signatory of Implementing Agency on behalf of consumer

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 ) *	<input type="checkbox"/> Residential Commercial Industrial <input type="checkbox"/> 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*  Phase (Φ): (Please )  Galvanic Isolation (Please )	Make: Capacity
		Single phase 3-Phase
		<input type="checkbox"/> Inside Inverter <input type="checkbox"/> Outside Inverter
14	Both AC and DC components of the SPV power plants Earthed*:	
15	CEIG Inspection required*	Yes No
16	If, Yes, Inspection date * (Attach copy of CEIG Certificate)	○ ○
18	Bank Account details	Account No.
		Bank Branch
19	Date of Grid Synchronisation*	
20.	Net metering and grid connectivity (Attach acknowledgment from	Applied on:
		Fees Deposited On:

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

Name: & Full Address: Telephone No.: E-mail address: Fax/No.:

To,

**Dy Chief Scientist,  
Project Management Division,  
A-101, 10<sup>th</sup> Floor, Himalaya House, 23 KG Marg,  
NEW DELHI- 110001.  
Email:buildings@wapcos.co.in,**

Dear Sir,

We refer to the RFS No.....dated.....for “Implementation of 5 MW Grid connected Roof Top Solar PV System Scheme in Uttarakhand”.

We have carefully read and examined in detail the RFS, including its amendments and clarifications as available on WAPCOS website.([www.wapcos.co.in](http://www.wapcos.co.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 submitted by us in pursuance to the WAPCOS’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 WAPCOS, shall be immediately apprised to WAPCOS 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, WAPCOS 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 WAPCOS 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/Authorised signatory (with company Stamp)**

**ROOFTOP LEASE AGREEMENT**

THIS INDENTURE of lease is made at ..... this [Day, Month] of [Year], between [Name and detail address of the Department], (hereinafter called “the Lessor”, which expression shall, unless repugnant to the context and meaning include his heirs, successors, administrators and assigns) of the ONE PART and [Name and detail address of lessee company ], (hereinafter called “the Lessee”, which expression shall, unless repugnant to the context and meaning, include its successors and assigns) of the OTHER PART.

WHEREAS the lessor is absolutely seized and possessed or otherwise well and sufficiently entitled to the premises at [Address of the building] with a total rooftop area of [Lease Proper in squire Mtr)

AND WHEREAS on the request of the Lessee, the Lessor has agreed to grant lease in respect of the demised premises rooftop area for a term of [Lease Term 25 Years] in the manner hereinafter appearing

NOW THIS DEED WITNESSETH AS FOLLOWS:

1. In pursuance of the said agreement and in consideration of the rent hereby reserved and of the covenants, conditions and stipulations hereinafter contained and on the Lessee’s part to be paid, observed and performed, THE LESSOR HEREBY DEMISES UNTO THE LESSEE ALL THAT the building situated at [Lease Property detailed Address] and hereinafter called as the demised premises, TOGETHER WITH ALL the fixtures and fitting therein, TOGETHER WITH the electrical installations etc. (if any) and together with the right for the Lessee, its employees, servants, agents, customers and persons authorized by the lessor to use the entrances, doorways, staircases, landings and passages in the demised rooftop for the purpose of ingress thereto, TO HOLD the demised premises FOR INSTALLATION OF SOLAR PHOTOVOLTAIC PANEL INSTALLATION unto the Lessee for the period of [Lease Term 25 Years] only commencing from the [Lease Deed Start Date] and determined on [Lease Deed Signing Date] but determinable earlier as hereinafter provided PAYING therefore unto the Lessor during the said term monthly rent **Rs.10/- per KWp (SPV installed capacity)**, payable by the [Date of monthly Payment] of each succeeding calendar month to which it relates.
2. The lessee hereby covenants with the lessor as follows:
  - a. To pay the rent as aforesaid on the days and in the manner aforesaid.
  - b. Not to make any structural alterations into or upon the demised premises or make any alterations or additions to the external appearance or any part of the demised premises without the previous consent of the Lessor in writing (ROOFTOP IS PERMITTED TO USE ONLY FOR INSTALLATION OF SOLAR PANELS)
  - c. Not to do or suffer to be done in or upon the demised premises or other parts of the said building in common with other persons anything whatsoever, which may be or become a

nuisance or annoyance to or in any way interfere with the quiet or comfort of the Lessor or other Lessees and occupiers of the said building.

- d. Not to sub-let, transfer, assign or part with the possession of the demised premises or any part thereof.
- e. To permit the Lessor, his servants, employees or agents duly authorized by him to enter into and upon the demised premises at all reasonable times for viewing the condition of the demised premises or doing such works or things as may be requisite or necessary for any repairs, alterations, servicing or improvements to the demised premises.
- f. To hand over the peaceful possession of the demised premises at the end
- g. or the sooner determination of the said term together with all the Lessors fixtures and fittings in as good condition as received, fair wear and tear, damage by fire, acts of God, riots or other civil unrest, war, enemy action and/or other cause not within the control of the Lessee, being excepted.
- h. Not to obstruct or suffer to be obstructed the entrance hall, entrances, doorways, passages, staircase or lifts.
- i. To replace all broken fittings and fixtures by equally good or better substitutes.
- j. To insure and keep the demised premises insured against loss or damages by fire with an insurance company approved in writing by the Lessor for an amount which shall not be less than the damaged property.

3. To Lessor doth hereby covenant with the Lessee as follows:

- a. That on the Lessee paying the rent on the due dates thereof and in the manner herein provided and observing and performing the covenants, conditions and stipulations herein contained and on his part to be observed and performed, shall peaceably and quietly hold, possess and enjoy the demised premises during the term without any interruption, disturbance, claim and demand by the Lessor or any person lawfully claiming under or trust for the Lessor.
- b. To keep the interior, exterior of the demised premises, the drainage thereof in good and tenable repair and condition.
- c. To keep the entrance, doorways, entrance halls, staircases, lobbies and passages in the said building leading to demised premises well and sufficiently cleaned and lighted at his own expense.
- d. To pay rates, taxes, assessment, duties, impositions, out goings and burdens whatsoever payable to State or local or other authority, which may at any time or from time to time during the term hereby created be imposed or charged upon the demised premises.
- e. It is hereby agreed and declared that these presents are on the express condition, that if the rent or any part thereof payable in respect of the demised premises shall be in arrears for a period of [two years] or by if the Lessee shall omit to perform or observe any covenants or conditions on the Lessee's part herein contained, the Lessor may re-enter upon the demised premises provided that the Lessor has served a notice to the Lessee and a period of [six month] has elapsed after the issue of such notice, the Lessee does not pay the rent or does not perform or observe the covenant or condition and thereupon this demise and all rights of the Lessee hereunder shall be determined.

5. This **Lease Deed** shall be executed in duplicate. The original shall be retained by the Lessor and the duplicate by the Lessee.
6. The marginal notes and the catch lines hereto are meant only for convenience of references and shall not in any way be taken into account in the interpretation of their presents.

IT IS HEREBY EXPRESSLY AGREED BETWEEN THE PARTIES AS FOLLOWS:

- a. The lessee shall be entitled to installed Solar Photovoltaic Array and its components like Grid interface inverter, Transformer, Electrical Panel Board, Cable Trays, Earthing strips, Arrestor and other solar radiation measurement equipments, provided that the lessee shall remove the said fittings, fixtures, equipment and machineries any additions or alterations and restore the demised premises to the Lessor on the expiry of the term of sooner determination of the lease in the same condition as existed before making such changes. (As per mutual consultation)
- b. If the lessor fails to pay the taxes, charges, assessments payable by him, or fails to carry out the necessary repairs and other work which he has to carry out as provided herein, the Lessee may after [six month] notice in writing, pay, discharge and carry out the same at its own cost and the Lessee may set off the same from the rent payable to the Lessor under these presents.

IN WITNESS WHEREOF, the Lessor has set its hands unto these presents and a duplicate hereof and the Lessee has caused its common seal to be affixed hereunder and a duplicate hereof on the day, month and year first hereinabove written.

For Lessor,

[Name]

Address:

Witness 1:

[Name]

[Address]

For Lessee,

[Name]

Address:

Witness 2:

[Name]

[Address]

## Tentative List of Govt. Buildings of Uttarakhand

Building Name	Address
Chief Minister Secretariat	4 Subash Road, Uttarakhand Secretariat,Fourth Floor New Building, Dehradun,Uttarakhand,Pin Code 248001
Tehsil Bhawan dhanaulti	Postmaster, Post Office bhawan, dhanolti, tehri garhwal, uttarakhand, India (IN), Pin Code:-249180 .
<b>University/Institute/Colleges</b>	
Doon University	Doon University Campus, Mothrowala, Kedarpur, Uttarakhand 248001
G. B. Pant University of Agriculture and Technology	District - Udham Singh Nagar, Pantnagar, Uttarakhand 263153
IIM Kashipur	Bazpur Road, Udham Singh Nagar, Kashipur, Uttarakhand 244713
IIT Roorkee	Roorkee - Haridwar Highway, Roorkee, Uttarakhand 247667
GURUKUL KANGARI UNIVERSITY	Jagjeetpur, Haridwar, Uttarakhand 249404
Graphic Era University	566/6, Bell Road, Society Area, Clement Town, Dehradun, Uttarakhand 248002
Graphic Era Hill University	Sat Tal Road, Bhimtal, Nainital, Uttarakhand 263156
ICFAI University, Dehradun	Selaqui, Central Hope Town, Rajawala Road, Dehradun, Uttarakhand 248197
Ignou	Tapowan Road, Raipur Road, Tapowan City Road, Tapowan, Nanurkhed, Nalapani, Dehradun, Uttarakhand 248001
Kumaun University	Sleepy Hallow, Nainital, Uttarakhand 263001
Swami Rama Himalayan University	Swami Ram Nagar, Beside Jolly Grant Airport, Jolly Grant, Doiwala, Dehradun, Uttarakhand 248016
University of Petroleum and Energy Studies	Bidholi, Via Prem Nagar, Dehradun, Uttarakhand 248007
Uttarakhand Open University	Behind Transport Nagar, Teenpani Bye Pass Road, Haldwani, Uttarakhand 263139
Uttarakhand Sanskrit University	NH-58, BHEL More, Bahadrabad, Haridwar, Uttarakhand 249402
Uttarakhand Technical University	Post Office , Girls Polytechnic Campus, Next Nanda Ki Chowki, Chakrata Road, Chandanwadi, Sudhowala, Dehradun, Uttarakhand 248007
Uttaranchal University	Arcadia Grant, Chandanwari, Premnagar, Dehradun, Uttarakhand 248007
Uttarakhand Peyjal Nigam	11, Mohini Road, Dehradun- Uttrakhand, India
Nagar Nigam Complex	Nardev Shastri Marg, Race Course, Dehradun, Uttarakhand 248001
COMMERCIAL TAX DEPARTMENT	Commercial Tax Bhawan, 23 Laxmi Road, Dehradun 248001 DEHRADUN
Police Headquarters Uttarakhand, Dehradun	
Women Institute of Technology, Dehradun	UTU New Campus, Suddhowala, Dehradun.
THDC Institute Of Hydropower Engineering & Technology	Bhagrathipuram Tehri, GarhwalPin code : 249001
Seemant Institute of Technology, Pithoragarh	College Rd, Kujoli, Pithoragarh, Uttarakhand 262502
Institute of Technology, Gopeshwar	KothiylSain, Chamoli (Uttarakhand),Pin Code -246424
Institute of Co-operative Management, Dehradun	Institute of Co-operative Management, 6 Old Mussoorie Road, Rajpur, Dehradun- 248009
Govt. Institute of Hotel Management, Almora	Chilkapita, Khatiyari Almora – 263601 (Uttarakhand)
State Institute of Hotel Management and Catering Technology & Applied Nutrition(SIHMCT&AN),New Tehri,	Old Hiltron Building,New Tehri,Uttarakhand-249001
Bipin Tripathi Kumaon Institute of Technology	Dwarahat-263653, District – Almora, Uttarakhand
Kendriya Vidyalaya No. 1	Hathibarkala, (Near Salawala), (Near Salawala),, Dehradun, Uttarakhand - 248001,India
Phool Chand Nari Shilp Inter College	Near Natraj Hall, Chakrata Road, Chakrata Road,, Dehradun, Uttarakhand - ,India
Kendriya Vidyalaya No. 2	Survey Of India, Hathibadkala, Near Police Chouki, New Cantt. Road, New Cantt. Road,, Dehradun, Uttarakhand - 248003,India
Jawahar Naavodaya Vidyalaya	Shankarpur, P.O. Kainchiwala Via Sahaspur, P.O. Kainchiwala Via Sahaspur,, Dehradun, Uttarakhand - 248197,India
A.N. Jha Government Inter College	Shankarpur, P.O. Kainchiwala Via Sahaspur, P.O. Kainchiwala Via Sahaspur,, Dehradun, Uttarakhand - 248197, India

<b>Government Inter College</b>	Naugaon, Naugaon,, Uttarkashi, Uttarakhand - 340112,India
<b>KENDRIYA VIDYALAYA NO 1</b>	BANBASA P O CHANDANI, BANBASA P O CHANDANI,, Nainital, Uttarakhand - 262310,India
<b>Kendriya Vidyalaya</b>	No. 1, B.E.G. & Center, B.E.G. & Center,, Roorkee, Uttarakhand - 247667,India
<b>Kendriya Vidyalaya No 2</b>	B.H.E.L.Sector III Ranipur, B.H.E.L.Sector III Ranipur,, Haridwar, Uttarakhand - 249403,India
<b>Pdt. Poornanand Tiwari Government Degree College</b>	Haldwani Nainital, Uttarakhand 249192 , India Nainital, Uttaranchal (Uttarakhand)
<b>P.A.L. College Of Technology And Management</b>	R.T.O. Road Haldwani,, Nainital, Uttarakhand - ,India
<b>Government Polytechnic</b>	,, Nainital, Uttarakhand - 244713, India
<b>G. B. Pant University of Agriculture and Technology</b>	District - Udham Singh Nagar, Pantnagar, Uttarakhand 263153
<b>S.M.J.N. (P.G.) COLLEGE, HARIDWAR</b>	S.M.J.N. (P.G.) College, Govindpuri, Haridwar, Uttarakhand, INDIA
<b>RISHIKUL GOVT. P.G. AYURVEDIC COLLEGE &amp; HOSPITAL</b>	Rishikul, Devpura, Haridwar, Uttarakhand 249401
<b>Pt. Lalit Mohan Sharma Govt. P.G. College, Rishikesh</b>	Rishikesh, haridwar, Uttrakhand
<b>Government Polytechnic Sidcul Haridwar</b>	Plot No 6C, Sector - 11 SIDCUL Haridwar, Uttarakhand-249403
<b>District Magistrate, Haridwar</b>	Office of District Magistrate,Collectorate Roshnabad, Haridwar
<b>District Judge</b>	District Court Haridwar
<b>District Magistrate,Uttarkashi</b>	Office of the District Magistrate, Collectorate, Uttarkashi
<b>District Magistrate,Tehri</b>	Office of the District Magistrate, Collectorate,Tehri Garhwal, (New Tehri)
<b>District Magistrate, Dehradun</b>	Office of the District Magistrate, Collectorate,Dehradun
<b>District Magistrate, Pauri</b>	Office of District Magistrate, Collectorate, Pauri Garhwal
<b>District Magistrate,Rudraprayag</b>	Office of District Magistrate, Collectorate,Rudraprayag
<b>District Magistrate, Chamoli</b>	Officer of District Magistarte, Collectorate, Gopeshwar, Chamoli
<b>District Magistrate, Bageshwar</b>	Office of District Magistrate, Collectorate, Bageshwar
<b>District Magistrate, Almora</b>	Office of District Magistrate, Collectorate Almora
<b>District Magistrate, Nainital</b>	Office of District Magistrate, Collectorate Nainital
<b>District Magistrate, Udham Singh Nagar</b>	Office of District Magistrate, Collectorate, Rudrapur, Udham Singh Nagar
<b>District Magistrate, Champawat</b>	Office of District Magistrate Collectrate, Champawat
<b>District Magistrate, Pithoragarh</b>	Office of District Magistrate, Collectoarte, Pithoragarh
<b>सामाजिक सुरक्षा राज्य पोर्टल द्वारा समाज कल्याण विभाग, उत्तराखण्ड</b>	Maanpur Purab, Rampur Road, Haldwani Near Dainik Jagran/Amarujala Press, Haldwani Uttarakhand
<b>Bipin Tripathi Kumaon Institute of Technology</b>	Bipin Tripathi Kumaon Institute of Technology
<b>Office of Nagar Palika Parishad</b>	Civil Lines, Near Gang Canal, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of Tehsildar</b>	Opposite Roorkee Bus Depot, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of Block Development Officer</b>	Block Campus, Ram Nagar, Roorkee District-Haridwar, Uttarakhand-24766
<b>Block Education Officer</b>	Rajkiya Uchchar Madhyamik Vidyalaya, Ram Nagar, Roorkee District-Haridwar, Uttarakhand-247667
<b>Nagar Shiksha Adhikari</b>	Nagar Palika Building, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of Deputy Chief Medical Officer</b>	Block Campus, Ram Nagar, Roorkee District-Haridwar, Uttarakhand-247667
<b>Upkhand Adhikari Office</b>	I.I.T. Boat club, Near Jadugar road, Roorkee District-Haridwar, Uttarakhand-247667

<b>Karyalaya Bandobast Adhikari Chakbandi</b>	World Bank colony, Barf Khana, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of Income Tax</b>	16, Civil lines, Roorkee District-Haridwar, Uttarakhand-247667
<b>Northen Division Ganga Canal</b>	World bank Building, Roorkee District-Haridwar, Uttarakhand-247668
<b>Tube well Division Under Irrigation Department</b>	Near Gang Canal, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of the Superindent of Customs &amp; Central Excise</b>	Awass Vikas, Roorkee District-Haridwar, Uttarakhand-247667
<b>Uttarakhand Board of Technical Education office</b>	Prakash Plaza, Civil lines, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of Assistant Superindent (Electrical)</b>	Prakash Plaza, Civil lines, Roorkee District-Haridwar, Uttarakhand-247667
<b>Jila Shiksha and Prashishan Sansthan</b>	Ram Nagar, Roorkee District-Haridwar, Uttarakhand-247667
<b>Northen Railway Station, Roorkee</b>	Roorkee District-Haridwar, Uttarakhand-247667
<b>Office of Krishi Utpadan Mandi Samiti</b>	Dehradun road, Rampur Chungi, Roorkee District-Haridwar, Uttarakhand-247667
<b>The Oriental Insurance Co. Ltd.</b>	28, Civil lines, Roorkee District-Haridwar, Uttarakhand-247667
<b>Office fo the Deputy General Manager Electricity Transmission Circle</b>	26, Civil lines, Post office road, Roorkee District-Haridwar, Uttarakhand-247667
<b>Life Insurance Corporation of India (Branch No.1)</b>	200, Civil lines, Aggarwal Market, Roorkee District-Haridwar, Uttarakhand-247667
<b>Life Insurance Corporation of India (Branch No.2)</b>	12, Shiv Complex, Civil lines, Roorkee District-Haridwar, Uttarakhand-247667
<b>Chief Development Office</b>	Chief Development Office, Vikas Bhawan, Dehradun-248001. Uttarakhand
<b>District Administration</b>	Nodal Officer (District Website)/ADM(E), Collectorate, Roshnabad, Haridwar – 249403.
<b>District Disaster Management Office</b>	
<b>Dehradun Fire Station</b>	Dehradun
<b>Dehradun Fire Station</b>	Rishikesh
<b>Dehradun Fire Station</b>	Mussoorie
<b>Dehradun Fire Station</b>	Vikasnagar
<b>Dehradun Fire Station</b>	Selaqui industrial area
<b>Haridwar Fire Station</b>	Mayapur
<b>Haridwar Fire Station</b>	Roorkee
<b>Haridwar Fire Station</b>	Laksar
<b>Haridwar Fire Station</b>	Roshnabad
<b>Tehri Fire Station</b>	New tehri
<b>Tehri Fire Station</b>	Narendra Nagar
<b>Uttarkashi Fire Station</b>	Uttarkashi
<b>Uttarkashi Fire Station</b>	Naugaon
<b>Pauri Fire Station</b>	Pauri
<b>Pauri Fire Station</b>	Kotdwar
<b>Chamoli Fore Station</b>	Gopeshwar
<b>Chamoli Fore Station</b>	Joshimath
<b>Rudraprayag fire Station</b>	Rudraprayag
<b>Udham Singh Nagar Fire Station</b>	Rudrapur
<b>Udham Singh Nagar Fire Station</b>	Kashipur
<b>Udham Singh Nagar Fire Station</b>	Khatima
<b>Udham Singh Nagar Fire Station</b>	Jaspur
<b>Udham Singh Nagar Fire Station</b>	Sitarganj
<b>Udham Singh Nagar Fire Station</b>	Pantnagar
<b>Nainital Fire Station</b>	Nainital
<b>Nainital Fire Station</b>	Haldwani
<b>Nainital Fire Station</b>	Ramnagar
<b>Almoral Fire Station</b>	Almora
<b>Almoral Fire Station</b>	Ranikhet
<b>Bageshwar Fire Station</b>	Bageshwar
<b>Pithoragarh Fire Station</b>	Pithoragarh
<b>Champawat Fire Station</b>	Lohaghat
<b>Champawat Fire Station</b>	Tanakpur