

**Eastern Power Distribution Company of AP Limited (APEPDCL)**

**Visakhapatnam, Andhra Pradesh**



**Request for Selection (RFS) of Bidders for  
Implementation of Utility Driven, Customer owned, Grid connected  
Solar Roof Top PV System Scheme for LT Domestic Consumers in  
Visakhapatnam, APEPDCL**

**RFS No: 02/2018-19 dt.10.10.2018**

**Dated: 10<sup>th</sup> October 2018**

**Date of Issue: 10<sup>th</sup> October 2018**

**Bid Deadline: 15<sup>th</sup> November 2018**

**Issued by**

**Chief General Manager, Energy Conservation,**

**Corporate Office, APEPDCL**

**Email: solar@apeasternpower.com**

**Telephone: 0891-2582350**

**Eastern Power Distribution Company of AP Limited (hereinafter called “APEPDCL”)**, invites bids from the eligible bidders to participate in the Request for Selection (RFS) of Bidders for design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of Solar Roof Top PV system in Visakhapatnam under APEPDCL license area.

For the implementation of above mentioned work, Bidders should submit their bid proposal/ application along with all supporting documents complete in all aspect on or before bid submission date online at the e-procurement website in prescribed format.

Bidder shall submit bid proposal along with non-refundable processing fee, complete in all respect as per the Bid Information sheet. Technical bids will be opened on 15<sup>th</sup> November 2018 and Financial bids will be opened on 26<sup>th</sup> November 2018 in presence of authorized representatives of bidders/applicants who wish to be present. Bid proposals received without or lesser than the prescribed processing fee and Bid Security will not be considered. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.

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

**Sd/-**  
**Chief General Manager, Energy Conservation,**  
**APEPDCL**

Authenticated By:

(Signature)

(Name)

(Designation)

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## **DISCLAMIER**

- 1 Though adequate care has been taken while preparing the RFS document, the Bidders/Applicants shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within twenty (20) days from the date of notification of RFS/Issue of the RFS documents, it shall be considered that the RFS document is complete in all respects and has been received by the Bidder.
- 2 APEPDCL 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 APEPDCL 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**

1	Document Description and Tended Quantity	This RFS document comprises the terms and condition for bidding process for <b>5 MWac</b> solar capacity on rooftop of domestic Consumers' households in Visakhapatnam under APEPDCL. Authorized Representative reserves the right to increase or decrease the Tended Quantity depending upon the result of marketing and demand aggregation activities undertaken by Authorized Representative.
2	RFS No. & Date	<b>RFS No: 02/2018-19</b> <b>Dt.: 10.10. 2018</b>
3.a	Broad Scope of Work for Bidding	<p>APEPDCL shall conduct marketing and workshops to spread awareness about the Utility driven Solar Roof Top PV Systems scheme. APEPDCL shall aggregate the demand by means of collecting the upfront equity contribution from Customers. Details of such aggregated Customers in Visakhapatnam, voluntarily enrolled for availing the scheme paying the upfront equity contribution shall be provided including each of the consumer details (such as Customer Service number, address and contact details) in the format as shown as Annexure-A, before issue of LoA, for installation of Solar rooftop projects. The Successful Bidder(s) as per the terms of this RFS shall be responsible for sizing the Solar Roof Top PV System in kW rating per consumer to meet the average of last 12 months' energy requirement on monthly basis through Net Metering principle including design, manufacture, supply, erection, testing and commissioning including warranty, operation &amp; maintenance for a period of 5 years from the Commercial Operation Date of entire Allocated Capacity in accordance with the provisions of the Tripartite EPC Agreement on rooftop of identified households in Vishakhapatnam under APEPDCL license area.</p> <p>Successful Bidder(s) shall be issued LoA and invited to sign Tripartite EPC Agreement with APEPDCL and Customer. Tripartite EPC Agreement among APEPDCL, Customer and Successful Bidder will be signed only if Performance Bank Guarantee is provided as per provisions of this RFS.</p>
3.b	Target Customers	Target Customers are LT Category 1, Group B- Domestic Consumers (Annual consumption >900 & <=2,700 Units) of Utility with monthly consumption of 140-200 Units in Madhavadhara and Muralinagar, Zone II division of Vishakhapatnam under Grid Connected Solar Rooftop Programme with financial assistance from MNRE, GoI.
4	Start date for downloading documents Online	11.10.2018 from 17:00 Hrs

5	Pre-bid Conference/ Clarification Meeting	A pre-bid conference shall be held on 30.10.2018 from 11:30 AM at Office of Chief General Manager, Energy Conservation, Corporate Office, APEPDCL, Vishakhapatnam.
6	Last date for downloading documents Online	13th November 2018 up to 17:00 Hrs
7	Last date & Time for Submission of Response to RfS Online	14th November 2018 at 15:00 Hrs for uploading on website
8	Last date & Time for submission of hard copies along with DD/BG towards bid Security to reach the DISCOM	14th November 2018 at 17:00 Hrs for Hard copies
9	Bid Submission	Online through <a href="http://www.apecprocurement.gov.in">www.apecprocurement.gov.in</a>
10	Pre-Qualification bid opening	15th November 2018 at 11:30 Hrs
11	Technical Bid Opening	15th November 2018 at 11:30 Hrs
12	Price Bid Opening Date	26th November 2018 at 12:00 Hrs
13	Place of Tender Opening	Office of Chief General Manager, Energy Conservation, Corporate Office, APEPDCL, Vishakhapatnam.
14	Officer Inviting Bids/Contact Person	Chief General Manager, Energy Conservation, APEPDCL, Vishakhapatnam
15	Address/E-mail Id	<a href="mailto:solar@apeasternpower.com">solar@apeasternpower.com</a>
16	Contact Details/Telephone, Fax	Ph .No. 0891-2582350
17	Transaction fee (non-refundable)	<b>Transaction Fee:</b> All the participating Bidders who submit the Bids have to pay an amount INR 10,000 & taxes applicable as levied by Govt. of India on transaction fee through online in favor of MD APTS. The amount payable to MD APTS is non-refundable.
18	Corpus Fund	Successful bidder has to pay an amount INR 10,000 & taxes applicable as levied by Govt. of India on the above value, through demand draft in favor of Managing Director, APTS, Hyderabad towards corpus fund at the time of concluding agreement/signing of the Letter of Allocation as per the provisions of this RFS.
19	Bid Security	The Bid Security shall be furnished for packages for which the bidder is bidding for as per clause 3.12

21	Performance Security/ Performance Bank Guarantee (PBG)	PBG amount shall be furnished by the successful bidder after issue of Letter of Allocation by APEPDCL. Please refer Clause 3.13 of Section-I for details.
22	Eligibility Criteria	Please refer to the Tender document Clause 3.3
23	Process for bid submission	<ol style="list-style-type: none"> <li>1. Bids shall be submitted online on <a href="http://www.apecurement.gov.in">www.apecurement.gov.in</a> platform.</li> <li>2. The participating bidders in the tender should register themselves on e-procurement platform in the website <a href="http://www.apecurement.gov.in">www.apecurement.gov.in</a></li> <li>3. Bidders can log-in to e-procurement platform in secure mode only by signing with the Digital certificates.</li> <li>4. The bidders who are desirous of participating in e-tendering shall submit their technical bids, price bids as per the standard formats available at the e-procurement platform.</li> <li>5. The bidders should scan and upload the copies of all the documents in support of technical &amp; price bids in proof of qualification requirement <b>duly signing</b> on all the statements, documents &amp; certificates uploaded by him, owning responsibility for their correctness/authenticity:</li> </ol>
24	Rights reserved with the Department	APEPDCL reserves the right to accept or reject any or all the tenders received without assigning any reasons.
25	General Terms and Conditions	As per tender documents.
26	Registration of Bidder as Contractor of APEPDCL	Successful Bidder must be registered as Contractor of APEPDCL for receiving any payments from APEPDCL to the Successful



## DEFINITIONS & ABBREVIATIONS

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

“**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;

“**Allocated Capacity**” shall mean the capacity in kWac allocated to the Successful Bidder(s) with individual consumer wise details and shall be as indicated in the Letter of Allocation (LoA);

“**Authorised Representative**”/“**Employer**”/“**Utility**” shall mean the body authorised to carry out the Bidding process for the selection of the Successful Bidder(s). As per this RFS, Eastern Power Distribution Company of AP Limited (APEPDCL) is the Authorised Representative;

“**APEPDCL**” shall mean Eastern Power Distribution Company of AP Limited;

“**B.I.S**” shall mean specifications of Bureau of Indian Standards (BIS);

“**Bid**” shall mean the Techno Commercial/Technical 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;

“**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;

“**Bid Security**” shall mean the unconditional and irrevocable bank guarantee to be submitted along with the Bid by the Bidder under Clause 3.12 of this RFS, in the prescribed Format- 3;

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

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

“**CEA**” shall mean Central Electricity Authority;

“**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;

“**Commercial Operation Date or Date of Commercial Operation (COD)**” shall mean the date on which the Project is declared by the Successful Bidder(s) to be operational duly demonstrating the entire Allocated Capacity synchronised with Grid, provided that COD shall not be achieved and Solar Rooftop PV System(s) shall not be operational until such Solar Roof Top PV System(s) has satisfied the conditions as per the Tripartite Agreement and EPC Agreement;

“**Competent Authority**” shall mean General Manager, Solar of APEPDCL himself and/or a person or group of



persons nominated by CMD, APEPDCL for the mentioned purpose herein;

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

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

**“Capacity Utilization Factor” (CUF)** shall mean the ratio of actual energy generated by SPV project over the year to the equivalent energy output at its rated capacity over the yearly period;

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

**“Eligibility Criteria”** shall mean the Eligibility Criteria as set forth in Clause 3.3 of this RFS;

**“Financially Evaluated Entity”** shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria set forth in Clause 3.3.3 hereof;

**“IEC”** shall mean specifications of International Electro-technical Commission;

**“kWac”** shall mean kilo-Watt on AC side;

**“kWp”** shall mean kilo-Watt Peak;

**“kWh”** shall mean kilo-Watt-hour;

**“Letter of Allocation” or “LoA”** shall mean the letter issued by APEPDCL/Competent Authority to the Successful Bidder(s) for award of the Project; LoA shall provide details including but not limited to Allocated Capacity, identified list of Customers who have paid upfront capital contribution and Unit Rate of Solar Roof Top PV System in INR/kWac;

**“MNRE”** shall mean Ministry of New and Renewable Energy, Government of India;

**“O&M”** shall mean Operation & Maintenance of Solar rooftop PV system for a period of 5 years from the Date of Commercial Operation of the entire Allocated Capacity;

**“Owner of the project”** shall mean anyone who has ownership (including lease ownership also) of the roof and is the legal owner of all equipment of the project;

**“Project”/“Solar Roof Top PV System”/“Solar Roof Top PV Project”** shall mean the Solar Roof Top PV System(s), allocated to the Successful Bidder(s) as Allocated Capacity vide LoA, comprising 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 without battery. PV Array shall be mounted on a suitable structure. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc. and shall conform to the Technical Specifications as mentioned in Section III of this RFS;

**“Project Cost / Project Price”** shall mean the price offered by the Bidder for the Scope of work under Section IV of Format A as per RFS document;

**“Performance Ratio” (PR)** means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.  $PR = (\text{Measured output in kW} / \text{Installed Plant capacity in kW} * (1000 \text{ W/m}^2 / \text{Measured radiation intensity in W/m}^2))$ ;

**“Parent”** shall mean a company, which holds more than 51% equity either directly or indirectly in the Bidding Company or Project Company or a Member in a Consortium developing the Project;

**“Project Company”** shall mean Company incorporated by the bidder as per Indian Laws in accordance with Clause no 3.4;

**“Price Bid”** shall mean the price format, containing the Bidder’s quoted price (Project Cost) as per the Section-IV of this RFS;

**“Qualified Bidder”** shall mean the Bidder(s) who, after evaluation of their Techno Commercial Bid as per Clause 3.3 stand qualified for opening and evaluation of their Price Bid;

**“RFS”** shall mean Request for Selection (RFS)/Bid document/Tender document;

**“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;

***Scheduled Commercial Operation Date (SCOD) or Scheduled date of Commercial Operation*** shall mean the date of respective Unit(s) of the Solar PV Project where upon the Successful bidder is required to start injecting power from the Project to the grid shall be as specified in Clause 6.9;

**“Successful Bidder(s) /Contractor/Project Developers(s)”** shall mean the Bidder(s) selected by APEPDCL pursuant to this RFS for Implementation of Grid Connected Solar Roof Top PV System as per the terms of the RFS Documents, and to whom an Allocation Letter has been issued;

**“SNA”** shall mean State Nodal Agency;

**“Tendered Capacity”** shall mean the total aggregate capacity of Solar Roof Top PV System(s) of 5 MWac, proposed to be allocated by APEPDCL to the Successful Bidder(s), through this bidding process as per terms and conditions specified therein, based on the applications received from interested Customers who shall enroll for availing the scheme paying the upfront contribution. The details of such Customers shall be provided in the format to Bidders as shown as Annexure-A, before issue of LoA;

**“Tripartite EPC Agreement”** shall mean the Tripartite EPC Agreement signed among the Successful Bidder, APEPDCL and Customer according to the terms and conditions of the Tripartite EPC Agreement enclosed with this RFP;

**“Ultimate Parent”** shall mean a company, which owns at least more than fifty one percent (51%) equity either directly or indirectly in the Parent and Affiliates;

**“Wac”** shall mean Watt Peak on AC side;

**“Wp”** shall mean Watt Peak;

**1MWac** for the purpose of conversion in **kWac** shall be considered as 1000kWac;

## **INTERPRETATIONS**

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

## SECTION - I

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

#### **1. INTRODUCTION**

- 1.1. Eastern Power Distribution Company of AP Limited ("APEPDCL") is one of the distribution licensee in Andhra Pradesh supplying power to 5 districts.
- 1.2. APEPDCL, through this RFS targets installation of Grid-Connected Solar rooftop PV Project on the Rooftops of LT Category 1, Group B- Domestic Customers (Annual consumption >900 & <=2,700 Units) with monthly consumption of 140-200 Units in Madhavadhara and Muralinagar, Zone II division of Vishakhapatnam on Net Metering basis under Grid Connected Solar Rooftop Programme with financial assistance from MNRE, GoI. The Successful Bidder(s) as per the terms of this RFS shall be responsible for sizing the Solar Roof Top PV System in terms of kWac rating per consumer meeting the average of last 12 months' energy requirement on monthly basis. The generated solar power is primarily meant for consumer's own consumption designed on Net Metering basis and the surplus power, if any, will be fed to the grid. The aim is to reduce the fossil fuel based electricity load on main grid and make households self-sustainable from the point of electricity, to the extent possible.
- 1.3. APEPDCL, 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 Grid-Connected Solar Roof Top PV Project under Grid Connected Solar Rooftop Programme of MNRE in Vishakhapatnam in the APEPDCL License area indicated herein under.
- 1.4. The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the bid document must be furnished. Failure to provide the information and / or documents as required may render the bid technically unacceptable.
- 1.5. The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect the carrying out the works in line with the scope of work specified elsewhere in the document at the offered rates and to have satisfied himself to the sufficiency of his bid. The bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures and as to what all works he has to complete in accordance with the bid documents irrespective of any defects, omissions or errors that may be found in the bid documents.

#### **2. BID DETAILS:**

- 2.1. The bidding process under this RFS of the rooftop scheme is for 5 MWac. APEPDCL shall identify beneficiaries (shall be provided in the format as shown as Annexure-A, before issue of LoA) in Visakhapatnam who have enrolled for availing the scheme paying the upfront capital contribution, within its License area for installation of Solar rooftop PV Systems as mentioned in clause 2.1.4. The available rooftop space for each location shall also be provided along with Annexure -A. The entire capacity of 5 MWac is divided into two packages depending on geographical locations.
  - 2.1.1. *Bids are invited from the prospective bidders for Project Cost in (INR/kWac) inclusive of all taxes and duties (rounded to the nearest Integer along with the breakup of Material cost & Labour cost as per Section IV format A) for the package capacity as indicated in Clause 2.1.4. The Project Cost shall be inclusive of the 5 Year O&M of the project. Bidder shall quote Price Bid under two routes; i.e. 1) domestic sourcing of module equipment and 2) non-domestic sourcing of module equipment required for setting up Solar Roof Top PV System. Depending on the Project Cost quoted by Bidders under the said two routes and discovered during*

evaluation of Price Bid, Authorised Representative shall reserve the right to opt suitable routes for selecting the Successful Bidder(s) and allocating the Project. MNRE Central Financial Assistance of upto 30% of L1 Project Cost shall be applicable only if the module equipment of Solar Roof Top PV System are sourced domestically.

**2.1.2. Maximum allowable Project Cost** in both domestic and non-domestic sourcing of Solar Roof Top PV System is at the rate of **Rs. 60,000/- per kWac** inclusive of all taxes and duties and the bids with project cost more than Rs.60,000 Per kWac will not be considered for evaluation and award.

**2.1.3. Not used**

**2.1.4.** The package wise details where the Solar Rooftop PV System(s) are required to be installed along with the respective capacities for each location is indicated in the table below:

<b>Package</b>	<b>Location</b>	<b>Tendered Capacity (in kWac)</b>
<b>Package-1</b>	Madhavadhara	2500
<b>Package-2</b>	Muralinagar	2500

## **2.2. SIZE OF INDIVIDUAL SOLAR ROOFTOP PV SYSTEM or PROJECT:**

**2.2.1.** Maximum and minimum size of individual Solar Rooftop PV System shall be 1.5 kW and 1 kW per consumer for the target consumer base. Capital cost of Solar Rooftop PV System of above 1 kW capacity shall be derived on pro rata basis based on the L1 price determined in INR/kW basis as per Clause 2.1.1 and 6.3.2 of this RFS.

## **2.3. BID CAPACITY**

**2.3.1.** Bidder can submit the bids for only one of the above two packages. Bidder shall bid for capacity of 2500 kWac in any one of the above two packages.

**2.3.2.** The capacities indicated across each package in Clause 2.1.4 are based on the field survey and feasibility assessment conducted by APEPDCL Staff and the Bidders are advised to conduct an independent assessment of suitability of the rooftop space of households. APEPDCL shall at its own discretion add/delete households chosen for implementation. Marketing of proposed Utility Driven, Customer owned Solar Roof Top PV System Scheme and onboarding of Customers through collection of upfront consumer contribution is the responsibility of Discom. The final size of each package along with the Customer and household details & aggregate Project capacity shall be shared by APEPDCL and shall be finalized by the Successful Bidder (s) in consultation with APEPDCL during issue of LoA.

**2.4. Not Used**

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

### **3.1. General Instruction**

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

**3.1.2.** 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.

- 3.1.3. In case of a Bidding Consortium the Financial Eligibility criteria like Annual turnover as indicated in Clause 3.3.3, shall be fulfilled by the Lead Member or Parent Company of the Lead Member while the Technical Eligibility Criteria shall be fulfilled mutually by the members of Consortium.
- 3.1.4. In case bidder submitting bid through consortium, a Consortium Agreement as per the Format-10 shall be furnished along with the bid.
- 3.1.5. Financial Consortium is not allowed in this Bidding Process. Consortium is only permitted for Technical partnership as per Format- 10.
- 3.1.6. Further in-case where the bidding company has used the financial eligibility criteria of its parent company then it needs to be ensured that any change in the controlling equity of the Bidding company requires prior approval of APEPDCL
- 3.1.7. All members of the consortium should be registered as company only. However, Member of the Consortium may form the Project Company as specified in Clause 3.4.
- 3.1.8. Bidder including its member of the consortium can submit one bid only.

### **3.2. USE OF TECHNICAL AND/OR FINANCIAL STRENGTH OF PARENT COMPANY**

- 3.2.1. Bidder can use the technical and financial strength of its Parent Company or Affiliate to fulfil the Technical and/or Financial Eligibility criteria mentioned below. Members of consortium can also use the credentials of the parent company or Affiliate to fulfil the eligibility requirement.
- 3.2.2. In above case, Bidders shall submit an Undertaking from the Parent Company as per Format- 9 and also furnish a certificate of relationship of Parent Company or Affiliate with the Bidding Company as per Format-8. Company Secretary Certificate towards shareholding pattern of the Parent Company and the Bidding Company along with a Board resolution from the Parent Company shall also be submitted.
- 3.2.3. Only Technical consortium is allowed for submission of Bids .

### **3.3. ELIGIBILITY CRITERIA**

#### **3.3.1. 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.

#### **3.3.2. TECHNICAL ELIGIBILITY CRITERIA:**

The Bidder should have installed & commissioned atleast 2.5 MWp of Grid connected Solar Rooftop PV Power Projects during last 3 Financial Years preceding Bid Due Date. Financial Years for claiming experience shall be FY2015-16, FY2016-17 and FY2017-18.

The list of project commissioned preceding Bid Due Date, indicating whether the project is grid connected, along with a copy of the Commissioning certificate and Work order / Contract / Agreement/ from the Client/Owner shall be submitted in support of Clause 3.3.2 above.

#### **3.3.3. FINANCIAL ELIGIBILITY CRITERIA:**

The Bidder should have an Annual Turnover as indicated below.

- A. The Annual turnover of Rs. 5.00 Crore per MW in any one of the last 3 financial years preceding the Bid Deadline subject to the condition that the Bidder should at least have completed one financial year. 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.

### **3.4. INCORPORATION OF A PROJECT COMPANY**

- 3.4.1. 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.
- 3.4.2. The aggregate equity share holding of the Successful Bidder in the issued and paid up equity share capital of the Project Company shall not be less than fifty one percent (51%) up to a period of two(2) years from the date of commissioning of the entire allocated capacity of the Project Developer.

### **3.5. BID SUBMISSION BY THE BIDDER**

- 3.5.1. The information and/or documents shall be submitted by the Bidder as per the formats specified in Section-IV & Section V of this document.
- 3.5.2. Strict adherence to the formats wherever specified, is required. Wherever, information has been sought in specified formats, the Bidder shall refrain from referring to brochures /pamphlets. Non-adherence to formats and / or submission of incomplete information may be a ground for declaring the Bid as non-responsive. Each format has to be duly signed and stamped by the authorized signatory of the Bidder.
- 3.5.3. The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.3.1, 3.3.2 and 3.3.3 to the satisfaction of APEPDCL and shall also furnish unconsolidated / consolidated audited annual accounts in support of meeting financial requirement, which shall consist of balance sheet, profit and loss account, profit appropriation account, auditors report, etc., as the case may be, of Bidding Company or Financially Evaluated Entity for any of the last three (3) financial years immediately preceding the Bid Deadline which are used by the bidder for the purpose of calculation of Annual Turnover.
- 3.5.4. In case the annual accounts for the latest financial year are not audited and therefore the bidder cannot make it available, the applicant shall give certificate to this effect from their directors. In such a case, the applicant shall provide the Audited Annual Reports for 3 (Three) years preceding the year or from the date of incorporation if less than 3 years for which the Audited Annual Report is not being provided.

### **3.6. BID SUBMITTED BY A BIDDING COMPANY :**

- 3.6.1. The Bidding Company should designate one person to represent the Bidding Company in its dealings with APEPDCL. 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.

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

- 3.7.1. APEPDCL 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 APEPDCL at the address, date and time mentioned in Bid information sheet.
- 3.7.2. 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 APEPDCL.
- 3.7.3. 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.
- 3.7.4. APEPDCL is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

### **3.8. AMENDMENTS TO RFS**

- 3.8.1. At any time prior to the deadline for submission of Bids, APEPDCL 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).
- 3.8.2. The clarification(s) / amendment(s) (if any) may be notified on APEPDCL website at least Two (2) days before the proposed date of submission of the Bid. If any amendment is required to be notified within Two (2) days of the proposed date of submission of the Bid, the Bid Deadline may be extended for a suitable period of time.
- 3.8.3. APEPDCL 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.
- 3.8.4. In case any amendment is notified after submission of the Bid (prior to the opening of Techno-Commercial Bid), Bids received by APEPDCL 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 APEPDCL for the purpose.

All the notices related to this Bid which are required to be publicized shall be uploaded on aprocurement website.

### **3.9. BIDDING PROCESS**

#### **3.9.1. BID FORMATS**

The Bid in response to this RFS shall be submitted by the Bidders in the manner provided in Clause 3.3 & Clause 3.9.1. The Bid shall comprise of the following:

**A. ENVELOP-I COVERING LETTER, BID PROCESSING FEE, BID SECURITY AND BIDDER FORMAT EXCEL SHEET**

- (i) Covering Letter as per the prescribed Format-1.



- (ii) Copies of PAN, GST, as applicable, of the Bidding company.
- (iii) Bid processing fee @ INR 1,18,000/- (Rupees One Lakh Eighteen Thousand only) which is inclusive of GST of 18%.
- (iv) Bid Security, as per the prescribed Format-3 shall be submitted as per Clause 3.12.
- (v) Checklist for Bank Guarantee submission requirements as prescribed in Format- 5

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

- (i) Original power of attorney issued by the Bidding Company in favour of the authorized person signing the Bid, in the form attached hereto as Format-6 or standard power of attorney in favour of authorized person signing the Bid. (Power of Attorney must be supplemented by Board Resolution to above effect for the company). However, APEPDCL may accept general Power of Attorney executed in favor of Authorised signatory of the Bidder, if it shall conclusively establish that the signatory has been authorized by the Board of Directors to execute all documents on behalf of the Bidding Company.
- (ii) General particulars of bidders as per Format-2
- (iii) Shareholding certificate signed by the company secretary of the bidding company and shareholding certificate signed by the company secretary of the Parent company (if parent company credentials are used).
- (iv) Document in support of meeting Eligibility Criteria as per Clause no. 3.3.1 & 3.3.2
- (v) Certificates of incorporation of Bidding company and parent company (if parent company credentials are used)
- (vi) Certificates of incorporation of bidding consortium, if technical consortium is envisaged in the bid submitted by bidder.
- (vii) Details for meeting Financial Eligibility Criteria as per Clause no. 3.3.3 in the prescribed Format-7 along with documentary evidence for the same.
- (viii) If credentials of Parent company are being used by the Bidding company/lead member of the bidding consortium then Format 8 shall be furnished.
- (ix) Undertakings from the Financially Evaluated Entity or its Parent Company/ Ultimate Parent Company as per Format-9.
- (x) Board Resolution of the Parent Company /Ultimate Parent Company of the Bidding company duly certified by the Company Secretary to provide the Performance Bank Guarantee (PBG) in the event of failure of the Bidding Company to do so.
- (xi) Board resolution for Authorised signatory
- (xii) Signed and stamped Copy of RFS Documents including amendments & clarifications by Authorised signatory on each page.

**C. ENVELOP-III PRICE BID(S) AS PER SECTION-IV FOR BID SUBMISSION:** The Bidder shall inter-alia take into account the following while preparing and submitting the Price Bid duly signed by an authorized signatory.

- (i) The Bidder shall submit Price Bid(s) only on e-platform **as per the Format A specified in Section-IV.**

**D. BID DUE DATE**

The Bidder should submit the Bid documents so as to reach the address indicated below on or before 14<sup>th</sup> November 2018 up to 15:00 hrs.

**3.10. VALIDITY OF BID**

- 3.10.1.** The bid and the Price Schedule included shall remain valid for **a period of 6 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 terms & conditions in regard thereof or not accepting letter of allocation, APEPDCL shall encash the Bid Security furnished by such bidder. *Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.*
- 3.10.2.** In exceptional circumstances when letter of allocation is not issued, APEPDCL 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 Security provided under Clause 3.12 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

**3.10.3. METHOD OF BID SUBMISSION**

**A. Bids shall be submitted online on [www.apecurement.gov.in](http://www.apecurement.gov.in) platform**

- a) The participating bidders in the tender should register themselves free of cost on e-procurement platform in the website [www.apecurement.gov.in](http://www.apecurement.gov.in)
- b) Bidders can log-in to e-procurement platform in Secure mode only by signing with the Digital certificates.
- c) The bidders who are desirous of participating in the bid shall submit their technical bids, price bids as per the standard formats available at the e-procurement website.
- d) The bidders should scan and upload the following documents in support of technical bids. The bidders shall sign on all the statements, documents certificates uploaded by him, owning responsibility for their correctness/authenticity.
- e) **The rates should be quoted in online as per the Format A specified in Section-IV.**
- f) After uploading the documents, the copies of the uploaded statements, certificates, documents, original Demand Drafts in respect of Bid Security (except the Price bid/offer/break-up of taxes) are to be submitted by the bidder to the Chief General Manager, Energy Conservation, APEPDCL, Corporate Office, Seethammadhara, Vishakhapatnam, Andhra Pradesh so as to reach before the date and time of opening of the technical bid. Failure to furnish any of the uploaded documents, certificates, before the date and time of opening of technical bid will entail in rejection of the bid. The Department shall not hold any risk on account of postal delay. Similarly, if any of the certificates, documents, etc., furnished by the tenderer are found to be false / fabricated / bogus, the bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the Bid Security will be forfeited.

- g) The department will not hold any risk and responsibility regulating non-visibility of the scanned and uploaded documents.
- h) The documents that are uploaded online on e-procurement website will only be considered for Technical Bid Evaluation.

**B. For submission of hard copies the following shall be followed**

- a) The Bidder shall seal the original copies of the Bid in a sealed cover envelope (Outer envelope) containing Envelope-I (Covering letter, Bid Processing Fee and Bid Security as per clause 3.9.1.A) ,Envelope-II (Techno-Commercial documents as per clause 3.9.1.B).
- b) The Outer envelope shall
  - (i) be addressed to the Employer at the following address: Chief General Manager, Energy Conservation, APEPDCL, Corporate Office, Seethammadhara, Near Gurudwara Junction, Vishakhapatnam, Andhra Pradesh.
  - (ii) bear the following identification:
    - Bid for
    - Bid Reference No. (insert number)
    - Do not open before (time and date for bid opening, as per bid information sheet)

Bid submitted for Package	Bid Capacity (kWac)	Bid Security particulars
	2500	

- c) In addition to the identification described above, all the envelopes shall indicate the name and address of the bidder & be super scribed with the RFS to enable the bid to be returned unopened in case it is declared late.

**3.10.4.** If the envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the bid. 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 APEPDCL by the Bid Deadline. Bids submitted by telex/telegram/fax/e-mail shall not be considered under any circumstances. APEPDCL shall not be responsible for any delay in receipt of the Bid. Any Bid received after the Bid Deadline shall be returned unopened.

**3.10.5.** All pages of the Bid, except for the Bid Security, 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 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 APEPDCL.

**3.10.6.** 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.

### **3.11. COST OF BIDDING**

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

### **3.12. BID SECURITY**

**The Bidder shall furnish the Interest free Bid Security** calculated @ Rs. 10,00,000/- (Rupees Ten Lakh only) per MWac for the Bid Capacity in the form of Demand Draft drawn in favor of Pay Officer / APEPDCL / Visakhapatnam, payable at Visakhapatnam or Bank Guarantee (BG) (Through SFMS Platform) in favor of Chief General Manager, Expenditure APEPDCL, Vishakhapatnam. It shall be issued by a Nationalized Bank/Scheduled banks (Annexure –B). The initial validity of Bid Security shall be for a period of **210 days from the techno-commercial bid opening date including 30 days of claim period**, which shall be extended by the bidder as per the bid validity. If the bidder fails to extend the Bid Security validity as per above on request by APEPDCL then entire Bid Security may be forfeited. The Bid Security of unsuccessful bidders shall be returned within 30 days from the date of issue of Letter of Allocation(s) to successful bidders. Bid Security(s) of Successful bidder shall be released after the receipt of PBG. Bidders submitting Bid Security Amount less than that required amount shall not be considered.

**3.12.1.** The Bid Security 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 Vishakhapatnam
- III. be submitted in its original form; copies will not be accepted; and remain valid for a minimum period of 210 days from the date of Techno Commercial bid opening, or beyond any period of extension subsequently requested under Clause 3.10.2.

**3.12.2.** The Successful Bidder shall sign and stamp the Letter of Allocation and return the duplicate copy of the same to APEPDCL within 15 days from the date of its issue.

**3.12.3.** The Bid Security shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to APEPDCL under following circumstances:

- I. Hundred percent (100%) of Bid Security amount, if 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 3.10.
- II. Hundred percent (100%) of the Bid Security amount, if the Successful Bidder fails to unconditionally accept the Letter of Allocation within 15 days from the date of its issue.
- III. Hundred percent (100%) of the Bid Security amount, if the Successful Bidder fails to furnish the Performance Security as per the Clause 3.13 and sign Tripartite EPC Agreement.

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

- 3.13.1.** Successful Bidders emerged shall be issued LoA and invited to sign Tripartite EPC Agreement with APEPDCL and Customer. Tripartite EPC Agreement among Successful Bidder(s), APEPDCL and Customer will be signed only on submission of Performance Bank Guarantee. Within 21 days from the date of issue of Letter of Allocation, Successful Bidder shall furnish the Performance Bank Guarantee(PBG) for the amount of INR 50,00,000/MWac of Allocated Capacity as mentioned in the LoA in two separate Bank Guarantees of value of 45,00,000/MWac and 5,00,000/MWac.
- 3.13.2.** The Performance Security shall be denominated in Indian Rupees and shall be in one of the following forms:
- I. Demand Draft in favor of APEPDCL payable at Pay Officer, APEPDCL, Visakhapatnam, payable at Visakhapatnam **or** a Bank Guarantee (Through SFMS Platform) in favor of Chief General Manager, Expenditure, APEPDCL, Vishakhapatnam issued by any Nationalized Bank or scheduled banks as given in Annexure-B.
  - II. be confirmed for payment by the branch of the bank giving the bank guarantee at Vishakhapatnam
- 3.13.3.** The PBG shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to APEPDCL.
- I. If the Successful Bidder is not able to commission the projects to the satisfaction of APEPDCL, PBG amount, pro-rata to the capacity not commissioned by the Successful Bidder. However, Hundred percent (100%) PBG amount furnished for the allocated capacity for the APEPDCL identified locations, if the Successful Bidder fails to Commission the Projects(s) to the satisfaction of APEPDCL.
  - II. In all the above cases corresponding non-commissioned capacity shall stand cancelled.
- 3.13.4.** The Performance Security shall be valid for a minimum period of 65 months from the date of issue of Letter of Allocation.

### **3.14. OPENING OF BIDS**

- 3.14.1.** Technical bids of the Bidders shall be opened at 11.30 hours on Bid Deadline date at APEPDCL office, in the presence of one representative from each of the Bidders who wish to be present.
- 3.14.2.** Name of the Bidder, packages bid for shall be read out to all the Bidders at the time of opening of Envelope-I and / or Envelope-II.

### **3.15. RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID**

- 3.15.1.** This RFS may be withdrawn or cancelled by APEPDCL at any time without assigning any reasons thereof. APEPDCL further reserves the right, at its complete discretion, to reject any or all of the Bids without assigning any reasons whatsoever and without incurring any liability on any account.
- 3.15.2.** APEPDCL 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 APEPDCL shall have no liability towards any Bidder and no Bidder shall have any recourse to APEPDCL with respect to the selection process. APEPDCL shall evaluate the Bids using the evaluation process specified in Section -I, at its sole discretion. APEPDCL decision in this regard shall be final and binding on the Bidders.
- 3.15.3.** APEPDCL reserves its right to vary, modify, revise, amend or change any of the terms and conditions of the Bid before submission. The decision regarding acceptance or rejection of bid by APEPDCL will be final.

### **3.16. ZERO DEVIATION**

**3.16.1.** 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.

### **3.17. EXAMINATION OF BID DOCUMENT**

**3.17.1.** The Bidder is required to carefully examine the Technical Specification, and Conditions of Contract, Tripartite EPC Agreement and other details relating to supplies as given in the Bid document.

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

**3.17.3.** 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 APEPDCL

**3.17.4.** 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.

### **3.18. Transaction Fee:**

The Bidders are required to pay a Non-refundable Transaction fee of INR 10,000/- (Rupees Ten Thousand Only) plus applicable taxes to Managing Director APTS, the service provider through "Payment Gateway Service on E-Procurement platform". The Electronic Payment Gateway accepts all Master and Visa Credit Cards issued by any bank and Direct Debit facility/Net Banking of ICICI Bank, HDFC, Axis Bank to facilitate the transaction. This is in compliance as per G.O.Ms. 13 dated 05.07.2006.

### **3.19. Corpus Fund:**

As per G.O. Ms. No.4, the User Department/Authorised Representative shall collect INR 10,000/- (Rupees Ten thousand Only) from only Successful Bidder(s) on eProcurement platform before entering into Tripartite EPC Agreement, towards eProcurement fund in favor of Managing Director, APTS. Hence upon declaration of the Successful Bidder(s) as per the provisions of the RFS, the Authorised Representative shall collect this amount from the Successful Bidders(s) and transfer the same to Managing Director, APTS.

## **B. CONDITIONS OF CONTRACT**

### **3.20. SCOPE OF WORK**

**3.20.1.** The scope of work for the bidder include complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected solar rooftop PV project including operation and maintenance (O&M) of the Project for a period of Five years (5 Years) from the Date of Commercial Operation of the entire Allocated Capacity in accordance with the provisions of Tripartite EPC Agreement.

### **3.21. PROJECT COST**

**3.21.1.** The Project cost 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 5 years from the Date of Commercial Operation of the entire Allocated Capacity, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc. APEPDCL shall facilitate Successful Bidder(s) in availing permits, approvals and NOCs on time bound manner as per the provisions of Tripartite EPC Agreement and shall provide training and such other items and services required to complete the scope of work mentioned above.

**3.21.2.** The project cost quoted is on lump sum turnkey basis and the bidder is responsible for the total Scope of Work described at Clause 3.20 above.

**3.21.3.** The project cost shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work 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 project cost 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 Roof Top PV System would include, but not limited to wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors / Power Conditioning Unit (PCU), spares, consumables & other parts for a period of 5 years from the Date of Commercial Operation of the entire Allocated Capacity as per provisions of the Tripartite EPC Agreement

**3.21.6.** The project cost shall be specified Letter of Allocation based on Successful Bidder's quote. The Project cost shall be in accordance with all terms, conditions, specifications and other conditions of the Contract as accepted by the APEPDCL and incorporated into the Letter of Allocation.

**3.21.7.** The Bidder shall complete the Price Bid as per (Format-A) as furnished in the RFS Documents.

### **3.22. APEPDCL SERVICE CHARGES (If Applicable)**

Not Used

### **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.** The insurance shall also cover the damage of panels and the material installed in the premises which shall also include theft of the material for a period of 5 years from the date of commissioning of the entire Allocated Capacity.

### **3.24. WARRANTEES AND GUARANTEES**

- 3.24.1.** The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide system warranty covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of 5 years from the Date of Commercial Operation of the entire Allocated Capacity. The successful bidder has to transfer all the Guarantees /Warrantees of the different components to APEPDCL.

### **3.25. TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP**

- 3.25.1.** The Design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards as detailed in the Section- III (Technical specifications) of the bid document. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.
- 3.25.2.** The specifications of the components should meet the technical specifications mentioned in Section III.
- 3.25.3.** 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.

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

- 3.26.1.** The bidder shall be responsible for Operation and Maintenance of the Solar Roof Top PV system for a period of five (5) years, from the Date of Commercial Operation of the entire Allocated Capacity, during which APEPDCL will monitor the project for effective performance in line with conditions specified elsewhere in the bid document and Tripartite EPC Agreement. 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.
- 3.26.2.** Successful Bidder(s) shall supply a Remote Monitoring System in Solar Roof Top PV System(s), which can monitor and wirelessly update all the performance parameters, as detailed in Schedule III of the Tripartite EPC Agreement, to the server set up and maintained by APEPDCL in real time as per the intervals specified by APEPDCL from the date of commissioning of the Solar Roof Top PV System. APEPDCL shall be responsible for the confidentiality of the data that is collected and shall maintain security for the data so collected. Detailed specification required for designing the controller of such Remote Monitoring System shall be shared with Bidders before pre bid meeting.
- 3.26.3.** Remote Monitoring System shall be capable of giving update to consumer on whether the system is under producing or over producing, alerts to see if any attention is needed to the system. Real-time Alerts over email and SMS shall be provided to the Customer and all such data shall be shared with Authorised Representative on monthly basis, i.e. on 30<sup>th</sup> day of every month for performance evaluation. All cost for supplying and maintaining such Remote Monitoring System shall be borne by the Contractor.



### **3.27. METERING AND GRID CONNECTIVITY**

Metering and grid connectivity of the Solar Roof Top PV system under this scheme would be the responsibility of the Bidder in accordance with the prevailing guidelines of APEPDCL and / or CEA (if available by the time of implementation). APEPDCL will facilitate connectivity, however the entire responsibility lies with bidder only.

### **3.28. PLANT PERFORMANCE EVALUATION**

The successful bidder shall be required to meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the GHI levels of the location during the O&M period. PR should be shown minimum of 75% at the time of inspection for initial commissioning acceptance to qualify for release of payment as per Clause 6.9 of Section-II. Minimum CUF of 19% should be maintained for a period of five (5) years. The bidder should send the periodic plant output details to APEPDCL for ensuring the CUF and the same shall be verified using the data shared from Remote Monitoring System. The PR will be measured at Inverter output level during peak radiation conditions.

### **3.29. PROGRESS REPORT**

The bidder shall submit the progress report monthly to APEPDCL in Prescribed Proforma to Divisional Engineer, Operation, Zone-II, APEPDCL, Vishakhapatnam and General Manager, Solar Energy, APEPDCL, Vishakhapatnam will have the right to depute his/their representatives to ascertain the progress of contract at the premises of works of the bidder.

### **3.30. PROJECT INSPECTION.**

- 3.30.1.** The project will be monitored by APEPDCL and the projects will be inspected for quality at any time during commissioning or after the completion of the project either by officer(s) from APEPDCL or any authorized agency/ experts.
- 3.30.2.** Not Used
- 3.30.3.** APEPDCL reserves the right to do sample inspection checks for the projects commissioned by the Bidder.
- 3.30.4.** APEPDCL may also 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.

### **3.31. Not Used**

### **3.32. APPLICABLE LAW**

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

### **3.33. SETTLEMENT OF DISPUTE**

- 3.33.1.** If any dispute of any kind whatsoever arises between APEPDCL and Successful bidder in connection with or arising out of the contract including without prejudice to the generality of the foregoing, any question regarding the existence, validity or termination, the parties shall seek to resolve any such dispute or difference by mutual consent.
- 3.33.2.** If the parties fail to resolve, such a dispute or difference by mutual consent, within 45 days of its

arising, then the dispute shall be referred by either party by giving notice to the other party in writing of its intention to refer to arbitration as hereafter provided regarding matter under dispute. No arbitration proceedings will commence unless such notice is given. Any dispute in respect of which a notice of intention to commence arbitration has been given in accordance with Sub Clause 3.33.2, shall be finally settled by arbitration.

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

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

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

- A. 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.
- B. APEPDCL and the Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within Thirty (30) days after the latter of the two arbitrators has been appointed, the third arbitrator shall, at the request of either party, be appointed by the Appointing Authority for third arbitrator which shall be the President, Institution of Engineers.
- C. 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.
- D. If for any reason an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws as mentioned in Clause 3.32 (Applicable Law) and a substitute shall be appointed in the same manner as the original arbitrator.
- E. Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue for arbitration shall be Vishakhapatnam.
- F. 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.
- G. The arbitrator(s) shall give reasoned award.

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

3.33.6. Cost of arbitration shall be equally shared between the Successful bidder or Contractor and APEPDCL.

### **3.34. FORCE MAJEURE**

3.34.1. Notwithstanding the provisions of clauses contained in this RFS document; the contractor shall not be liable to forfeit (a) Security deposit for delay and (b) termination of contract; if he is unable to fulfill his obligation under this contract due to force majeure conditions.

3.34.2. 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 APEPDCL and its decision shall be final and binding on the contractor and all other concerned.

3.34.3. 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, APEPDCL has the right to terminate the contract in which case, the security deposit shall be refunded to him.

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

### **3.35. LANGUAGE**

3.35.1. 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 APEPDCL and the bidder shall be in English language.

### **3.36. OTHER CONDITIONS**

3.36.1. 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 APEPDCL in writing.

3.36.2. The Successful bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of APEPDCL

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

#### **3.36.4. SUCCESSORS AND ASSIGNS:**

In case APEPDCL 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.

#### **3.36.5. SEVERABILITY:**

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

**3.36.6. COUNTERPARTS:**

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

**3.36.7. RIGHTS & REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES:**

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

**3.36.8. Not used**

**3.36.9. CORRESPONDENCE**

Bidder requiring any clarification on bid documents may contact in writing or by Fax /E Mail.

<b>Sl. No</b>	<b>Name and Designation</b>	<b>Contact Number</b>	<b>Email id</b>
1.	Smt. D. Suman Kalyani, General Manager, Solar Energy, APEPDCL, Visakhapatnam,	0891-2582350, 9440814385	solar@apeasternpower.com

**SECTION-II**  
**EVALUATION CRITERIA**

**4. BID EVALUATION**

**4.1. BID EVALUATION**

The evaluation process comprises the following four steps:

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

**4.2. RESPONSIVENESS CHECK OF TECHNO COMMERCIAL BID**

The Techno Commercial Bid submitted by Bidders shall be scrutinized to establish responsiveness to the requirements laid down in the RFS subject to Clause 3.3.1, Clause 3.3.2 & clause 3.3.3. Any of the following may cause the Bid to be considered "Non-responsive", at the sole discretion of APEPDCL:

- I. Bids that are incomplete, i.e., not accompanied by any of the applicable formats inter alia covering letter, power of attorney supported by a board resolution, applicable undertakings, format for disclosure, valid Bid Security, etc.;
- II. Bid not signed by authorized signatory and /or stamped in the manner indicated in this RFS;
- III. Material inconsistencies in the information /documents submitted by the Bidder, affecting the Eligibility Criteria;
- IV. Information not submitted in the formats specified in this RFS;
- V. Bid being conditional in nature;
- VI. Bid not received by the Bid Deadline;
- VII. Bid having Conflict of Interest;
- VIII. More than one Member of a Bidding Company using the credentials of the same Parent Company /Affiliate;
- IX. Bidder delaying in submission of additional information or clarifications sought by APEPDCL as applicable;
- X. Bidder makes any misrepresentation.

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

### **4.3. CLARIFICATION OF BIDS**

- (i) The Employer may, at its discretion, ask the Bidder for a clarification of its bid. In case of erroneous/non submission of documents related to/identified in Clause no.4 of ITB required to be submitted by the Bidder as per the provisions of the Bidding Documents, the Employer may give the Bidder not more than 7 working days' notice to rectify/furnish such documents, failing which the bid shall be rejected. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted.
- (ii) Subject to sub-Clause 24.1, no Bidder shall contact the Employer on any matter relating to its bid from the time of the bidding opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.
- (iii) Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.

### **5. PRELIMINARY EXAMINATION**

- 5.1.** APEPDCL 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 Project cost, material Cost and Labour cost, the Material cost & Labour Cost shall prevail and the project cost shall be corrected. If there is a discrepancy between words and figures, the amount written in words will prevail.

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

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

#### **6.2. EVALUATION OF PRICE BID**

Price Bid of the Qualified Bidders shall be opened online in presence of the representatives of such Qualified Bidders, who wish to be present, on a date as may be intimated by APEPDCL to the Bidders through APEPDCL website [www.apeasternpower.com](http://www.apeasternpower.com) or Email. The evaluation of Price Bid shall be carried out based on the information furnished in 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 APEPDCL. The Price bids for each package shall be evaluated as follows:

- I.** The Price bids for each package shall be evaluated separately on the quoted Project Cost basis under both the routes
- II.** Since the maximum allowable Project Cost is Rs. 60,000/kWac inclusive of all taxes and duties and 5 years O&M, so bidder submitting bid above the maximum allowable Project Cost for capacity as per the price bid shall be rejected.

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

- 6.3.1. Bids qualifying in Clause 3.3 shall only be evaluated in this stage. Evaluation will done separately for two packages.
- 6.3.2. The process detailed hereunder shall be carried out separately under the said 2 routes, i.e., domestic and non-domestic sourcing of Solar Roof Top PV System. Project Cost requirement for capacity quoted in all Price Bids of Qualified Bidders shall be ranked from the lowest to the highest separately under the said 2 routes. In case of a tie in project cost between Bidder (s), Bidder(s) with a higher Annual turnover (over the last 3 years) will be given preference.
- 6.3.2.1 Based on the price bid quoted by the bidders, APEPDCL shall arrange the Project Cost bids for each package in the ascending order i.e. L1, L2, L3, \_ \_ \_ (L1 being the lowest Project Cost), separately for the said 2 routes.
- 6.3.2.2 L1 bidder will be declared as the successful bidder subject to Clause 6.3.2.3 and 6.3.2.4 separately for the said 2 routes.
- 6.3.2.3 100% of Tendered Capacity shall be allotted to L1 Successful Bidder.
- 6.3.2.4 Similar process as per clause 6.3.2 will be adopted for both the packages for Price Bids received under both the routes separately. Selection of routes, i.e. domestic or non domestic for allocating the capacity shall be at the discretion of Authorised Representative.
- 6.3.3. **Letter of Allocation (LOA):** The Letter of Allocation (LOA) shall be issued to the Successful Bidders selected as per the provisions of this Clause 6.3.2 and the Authorised Representative reserves the right to choose the desired route under which sourcing of Solar Roof Top PV System shall be undertaken.
- 6.3.4. Successful Bidder shall acknowledge the LOA and return duplicate copy with signature & stamp of the authorized signatory of the Successful Bidder to APEPDCL within 15 days of issue of LOA.
- 6.3.5. If the Successful Bidder, to whom the Letter of Allocation has been issued does not fulfil any of the conditions specified in Bid document, APEPDCL reserves the right to annul/cancel the award of the Letter of Allocation of such Successful Bidder and forfeit the PBG/Bid Security.
- 6.3.6. APEPDCL at its own discretion, has the right to reject any or all the Bids without assigning any reason whatsoever, at its sole discretion
- 6.3.7. There shall be no negotiation on the quoted Project cost between APEPDCL and the Bidder(s), during the process of evaluation.
- 6.3.8. **Not Used**

#### **6.4. INCREASE/DECREASE OF BIDDER ALLOCATED CAPACITY IN A PACKAGE**

- 6.4.1. APEPDCL reserves the right to increase/decrease the Allocated Capacity of Bidder at its sole discretion.
- 6.4.2. Not Used
- 6.4.3. In case capacity is modified by APEPDCL as per Clause 6.4.1 above, Successful bidder shall submit the equivalent amount of PBG/Amended PBG to APEPDCL within 30 days from the date of issue of Letter of Allocation.

## 6.5. TRANSFER OF CAPACITY BETWEEN PACKAGES

Not Used

## 6.6. NOTIFICATION TO SUCCESSFUL BIDDERS

6.6.1. The name of Successful Bidder shall be notified individually through Letter of Allocation.

## 6.7. Not Used

## 6.8. PROJECT ALLOCATION

6.8.1. The Bidders, in their own interest are advised to make a preliminary check and survey of the suitability of roof top space of households provided by APEPDCL in Annexure-A before the issue of LOA for achieving the indicated capacity for each package which they Bid.

6.8.2. APEPDCL shall identify alternate households upon receiving a formal request from the Successful Bidder. APEPDCL at its own discretion may choose to provide alternate locations.

6.8.3. However the final list of households and the capacities of the packages shall be finalized before the issue of LOA and such capacities shall be binding on the Successful Bidder.

6.8.4. The Successful Bidders selected as described in Clause 6.3 above shall be issued Letter of Allocation (LOA) indicating the package along with the capacity.

6.8.5. Not Used

6.8.6. Not used

6.8.7. Not used.

6.8.8. Not used

6.8.9. If the Bidder fails to commission the project within specified time, penalty on per day basis calculated for the Performance Security on a 3 month's period would be levied. After 3 months, the project will get cancelled and the total PBG would be forfeited. Please refer Clause 8 & 9 below for details.

## 6.9. COMMISSIONING & PAYMENT SCHEDULE:

6.9.1. The Successful Bidder(s) shall complete the commissioning of the entire Allocated Capacity within 3 months of issue of LoA which shall be considered the ***Scheduled Commercial Operation Date (SCOD) or Scheduled date of Commercial Operations***".

6.9.2. Part commissioning of the Allocated Capacity shall be allowed where the Successful Bidder can choose to install the entire Allocated Capacity at once or in up to 3 phases.

6.9.3. If the Successful Bidder chooses to install the Allocated Capacity in phases, the following commissioning schedule shall be followed

A. First phase of commissioning shall be for at least 40% of the Allocated Capacity

B. Second phase of commissioning shall be for at least 30% of the Allocated Capacity



- C. Third phase of commissioning shall be for the remaining Allocated Capacity, if any.

The phase wise commissioning schedule shall be communicated by the Successful Bidder to the DISCOM at the time of LOA.

- 6.9.4. However the entire Allocated Capacity as indicated in the LoA shall be completed within the SCOD date.
- 6.9.5. The O&M period shall commence from the commissioning date of the last phase Allocated Capacity and shall be applicable for a period of 5 years from commissioning date of the entire Allocated Capacity, irrespective of actual commissioning date of individual phases of the package.
- 6.9.6. The Successful Bidder(s) shall be eligible for payment upon achieving COD of the Allocated Capacity as follows;
- 100% of the L1 Project Cost for the Allocated Capacity or capacity agreed under respective phases if the Successful Bidder chooses to install the Allocated Capacity in phases, whichever is applicable, shall be paid upon completion of installation and commissioning and achieving COD as per provisions of this RFS and Tripartite EPC Agreement.
- 6.9.7. Successful Bidder must be registered as Contractor of APEPDCL for receiving any payments from APEPDCL to the Successful Bidder.
- 6.9.8. Not Used

## 7. OTHER CONDITIONS

- 7.1. Successful bidder is responsible for all approvals/Consents/Clearances required for Erection, Testing, Commissioning and O&M of the project. APEPDCL shall provide the necessary approvals for Grid connectivity after receiving a formal request from the Developer regarding the readiness of the solar rooftop system. Obligations of the parties shall be as per the provisions of Tripartite EPC Agreement.
- 7.2. **Bid Security and Processing fee submission:**
- Bid Security and Processing fee shall be submitted as per the package capacity in a separate envelop with name of the package for which bid is being submitted superscripted on the envelop as per Clause 3.9.1.A.
- 7.3. **Statutory Variations:**
- 7.3.1. Any variation up or down in taxes and duties, or new levies introduced after bid submission date and during contract agreement period will be to the account of Employer.
- 7.3.2. Any increase in statutory levies during the contract agreement period will be granted with the approval of concerned General Manager, Solar Energy, APEPDCL, Vishakhapatnam and Chief General Manager, Energy Conservation, APEPDCL, Vishakhapatnam on production of documentary evidence of such increase by the bidder.
- 7.3.3. Beyond the date of scheduled contract agreement period, any increase in statutory levies shall be to the account of bidder. However any decrease in statutory levies after the scheduled contract period of the agreement shall be taken in to consideration to the advantage of the Employer only.

## 7.4. ELIGIBILITY OF STANDALONE SYSTEM:

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

Metering basis.

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

**7.5.1.** The modules should be manufactured in India only when bidder quotes under domestic sourcing of equipment route. Rest of the components can be procured from any source. However these items should meet the Technical specification and standards mentioned in RFS. Modules and rest of the components shall be manufactured anywhere if bidder is quoting under non domestic sourcing of equipment route, however these items should meet the Technical specification and standards mentioned in RFS.

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

**7.6.1.** During grid failure, the SPV system stops generating. Any instances of grid failure need to be mentioned in the monthly report and those instances need to be authorized by Divisional Engineer, Operation, Zone-II, Visakhapatnam.

**7.6.2.** Then the period will be excluded in calculation of CUF.

**7.7.** Not Used.

#### **8. PENALTY FOR DELAY IN PROJECT IMPLEMENTATION**

**8.1.** APEPDCL will issue the LoA(s) for the Package(s) indicating the Capacity & payment terms which will be disbursed in line with the provisions of the RFS document. The Bidder shall complete the site survey, design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of each project within 3 months from the date of issue of Letter of Allocation.

**8.2.** If the bidder fails to commission the Allocated Capacity within 3 months from date of issue of allocation letter, penalty on per day basis calculated for the Performance Security on a 3 months period would be levied. After 3 months allocated capacity will get cancelled and the PBG amount pro-rata to non-commissioned capacity would be forfeited.

In case of part commissioning, the LD would be calculated on a pro-rated basis for the capacity not commissioned

**Example:** If a project of 100 kW is delayed by 36 days by L1 Successful Bidder, then the LD will be levied as given below.

$$\text{PENALTY} = ((\text{Performance Security} * \text{Capacity not commissioned}) / (90 \text{ days} * \text{total capacity awarded})) * \text{delayed days} = ((50,00,000 * 0.10) / (90 * 25)) * 36 = \text{INR } 8,00,000$$

Contractor shall be responsible to restore Performance Security, within 10 days of invocation of the Performance Security by Utility, to original amount in case any Liquidated Damages getting levied subject to provisions of Clause 4 of the Tripartite EPC Agreement

#### **9. TIME OF COMPLETION OF ALLOCATED CAPACITY:**

**9.1.** Project completion shall be **3 months from the date of issue of allocation letter** and shall be considered the Scheduled Commercial Operation Date (SCOD). Failure or non-compliance of same shall lead to forfeiture of PBG for that package in proportion to the capacity not commissioned.

**9.2.** 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 Authorised Representative.

**9.3.** A joint programme of execution of the Work will be prepared by the Authorised Representative or its representative nominated for the purpose and Successful bidder 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 Authorised Representative.

**9.4.** Monthly/Weekly implementation programme will be drawn up by the Authorised Representative jointly with the Successful bidder, based on availability of Work fronts as per Clause 9.3 above. Successful bidder shall scrupulously adhere to these targets /programs 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/programs. In all matters concerning the extent of targets set out in the weekly and monthly programs and the degree of achievements, the decision of the Authorised Representative will be final and binding.

**10.** Not Used

**11. INSPECTION AND AUDIT BY APEPDCL**

The Successful bidder shall permit APEPDCL 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 APEPDCL, if so required by APEPDCL any time.

**12. COMMISSIONING /COMPLETION CERTIFICATE:**

**12.1.** Not Used

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

**12.2.1.** All costs, damages or expenses which APEPDCL may have paid or incurred, which under the provisions of the Contract, the Successful bidder is liable/will be liable, will be claimed by APEPDCL. All such claims shall be billed by APEPDCL 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, APEPDCL 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 APEPDCL of such claims.

**12.3. CORRUPT OR FRAUDULENT PRACTICES**

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

**12.3.1.** defines, for the purposes of this provision, the terms set forth as follows :

**12.3.2.** "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the bid process or in contract execution; and

**12.3.3.** "fraudulent practice" means a misrepresentation of facts in order to influence a bid process or the execution of a contract to the detriment of the APEPDCL /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 APEPDCL of the benefits of free and open competition;

**12.3.4.** will declare a firm ineligible/debarred, either indefinitely or for a specific period of time, a GOVT contract if at any time it is found that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government/ APEPDCL schemes.

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

- 13.1. APEPDCL 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 APEPDCL's any future tender for a period as decided by the Competent Authority of APEPDCL.
- 13.2. Not used

## SECTION-III TECHNICAL SPECIFICATIONS

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancellation of LoA as decided by APEPDCL & **Competent Authority's decision will be final and binding on the bidder.**

### 14. DEFINITION

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables and switches. 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.

- I. Solar PV modules consisting of required number of **Crystalline** PV modules.
- II. Grid interactive Power Conditioning Unit with Remote Monitoring System
- III. Mounting structures
- IV. Junction Boxes.
- V. Earthing and lightening protections.
- VI. IR/UV protected PVC Cables, pipes and accessories

#### 14.1. SOLAR PHOTOVOLTAIC MODULES:

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

**14.1.2.** The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-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 centers.
- e. The module frame shall be made of corrosion resistant materials, preferably having anodized aluminum.

- f. The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. APEPDCL 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%.
  - 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 bypass 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.
- c. Month & year of the manufacture (separate for solar cells and modules)
- d. Country of origin (separately for solar cells and module)
- e. I-V curve for the module Wattage,  $I_m$ ,  $V_m$  and FF for the module
- f. Unique Serial No and Model No of the module
- g. Date and year of obtaining IEC PV module qualification certificate.
- h. Name of the test lab issuing IEC certificate.
- i. Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

**14.1.4. Warranties:**

**a. Material Warranty:**

- I. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of sale to the original customer ("Customer")
- II. Defects and/or failures due to manufacturing

- III. Defects and/or failures due to quality of materials
  - IV. Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option
- b. Performance Warranty:
- I. The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% after ten years period of the full rated original output.

## 15. ARRAY STRUCTURE

- a. Hot dip galvanized MS mounting structures may be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum 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. 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 APEPDCL. 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 electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminum structures also can be used which can withstand the wind speed of respective wind zone. Necessary protection towards rusting need to be provided either by coating or anodization.
- 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  $60 \text{ kg/m}^2$ .
- 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 Aluminum /cast aluminum alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b. Copper bus bars/terminal blocks housed in the junction box with suitable termination threads

Conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single / double compression cable glands. Provision of earthings. It should be placed at 5 feet height or above for ease of accessibility.

- c. Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- d. Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification

**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 follows:

- 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° C to 50° C
  - Humidity : 95 % Non-condensing
  - Protection of Enclosure : IP-20(Minimum) for indoor.  
: IP-65(Minimum) for outdoor.\
  - Grid Frequency Tolerance range : + 3 or more
  - Grid Voltage tolerance : - 20% & + 15 %
  - No-load losses : Less than 1% of rated power
  - Inverter efficiency(minimum) : >93% ( In case of 10kW or above )
  - 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 Roof Top PV System.
- 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. 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. All instantaneous data shall be shown on the computer screen.
  - XIII. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
  - XIV. Provision for Internet monitoring and download of data shall be also incorporated.
  - XV. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.
  - XVI. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
  - 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.
  - XVIII. Remote Monitoring and data acquisition through Remote Monitoring System software at the project 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 ----- server and portal in future shall be kept.

### **23. METERING:**

- a. The bidirectional electronic energy meter (1.0 class) shall be installed for the measurement of import/Export of energy. The meters shall be provided by the DISCOM and the cost of such bidirectional

electronic energy meter (1.0 class) shall be borne by the Contractor.

- b. Reverse power relay shall be provided by bidder

#### **24. POWER CONSUMPTION:**

- a. Regarding the generated power consumption, priority need to be given for internal consumption first and thereafter any excess power can be exported to grid.

#### **25. PROTECTIONS**

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

##### **25.1. LIGHTNING PROTECTION**

The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. 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**

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**

- I. Each array structure of the PV yard should be grounded/ earthed properly as per IS:3043-1987. In addition the lightning arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of Department/APEPDCL as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly.
- II. 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:**

- I. 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.
- II. A manual disconnect 4pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel

## 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 Armoured 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 AND CONSUMER CONTRIBUTION

The Developer will follow APEPDCL/APERC Net metering guidelines for connecting to the Grid. The interconnection with the grid shall be as specified in the Distribution Code/Supply Code of the State, APEPDCLs Net metering guidelines and amended from time to time. The injection shall be compulsorily at the LT level of the distribution network.

The maximum permissible capacity for rooftop for a single metering point shall be as below:

Monthly Consumption (based on last 12 months i.e. 12 months prior to date of LoA)	Maximum permissible capacity (Wac)	Customer contribution (INR per kWac)
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140 kWh to 200 kWh per month	1 to 1.5 KWac	14,200-16,500 <sup>1</sup>
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Customers shall pay the above mentioned amount in the form of DD payable to Divisional Engineer, Operation, Zone-II, Visakhapatnam.

**28. TOOLS & TACKLES AND SPARES:**

- I. After completion of installation & commissioning of the Solar Roof Top PV System, 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 APEPDCL/ Owner.
- II. 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:**

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 APEPDCL/ 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. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

**31. DRAWINGS & MANUALS:**

- I. 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.
- II. Approved ISI and reputed makes for equipment be used.
- III. For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to APEPDCL /owners before progressing with the installation work.

**32. PLANNING AND DESIGNING:**

- I. The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays

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<sup>1</sup> This range is for Customer loan of 7 and 6 years of tenure respectively at interest Rate: 9.2%. Exact amount to be finalized upon finalization of loan terms by Bank and shall be finalized at the time of pre bid meeting.

layout considering optimal usage of space, material and labor. The bidder should submit the array layout drawings along with Shadow Analysis Report to APEPDCL /Owner for approval.

- II. APEPDCL 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.
- III. 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**

The Contractor shall furnish the following drawings Award/Intent and obtain approval

- I. General arrangement and dimensioned layout
- II. Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- III. Structural drawing along with foundation details for the structure.
- IV. Itemized bill of material for complete SV plant covering all the components and associated accessories.
- V. Layout of solar Power Array
- VI. Shadow analysis of the roof

### **34. SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUAL ENERGY REQUIREMENT**

The Solar Roof Top PV System on the rooftop of the selected households will be installed for meeting up to 100% of the annual energy requirements depending upon the area of rooftop available and the remaining energy requirement of the households, if any, after sizing the Solar Roof Top PV System in kW rating per consumer so as to meet the average of last 12 months' energy requirement on monthly basis through Net Metering principle, will be met by drawing power from grid at applicable tariff for the Customers.

### **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. REIMBURSEMENT FOR ADVERTISING EXPENSES:**

Successful Bidder(s) shall reimburse to APEPDCL, in the ratio of allocation of Tendered Capacity, an amount of INR 2,00,000 (Two Lakh only) or actual expense, whichever is higher, spent for marketing, advertising and promotion of Solar Rooftop implementation for LT Domestic Customers using pamphlets, wall stickers and other offline and online media sources. APEPDCL shall provide bills and other proofs in originals for the expenditure incurred.

**Format A**  
**Section – IV**

**Price Bid**

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

RFS No.:

**Domestic sourcing route:**

Package	Capacity (2500 kWac)	Unit Price inclusive of all taxes and duties (Rs./kWac)  A= B+C	Labour cost inclusive of all taxes and duties (Rs./kWac)  B	Material costs inclusive of all taxes and duties (Rs./kWac)  C	Project Cost* (inclusive of all taxes and duties and O&M for 5 years) (Rs./MWac)  D= A*1000
	2500 kWac				
	In words				
	In rupees				

**Non Domestic sourcing route:**

Package	Capacity (2500 kWac)	Unit Price inclusive of all taxes and duties (Rs./kWac)  A= B+C	Labour cost inclusive of all taxes and duties (Rs./kWac)  B	Material costs inclusive of all taxes and duties (Rs./kWac)  C	Project Cost* (inclusive of all taxes and duties and O&M for 5 years) (Rs./MWac)  D= A*1000
	2500 kWac				
	In words				
	In rupees				



**\* Project Cost is evaluated as part of Price Bid**

- All the costs shall be inclusive of all applicable taxes & duties.
- The quoted Project Cost shall be inclusive of O&M for a 5 Year period from C.O.D

**Note:**

1. Unit Rate (Rs/kWac) shall not exceed Rs. 60,000/kWac inclusive of all taxes and duties under both the routes
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.

Yours faithfully

Date: ..... Signature:.....  
Place: ..... Printed Name.....  
Business Address: Designation:.....  
Country of Incorporation: (Common Seal).....

(State or Province to be indicated)

**SECTION -V FORMATS FOR SUBMITTING RFS**

**Format-1**

**Covering Letter**

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

**Ref. No.** \_\_\_\_\_ **Date:** \_\_\_\_\_

**From:** \_\_\_\_\_ **(Insert name and address of Bidding Company)**

\_\_\_\_\_  
\_\_\_\_\_

**Tel. #:**

**Fax #:**

**E-mail address#**

**To**

APEPDCL Address

Sub: Bid for “Implementation of Utility Driven, Customer owned, Grid connected Solar Roof Top PV System Scheme for LT Domestic Customers in Visakhapatnam, APEPDCL”

Dear Sir,

We, the undersigned....[insert name of the ‘Bidder’] having read, examined and understood in detail the RFS Document for Implementation of Utility Driven, Customer owned, Grid connected Solar Roof Top PV System Scheme for LT Domestic Customers in Visakhapatnam, APEPDCL hereby submit our Bid comprising of Price Bid and Techno Commercial Bid. We confirm that neither we nor any of our Parent Company/Affiliate/Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid RFS.

1. We give our unconditional acceptance to the RFS, dated.....and RFS Documents attached thereto,

issued by APEPDCL, as amended. This shall also be construed as a token of our acceptance to the RFS Documents including all its amendments and clarifications uploaded on eprocurement website

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

**2. Bid Capacity:**

We have bid for the following packages and have accordingly submitted our Price Bid for the same.

S. No.	Package	Bid Capacity (kWac)
1		2500

**3. Bid Security**

We have enclosed a Bid Security 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 Security) and valid up to .....in terms of Clause .....of this RFS. The offered quantum of power by us is.....kWac. (Insert total capacity offered).

**4. Processing Fee**

We have enclosed a DD of Rs.....(Insert Amount), in the form of DD no.....(Insert number of the DD) dated.....[Insert date of DD] from .....(Insert name of bank providing DD) towards processing fee in terms of Clause ..... of this RFS.

- 5. 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).
- 6. In case we are a Successful Bidder, we shall furnish a declaration at the time of commissioning of the Project to the effect that neither we have availed nor we shall avail in future any subsidy other than received from APEPDCL for implementation of the project.

**7. Acceptance**

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

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

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

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

- 9. We are enclosing herewith the Envelope-I (Covering letter, 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 APEPDCL. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFS and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 12 month from the Bid deadline. We confirm that we have not taken any deviation so as to be deemed non-responsive.

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

Thanking you,

We remain,

Yours faithfully,

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

## Format-2

### GENERAL PARTICULARS OF THE BIDDER

	Name of the Company	
	Registered Office Address	
	Telephone, Telex, Fax No	
	E-mail	
	Web site	
	Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
	Year of Incorporation	
	Bidding company PAN Number	
	Bidding company TAN Number	
	Have the bidder/Company ever been debarred By any Govt. Dept. / Undertaking for undertaking any work.	
	Reference of any document information attached by the Bidder other than specified in the RFS.	
	Whether the Bidder wishes to form a Project Company for execution of work	Yes/No/May be
	Bidding company is listed in India	Yes/No
	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	
	Bid Security Bank guarantee No	
	Validity of Bid Security	
	Banker E-mail ID, FAX No of the banker Correspondence address & Pin Code	

(Signature of Authorized Signatory)

**With Seal**

**Format for Shareholding Certificate**

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

**(Signature of Authorized Signatory & Company Secretary)**

**With Seal**

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

### Format-3

#### **FORMAT FOR BID SECURITY**

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

Ref. \_\_\_\_\_

Bank Guarantee No. \_\_\_\_\_

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

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

This guarantee shall be valid and binding on this Bank up to and including \_\_\_\_\_ [*insert date of validity in accordance with Clause 3.12 of this RfS*] and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ only). Our Guarantee shall remain in force until \_\_\_\_\_ [*insert date of validity in accordance with Clause 3.12 of this RfS*]. APEPDCL shall be entitled to invoke this Guarantee till \_\_\_\_\_ [*Insert date which is 30 days after the date in the preceding sentence*].

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

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

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

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

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

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or

any other change in the constitution of the Guarantor Bank.

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

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. \_\_\_\_\_(Rs. \_\_\_\_\_ only) and it shall remain in force until \_\_\_\_\_ [*Date to be inserted on the basis of Clause 3.12 of this RfS*] with an additional claim period of thirty (30) days thereafter. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if APEPDCL serves upon us a written claim or demand.

Signature \_\_\_\_\_

Name\_\_\_\_\_

Power of Attorney No.\_\_\_\_\_

Email ID\_\_\_\_\_

For

[Insert Name of the Bank]

Banker's Stamp and Full Address.

Dated this \_\_\_\_ day of \_\_, 20 \_\_\_\_



## Format-4

### **FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)**

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

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

This guarantee shall be valid and binding on this Bank up to and including.....[*insert date of validity in accordance with Clause 3.13.4 of this RfS*]. and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to Rs. \_\_\_\_\_ Rs. \_\_\_\_\_ only).

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

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

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

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

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

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

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

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

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. \_\_\_\_\_(Rs. \_\_\_\_\_ only) and it shall remain in force until ..... We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if APEPDCL serves upon us a written claim or demand.

Signature \_\_\_\_\_

Name\_\_\_\_\_

Power of Attorney No.\_\_\_\_\_

Email ID\_\_\_\_\_

For

[Insert Name of the Bank]\_

Banker's Stamp and Full Address.

Dated this \_\_\_ day of \_\_\_\_\_, 20\_\_\_

Witness:

1. .... (Signature)

Name and Address

2. .... (Signature)

Name and Address

Notes:

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

## Format-5

### CHECK LIST FOR BANK GUARANTEES

Sl. 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 / initialed by executant and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed Performa?	
e)	Does the Bank Guarantees compare verbatim with the Performa prescribed in the Bid Documents?	
f)	Are the factual details such as Bid Document No. / Specification No. / LOA No. (if applicable) / Amount of BG and Validity of BG correctly mentioned in the BG	
i)	Whether overwriting/cutting if any on the BG have been properly authenticated under signature & seal of executant?	

**Format-6**

**POWER OF ATTORNEY**

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

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

Know all men by these presents, We ..... (name and address of the registered office of the Bidding Company as applicable) do hereby constitute, appoint and authorize Mr./Ms. .... (name & residential address) who is presently employed with us and holding the position of ..... as our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for implementation of grid connected Solar Roof Top PV scheme in selected States in India in response to the RFS. No ..... dated ..... issued by Eastern Power Distribution Company of AP Limited (APEPDCL), Vishakhapatnam 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 APEPDCL may require us to submit. The aforesaid Attorney is further authorized for making representations to APEPDCL, Vishakhapatnam and providing information/responses to APEPDCL, Vishakhapatnam representing us in all matters before APEPDCL, Vishakhapatnam and generally dealing with APEPDCL, Vishakhapatnam in all matters in connection with this Bid till the completion of the bidding process as per the terms of the above mentioned RFS.

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

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

Signed by the within named

..... **(Insert the name of the executant company)**

**through the hand of**

**Mr.** .....

**duly authorized by the Board(vide Board resolution No \_\_\_) to issue such Power of Attorney**

**Dated this ..... day of .....**

**Accepted**

.....

Signature of Attorney

(Name, designation and address of the Attorney)

**Attested**

..... (Signature of the executant)

(Name, designation and address of the executant)

.....

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

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

**WITNESS**

1. .... (Signature)

Name.....

Designation .....

2. .... (Signature)

Name.....

Designation .....

**Notes:**

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

The person authorized under this Power of Attorney, in the case of the Bidding Company / Lead Member being a public company, or a private company which is a subsidiary of a public company, in terms of the Companies Act, 1956, with a paid up share capital of more than Rupees Five crores, should be the Managing Director / whole time director/manager appointed under section 269 of the Companies Act, 1956. In all other cases the person authorized should be a director duly authorized by a board resolution duly passed by the Company.

Also, wherever required, the executant(s) should submit for verification the extract of the chartered

documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

## Format -7

FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT (AS PER CLAUSE 3.3.3)

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

To,

[Name of the Organisation]

(Address)

Dear Sir,

Sub: Bid for "Implementation of Utility Driven, Customer owned, Grid connected Solar Roof Top PV System Scheme for LT Domestic Customers in Visakhapatnam, APEPDCL" in response to the RFS No: \_\_\_\_\_ dated: \_\_\_\_\_

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

Bid Details:

S. No.	Package	Bid Capacity (kWac)
1		2500

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

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

*(Strike Out whichever Is Not Applicable)*

### **Financial eligibility criteria**

Name of Financially Evaluated Entity*	Relationship with Bidding Company**	Financial year	Year of Incorporation of the Bidding company	***Total Maximum Annual Turnover (Rs. Crore)

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

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

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

Yours faithfully

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

Name: .....

Date: .....

Place: .....

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

Name: .....

Date: .....

Place: .....

Notes:

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



## Format-8

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

To,

.....

Dear Sir,

Sub: Bid for "Implementation of Utility Driven, Customer owned, Grid connected Solar Roof Top PV System Scheme for LT Domestic Customers in Visakhapatnam, APEPDCL "

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/applicant company</b>	<b>Name of the Affiliate of the Bidding Company/Applicant 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/ Applicant company</b>

\*Strike out whichever is not applicable.

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

## Format-9

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

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

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To,

.....

Dear Sir,

We refer to the RFS No.....dated.....for "Implementation of Utility Driven, Customer owned, Grid connected Solar Roof Top PV System Scheme for LT Domestic Customers in Visakhapatnam, APEPDCL"

"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 \_\_\_of the RFS.

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

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

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

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

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

Signature of Managing Director/Authorised signatory

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

**Resolution dated.....**

**WITNESS**

..... **(Signature)**

**Name.....**

**Designation.....**

..... **(Signature)**

**Name.....**

**Designation.....**

## Format-10

### CONSORTIUM AGREEMENT

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

THIS Consortium Agreement (“Agreement”) executed on this \_\_\_\_\_ day of \_\_\_\_\_ 2018 between M/s [insert name of Lead Member] \_\_\_\_\_ a Company incorporated under the laws of \_\_\_\_\_ and having its Registered Office at \_\_\_\_\_ (hereinafter called the “Lead Member”, which expression shall include its successors, executors and permitted assigns)

and

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

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

WHEREAS Eastern Power Distribution Company of AP Limited (hereinafter called APEPDCL), a section \_\_\_\_\_ Company incorporated under the Company’s Act, 1956 has invited response to RFS No. \_\_\_\_\_ dated \_\_\_\_\_ for Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance for a period of 5 years of Solar Roof Top PV System in Vishakhapatnam, Andhra Pradesh in India.

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

#### **NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:**

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

1. We, the Members of the Consortium and Members to the Agreement do hereby unequivocally agree that (M/s \_\_\_\_\_), shall act as the Lead Member as defined in the RFS for self and agent for and on behalf of Technical Member \_\_\_\_\_.
2. The Lead Member is hereby authorized by the Technical Member of the Consortium to bind the Consortium and receive instructions for and on their behalf.
3. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
4. Subject to the terms of this Agreement, the Technical member shall be responsible for providing technical knowledge for “Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for a defined period as per RFS of Solar Roof Top PV System in

Vishakhapatnam, Andhra Pradesh in India to the lead member.

5. In case of any breach of any commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
6. This Agreement shall be construed and interpreted in accordance with the Laws of India and courts at Hyderabad alone shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
7. It is hereby further agreed that in case of being shortlisted, the Members do hereby agree that they shall abide by the terms & conditions of the RFS document.
8. It is further expressly agreed that this Agreement shall be irrevocable and shall form an integral part of the RFS submitted to APEPDCL and shall remain valid till completion of the job assigned to the Contractor.
9. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Members respectively from time to time in the response to RFS.
10. It is hereby expressly understood between the Members that no Member at any given point of time, may assign or delegate its rights, duties or obligations under this agreement without the explicit permission of APEPDCL.
11. This Agreement
  - a. Has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
  - b. Sets forth the entire understanding of the Members hereto with respect to the subject matter hereof; and
  - c. May not be amended or modified except in writing signed by each of the Members and with prior written consent of APEPDCL.

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

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

-----

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

Witnesses:

1) Signature-----

Name:

Address:

2) Signature -----

Name:

Address:

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

-----

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

Witnesses:

**ANNEXURE-A: List of Customer and details of Buildings**

<b>S. No</b>	<b>Name of Customer</b>	<b>Name of the Building</b>	<b>Address &amp; Landmark</b>	<b>Mobile Number, ID Proof</b>	<b>RCC Roof area for Roof Tops (in Sq. ft.)</b>	<b>Capacity (in kWac)</b>
		<b>Package-1-Madhavadhara</b>				
1						
2						
3						
4						
5						
6						
			<b>TO BE UPDATED LATER</b>			
		<b>Package-2-Muralinagar</b>				
1						
2						
3						
4						
5						
6						

## ANNEXURE-B: LIST OF BANKS

1. SCHEDULED COMMERCIAL BANKS	14. Syndicate Bank
SBI AND ASSOCIATES	15. Union Bank of India
1. State Bank of India	16. United Bank of India
2. NATIONALISED BANKS	17. UCO Bank
1. Allahabad Bank	18. Vijaya Bank
2. Andhra Bank	19. Bank of Baroda
3. Bank of India	
4. Bank of Maharashtra	
5. Canara Bank	
6. Central Bank of India	
7. Corporation Bank	
8. Dena Bank	
9. Indian Bank	
10. Indian Overseas Bank	
11. Oriental Bank of Commerce	
12. Punjab National Bank	
13. Punjab & Sind Bank	