

**Tender Schedule**  
**For**  
**Design, Supply, Installation & Commissioning**  
**Of**  
**SPV Power Plant of 1kWp Capacity for installation at**  
**individual households all over Andhra Pradesh**  
**Under**  
**Off – grid and Decentralized Solar**  
**Applications**  
**Of JNNSM, MNRE, GOI**

**NAME OF FIRM:.....**

**Tender Notice No.**  
**NREDCAP/SE/SPVP/AP/2014/Dated: 17.09.2014**

**Closing Date: 30.09.2014 at 3.00 PM**

**NEW AND RENEWABLE ENERGY**  
**DEVELOPMENT CORPORATION OF**  
**ANDHRA PRADESH (NREDCAP)**  
**HYDERABAD**

## **B R I E F   H I G H L I G H T S   O F   T H E   T E N D E R**

- The Tender is intended to for installation of 5820Nos. in Andhra Pradesh State of 1KWP Solar Power packs at individual households. Under the Rate contract system
- The tenderers are intended to quote the price reasonably within the MNRE bench mark cost
- The L1 Rate will be arrived among the tenders and communicated to all the tenderers for their consent for taking up the works at L1 rate and enter into rate contract agreement with NREDCAP.
- The tenderers are advised to select four to five districts for operations and shall have the service centers in these districts.
- The tenderers are expected to identify the interested beneficiaries and submit the list in the District Officer of NREDCAP for information and go ahead with the installation duly collecting the 70% beneficiary share of the Rate Contract Rate or as per the state government policy to be announced.
- On completion of the installation and commissioning of the systems, the actual project completion report in MNRE format has to be submitted in the District Office for inspection by the District Officials and forwarding the Head Office.
- On receipt of subsidy (30% share from MNRE), the same will be released to the tenderers.

## ANDHRA PRADESH

STATEMENT SHOWING THE PROPOSED TARGETS TO THE DISTRICTS FOR 1 KWp power packs

Sl.No.	Name of the Districts	No.of power packs ( 1 KWp) Nos.
1	Ananthapur	440
2	Chittoor	460
3	Cuddapah	480
4	East Godavari	440
5	Guntur	440
6	Krishna	480
7	Kurnool	480
8	Nellore	440
9	Prakasham	420
10	Srikakulam	440
11	Visakhapatnam	400
12	Vizinagaram	440
13	West Godavari	460
	<b>Total</b>	<b>5820</b>

# PART – I

## GENERAL DETAILS

**FROM :-** (Full name and address of the tender)

M/s.....  
.....  
.....  
.....

To,

The VC & Managing Director,  
NREDCAP Ltd.  
HYDERABAD

Subject: - Offer in response to Tender Notice No. NREDCAP/SE/SPVP/AP/2014/ Dt.15.09.2014

Sir,

We hereby submit our offer in full compliance with terms & conditions of the attached tender. The tender is being submitted in two separate and sealed envelopes marked Part-I (Technical Bid) & Part-II (Financial Bid).

(Signature of Tenderer)

Seal

### PARTICULARS OF TENDER

Sl No	Particulars	Details
1	Tender Notice No.	NREDCAP/SE/SPVP/AP/2014 Dated: 17.09.2014
2	Name of the work	Design, supply, installation & commissioning of Solar power plant of 1KWp capacity Solar Power packs for installation at individual households in Telangana and Andhra Pradesh States.
3	Aggregated capacity of the Solar PV power plant	1 KWp
	<b>Registration of contractor for eligibility</b>	Registered suppliers / manufacturers/System integrators of NREDCAP for the year 2014-15 and MNRE approved manufacturers/channel partners
4	Period of Contract	1 year
5	Cost of tender document	Rs.5,000/- plus 14.5% ( VAT)
6	Last date & time of submission	30 <sup>th</sup> September 2014 by 3.00 PM
7	Amount of EMD	Rs. 25,000/- by way of Demand Draft in favour of NREDCAP Ltd , payable at Hyderabad
8	Validity of offer for acceptance	3 months from the date of Tender.
9	Technical Bid Opening Date and Time	30 <sup>th</sup> September 2014 at 3.30 PM at registered office of New & Renewable Energy Devpt. Corpn. of AP Ltd Nampally, Hyderabad
10	Price Bid Opening Date and Time	06 <sup>th</sup> October, 2014 at 11.30 A M at . registered office of New & Renewable Energy Devpt. Corpn. of AP Hyderabad
11	Security Deposit	Rs 2.00 Lakhs as security deposit at the time of entering Rate contract Agreement with NREDCAP

**Note:**

1. The Tender document can be downloaded from <http://www.nedcap.gov.in>. Through open tender and the cost of tender document enclosed by way of demand draft of Rs. 5,000/- Plus14.50% VAT in favour of NREDCAP Ltd, payable at Hyderabad and this D.D. is to be inserted in the technical bid of the tender document.

2. All relevant required documents along with evidences are to be inserted in technical bid, and only quoted rates (as per Format enclosed) is to be inserted in the financial bid.

**3. Financial bid will be opened of those bidders who would duly qualify in the technical bid.**

### GENERAL PARTICULARS OF TENDERER

Sl No	Particulars	Details
1	Name of Tenderer/Firm	
2	Postal Address	
3	E-mail address for communication	
4	Telephone, Fax No.	
5	Name, designation & contact number of the representative of the tenderer to whom all references shall be made.	
6	Nature of the firm (Individual/ Partnership/Consortium/ Pvt. Ltd /Public L t d . Co. /Public Sector etc.) Attach attested copy of Registration & Partnership deed/ Memorandum of Association	
7	Amount and particulars of the earnest money deposited.	
8	Annual Turnover for last financial years (Attach balance sheets from CA in this regard)	
9	Name and address of the Indian/foreign collaboration if any.	
10	PAN No., Service Tax Registration No., AP VAT/TIN/GRN No., CST No., Required MNRE test certificates (if any)etc. (evidences are to be attached).	
11	Has the Tenderer/firm ever been debarred by any institution for undertaking any work?	
12	Any other information attached by the Tenderer (Details and Annexure / page no. where its enclosed)	
13	Does Tenderer have any relative Working in NREDCAP? If yes state the Name and designation.	

Tenderers are requested to give their full particulars legal and financial, status

**(Signature of Tenderers with Seal)**

NB: In case of non submission of Andhra Pradesh VAT Registration No., selected bidder will be allowed one month time for getting VAT Registration No. from the date of issue of final work order.

## DECLARATION BY THE TENDERER

I /We .....

(Hereinafter referred to as Tenderer) being desirous of tendering for the work, under this tender and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the tender document do hereby declare that-

1. The tenderer is fully aware of all the requirements of the tender document and agrees with all provisions of the tender document and accepts all risks, responsibilities and obligations directly or indirectly connected with the performance of the tender.

2. The Tenderer is fully aware of all the relevant information for proper execution of the proposed work, with respect to the proposed place of works/ site, its local environment, approach road and connectivity etc. and is well acquainted with actual and other prevailing working conditions, availability of required materials and labour etc. at site.

3. The Tenderer is capable of executing and completing the work as required in the tender and is financially solvent and sound to execute the tendered work. The tenderer is sufficiently experienced and competent to perform the contract to the satisfaction of NREDCAP. The tenderer gives the assurance to execute the tendered work as per specifications, terms and conditions of the tender on award of work.

4. The tenderer has no collusion with other tenderers, any employee of NREDCAP or with any other person or firm in the preparation of the tender.

5. The tenderer has not been influenced by any statement or promises by NREDCAP or any of its employees but only by the tender document.

6. The tenderer is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.

16.7. The Tenderer has never been debarred from similar type of work by any Government Undertaking /Department. **(An undertaking on Non-Judicial Stamp paper worth of Rs. 100/- in this regard shall be submitted)**

8. The Tenderer accepts that the earnest money / security deposit may be absolutely forfeited by NREDCAP if the selected bidder fails to sign the contract or to undertake the work within stipulated time.

9. This offer shall remain valid for acceptance for 3 (Three) months from the proposed date of opening of Tender

10. All the information and the statements submitted with the tender are true and correct to the best of my knowledge and belief.

**(Signature of Tenderer)**

**Seal**



**PART-2**

**INSTRUCTIONS  
TO  
TENDERERS**

## **SECTION 1**

### **INTRODUCTION**

#### **ELIGIBLE TENDERERS:**

The Tenderer shall provide sufficient documentary evidences to satisfy the following conditions that the Tenderer:

- (a) Is an indigenous manufacturer of the Solar PV Systems or experienced contractor in the Field of Solar PV Power Plant.
- (b) Has adequate plant and machinery capacity available, to perform the works properly and expeditiously within the time frame specified in the tender document.
- (c) Has established quality assurance systems and organization designed to achieve high level of equipment reliability in installation of the Solar Systems.
- (d) **Has adequate financial stability and status to meet the financial obligations Pursuant to the scope of work. The firm must have cumulative annual turnover of minimum 25 Lacs in last financial year i.e., 2013-2104 financial years documents certified by a chartered Accountant shall be enclosed.**
- (e) **Has experience of, supply installation, testing, and commissioning and maintenance/after sale services in the field of Off- Grid Solar PV systems of more than 20 KWp cumulative capacities in the last 1 year. The details must be submitted in the Proforma given in Technical- Bid section of tender document.**
- (f) **Has adequate field service setup in the Districts proposed for installation to provide good after sale services including necessary repair and maintenance in the state of AP.**
- (g) Has provided good after sale services for the works done by him during past years.
- (h) **The suppliers have to select 4 to 5 Districts for operation and the same may be indicated. The suppliers has to restrict to these districts for installation of systems**
- (i) Fulfills all requirements as per provisions under JNNSM, MNRE, G.O.I.
- (j) All the components including Power plant, mentioned above should be quoted as a single item. No partial quotes are accepted. For all the equipment the bidder should have an authorisation certificate from OEM.

The above stated requirements are compulsory to be fulfilled by the tenderer and NREDCAP may also ask for any additional information as may be deemed necessary in public interest.

## **SECTION 2**

### **THE TENDER DOCUMENT**

#### **2.1 CONTENT OF TENDER DOCUMENT**

- 2.1.1 The tender procedure and contract terms are prescribed in the tender document. In addition to the invitation of tender, the tender document includes the various other documents as given in the table of particulars of tender.
- 2.1.2 The tenderer is expected to examine all instructions, terms and conditions, specifications, forms and formats etc as mentioned/ enclosed in the tender document. Failure to furnish all information required in the tender document or submission of a tender not substantially responsive to the tender document in every respect will be at the tenderer's risk and is likely to result in out-right rejection of the tender.

#### **2.2 INFORMATION REQUIRED WITH THE PROPOSAL**

- 2.2.1 The tender must clearly indicate the name of the manufacturer, the types and model & make of each principal item of equipment proposed to be supplied. The tender may also contain details of specifications and other comprehensive descriptive materials in support of technical specifications.
- 2.2.2 The above information may be provided by the Tenderer in the form of separate sheets, specifications, catalogues etc.
- 2.2.3 Any tender not containing sufficient descriptive material to describe the proposed equipment may be treated as incomplete and hence may be rejected. Such descriptive materials and specifications submitted by the Tenderer will be retained by NREDCAP. Any deviations from these will not be permitted during the execution of contract, without specific written permission of NREDCAP.

#### **2.3 CLARIFICATION OF TENDER DOCUMENT**

- 2.3.1 Any prospective tenderer requiring any clarification on the tender document regarding various provisions / requirements/ preparation/ submission of the tender, may contact NREDCAP in writing by letter or fax/ email before 48 hours of closing time of the tender. Queries received later shall not be entertained.
- 2.3.2 Verbal clarifications and information shall not be entertained in any way.

#### **2.4 AMENDMENTS IN TENDER DOCUMENT**

- 2.4.1 At any time prior to the due date for submission of the tender or even prior to the opening of the financial bid, NREDCAP may for any reason, whether at its own initiative or as a result of a request for clarification/ suggestion by a prospective tenderer, amend the tender document by issuing a notice.
- 2.4.2 The amendments will be notified on the website at least 2 days before the proposed date of submission of the tender. NREDCAP will bear no responsibility or liability arising out of non receipt of the information in time or otherwise. If any amendment is required to be notified within 2 days of the proposed date of submission of the tender, the last date of submission shall be extended for a suitable period of time.
- 2.4.3 In case amendments is notified after submission of the tender (prior to the opening of financial bids), all the tenders received by NREDCAP shall be returned in sealed condition to the concerned tenderers through registered post or courier, for getting their offer revised according to the amended terms and conditions. All the notices related to this tender which are required to be publicized shall be uploaded only [on http://www.nedcap.gov.in](http://www.nedcap.gov.in)

**SECTION 3**  
**PREPARATION OF TENDER**

**1.1 LANGUAGE OF TENDER AND MEASURE**

The tender prepared by the tenderer along with all the related documents shall be in English. Unit measurements shall be metric in accordance with International System. All correspondence between the tenderer and NREDCAP shall also be in English.

**1.2 EARNEST AND SECURITY MONEY**

1.2.1 The tenderer shall furnish earnest money of Rs. 25,000/- as mentioned in the "Particulars of Tender" in Shape of DD in favour of , NREDCAP, payable at Hyderabad Bank guarantee can also be submitted in place of DD towards EMD amount for a period of 1 year from any nationalized bank in favour of VC & Managing Director, NREDCAP, Hyderabad, as a part of the tender.. The bank guarantee should be valid for a period of 1year beyond the validity of offer. Tenders without EMD shall be rejected by NREDCAP as being non-responsive. No interest shall be paid by NREDCAP on the amount of earnest money deposit as well as deposit of Security Deposit.

1.2.2 The earnest money may be forfeited:- If a Tenderer withdraws his tender during the specified period of validity of offer.

1.2.3 All the tenders received will be evaluated by a committee constituted for Technical eligibility. The financial bids of the technically qualified tenders only will be opened on the scheduled Date for financial evaluation and finalization of L1 offer. In case the L1 offer is less than 25% of MNRE bench mark cost, the tender will be rejected and L2 or any other tender immediately above Benchmark cost will be treated as  
**"Finalized rate contract rate"**

1.2.4. All the Technically qualified tenderers will be intimated about the **"Finalized rate contract rate". And will be requested to submit their consent for undertaking the works at that rate and entering into rate contract Agreement with NREDCAP.**

1.2.5. The Tenderers have deposit an amount of Rs 2,00,000 /- as security money in the form of DD/ Bank guarantee from any nationalized bank in favour of "NREDCAP, Hyderabad at the time of signing of the Rate contract agreement with NREDCAP. The bank guarantee should be valid for a period of 5 years. No interest shall be paid by NREDCAP on the amount of security money deposit.

1.2.5. The Rate contract registered tenderers will be allotted 3 to 4 districts for area of operation on verification of their service centers in the districts. The Rate contract registered tenderers will have to market their product to individual domestic beneficiaries and the list of interested beneficiaries may be submitted to the concerned EE of NREDCAP for information.

1.2.6. The tenderer has to complete the installation of the system as per specifications of Tender duly collecting the beneficiary share (70% ) of the Rate contract rate and submit the project completion report in MNRE format, Photographs, invoice etc for transmission to MNRE for release of subsidy.

1.2.7. The tenderer has to give an undertaking that the systems will be maintained regularly during the AMC period of 5 Years failing which the Security deposit amount will be forfeited.

1.2.8 The authority reserves the right of awarding the work. The earnest money of such selected Tenderer shall also be released after signing the agreement and submission of security money by them. After receiving the consent to work on the lowest rates, the earnest money of such Tenderer shall be forfeited if they fail to sign the contract agreement within stipulated period.

1.2.5 The earnest money of all unsuccessful bidders/not given shall be released soon after selection of selected bidders against submission of their written intimation regarding acceptance of work and deposition of security deposit amount.

### 1.3 **PERIOD OF VALIDITY OF TENDER**

1.3.1 Validity of the offer should be 3 months from the proposed date of opening of the Technical bid. Tenders without this validity will be rejected.

1.3.2 In exceptional circumstances, NREDCAP may solicit the consent of the tenderers to an extension of the period of validity of offer. The request and the response there of shall be made in writing.

### 1.4 **FORMATS AND SIGNING OF TENDER**

1.4.1 The tender must contain the name and places of business of the firm/person/persons participating in the tender and must be signed and sealed by the Tenderer with his usual signature. The name and designation of all persons signing the tender document should be written below every signature. Tender by a partnership firm must be furnished with full name of all partners with a copy of partnership deed.

1.4.2 The original copy of the tender should be typed or written in indelible ink and must be signed with the legal name of the corporation/ company by the President/ Managing Director/ Secretary of the firm or a person duly authorized to bid. In case of authorized person the letter of authorization by written power-of-attorney should be enclosed with the technical bid of the tender. The person or persons signing the tender shall initial all pages of the tender document.

1.4.3 The tender shall contain no interlink actions, erasers or overwriting except as necessary to correct the errors made by the tenderer in the preparation of tender. The person or persons signing the tender shall also sign at all such corrections.

### 1.5 **PRICE AND CURRENCIES**

The tenderer shall have to submit their rates in Indian Rupees only including all latest applicable taxes & duties of Govt. of Andhra Pradesh and Govt. of Telangana as well as Govt. of India. Moreover, VC & Managing Director, NREDCAP will not be responsible for providing Road permits. It is to be obtained by the selected bidder only and necessary Entry Tax (as admissible) will have to be borne by the selected bidder if any. The rate should be quoted on the prescribed format for Financial Bid (Part II) attached to this tender document.

## SECTION 4

### SUBMISSION OF TENDER

#### 4.1 SEALING AND MARKING OF TENDER

- 4.1.1 The tender must be complete in all technical and commercial respect and should contain requisite certificates, drawings, informative literature etc. as required in the tender document.
- 4.1.2 In Technical bid (sealed envelope) (Part-I), following documents are to be inserted: - (1). Copy of Registration 2) **cost of the tender document by way of DD is to be attached** 3) Copy of VAT/GRN, CST, PAN, Service Tax registration No 4.) System Test certificates 5) Proof of Company"s local office including contact telephone no. of local people. Requisite earnest money, brochures, literature and other documents regarding technical specifications. **It should be superscripted with "TENDER for design, supply, installation, and commissioning of 1 KWp SPV Power Plants for individual domestic beneficiaries in Andhra Pradesh - 'Earnest Money and Technical Bid "**
- 4.1.3 **The complete tender document in original (excluding financial bid) issued by NREDCAP or downloaded from the website should be submitted by the tenderer in the first envelope (Part- I) after furnishing all the required information on relevant pages. Each page of the tender document should be signed & stamped. Tenders 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 tenderer to furnish/ submit the required information.**
- 4.1.4 Second sealed envelope (Part-II) should contain financial bid only. **It should be superscribed with "TENDER FOR DESIGN, SUPPLY, INSTALLATION, AND COMMISSIONING OF 1 KWP SPV POWER PLANT. FOR INDIVIDUAL DOMESTIC BENEFICIARIES IN ANDHRA PRADESH - FINANCIAL BID".** The tenderer should submit his duly signed and stamped financial bid on the financial bid format attached with this tender document, after writing the price only.
- 4.1.5 Any term/condition proposed by the tenderer in his technical bid which is not in accordance with the terms and conditions of the tender document or any financial conditions, payment terms, rebates etc. mentioned in financial bid shall be considered as a conditional tender and will make the tender invalid.
- 4.1.6 Both the above sealed envelopes i.e. closely marked as Part-I (Technical Bid) and Part-II (Financial Bid) will be sealed in another one envelope, subscribed with TENDER notice NREDCAP/SE/SPVP/2014/Dated: 15.09.2014 and Name of Work" Design, supply, installation, and commissioning of **1 KWp SPVPOWER PLANT FOR INDIVIDUAL DOMESTIC BENEFICIARIES IN ANDHRA PRADESH.** This envelope shall be addressed to "VC & Managing Director, NREDCAP, HYDERABAD".

#### 4.2 DEADLINE FOR SUBMISSION OF TENDER

- 4.2.1 Tender must be received by NREDCAP till the date & time of submission as specified in tender document.
- 4.2.2 Any tender received after the specified date & time of submission will be rejected and returned unopened to the Tenderer.

## **TENDER OPENING AND EVALUATION AND FINALISATION**

### **5.1 OPENING OF TENDER**

The procedure of opening of the tender shall be as under:

**5.1.1** First envelop (Part-I) bearing TENDER for Design, supply, installation, and commissioning of **1KWp POWER PLANT. FOR INDIVIDUAL DOMESTIC BENEFICIARIES IN ANDHRA PRADESH.** And super scribed 'Earnest Money and Technical Bid' shall be opened by NREDCAP representatives at the time and date mentioned in the „Particulars of Tender", in the presence of tenderers who choose to be present. The financial and technical suitability of offers will be examined by NREDCAP in detail. If required, clarifications regarding the suitability of the offers will be obtained.

**5.1.2** Second envelope (Part-II) bearing for Design, supply, installation, and commissioning of **1 KWp POWER PLANT. FOR INDIVIDUAL DOMESTIC BENEFICIARIES IN ANDHRA PRADESH.** And super scribed "**Financial bid**" of only those tenderers shall be opened whose technical bid is found responsive, suitable and in accordance with the various requirements of the tender on the day and time notified.

### **5.2 CLARIFICATIONS REGARDING THE SUBMITTED TENDERS**

**5.2.1** During the process of evaluation of the tender, NREDCAP may at its discretion ask the tenderer for a clarification of their tender. The request for clarification and the response shall be in writing.

**5.2.2** Any query regarding any clarification required by NREDCAP on the information submitted by the tenderer, must be replied by the tenderer within the following time schedule.

- Email/ fax query should be replied by Email/ fax within 2 days.
- Query by letter must be replied by letter within 7 days of receipt of the letter.

## **6. FINALISATION OF TENDERS**

1. Tenders will be finalized by the NREDCAP Tender evaluation committee , for the works along with technical bid evaluation for consideration and in accordance with the conditions stipulated in the tender document and in case of any discrepancy or non-adherence to the conditions, the same shall be communicated which will be binding both on the tender concluding authority and contractor. In case of any ambiguity the decision taken by the VC & Managing Director, NREDCAP on tenders shall be final.
2. The tenders if received with abnormally high percentage or within the permissible ceiling limits (bench mark cost) prescribed, but under collusion due to unethical practices adopted during the tendering process shall be rejected.

### **DISCOUNT TENDERS:**

- a) In case of discount tenders, tenders up to 25% less than the estimated/MNRE bench mark cost value shall be accepted.
- b) But the tenders with the less by more than 25% of the estimated/ MNRE bench mark cost the tender will be rejected.
- c) The successful tenderer has to sign an agreement with in a period of 5 days from the date of receipt of communication of acceptance of his tender. On failure to do so, his tender will be cancelled duly forfeiting the E.M.D paid by him without issuing any further notice.

## **TERMS OF CONTRACT**

### **6.1 EVALUATION CRITERION**

The whole work shall be on **Turnkey basis**. The tender shall be finalized on the basis of total cost of Solar Power Plant system including supply, installation & commissioning, including the CMC for a period of 5 years as per the rate contract agreement

### **6.2 NOTIFICATION OF AWARD**

Prior to the expiry of validity period of offer, NREDCAP will notify the successful tenderer by registered Letter/Email/ Fax that his tender has been accepted.

### **6.5 RIGHT TO ACCEPT/REJECT ANY OR ALL TENDERS.**

NREDCAP reserves all the right to reject any or all the tenders, accept any tender in total or in part.

### **6.6 EXPENSES OF AGREEMENT**

The respective suppliers shall pay all the expenses of stamp duties and other requirements for signing the agreement with NREDCAP.



**PART-3**

**GENERAL CONDITIONS**

**OF**

**CONTRACT**

## **GENERAL CONDITIONS OF CONTRACT**

### **1. DEFINITIONS**

In the deed of contract unless the context otherwise requires:-

1.1 "NREDCAP" shall mean The VC & Managing Director or his representative of „New & Renewable Energy Development Corporation of AP, with its office at Nampally, Hyderabad. The „Contractor" shall mean the Firm/ Person (whose tender has been accepted by NREDCAP) and shall include his legal representatives, successor in interest and assignees.

1.2 The contract shall be for Design, Supply, Installation & Commissioning of Solar PV Power Plant of **1 KWP CAPACITY POWER PLANTS, FOR INDIVIDUAL DOMESTIC BENEFICIARIES IN ANDHRA PRADESH** including the CMC for a period of 5 Years (2 Years Warrantee & 3 years CMC) and shall be valid till the completion of all related works. However the validity of rates may further be extended to a specified period of time on the mutual consent of both the parties.

1.3 The Contractor shall be deemed to have carefully examined all papers, drawing etc. attached to the contract deed. If he shall have any doubt as the meaning of any portion or any condition (s) / specifications etc. They may contact NREDCAP for clarification.

### **2. PERFORMANCE SECURITY**

The Tenderer has to enter into Rate Contract Agreement with NREDCAP duly depositing Rs.2,00,000/- as Performance Security Deposit. This amount will be refunded on completion of the 5 years performance guarantee period for all the systems installed.

### **3. FORCE MAJEURE**

3.1 Notwithstanding the provisions of clauses contained in this deed; the contractor shall ~~not~~ be liable for forfeiture of its performance security, liquidated damages, termination for default, if he is unable to fulfill his obligation under this deed due to force majeure circumstances.

3.2 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 the NREDCAP & his decision shall be final and binding on the contractor and all other concerned.

3.3 If a force majeure situation arises, the contractor shall notify NREDCAP in writing promptly (at the most within 10 days from the date such situation arises). After examining the cases NREDCAP shall decide and grant suitable extension of time for the completion of the work.

3.4 For other justified cases also, not covered under force majeure conditions, NREDCAP may consider the request of contractor and additional time for completion of work may be granted.

### **4. QUALITY, WARRANTEE/ GUARANTEE AND COMPREHENSIOVE MAINTENANCE:**

4.1 The contractor shall warrant the Solar PV Power Plant as per applicable standards of quality (MNRE Specs). Anything to be furnished shall be new, free from all defects and faults in

material and workmanship. The manufacture shall be in accordance with the specified technical parameters and should be of the highest grade and consistent with established and generally accepted standards for material. It shall be in full conformity with the drawing or samples if any and shall operate properly if operable.

4.2 After installation of the Solar PV Power Plant at site, the contractor shall ensure satisfactory performance of the equipments for a period of time as specified in the scope of work.

4.3 The contractor shall rectify defects developed in the Systems within CMC period promptly. In case the contractor does not rectify the defects within **one week** of the receipt of complaint, NREDCAP may restore the System in working condition on contractor's expenses.

4.4 Frequent and unjustified delays in rectifying defects may lead to cancellation of the contract, recovery of losses and imposing of additional penalty. In such circumstance NREDCAP shall have the full liberty to recover the losses/penalty from the contractor pending claims, security deposit or in other law full manner. The amount of losses/penalty shall be decided by VC & Managing Director, NREDCAP and will be binding on the contractor.

## 5. STANDARDS

The goods supplied and works executed under this contract shall confirm to the standards mentioned in the technical specification and where no applicable standard is mentioned, the latest version of Indian Standard Institution or Bureau of Indian Specification shall be applicable.

5.1 NREDCAP or its duly authorized representatives shall have the right to inspect and /or to test the goods to confirm their quality according to the contract and shall have access to the contractor's works premises and the power to inspect and examine the materials and workmanship of the Solar PV Power Plant at all reasonable times during their manufacture.

5.2 The contractor shall inform NREDCAP through a written notice regarding any material being ready for testing at least 05 days in advance. The conditions of contract and/or the technical specifications shall specify what inspections and tests shall be conducted by NREDCAP. All the arrangements of necessary equipments and expenses for such tests shall be on the contractor's account excluding the expenses of the inspector.

5.3 NREDCAP's Inspector, unless the witnessing of the tests is virtually waived off, will inspect and attend such test within 3 days from the date on which the equipments are notified as being ready for test /inspection.

5.4 NREDCAP shall within 3 days, give written notice to the contractor, about any objection regarding the quality of the system. The contractor shall either make necessary modifications to remove the cause of such objection or shall clarify the objections in writing if modifications are not necessary to comply with the contract.

5.5 After satisfactory testing of the systems during inspection, NREDCAP's Inspector shall issue dispatch clearance for the supply of material at site.

## **6. SPARE PARTS**

The contractor shall make arrangement to maintain a sufficient stock of essential spares and consumable spare parts to ensure proper maintenance of the system promptly.

## **7. PACKING FORWARDING**

7.1 Contractors, wherever applicable shall properly pack and crate all materials in such a manner as to protect them from deterioration and damage during transportation. The contractor shall be responsible for all damage due to improper packing.

7.2 The contractor shall inform the Executive Engineer (SE), NREDCAP, HO and Project site officer regarding the probable date of each shipment of materials from his works.

## **7.3. TRANSPORTATION**

The contractor is required to deliver the goods at location as defined in the scope of work.

## **8. DEMURRAGE WHARFAGE, ETC**

All demurrage, wharf age and other expenses incurred due to delayed clearance of the material or any other reason shall be on the account of the contractor.

## **9. INSURANCE**

9.1 The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture or acquisition; transportation and the expenses shall be borne by the contractor.

9.2 The contractor shall arrange security & storage of their materials to avoid any theft or losses during execution of work. NREDCAP will, in no case, shall be responsible for providing any security/storage for the materials & equipments lying at site during execution of work. Under the contract contractor shall be responsible for any loss or damage until the systems/ supplies are taken over.

9.3. Any injuries and accidents during erection to Technician, Labour, Erection crew, Students, Teacher or any other persons during the time of execution will be liability and responsibility of contractor and they shall make necessary preventive measures.

## **10. LIABILITY FOR ACCIDENTS AND DAMAGES**

During the Warrantee period, the contractor shall assume all responsibilities for direct damages covering all type of accident, injury or property damage caused by manufacturing defects or faulty installation on the systems.

## **11. DUTIES AND TAXES**

The rates/ prices mentioned in the price-schedule include all latest applicable taxes, duties of Govt. of Andhra Pradesh as well as Govt. of India and applicable taxes will be deducted at source against which necessary tax deductions certificates will be issued as and when required. No additional payments shall be made by NREDCAP on this account.

## **SPECIAL ATTENTION**

While preparing the Bid-Price the Bidders shall also take into account the following:

- i) Infrastructure & Construction Facilities, Preliminary, Enabling & Ancillary works whatsoever required by them for successful completion of the Project in the specified time schedule.
- ii) Indian Income Tax and Surcharge on Income Tax on Salaries of Expatriates etc.
- iii) Corporate Income Tax.
- iv) All Taxes, Duties and expenses such as Excise Duty, Sales Tax on Indian Supplies, Customs Duty and Custom Clearance on imported items, transportation and storage at site etc.
- v) All local duties, royalties, octroi etc.
- vi) All applicable taxes, cess charges etc., on works contract etc. in the State of Andhra Pradesh.

### **The following recoveries will be made towards Taxes.**

VAT TDS at 5.00% will be recovered.

- 1. Income Tax at 2.00 %
- 2. Service Tax on items that are applicable will be deducted from the running bills and final bills thereof.

## **12. PATENT RIGHT AND ROYALTIES:**

The contractor shall indemnify NREDCAP against all third party claims of infringement of patent, royalties, trademark or industrial design rights arising from use of the goods supplied/ installed by the contractor or any part thereof.

## **13. RIGHT TO VARY QUANTITIES**

NREDCAP reserves all the rights to increase or decrease the quantity of goods mentioned in the contract, at the time of placement of orders without any change in price or other terms and conditions.

## **14. LOCAL CONDITIONS**

It will be imperative on contractor to have full information of all local conditions and factors which may have any effect on the execution of the works. The contractor shall be deemed to have collected all the relevant information regarding the proposed place of works/ site, its local environment, approach road and connectivity etc. and be well acquainted with actual

working and other prevailing conditions.

#### **15. TOOLS & TACKLES**

The contractor shall provide all necessary tools & tackles for proper execution of work and operation/ maintenance of systems after installation. NREDCAP shall in no way, responsible for supply of any tools & tackles.

#### **16. TERMINATION FOR DEFAULT**

NREDCAP without prejudice to any other remedy for violate of contract, by written notice of default sent to the contractor, may terminate the contract in whole or in part. If the contractor fails to perform any other obligation(s) under the contract. However in the event of termination of the contract in part, the contractor shall continue performance of the contract to the extent not terminated.

#### **17. TERMINATION FOR INSOLVENCY**

NREDCAP may at any time terminate the contract by giving written notice to the contractor without compensation to the contractor if he becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to NREDCAP.

#### **18. TERMINATION FOR CONVENIENCE**

NREDCAP may vide a written notice sent to the supplier; terminate the contract, in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the purchasers convenience in the interest of NREDCAP.

#### **19. COMPLETION OF WORK**

**On completion of the work, the contractor shall submit 3 sets of " Project completion report in MNRE format " along with copies of Invoice, Audited statement of expenditure, photographs etc., to NREDCAP which will include photographs, drawings of various systems containing details of installation from the point of view of future maintenance of the installed systems. This report must also contain all Technical Details, Detailed Circuit Diagram of the Electronic/ Electrical components of all the system. The report shall include satisfactory performance report from appropriate authority for each site along with photograph of representative of the authority and the party.**

#### **20. OTHERS CONDITIONS:**

20.1 The contractor 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 NREDCAP in writing.

20.2 NREDCAP may at any time either stop the work all together or reduce or cut it down by sending notice in writing to the contractor. If the work is stopped all together, the contractor will only be paid for work done and expenses distinctly incurred by him as on preparation or the execution of the work up to the date on which such notice is received by him. The decision of NREDCAP regarding assessment of such expenses shall be final and binding on the contractor. If the work is cut down, the contractor will not be paid any compensation what to ever for the loss of profit which he might have made if he had been allowed to complete all the work awarded to him.

20.3 Fulfillment of various requirements, not particularly mentioned in the specifications or drawings but necessary for satisfactory and proper completion of the work shall be the contractor's responsibility within the prices offered by him. But additional works beyond the scope and essence of this contract shall be carried out by the contractor as extra items. For such works the rates shall be decided by NREDCAP and shall be binding on the contractor.

20.4 The contractor shall not display the photographs of the work and not take advantage through publicity of the work without written permission of NREDCAP.

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

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

## **21. Safety Measures:**

- a) The contractor shall take necessary precautions for safety of the workers and preserving their health while working in such jobs, which require special protection and precautions. The following are some of the measures listed but they are not exhaustive and contractor shall add to and augment these precautions on his own initiative where necessary and shall comply.
- b) Supply work men with proper belts, ropes etc., when working in precarious slopes etc.
- c) Avoiding naked electrical wire etc., as they would electrocute the works.
- d) Taking necessary steps towards training the workers concerned on the machinery before they are allowed to handle them independently and taking all necessary precautions in around the areas where machines hoists and similar units are working.

## **22. STATUTORY ACTS**

22.1 All legal formalities/clearances are to be obtained by the contractor regarding the execution of the said work.

22.2 In respect of all labour directly or indirectly employed on the work by the contractor, the contractor shall comply with all the provisions of hiring the contract labour and rules of State/ Central Government or any other authority framed from time to time. The rules and other statutory obligations in this regard will be deemed to be the part of this contract.

22.3 The contractor shall comply with all the Acts & rules and regulations, laws and bylaws framed by State/ Central Government/ Organization in whose premises the work has to be done. NREDCAP shall have no liabilities in this regard.

### **23. APPLICABLE LAW**

The contract shall only be interpreted under Indian laws. The station of NREDCAP, Hyderabad , shall have exclusive jurisdiction in all matters arising under this contract.

### **24. RESOLUTION OF DISPUTES / ARBITRATION**

Any disputes arises regarding this tender will be settled under area of jurisdiction of NREDCAP, Hyderabad.

### **25. NOTICES**

25.1 Any notice to be given by one party to the other, pursuant to the contract shall be sent in writing. A notice shall be effective when delivered or from the effective date mentioned in the notice, whichever is later.

25.2 Notices, statements and other communications **sent by NREDCAP** to the contractor at his specified addresses through registered post/ email/ fax shall be deemed to be delivered to the contractor.

### **26. APPLICATION**

These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.

### **27. PAYMENT TERMS:**

The works are to be executed under the rate contract system, No work order will be issued by NREDCAP. The approved suppliers are expected to identify and motivate the beneficiaries and the list to be submitted to District office for information. The suppliers are expected to collect **the 70% of cost of system i.e. Beneficiary share directly and after installation of system**, the Actual Project completion report in MNRE format has to be submitted in district office for inspection. The claim will be forwarded to MNRE and on receipt of funds / eligible subsidy; the same will be released to supplier after deducting 3% NREDCAP service charges.

#### **Note:**

1. **No price escalation due to any reason (including any change in the applicable taxes, duties etc.) shall be considered by NREDCAP during the validity/ extended validity of the contract agreement**

2. **All the bank guarantees should be made from nationalized recognized bank for a period of 1year from the date of issue of Rate contract agreement.**



## **PART-4**

# **GENERAL TECHNICAL SPECIFICATIONS**

### GENERAL TECHNICAL SPECIFICATIONS

#### Size of PV Plant required /Minimum size of Solar PV Array

Plant Capacity at each Location	Location	Minimum Size of the PV array.
1.0 kW Capacity	<p><b>Design, Supply, Installation &amp; Commissioning of SPV Power Plant of capacity of 1.0kwp</b> with following specifications</p> <p><b>a) SPV Modules:</b> Any standard make with IEC certification and RFID tag pasted inside as per MNRE specifications and of 250Wp capacity-4nos to be provided.</p> <p><b>b) Invertors :</b> MNRE empanelled invertors ,MPPT type of 1.50KVA capacity to be installed</p> <p><b>c) Batteries :</b> MNRE empanelled batteries of Tubular VRLA Gel Type with 2V cells of capacity 24V 300AH or 48V 150AH to be provided</p> <p><b>d) Structure&amp; other BOS :</b> MS Galvanized structure of 50X50X5mm angle iron as per MNRE specs to be used.</p> <p><b>e) Cables:</b> Reputed brand having IEC 60189 IS 694/ IS 1554 of 6Sqmm on DC side and 2.5sqmm on AC side must be used Energy Meter, ACDB, DCDB has to be provided. Battery backup including the AMC for a period of 5 Years.</p>	PV array should be of 1,000WP with 4 nos of 250Wp SPV modules only

#### 1. PV MODULES: -

- a) The PV modules must confirm to the latest edition of any of the following IEC / equivalent BIS Standards for PV module design

Qualification and type approval:

- Crystalline Silicon Terrestrial PV Modules IEC 61215 / IS14286

- b) In addition, the modules must confirm to IEC 6116.730 Part 1- requirements for construction & Part 2 - requirements for testing, for safety qualification.
- c) I V Curve both soft copy & hard copy must be provided (Image / PDF).
- d) The PV Module must contain RF identification tag

**(a)** Suggestive list of the events/parameters for monitoring:

- i) SPV Output Voltage ii) SPV Output Current, iii) DC Load Current, iv) Battery Voltage, v) Inverter Output Voltage, vi) Inverter Output Frequency, vii) Connected Load, viii) Connected Load Current, ix) Energy Used in KWH Cumulative) Node Number of each inverter, along with additional information regarding local solar and wind parameters .The SMS Template should be handed over to the successful bidder during placement of Work Order.

**The BoS items / components of the Solar PV Power Plants/ systems must conform to the latest edition of IEC/ equivalent BIS Standards as specified below:**

BoS item/component	Applicable IEC/equivalent BIS Standard	
	Standard Description	Standard Number
Power Conditioners/ Inverters*	Efficiency Measurements Environmental Testing	IEC 61683 IEC 60068 2 (6,21,217,30,778)
Charge controller/ MPPT units*	Design Qualification Environmental Testing	IEC 62093 IEC 60068 2 (6,21,27,30,75,78)
Cables	General Test and Measuring Methods PVC insulated cables for working Voltages up to and including 1100 V-Do-, UV resistant for outdoor installation	IEC 60189 IS 694/ IS 1554 IS/IEC 69947
Switches/Circuit Breakers / Connectors	General Requirements Connectors- safety	IS/IEC 60947 part I,II,III EN 50521
Junction Boxes/ Enclosures	General Requirements	IP 65 IP 21 IEC 62208
SPV System Design	PV Stand-alone System design verification	IEC 62124
Installation Practices	Elect. installation of building requirements for SPV power supply systems	IEC 60364-7-712

**\*\* BoS Must additionally conform to the relevant national/international Electrical Safety Standards.**

#### **4. MAIN FEATURES & OPERATING MODE**

PCU should give preference to the solar power as the first input to load. The second preference is given from the grid. And third from Battery. The PCU always gives preference to the solar power and will use Grid power only when the solar power is insufficient to meet the load requirement. The output from the power conditioning unit should give phase plus neutral operation with continuous capacity providing 230 V AC at 50 Hz, each phase to neutral pure sine wave. It should contain intelligent controller to get maximum power over the period

#### **5. PROTECTION SYSTEM:**

PCU should have in-built software controls for islanding protection to isolate from the grid in case of no supply, under voltage and over voltage conditions.

PV system should be provided with adequate rating fuses on pcu input side as well as output side for overload and short circuit protection and disconnecting switches to isolate the power for maintainers are needed.

Fuses/ RBD's of adequate rating should be provided in each solar array string to protect them against short circuit

**SURGE PROTECTION:** Internal surge protection shall consist of three MOV type arrestors connected from +Ve and -Ve terminals to earth (via Y arrangement) for higher withstand of the continuous PV-DC voltage during earth fault condition. SPD shall have safe disconnection and short circuit interruption arrangements through integrated DC in-built bypass fuse (parallel) which should get tripped during failure mode of MOV, extinguishing DC arc safely in order to protect the installation against fire hazards. Nominal discharge current (In) at 8/20 micro seconds shall be minimum 10 kA with maximum discharge (Imax) at 8/20 micro seconds minimum 20 kA with visual indication (through mechanical flag) in modules to monitor the life of SPD.

## 6. MODULE MOUNTING STRUCTURE

- Modules shall be mounted on a non-corrosive support structures towards due south and at a suitable inclination to maximize annual energy output.
- Mounting structure should be withstand for 180Kmph wind speed with sustainability certificate
- Support structures shall be manufactured with steel angles & channels; hot dip galvanization to IS 1416.716.7 Part -1 with thickness of 100 microns as per IS 5905.

Fixed Structure shall be designed for mounting of offered Solar Modules with angle facility from 17° to 23°. All fasteners shall be of Stainless steel - SS 304 (Hardware make: LPS Bossard).

- The foundation for Module Mounting structures shall be 1:2:4 PCC Construction. There shall be minimum necessary clearance between round/Roof level and bottom edge of SPV modules.

## 7. ORIENTATION AND TILT OF PV module

Modules alignment should be due south and tilt angle shall be 12 - 23 degrees with horizontal.

## 8. DC DISTRIBUTION BOARD (DCDB)

A DCDB shall be provided in between PCU and Solar Array. It should have protection circuits of Suitable rating for connection and disconnection of array and battery bank section.

## 9. ACDB: AC Distribution Board:

A ACDB shall be provided in between PCU and distribution line. It should have a protection circuit of Suitable rating for connection and disconnection of distribution line. It should have a rotatory switching unit.

## 10. AC DISTRIBUTION

The generated electricity from these Power Plants will be utilized for illumination of campus /Indoor Lighting, fans, computers, Internet Modem, Printers, within allowable practice limit. Necessary electric cable/ connection.

## 11. OPERATION MANUAL

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar PV Power Plant and detail of plant layouts Wiring and Connection Diagrams will also be provided with the manual.

## 12. WARRANTY/ GUARANTEE

(i) The complete Solar PV Power Plant must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years with CMC

(ii) PV modules used in Solar PV Power Plant must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 15 years and 80% at the end of 25 years.

(iii) The Warrantee/ Guarantee Card to be supplied with the Solar PV Power Plant must contain the details of the system supplied, as given in the Annexure- 1. The manufacturers can provide additional information about the system.

(iv) During the Warrantee/ Guarantee period, MNRE / NREDCAP / users will have all the rights to cross check the performance of the Solar PV Power Plant. NREDCAP may carry out the frequent inspections of the Solar PV Power Plant installed and randomly pick up its components to get them tested at Govt. / MNRE approved any test center. If during such tests any part is not found as per the specified technical parameters, NREDCAP will take the necessary action. The decision of NREDCAP in this regard will be final and binding on the tenderer.

### 13. TEST REPORTS

The test certificate of various components of the proposed SPV system should be in accordance with guidelines of MNRE for off grid Solar PV systems under Jawaharlal Nehru National Solar Mission (JNNSM) and related Addendums/ Minutes of meeting published on MNRE website. Test certificates from MNRE approved test centers shall also be considered valid.

### 14. OTHER FEATURES

(i) The supplier must fulfill all the technical & other requirements as per provisions under JNNSM, MNRE, GOI.

(ii) Only indigenously manufactured Solar PV Power Plant which fully confirm to the MNRE specifications shall be procured. Fully imported Solar PV Power Plant shall not be procured however use of imported components of PV system would be permitted, subject to adequate disclosure and compliance to specified quality norms and standard.

(iii) A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side:

a) Name of the Manufacturer or distinctive Logo b) Model or Type No. a) Serial b) Year of make.

## **PART-5**

### **SCOPE OF WORK**

## PART-5

### SCOPE OF WORK

The work shall include Design, Fabrication, Manufacturing, Supply, Installation, and Testing & Commissioning of 1KWp Solar PV Power Plants at Individual households in the state of Andhra Pradesh on turnkey basis in accordance with the technical specifications of MNRE , including the CMC for a period of 5 Years.

#### The details of Solar PV Power Plant to be installed are as under:

Sl. No	System Details	Qty
1	<p><b>Design, Supply, Installation &amp; Commissioning of SPV Power Plant of 1KWp capacity</b> at Individual households in the states of Andhra Pradesh on turnkey basis as per the specifications mentioned below</p> <p><b>a) SPV Modules:</b> Any standard make with <b>IEC certification</b> and RFID tag pasted inside as per MNRE specifications and of 250Wp capacity-4nos to be provided.</p> <p><b>b) Invertors :</b> <b>MNRE empanelled invertors</b> ,MPPT type of 1.50KVA capacity to be installed</p> <p><b>c) Batteries:</b> <b>MNRE empanelled batteries</b> of Tubular <b>VRLA Gel Type with 2V cells of capacity 24V 300AH or 48V 150AH</b> to be provided.</p> <p><b>d) Structure&amp; other BOS :</b> MS Galvanized structure of 50X50X5mm angle iron <b>as per MNRE specs</b> to be used.</p> <p><b>e) Cables :</b> Reputed brand having IEC 60189 IS 694/ IS 1554 of 6Sqmm on DC side and 2.5sqmm on AC side must be used Energy Meter, ACDB, DCDB, separate earthing has to be Provided. battery backup including the AMC for a period of 5 Years</p>	1 unit

#### Scope of works shall include:

A. All works required for proper installation of Solar PV Power Plant including necessary civil and welding works for mounting structures of solar module shall be done by the contractor. The entire work shall be performed on turnkey basis. All the works related to the proper installation and functioning of the system shall have to be carried out by the contractor in the prices offered by him.

B. Required wiring to energize the proposed load shall have to be done by the contractor. All the wiring shall have to be done in concealed conduits.

C. All necessary electrical wiring from electrical distribution box up to PCU of Solar PV Power Plant and back from PCU to distribution box shall have to be provided by the contractor.

D. Appropriate Cabinets for battery banks, with the provision of acid proof racks for batteries should be provided by the contractor.

E. The complete Solar PV Power Plant including indoor and outdoor fittings shall be warranted by the contractor against any manufacturing/ design/ installation defects for a minimum period of 5 years from the date of installation.

F. PV modules used in Solar PV Power Plant shall be warranted by the contractor for their output peak watt capacity, which should not be less than 90% at the end of 15 years and 80% at the end of 25 years.

G. The contractor will make all necessary arrangements for satisfactory operation, maintenance and performance of the Power Plant during 5 year's CMC period.

H. Rectification of all the defects developed in the Solar PV Power Plant during CMC period shall have to be done by the contractor promptly, at the most within 3 days from the date of receipt of compliant.

I. CMC will include rectification /replacement of all the defective and consumable components/items including batteries. During CMC period, all the arrangements for keeping the Solar PV Power Plant functional shall be the sole responsibility of the contractor.

J. After completion of the proposed works, clearances of all temporary works/ materials shall be the sole responsibility of the contractor and this shall be removed immediately after the requirement of such temporary work is completed.

K. Supply and Installation of **Permanent Display board showing all technical information of SPV plant shall be done by contractor.** The matter written on these boards shall be finalized in consultation with NREDCAP.

L. All the non functional parts/ materials/ items replaced during the CMC period shall be the property of the contractor.

M. The contractor will conduct on-sitetrainingof thepurchaser"s/user's personnel regarding the operation, maintenance and repairs of the Solar PV Power Plant.

N. Necessary arrangements for storage of batteries & PCU of Solar PV Power Plant as per requirement shall be done by user agency.

O. During CMC period, the contractor shall have to submit annual performance report from user agency regarding functionality of the system.



## **QUALITY AND WARRANTY**

### **(INCLUDING COMPREHENSIVE MAINTENANCE) OF 05 YEARS**

- All components and sub systems of the Plant should conform to the “ MINIMAL TECHNICAL REQUIREMENTS/STANDARDS specified by the MINISTRY OF NEW AND RENEWABLE ENERGY(MNRE) ,for SPV systems / plants .
- The PV modules will be warranted for a minimum period of 25 years from the date of supply. (Output wattage should not be less than 90% at the end of 10 years and 80% at the end of 25 years).
- The mechanical structures, electrical works including inverters/charge controllers distribution board/ meters and overall workmanship of the solar power plants must be warranted for a minimum of **5 years**.
- The **Comprehensive Maintenance** (within warranty period) shall be executed by the firm themselves or the authorized dealer/ service centre of the firm in the concerned district.
- **It is mandatory for the contractor to open an authorized service center in the concerned district before the supply/installation of the system.**
- Necessary maintenance spares for five years trouble free operation shall also be supplied with the system.
- The supplier shall be responsible to replace free of cost (including transportation and insurance expenses) to the purchaser whole or any part of supply which under normal and proper use become dysfunctional within one month of issue of any such complaint by the purchaser.

**PART-6**

**TECHNICAL BID**

**PART – 6**  
**TECHNICAL BID**

**For Solar PV Power Plant of 1 KWp**

<b>(1)</b>	<b>Solar Module:</b>	
1.1	Type of Cell (Material Structure) :	
1.2	Name of Module Manufacturer :	
1.3	Voc	
1.4	Isc :	
1.5	Wattage at 16.4 V:	
1.6	Fill Factor	
1.7	Module efficiency	
<b>(2)</b>	<b>BATTERY:</b>	
2.1	Make and Type : Tubular VRLA Gel type	
2.2	Rating (Voltage and AH capacity @C/10) :24V300AH or 48V150AH	
2.3	AH Efficiency	
2.4	Other Details: such as MNRE empanelment etc (certificate to be enclosed)	
<b>(3)</b>	<b>P.C.U. (Charge Controller and Inverter):1.5KVA , MPPT</b>	
3.1	Make and capacity	
3.2	D.C. Operating Voltage	
3.3	A.C. Output Voltage	
3.4	Protection Features:	
3.5	Indications:	
<b>3.6</b>	Other Details: such as MNRE empanelment etc (certificate to be enclosed)	

**(Signature of Bidder)**  
**With seal**

**4. BoS Items/Component:**

Sl. No	Details regarding	Proposed by Tenderer
1	Name of the cables , Distribution boxes etc	
2	Name of the manufacturer & Make of... Switches/Circuit Breaker/ Connectors/ SURGE	
3	Enclosed supporting documents if any	From Page No.....to.....
4	Details in case of any deviation from the technical specifications as specified in the tender document.	

(Attach additional sheets if required)

**All the components including Power plant, software's and other components mentioned above should be quoted as a single item. No partial quotes are accepted. For all the equipment the bidder should have an authorisation certificate from OEM.**

**(Signature of Tenderer with Seal)**

### **DETAILS OF EXPERIENCE**

Please fill in information about off grid Solar PV Systems installed in last three years.

Details	Year		
	2011 – 12	2012 – 13	2013 – 14
Solar PV Power Plants (KWp)			
Total contract amount (Rs.)			
Others			

**NOTE:** Above details without copies of work orders, completion certificates and satisfactory performance reports from the users will not be considered.

### **DETAIL OF THE DISTRICTS OPTED FOR INSTALLATION OF SOLAR POWER PLANTS IN ORDER OF PRIORITY**

<b>Sln</b>	<b>Name of the District opted for implementation</b>
<b>1</b>	
<b>2</b>	
<b>3</b>	
<b>4</b>	
<b>5</b>	
<b>6</b>	

**Of THE ABOVE OPTIONS SUBMITTED NREDCAP WILL ALLOT 4 DISTRICTS IN ORDER OF PRIORITY**

## CHECKLIST TO ACOMPANY THE TENDER

**Annexure -I**

Sl. No	Description	Submitted in Cover 'A'	Page No. (see Note below)
1	2	3	4
1	Copy of Contractors valid Registration certificate with MNRE /NREDCAP	Yes /No	
2	Demand draft toward requisite Earnest Money Deposit (issued by any Nationalized bank) <b>Rs. 25,000/-</b>	Yes /No	
3	Crossed demand draft towards Cost of tender document <b>Rs.5000/-</b>	Yes /No	
4	Copy of PAN card.	Yes /No	
5	Copy of latest Income Tax Clearance returns submitted along with proof of receipt (Latest SARAL form).	Yes /No	
6	Copies of VAT Registration Certificate.	Yes /No	
7	Latest VAT/ Sales Tax clearance certificate.	Yes /No	
8	Availability of LOCAL technical personnel in the Districts	Yes /No	
9	Information on litigation history in which Bidder is involved.		
9	Any other documents/certificate as specified in tender conditions	Yes /No	
10.	Experience Certificate	Yes /No	

**Notes:-**

1. All the statements copies of the certificates, documents etc., enclosed to the Technical bid shall be given page numbers on the right corner of each certificate, which will be indicated in column (4) against each item. The statements furnished shall be in the formats appended to the tender document.
- 2) The information shall be filled-in by the Tenderer in the check list, as applicable and shall be enclosed to the Technical bid for the purposes of verification as well as evaluation of the tenderer's Compliance to the qualification criteria as provided in the Tender document.

**Note: The bidders shall sign on all the statements, documents, certificates by him, owning responsibility for their correctness/authenticity.**

**DECLARATION**

I / WE ..... have gone through carefully all the Tender conditions and solemnly declare that I / we will abide by any penal action such as disqualification or black listing or determination of contract or any other action deemed fit, taken by, the Department against us, if it is found that the statements, documents, certificates produced by us are false / fabricated.

I / WE hereby declare that, I / WE have not been blacklisted / debarred / Suspended / demoted in any department in Andhra Pradesh or in any State due to any reasons.

**Signature of the Tenderer**

### STATEMENT -I

Maximum value of SPV Power packs works executed in any one year during the last (3) Financial years by the Tenderer.

Sl. No.	Financial year	Value in Rs.
1.	<b>2011-2012</b>	
2.	<b>2012-2013</b>	
3.	<b>2013-2014</b>	

Attach certificate from the Chartered Accountant along with Annual Balance sheet.

Signature of the Tenderer



**STATEMENT – II**

Information on litigation history in which Bidder is involved.

- 1) Whether black listed/ Debarred/Suspended from execution of work.
- 2) Other litigations. If any including Court litigations. Arbitrations etc.

Department and concerned officer	Other party (ies)	Case of dispute.	Amount involved.	Remarks showing present status.
1	2	3	4	5

Signature of Tenderer

## **PART-7**

### **FINANCIAL BID**

**PART-7**  
**FINANCIAL BID**  
**Tender No.**

**Name of work:** Design, Supply, Installation & Commissioning of Solar PV Power Plants on Rate contract basis for individual domestic beneficiaries in the state of Andhra Pradesh including 5 Years CMC (As defined in the scope of work)

(Amounts in INR)

SL. No	System Details	Capacity	Qty	Rate (In Figure)	Rate (In words)	Amount
	<b>A.</b>					
1	<b>Design, Supply, Installation &amp; Commissioning of SPV Power Plant of capacity of 1 KWp with following specifications</b> a) <b>SPV Modules</b> : Any standard make with IEC certification and RFID tag pasted inside as per MNRE specifications and of 250Wp capacity-4nos to be provided. b) <b>Invertors</b> : MNRE empanelled invertors ,MPPT type of 1.50KVA capacity to be installed c) <b>Batteries</b> ::MNRE empanelled batteries of Tubular VRLA Gel Type with 2V cells of capacity 24V 300AH or 48V 150AH to be provided d) <b>Structure&amp; other BOS</b> : MS Galvanized structure of 50X50X5mm angle iron as per MNRE specs to be used e) <b>Cables</b> : Reputed brand having IEC 60189 IS 694/ IS 1554 of 6Sqmm on DC side and 2.5sqmm on AC side must be used Energy Meter, ACDB, DCDB, separate earthing has to be provided. including the AMC for a period of 5 Years	1 KWp	01 Nos.			
			<b>Total</b>			

**(In words)**.....

Certified that:

- 1- Above rates are in accordance with the specifications & various terms & conditions mentioned in the tender document and are applicable for instillation anywhere in Andhra Pradesh
- 2- The rates are inclusive of all latest prevailing taxes and duties etc.,of Govt. of AP as well as Govt. of India. Moreover, NREDCAP will not be responsible for providing Road permits. It will be obtained from our end and necessary Entry Tax (as admissible) will have to be borne
- 3- Site conditions shall be taken care of.

**(Signature of Tenderer)**

**With Seal**

**FORMAT FOR BANK GUARANTEE FOR - EARNEST MONEY DEPOSIT**

This deed of Guarantee made on ..... day of Month & Year by Name & Address of the bank (hereinafter called the „GUARANTOR“) on the one part, on behalf of M/s Name & address of the Firm (hereinafter called the „Firm“) ) in favour of VC& Managing Director, NREDCAP, Hyderabad on the following terms and conditions.

Whereas the FIRM is submitting its tender for Name of the work and this guarantee is being made for the purpose of submission of Earnest money deposit with the tender document.

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep NREDCAP indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize NREDCAP to recover the same directly from the GUARANTOR. This bank guarantee herein contained shall remain in full force and effect till the expiry of its validity or till any extended period (if extended by the bank on receiving instructions from FIRM.). The liability under the guarantee shall be binding on the GUARANTOR or its successors.

Whereas the GUARANTOR further agrees that their liability under this guarantee shall not be affected by any reason of any change in the offer or its terms and conditions between the FIRM and NREDCAP with or without the consent or knowledge of the GUARANTOR.

Whereas the GUARANTOR further agrees to pay guaranteed amount hereby under or part thereof, on receipt of first written demand whenever placed by NREDCAP during the currency period of this guarantee. The GUARANTOR shall pay NREDCAP immediately without any question, demure, reservation or correspondence.

Whereas the GUARANTOR hereby agrees not to revoke this guarantee bond during its currency period except with the previous consent of NREDCAP in writing.

**Notwithstanding anything contained herein –**

1. Our liability under this bank guarantee shall not exceed Rs. ....
2. This Bank guarantee shall be valid up to .....
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only against the written claim or demand on or before ..... Sealed with the common seal of the bank on this .....day of Month and Year

Witness

1.....

**(Signature and seal of the bank)**

2.....

**FORMAT FOR BANK GUARANTEE FOR - SECURITY MONEY DEPOSIT FOR RATE CONTRACT AGREEMENT**

This deed of Guarantee made on ..... day of Month & Year by Name & Address of the bank (hereinafter called the „GUARANTOR“) on the one part, on behalf of M/s Name & address of the Firm (hereinafter called the „FIRM“) in favour of VC & Managing Director, NREDCAP, Hyderabad on the following terms and conditions.

Whereas the FIRM is entering into a agreement with NREDCAP for the „**Name of work**“..... and this guarantee is being made for the purpose of submission of Security money required to be deposited at the time of signing of the agreement between **NREDCAP and FIRM.**

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep NREDCAP indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize NREDCAP to recover the same directly from the GUARANTOR. This bank guarantee herein contained shall remain in full force and effect till the expiry of its validity or till any extended period (if extended by the bank on receiving instructions from FIRM.). The liability under the guarantee shall be binding on the GUARANTOR or its successors.

Whereas the GUARANTOR further agrees that their liability under this guarantee shall not be affected by any reason of any change in the offer or its terms and conditions between the FIRM and NREDCAP with or without the consent or knowledge of the GUARANTOR.

Whereas the GUARANTOR further agrees to pay guaranteed amount hereby under or part thereof, on receipt of first written demand whenever placed by NREDCAP during the currency period of this guarantee. The GUARANTOR shall pay NREDCAP immediately without any question, demure, reservation or correspondence.

Whereas the GUARANTOR hereby agrees not to revoke this guarantee bond during its currency period except with the previous consent of NREDCAP in writing.

Notwithstanding anything contained herein –

- Our liability under this bank guarantee shall not exceed Rs. ....
- This Bank guarantee shall be valid up to .....
- We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only against the written claim or demand on or before .....

Sealed with the common seal of the bank on this .....day of Month and Year.

Witness:

1.....

**(Signature and seal of the bank)**

2.....

