

# **TENDER DOCUMENT**

**FOR**

## **SUPPLY OF SOLAR LANTERN AT VARIOUS LOCATIONS IN THE STATE OF UTTARAKHAND**

**Tender Notice No. UREDA/SPV-1TENDERS/2011-12**

**TENDER NO. UREDA/SPV/S-LAN/2011-12**

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

**SIGNATURE OF TENDER ISSUING OFFICER**

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**Uttarakhand Renewable Energy Development Agency (UREDA)**  
**Energy Park Campus, Industrial Area, Patel Nagar, Dehradun**  
Tel: 0135-2521553, Fax 0135-2521386, E-mail: uredahq@gmail.com

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**UTTARAKHAND RENEWABLE ENERGY DEVELOPMENT AGENCY.**  
**Department of Energy, Govt. of Uttarakhand**  
**Energy Park Campus, Industrial Area, Patel Nagar, Dehradun**

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# **PART-I**

## **GENERAL DETAILS**

## **TENDER - NOTICE**

### **UTTARAKHAND RENEWABLE ENERGY DEVELOPMENT AGENCY**

Energy Park Campus, Patel Nagar Industrial Area, Dehradun

**Phone: 0135-2521387 Fax: 0135-2521386 E-mail: uredahq@gmail.com,**

**Tender Notice No. UREDA/SPV-1TENDERS/2011-12**

Sealed & separate tenders are invited from eligible manufacturers (as per the eligibility criterion of Ministry of New and Renewable Sources of Energy, Govt. of India) or their authorized dealers for Supply, Erection and Commissioning/ AMC of following systems at various locations in the State of Uttarakhand.

Sl	Particulars	Details of Item/System				
		Solar Lanterns	Solar Street Lights	Solar Home Lights	Lead Acid Batteries	LED Street Lights
1	Tender Cost	Rs 10000/-	Rs 10000/-	Rs 5125/-	Rs 5125/-	Rs1025/-
2	Amount of Earnest money	Rs 40.00 Lacs	Rs 50.00 Lacs	Rs 5.00 Lacs	Rs 2.00 Lacs	Rs 0.60 Lacs
3	Tentative Quantity	80000 Nos.	13000 Nos.	2000 Nos.	1000 Nos.	125 Nos.
4	Last date of submission	25.06.2011	25.06.2011	25.06.2011	25.06.2011	25.06.2011
5	Notification on website	27.06.2011	27.06.2011	27.06.2011	27.06.2011	27.06.2011
6	Date of opening (Tech. Bid)	28.06.2011	29.06.2011	30.06.2011	30.06.2011	30.06.2011

For Solar Lanterns, Solar Street Lights & Solar Home Lights tenderer must have valid test report of the system from any MNRE approved test centers or as per JNNSM guidelines of MNRE. The tender documents can be seen & downloaded from <http://uk.gov.in/contents/listing/1> or can be obtained on any working day during office hours from the above mentioned office.

Technical bids of the various tenders shall be opened on the dates as mentioned above. The date of opening of financial bid shall be communicated after scrutiny of technical bids. The financial bid of only those tenders who qualify in technical bid shall be opened.

For any clarification regarding the submission of tender, Mr. C.P.Agrawal, Deputy Chief Project Officer, UREDA, Dehradun may be contacted on the above mentioned telephone number. The undersigned reserves all the rights to reject any or all the tenders without assigning any reason.

**DIRECTOR, UREDA**

FROM :- (Full name and address of the tenderer)

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

To,

The Director  
Uttarakhand Renewable Energy Development Agency  
Energy Park Campus, Industrial Area. Patel Nagar, Dehradun,

**Subject: Offer in response to Tender Notice No. UREDA/SPV-1TENDERS/2011-12**

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 & Part-II.

(Signature of Tenderer)

Seal

### **PARTICULARS OF TENDER**

1	Tender Notice No.	UREDA/SPV-1TENDERS/2011-12
2	Particulars of the work	SUPPLY OF SOLAR LANTERN AT VARIOUS LOCATIONS IN THE STATE OF UTTARAKHAND
3	Tentative Quantity	80000 Nos.
4	Period of rate contract	Till the completion of all proposed works.
5	Cost of tender document	Rs. 10000/- (inclusive of trade tax)
6	Last date/ time of submission	25.06.11 up to 3:00 PM
7	Amount of Earnest money	Rs. 40.00 Lacs
8	Validity of offer for acceptance	Three Months from the date of opening of the Technical bid
9	Date and Time of opening of tender	28.06.11 at 11:30 AM
10	Place of opening of tender	Energy Park Campus, Industrial Area, Patel Nagar, Dehradun

#### **Note:-**

- 1- The tender document can be obtained on any working day during office hours from the head quarters of UREDA at Dehradun, till 24th June, 2011 after paying the cost of tender document through Bank draft in favour of Director UREDA Dehradun.
- 2- It can be downloaded also from <http://uk.gov.in/contents/listing/1> and the cost of tender document can be deposited along with the technical bid of the tender document.
- 3- Tender document issued by UREDA or downloaded from the above website will only be considered valid.
- 4- The list of tenders received till due date and time of submission shall be notified on the website on 27.06.2011.

**GENERAL PARTICULARS OF TENDERER**

<b>Sl</b>	<b>Particulars</b>	<b>Details</b>
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 Ltd. 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 Turn over for last two (2) years (Attach balance sheets from CA in this regard)	
9	Name and address of the Indian/foreign collaboration if any.	
10	Sales Tax Registration no.(Copies of Registration Certificates of trade tax/ sales tax to be enclosed)	
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 UREDA? If yes state the name and designation.	

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

**(Signature of tenderer with Seal)**

## **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 relevant data regarding the proposed place of work/ site, its local environment, approach road and connectivity, actual prevailing working conditions, availability of required materials and labour and all other necessary information required for proper completion of the proposed work.
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 UREDA. 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 UREDA 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 UREDA 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.
7. The tenderer accepts that the earnest money may be absolutely forfeited by UREDA if the tenderer fails to sign the contract or to undertake the work within stipulated time.
8. This offer shall remain valid for acceptance for 3 (Three) months from the proposed date of opening of the Technical Bid.
9. The tenderer has never been debarred from similar type of work by any Government undertaking /Department. (An undertaking on Stamp paper in this regard shall be submitted)
10. All the information and the statements submitted with the tender are true.

(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 Lanterns or authorized dealer of a manufacturing firm. In case of a dealer, authorization letter from manufacturing firm shall have to be submitted with tender document. The authorization letter shall confirm the joint responsibility of dealer & manufacturer for the satisfactory completion of work. More than one dealer of a manufacturing firm may participate in the tender but every such dealer shall be treated as an individual tenderer.
- (b) The tenderer fulfills the terms and conditions of eligibility as an indigenous manufacturer of Solar Lanterns in accordance with the directions of Ministry of New and Renewable Energy Government of India.
- (c) Has adequate plant and manufacturing capacity available, to perform the works properly and expeditiously within the time frame specified in the tender document.
- (d) Has established quality assurance systems and organization designed to achieve high level of equipment reliability in manufacturing of the Solar Lanterns.
- (e) Has adequate financial stability and status to meet the financial obligations pursuant to the scope of work. (The firm must have annual turnover of minimum 5 Crores during last two (2) years.)
- (f) Has experience of manufacturing, supply and maintenance/after sale services in the field of Stand alone/ Off grid Solar PV systems of more than 100 KW cumulative capacity in the last three years. The details must be submitted in the Performa given in Technical- Bid section of tender document
- (g) Has adequate field service setup to provide good after sale services including necessary repair and maintenance and has provided good after sale services for the supplies made by him during past years.
- (h) Has Valid Test Certificate regarding Solar Lantern as specified and required in the Technical Specifications of this tender document.
- (i) Fulfills all requirements under Jawaharlal Nehru National Solar Mission of MNRE, Govt. of India

The above stated requirements are compulsory to be fulfilled by the tenderer and UREDA 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 contents at page no-2.
- 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 UREDA. Any deviations from these will not be permitted during the execution of contract, without specific written permission of UREDA.

#### **2.3 AMENDMENTS IN TENDER DOCUMENT**

- 2.3.1 At any time prior to the due date for submission of the tender or even prior to the opening of the financial bid, UREDA 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.
- 2.3.2 The amendments (if any) will be notified on the website at least Three (3) days before the proposed date of submission of the tender. If any amendment is required to be notified within Three (3) days of the proposed date of submission of the tender, the last date of submission may be extended for a suitable period of time.
- 2.3.3 UREDA will not bear any responsibility or liability arising out of non-receipt of the information regarding amendments in time or otherwise. Tenderers must check the website for any such amendment before submitting their tender.
- 2.3.4 In case any amendment is notified after submission of the tender (prior to the opening of financial bids), all the tenders received by UREDA 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.
- 2.3.5 All the notices related to this tender which are required to be publicized shall be uploaded on <http://uk.gov.in/contents/listing/1>

### **SECTION 3**

#### **PREPARATION OF TENDER**

##### **3.1 LANGUAGE OF TENDER AND MEASURE**

The tender prepared by the tenderer along with all the related documents shall be in English. Any printed literature furnished by the tenderer may be in another language so long as it is accompanied by an English translation of its pertinent passages. Unit measurements shall be metric in accordance with International System. All correspondence between the tenderer and UREDA shall also be in English.

##### **3.2 EARNEST AND SECURITY MONEY**

3.2.1 The tenderer shall furnish earnest money as mentioned in the 'Particulars of Tender' in the form of FDR/CDR/ Bank guarantee from any nationalized bank pledged in favour of Director UREDA, Dehradun, as a part of his tender. The bank guarantee should be valid for a period of forty five (45) days beyond the validity of offer. Tenders without EMD shall be rejected by UREDA as being non-responsive. The No interest shall be paid by UREDA on the amount of earnest money deposit.

##### **3.2.2 The earnest money may be forfeited:-**

a) If a tenderer withdraws his tender during the specified period of validity of offer.

b) If the successful tenderer fails to sign the contract agreement within stipulated period.

3.2.3 The earnest money of the successful lowest tenderer shall be released at the time of signing of the agreement with UREDA. At this time, the tenderer shall have to deposit security money amounting to 5% of the contract value in the form of DD or FDR/CDR/ pledged in favour of Director UREDA, Dehradun. No interest shall be paid by UREDA on the amount of security money deposit.

3.2.4 UREDA may also decide to split the work between other tenderers who choose to execute the work on the lowest rates received in the tender. The earnest money of the selected tenderers shall also be released after signing the agreement and submission of 5% security money by them. After receiving the consent to work on the lowest rates, the earnest money of such tenderers shall be forfeited if they fail to sign the contract agreement within stipulated period.

3.2.5 The earnest money of all other tenderers who do not accept the lowest rates shall be released after receiving their written intimation regarding not being interested.

##### **3.3 PERIOD OF VALIDITY OF TENDER**

3.3.1 Validity of the offer should be Three (03) months from the proposed date of opening of the Technical bid. Tenders without this validity the will be rejected.

3.3.2 In exceptional circumstances, UREDA 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.

##### **3.4 FORMATS AND SIGNING OF TENDER**

3.4.1 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 the signature. Tender by a partnership firm must be furnished with full name of all partners with a copy of partnership deed.

- 3.4.2 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.
- 3.4.3 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.

### 3.5 PRICE AND CURRENCIES

The tenderer shall submit his rates in Indian Rupees only, on the format for Financial Bid attached to this tender document. The rates should include all applicable taxes, duties & surcharges. In case of any difference in the rates quoted in figures and words, the rates quoted in words shall be considered to be correct.

- 3.6 The tenderers are suggested to collect all relevant data regarding the proposed place of work/ site, its local environment, approach road and connectivity, actual prevailing working conditions, availability of required materials and labour and all other information/ data required for proper completion of the proposed work. If required, the tenderer must pre-visit the site before submitting his tender. UREDA shall not entertain any request of contractor for clarifications related to such local conditions and shall bear no responsibility in this regard.

### 3.7 CHECK LIST FOR ENCLOSURES

<b>Sl No.</b>	<b><u>DD/FDR/CDR/BG etc.</u></b>	<b>Page/ Annexure No</b>
1	Cost of Tender Document (If downloaded from web Site)	-----
2	Amount of Earnest Money Deposit	-----
<b>Sl.No</b>	<b><u>OTHER DOCUMENTS</u></b>	<b>Page/ Annexure No</b>
1	If dealer, authorization letter from manufacturing firm	
2	Undertaking on stamp paper for genuineness of firm	
3	Complete tender document (in original) duly signed	
4	Coy of Registration & Partnership deed/MOA	
5	Registration Certificates of trade tax/ sales tax	
6	Details regarding plant and manufacturing capacity	
7	Details regarding working staff/ personnel	
8	Details regarding field service setup	
9	Details of experience (Work orders/ completion reports)	
10	Balance sheets of last two years	
11	Required Test Reports of the system	
12	Any other information attached by the tenderer	

The above documents should be enclosed in the same serial order as mentioned. This index of documents should be enclosed in the beginning of the tender document, entering the Page/ Annexure Nos. of the documents.

**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 First sealed envelope (Part-I) should contain cost of the tender document (In case it's downloaded from website), requisite earnest money, brochures, literature and other documents regarding technical specifications. It should be subscribed with TENDER NO. UREDA/SPV/S-LAN/2011-12 & 'Earnest Money and Technical Bid'.
- 4.1.3 The complete tender document in original (excluding financial bid) issued by UREDA 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 subscribed with TENDER NO. UREDA/SPV/S- LAN/2011-12 and "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. Part-I and Part-II will be sealed in another one envelope, subscribed with TENDER NO. UREDA/SPV/S- LAN/2011-12 and '**Name of Work**'..... This envelope shall be addressed to the Director, Uttarakhand Renewable Energy Development Agency (UREDA) Energy Park Campus, Dehradun.

**4.2 DEADLINE FOR SUBMISSION OF TENDER**

- 4.2.1 Tender must be received by UREDA 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.

**SECTION 5**  
**TENDER OPENING AND EVALUATION**

**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 NO. UREDA/SPV/S- LAN/2011-12 and subscribed 'Earnest Money and Technical Bid' shall be opened by UREDA's 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 UREDA in detail. If required, clarifications regarding the suitability of the offers will be obtained.
- 5.1.2 Second envelope (Part-II) bearing TENDER NO. UREDA/SPV/S- LAN/2011-12 and subscribed "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.
- 5.1.3 In case it is not possible to open second envelop (part-II) on the same date, then a suitable date for this purpose shall be announced or shall be communicated to tenderers by letter/ fax/ email (Either Mode). To avoid postponement of opening of financial bid, it is in the interest of the tenderers to send their authorized representatives who are well conversant with the tender and competent enough to take decisions on technical and financial matters at the time of opening of bids.

**5.2 CLARIFICATIONS REGARDING THE SUBMITTED TENDERS**

- 5.2.1 During the process of evaluation of the tender, UREDA may at its discretion ask the tenderer for a clarification of his tender. The request for clarification and the response shall be in writing.
- 5.2.2 Any query regarding any clarification required by UREDA 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 three (3) days.

## **SECTION 6**

### **AWARD OF CONTRACT**

#### **6.1 EVALUATION CRITERION**

- 6.1.1 The tender shall be finalized on the basis of lowest total cost of Solar Lantern including Warrantee/ Guarantee as offered by the tenderer in his Financial Bid.
- 6.1.2 Price./Purchase preferences up to 10%, on the rates quoted by lowest bidder (incase of medium or large scale category) shall be provided to Small/Cottage /Khadi /Tiny enterprises established in Uttarakhand, on the systems produced within the state. This Price/ Purchase preference shall be applicable to only those enterprises who are registered with Industry Department, Govt. of Uttarakhand under Price./Purchase preference policy of this state. No other relaxation shall be allowed to any bidder.

#### **6.2 NOTIFICATION OF AWARD**

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

#### **6.3 AWARD OF WORK CONTRACT**

- 6.3.1 Before placement of supply orders, an agreement shall be signed between UREDA and the lowest successful tenderer.
- 6.3.2 Contract shall ordinarily be awarded to the lowest evaluated bidder whose bid has been found to be responsive and who is eligible and qualified to perform the contract satisfactorily as per the terms and conditions incorporated in the corresponding bidding document.
- 6.3.3 In case where the lowest acceptable bidder is not in a position to supply the full quantity required within the specified time limit as per the tender document, he shall be bound to supply minimum 25% of the total proposed quantity. The inability to undertake even 25% of the total proposed quantity shall be treated as non responsive offer and EMD/ Security amount with such offers shall be forfeited by UREDA.
- 6.3.4 However where the lowest acceptable bidder is not in a position to supply the full quantity required, the remaining quantity, as far as possible, be ordered to the next higher responsive bidder at the rates offered by the lowest responsive bidder.
- 6.3.5 The number of additional suppliers to be selected and the area to be assigned for execution of the work shall be the sole discretion of UREDA. All such selected tenderers shall also have to sign an agreement with UREDA and deposit security money amounting to 5% of the contract value at the time of signing of contract.

#### **6.4 RIGHT TO VARY QUANTITIES**

UREDA may increase or decrease the quantity mentioned in the tender notice at the time of award of contract and to split the work among various tenderers without any change in price or other terms and conditions & without assigning any reason thereof.

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

UREDA reserves all the rights 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 UREDA.



# **PART-3**

## **GENERAL CONDITIONS OF CONTRACT**

## **GENERAL CONDITIONS OF CONTRACT**

### **1. DEFINITIONS**

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

- 1.1 **‘URED A’** shall mean The Director or his representative of ‘Uttarakhand Renewable Energy Development Agency. Govt. of Uttarakhand’ with its Head office at Energy Park Campus, Patel Nagar Dehradun and shall also include its successors in interest and assignees. The ‘Contractor’ shall mean the Firm/ Person (whose tender has been accepted by UREDA) and shall include his legal representatives, successor in interest and assignees.
- 1.2 The contract shall be for supply of solar lantern at various locations in the state of uttarakhand .
- 1.3 This contract agreement shall be valid till the completion of all the works related to clause 1.2 above. However the validity of rates may further be extended to a specified period of time and/or to other locations in Uttarakhand on the mutual consent of both the parties.
- 1.4 The contractor shall be deemed to have carefully examined all the papers, drawings etc. attach to the contract deed. If he shall have any doubt as the meaning of any portion or any condition(s) /specifications etc.

### **2. COMPLETION PERIOD**

- 2.1 The total work assigned to the contractor shall have to be completed by him within four(4) months from the date of signing the agreement. The work shall have to be completed within time and shall be binding on the contractor. In case of any urgency, the contractor may be asked to complete the work even earlier and contractor will be bound to fulfill the requirements.
- 2.2 In case the contractor fails to execute the said work or related obligations within stipulated time, UREDA will be at liberty to get the work executed from the open market at the risk and cost of the contractor, without calling any tender and without any notice to the contractor. Any additional cost incurred by UREDA during such execution of the work shall be recovered from the contractor.
- 2.3 If the cost of executing the work as aforesaid shall exceed the balance payments due to the contractor and the contractor fails to make good the ‘additional cost’, UREDA may recover it from the contractor's pending claims against any work in UREDA or in any other lawful manner. All risks & responsibilities related to the execution of the said work and fulfillment of related obligations directly or indirectly connected with the performance of the contract shall be the sole responsibility of contractor.
- 2.4 The calculation of aforesaid ‘additional cost’ will be finalized by the UREDA at its sole discretion. The contractor shall have no right to challenge the mode or amount relating to calculation at any forum. For completion of the work through any other agency, in case some changes are required in terms and conditions of the contract; the contractor shall not have any right to challenge the decision of UREDA.

### **3. LIQUIDATED DAMAGES**

If the contractor fails to perform the work within the time periods specified in the work orders or within the extended time period if any, UREDA shall without prejudice to its other remedies under

the contract, deduct from the contract price as liquidated damage, a sum equivalent to 1% of the price of the un-performed work/ services for each week of delay until actual completion of work, up to a maximum deduction of 10%. Once the maximum is reached, UREDA may consider termination of the contract.

#### 4. PERFORMANCE SECURITY

The amount of the performance security as mentioned in the 'Payment Terms' shall be forfeited in case of breach of any term or condition by the contractor. If required, the other balance payments may also be forfeited, depending on the liabilities on the part of the contractor.

#### 5. FORCE MAJEURE

5.1 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.

5.2 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 Chief Project Officer of UREDA & his decision shall be final and binding on the contractor and all other concerned.

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

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

#### 6. QUALITY, WARRANTY/ GUARANTEE

The contractor shall warrant the Solar Lanterns as per applicable standards of quality. 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.

6.1 After supply of the Solar Lanterns at site, the contractor shall ensure satisfactory performance of the equipments for a period of time as specified in the scope of work.

6.2 The contractor shall rectify defects developed in the Solar Lantern/ replace the defective parts within Warranty/Guarantee promptly. In case the contractor does not rectify the defects within the time limit as defined in the scope of work, UREDA may restore the Solar Lantern in working condition on contractor's expenses.

6.3 Frequent and unjustified delays in rectifying defects during the Warranty/ Guarantee may lead to cancellation of the contract, recovery of losses and imposing of additional penalty. In such circumstance UREDA 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 Director UREDA and will be binding on the contractor.

7. 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.

8. INSPECTION AND TESTS

- 8.1 UREDA 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 Lanterns at all reasonable times during their manufacture.
- 8.2 The contractor shall inform UREDA through a written notice regarding any material being ready for testing at least seven (7) days in advance. The conditions of contract and/or the technical specifications shall specify what inspections and tests shall be conducted by UREDA. All the arrangements of necessary equipments and expenses for such tests shall be on the contractor's account excluding the expenses of the inspector.
- 8.3 UREDA's Inspector, unless the witnessing of the tests is virtually waived off, will inspect and attend such test within seven (7) days from the date on which the equipments are notified as being ready for test /inspection. MNRE officer may also be present at the time of such testing.
- 8.4 UREDA shall within seven (7) days, give written notice to the contractor, about any objection regarding the quality of the Solar Lantern. The contractor shall either make the 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.
- 8.5 After satisfactory testing of the Solar Lanterns during inspection, UREDA's Inspector shall issue of dispatch clearance for the supply of material at site.
- 8.6 The inspection by UREDA and issue of dispatch instruction there on shall in no way limit the liabilities and responsibilities of the contractor in respect of the agreed and specified quality. Nothing in clause 8 shall in any way relieve the contractor from any Warrantee/ Guarantee or other obligations under this contract.
- 8.7 At the time of inspection and testing of the Solar Lanterns at the works of the contractor, one Solar Lantern from the manufactured lot shall also be randomly picked up by UREDA/MNRE officers and contractor shall have to get it tested at any of the MNRE approved test center.
- 8.8 In case in the testing at MNRE approved test center, the Solar Lantern is not found in accordance with the required technical specifications, all the Solar Lanterns supplied shall be rejected. All the work order(s) shall be canceled and all the payments made by UREDA to the contractor shall be recovered. Such contractor shall also be blacklisted from participating in any tender in UREDA in future. MNRE shall also be informed for the necessary action against such contractor.

9. 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 Solar Lanterns promptly.

10. PACKING FORWARDING

10.1 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.

10.2 The contractor shall inform the concerned district level project offices of UREDA regarding the probable date of each shipment of materials from his works.

11. TRANSPORTATION

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

12. DEMURRAGE WHARFAGE, ETC

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

13. INSURANCE

13.1 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.

13.2 The contractor shall arrange security & storage of their materials to avoid any theft or losses during execution of work. UREDA 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.

14. LIABILITY FOR ACCIDENTS AND DAMAGES

During Warrantee/ Guarantee , the contractor shall assume all responsibilities for direct damages covering all type of accident, injury or property damage caused by manufacturing defects or faulty supply of the Solar Lanterns.

15. DUTIES AND TAXES

The rates/ prices mentioned in the price-schedule include all applicable taxes, duties & surcharges. No additional payments shall be made by UREDA on this account.

16. PATENT RIGHT AND ROYALTIES:

The contractor shall indemnify UREDA 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.

17. RIGHT TO VARY QUANTITIES

URED A 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.

18. LOCAL CONDITIONS

18.1 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 relevant data regarding the proposed place of work/ site, its local environment, approach road and connectivity, actual prevailing working conditions, availability of required materials and labour and all other information/ data required for proper completion of the proposed work.

18.2 If required, the contractor must pre-visit the site before starting the work. UREDA shall not entertain any request of contractor for clarifications related to such local conditions and shall bear no responsibility in this regard

19. TOOLS & TACKLES

The contractor shall arrange all necessary tools & tackles for proper execution of work and operation/ maintenance of Solar Lanterns after supply. UREDA shall in no way, responsible for supply of any tools & tackles.

20. TERMINATION FOR DEFAULT

URED A without prejudice to any other remedy for breach of contract, by written notice of default sent to the contractor, may terminate the contract in whole or in part:

20.1 If the contractor fails to deliver the Services within the allocated time period(s).

20.2 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.

21. TERMINATION FOR INSOLVENCY

URED A 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 UREDA.

22. TERMINATION FOR CONVENIENCE

URED A 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 purchaser's convenience in the interest of UREDA.

23. COMPLETION OF WORK

On completion of the work, the contractor shall submit 5 sets of "As Executed Report" to UREDA which will include photographs, drawings and as executed report of the systems, containing details

of supply from the point of view of future maintenance of the installed Solar Lanterns. This report must also contain all Technical Details, Detailed Circuit Diagram of the Electronic/ Electrical components of the system (if any).

#### 24. OTHERS CONDITIONS

- 24.1 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 UREDA in writing.
- 24.2 UREDA 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 UREDA 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.
- 24.3 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 UREDA and shall be binding on the contractor.
- 24.4 Work carried out without UREDA's approval shall not be accepted and UREDA shall have rights to get it removed and to recover the cost so incurred from the contractor.
- 24.5 The contractor shall not display the photographs of the work and not take advantage through publicity of the work without written permission of UREDA.
- 24.6 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.
- 24.7 UREDA 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 UREDA after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.

#### 25. STATUTORY ACTS

- 25.1 All legal formalities/clearances are to be obtained by the contractor regarding the execution of the said work.
- 25.2 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.
- 25.3 The contractor shall comply with the all the Acts & rules and regulations, laws and by-laws framed by State/ Central Government/ organization in whose premises the work has to be done. UREDA shall have no liabilities in this regard.

26. APPLICABLE LAW

The contract shall only be interpreted under Indian laws. The station of UREDA Headquarter Dehradun shall have exclusive jurisdiction in all matters arising under this contract.

27. RESOLUTION OF DISPUTES / ARBITRATION

- 27.1 The purchaser and the supplier shall make every effort to resolve any disagreement or dispute arising between them under or in connection with the contract, amicably by direct informal negotiation.
- 27.2 If after thirty (30) days from the commencement of such informal negotiations, the purchasers and the supplier are unable to resolve a contract dispute amicably; the matter may be referred in writing by either party to the sole arbitration of the Chairman of UREDA, Dehradun or to a person nominated by him.
- 27.3 Subject to aforesaid, the arbitration and conciliation Act 1996 and rules made thereafter or any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings. Under this cause, the 'Award' given by the Arbitrator shall be binding on all the parties. The contractor shall not have right to challenge the Award.
- 27.4 Work under the contract shall if reasonably possible, continue during the arbitration proceedings and dues if any, payable by UREDA to the contractor with respect to the work not in dispute shall not ordinarily be withheld on account of such proceedings unless it becomes necessary to withhold the same.
- 27.5 The proceedings, if any, in relation to the arbitration referred to above, shall be held by the arbitrator aforesaid at Dehradun and courts at Dehradun shall have jurisdiction to entertain and decide the matter involved.
- 27.6 No decision given by the officer in charge of the work under this contract, in accordance with the forgoing provisions shall disqualify him as being called as a witness or giving evidence before the arbitrators on any matter whatsoever relevant to the dispute of difference referred to the arbitrator as aforesaid.
- 27.7 In case during the Arbitration proceedings the appointed Arbitrator becomes unable, due to any reason whatsoever, to continue with the proceedings or making of Award; it will be prerogative of UREDA to nominate any other person as sole Arbitrator instead thereof. The contractor shall not raise any objection to such appointment having been made by UREDA.
- 27.8 The High court of Uttarakhand at Nainital or Courts subordinate to it as the case may be, shall alone have jurisdictions to the exclusion of all other courts.

28. NOTICES

- 28.1 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.
- 28.2 Notices, statements and other communications sent by UREDA to the contractor at his specified addresses through registered post/ email/ fax shall be deemed to be delivered to the contractor.

29. APPLICATION

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



### 30. PAYMENT TERMS

- 30.1 30% of the value of each work order (40% in case of State/ Central Govt. / Public Undertaking Agency) shall be paid as mobilization advance against bank guarantee of equal amount valid for three (3) months.
- 30.2 50% amount (40% in case of State/ Central Govt. / Public Undertaking Agency) of the value of work order shall be paid after supply, supply and commissioning of the Solar Lantern at site. Bank guarantee for mobilization advance & Security money deposited by the contractor at the time of signing of contract agreement will also be released at this stage. In case mobilization advance has not been availed, 80% payment shall be made.
- 30.3 10% of the contract value shall be paid in 4 equal annual installments, starting from completion of one year from the date commissioning, against satisfactory performance and maintenance of the Solar Lanterns.
- 30.4 Balance 10% of the contract value shall be treated as performance security and shall be paid after completion of Warrantee/ Guarantee . However this amount shall be released on submission of bank guarantee valid till completion of Warrantee/ Guarantee .

### Note

- 1. No price escalation due to any reason (including any change in the applicable taxes, duties, surcharge etc.) shall be considered by UREDA during the validity/ extended validity of the contract agreement
- 2. The bank guarantees should be made from nationalized bank only.

# **PART-4**

## **GENERAL TECHNICAL SPECIFICATIONS**

## **PART-4**

### **GENERAL TECHNICAL SPECIFICATIONS**

#### **I. DEFINITION**

A solar photovoltaic lantern ( Solar lantern) is a lighting system consisting of a lamp, battery and electronics, all placed in a suitable housing, made of metal, plastic or fiber glass, and a PV module. The battery is charged by electricity generated through the PV module. The lantern is basically a portable lighting device suitable for either indoor or outdoor lighting, covering a full range of 360 degrees. A lighting device which provides only unidirectional lighting will not be classified as a solar lantern in the present context.

#### **II. DUTY CYCLE**

The solar lantern should provide a minimum of three hours of lighting per day under average daily solar radiation conditions of 5 kWh / sq.m. on a horizontal surface. The actual duration of lighting may vary depending on the location and season, etc.

#### **III. MODELS**

Only one model of solar lanterns that is Model IIA has to be supplied. The technical features and the performance requirement for Model IIA are given below:

#### **IV. LAMP**

- (i) The lamp will be of compact fluorescent (CFL) type with a rating of 7 Watt.
- (ii) For 4 - Pin type CFLs, a suitable pre-heating circuit must be provided.
- (iii) The lamp should preferably be mounted in a base up configuration.
- (iv) The light output should be 370 +/- 5% lumen for a 7W lamp.
- (v) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON and four minutes OFF is one cycle).

#### **V. BATTERY**

- (i) The battery will be sealed maintenance free lead acid type.
- (ii) The battery capacity will be a minimum of 7.0 AH at 12 V at C/20 discharge rate at 27 °C.
- (iii) 80% of the rated battery capacity (~ 5.6 AH at 12V, 27 °C) should be between the low voltage and high voltage cut-off points specified in the performance requirements of the electronics used in the solar lantern.

#### **VI. ELECTRONICS**

- (i) The inverter will be of quasi sine wave/sine wave type with a crest factor less than 1.7 and the frequency in the range of 20-35 KHz. Half-wave operation is not allowed.
- (ii) The overall efficiency of the control electronics should be more than 80%.
- (iii) The idle current (i.e. the current consumed when the lamp is switched OFF and no charging is in progress) should not be more than 1mA.
- (iv) The voltage drop from module terminals to the battery terminals should not exceed 0.5 volts including the drop across the diode and the cable.
- (v) The PCB containing the electronics should be capable of solder free installation and placement.

- (vi) The low voltage cut off set point will not be lower than 11 V and the high voltage cut off should be below 14.3 V at 27 °C.
- (vii) The electronics circuit will be designed to ensure full charging of the battery under different ambient temperatures (0 - 45 °C). Further, the electronic circuit should have adequate temperature compensation for proper charging of the battery through out the year.

#### **VII. PV MODULE**

- (i) The SPV module to be used with the solar lantern must have a minimum of 10 Wp (at least 610 mA Iload when measured at 16.40± 0.2 Volts load condition) under the standard test conditions (STC) of measurement.
- (ii) The module should preferably have an arrangement (stand) for mounting at the optimum angle in the direction facing the sun.
- (iii) In case of thin film solar cell modules, the specified values refer to the stabilized power output after the initial degradation.
- (iv) The terminal box on the module should have a provision of opening it for replacing the cable, if required.
- (v) 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 and / or Type No.
  - c) Serial No.
  - d) Year of manufacture
- (vi) In case of imported modules the details specified in (v) above should preferably be inside the module, if not provided, such details should be mentioned on the back side/frame of the module in permanent manner.

#### **VIII. ELECTRONIC PROTECTIONS**

- (i) Adequate protection is to be incorporated under no load conditions (e.g. when the lamp is removed and the lantern is switched ON).
- (ii) Battery cut offs & reconnects should be provided to protect it against overcharge and deep discharge conditions.
- (iii) A fuse should be provided to protect against short circuit conditions.
- (iv) A blocking diode, preferably a Schottky diode, should be provided as part of the lantern electronics to prevent reverse flow of current through the PV module, if such a diode is not provided with the module itself.
- (v) Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

#### **WARRANTEE/ GUARANTEE**

- (i) The complete Solar Lantern must be warranted against any manufacturing/ design/ supply defects for a minimum period of Two (2) years.

- (ii) PV modules used in Solar Lanterns must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- (iii) The Warrantee/ Guarantee Card to be supplied with the Solar Lantern must contain the details of the system supplied, as given in the Annexure- 1. The manufacturers can provide additional information about the system and conditions of warranty as necessary..
- (iv) During the Warrantee/ Guarantee period, MNRE / UREDA / users will have all the rights to cross check the performance of the Solar Lanterns. UREDA may carry out the frequent inspections of the Solar Lanterns installed and randomly pick up to get them tested at any Govt. / MNRE approved test center. If during such tests the Solar Lanterns or its any component is not found as per the specified technical parameters, UREDA will take the necessary action. The decision of UREDA in this regard will be final and binding on the tenderer.

### **OPERATION MANUAL**

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar Lanterns. The following minimum details must be provided in the Manual:

- About Photovoltaic
- About Solar Lanterns - its components and expected performance
- About PV module.
- About CFL.
- About battery.
- About electronics.
- About charging and significance of indicators.
- Clear instructions on regular maintenance and trouble shooting of the Solar Lanterns.
- Name and address of the contact person for maintenance.

### **TEST REPORTS**

Test certificate of the Solar Lantern should either be as per 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 (Enclosed with this tender document) / or from any MNRE approved test centers. The validity of test report will be two (2) years from date of issue provided that the Solar PV modules qualify the IEC / equivalent BIS Standards as specified in JNNSM.

Following Documents should be referred regarding JNNSM of Ministry of New & Renewable Energy, Government of India (which is available at MNRE website)

Particulars	Document No.	Dated
Guidelines	No. 5/23/2009-P&C (Solar Group)	Dated: 8th July, 2010
Addendum	No. 32/49/2010-11/PVSE	Dated 19.08.2010
Minute of the meeting Dated 03.02.2011	No.5/23/2009-P&C (SPV Group)	Uploaded on MNRE Website on 04.03.2011

### **OTHER FEATURES**

- a) Two LED indicators one for a green light to indicate charging in progress and another red LED to indicate deep discharge condition of the battery suggesting that load should be switched off and the battery must be charged immediately should be provided on the body of the lantern. The green LED should glow only when the battery is actually being charged.

- b) The On / Off switch used in the lantern must be suitable for use in DC circuits and be reliable with long life. Use of electronic switch is allowed. A cable of suitable of at least 5 meters length should be provided for inter-connection between the module and the lantern.
- c) The following details should be marked indelibly on the lantern :
  - (a) Name of the Manufacturer or Distinctive Logo.
  - (b) Model Number
  - (c) Serial Number. starting from UREDA/SL/2010-11 (Serial No.)
  - (d) Make and Serial Number of the Module used with the lantern

The Serial. numbers of Lanterns and Modules should also be mentioned on the cartoons of PV module and Solar Lantern.

- d) Components and parts used in the solar lantern should conform to the latest BIS specifications, wherever such specifications are available and applicable.
- e) The connecting wire from PV Module to Lantern must be connected with screws properly with the PV module.
- f) Additional features such as a small white LED which functions as a night lamp or a socket for powering another appliance such as a fan or radio can be provided in the lantern. These are however purely optional. If such features are provided, they should not interfere with the independent switching on and off of the lantern.
- g) The supplier must fulfill all the technical & other requirements as per provisions under JNNSM.
- h) Only indigenously manufactured Solar Lanterns which fully conform to the MNRE specifications shall be procured. Fully imported Solar Lanterns 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. Only those tenderers who manufacture at least one of the major items used in the Solar Lantern i.e. PV modules or storage battery or BOS and have adequate facilities for testing of Solar Lanterns would be allowed to participate.

# **PART-5**

## **SCOPE OF WORK**

## **PART-5**

### **SCOPE OF WORK**

**The scope of work shall include supply of solar lantern at various locations in the state of Uttarakhand in accordance with the technical specifications and other terms and conditions of the contract.**

#### **SUPPLY AND DISTRIBUTION**

1. Supply of Solar Lanterns at the different locations in the state of Uttarakhand as per the technical specifications, terms & conditions specified in the tender document.
2. The lanterns shall be distributed to the selected eligible beneficiaries by UREDA. For the distribution work maximum three months time is being fixed after supply of Lanterns in a district.

#### **WARRANTEE/ GUARANTEE**

- 1.1 The complete Solar Lantern shall be warranted by the contractor against any manufacturing/ design/ supply defects for a minimum period of Two (2) years from the date distribution to the beneficiaries.. In case distribution by UREDA is done after 3 months, the warranty of the Lantern will expire after 2 years three months time from the date of supply of Lantern at the different locations in the state of Uttarakhand.
- 1.2 PV modules used in Solar Lanterns must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- 3.1 Rectification of all the defects developed in the Solar Lanterns during Warrantee/ Guarantee shall have to be done by the contractor promptly, at the most within Ten (10) days from the date of receipt of complaint. During this period, all the arrangements for keeping all the Solar Lanterns functional shall be the sole responsibility of the contractor.
- 3.2 Replacement of any component broken or lost due to theft or natural calamity shall not be the responsibility of the contractor. Any damaged or broken component due to negligence or fault of beneficiary or natural calamity shall be replaced at the users cost. The safety and security of the Solar Lanterns shall be sole responsibility of the users.
- 3.3 All the non functional parts/ materials/ items replaced during the warrantee period shall be the property of the contractor.

#### **ESTABLISHMENT OF SERVICE CENTER**

The supplier will have to establish local service centers for the timely maintenance of the Lanterns, essentially one service center for every 1000 nos. of Lanterns supplied. These service centers shall be established in the nearby towns/cities where Lanterns have been distributed and the location of the service centers shall be finalized in consultation with the concerned district level officer of UREDA seeking his approval in writing. Sufficient stock of spare parts should be maintained at the service centers for carrying out the proper maintenance of the Lanterns.

At least 2% of the consumable parts (charge controller, inverter, tube, switches, fuse, tube holders etc.) of total supply of Lanterns in a district should be made available at service centers cumulatively.



Supplier shall provide all necessary technical support to train one Para technician for every 1000 Solar Lanterns who will provide basic after sales services to the consumers.

The list of the established service centers along with address and contact numbers, shall have to be submitted by the contractor to the concerned district level officer of UREDA prior to the submission of the bill for payment.

# **PART-6**

## **TECHNICAL BID**

**PART – 6**  
**TECHNICAL BID**

**Tender No. UREDA/SPV/S- LAN/2011-12**

**Name of work** Supply Of Solar Lantern At Various Locations In The State Of Uttarakhand

NAME OF COMPONENT	Specification
<b>SPV MODULE</b>	
Manufacturer of Solar Cell	
Material Structure of Solar Cell	
Manufacturer of Module (as per test report)	
VOC	
ISC	
Vmax	
Imax	
Minimum Power at Vmax	
Fill Factor	
Cell efficiency	
<b>BATTERY</b>	
Make (as per test report)	
Capacity	
Rating	
Ampere hour efficiency	
Watt hour efficiency	
<b>BALANCE OF SYSTEM</b>	
<b>A) LAMP</b>	

Lumen Output	
Lamp Make (as per test report)	
<b>B) ELECTRONIC</b>	
Output Voltage Vmx	
Max. Current consumption	
No load current	
Frequency	
Wave form	
Efficiency	
Low voltage cut off	
Load reconnect voltage	
Total Power Consumption	

(Signature of Tenderer)

### **DETAILS OF EXPERIENCE**

Please fill in information about systems installed in last three years.

Details	Year					
	08-09		09-10		10-11	
	Quantity in Nos.	Cumulative Capacity in KW	Quantity in Nos.	Cumulative Capacity in KW	Quantity in Nos.	Cumulative Capacity in KW
Solar Lanterns						
Solar Home Lights						
Solar Lanterns						
PV Power Plants						
Other Systems ( Specify)						
1.						
2.						
3.						
4.						
Total capacity in KW						
Total contract amount						

(Signature of Tenderer)  
Seal

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

### **PROPOSED SUPPLY SCHEDULE**

Please fill in information about proposed weekly supply/ supply schedule after signing of agreement with UREDA

Week	Proposed work/ Numbers of systems to be supplied and installed.
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

**(Signature of Tenderer)**  
**Seal**

**NOTE:** Above details shall be made a part of the agreement and shall have to be followed by the contractor.

# **PART-7**

## **FINANCIAL BID**

**PART-7**  
**FINANCIAL BID**

**Tender No. UREDA/SPV/S- LAN/2011-12**

**Name of work** Supply of Solar Lantern At Various Locations In The State Of Uttarakhand as defined in the tender document.

Sl. No.	Item	Rate per system (In Indian Rs.)	
		In figures	In words
1.	Supply Of Solar Lantern At Various Locations In The State Of Uttarakhand		

**Certified that:**

- 1- Above rates are in accordance with various terms & conditions, specifications & scope of work.
- 2- The rates are inclusive of all taxes and duties what so ever.

(Signature of Tenderer)  
Seal



## Annexure –I

### **FORMAT FOR WARRANTEE/ GUARANTEE CARD TO BE SUPPLIED WITH Solar Lanterns**

1	Name & Address of the Manufacturer/Supplier	
2	Name & Address of the Purchasing Agency	
3	Date of distribution of system	
4.	<b><u>PV Module</u></b> a) Make b) Model c) Serial No ( Prepare List) d) Wattage under STC e) Warrantee/ Guarantee valid up to	
5	<b><u>Battery</u></b> a) Make b) Model c) Batch / Serial No (Prepare List) d) Rated V & AH capacity at C/10 e) Warrantee/ Guarantee valid up to	
6	<b><u>Electronics &amp; other BOS</u></b> a) Make b) Model c) Serial No d) Warrantee/ Guarantee valid up to	
7	Designation & Address of the person to be contacted for claiming Warrantee/ Guarantee obligations	

Place;  
Date:

(Signature)

Name  
Designation  
Name & Address of the Manufacturer /Supplier  
(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 Director, Uttarakhand Renewable Energy Development Agency,(UREDA), Energy Park Campus, Industrial Area, Patel Nagar, Dehradun (hereinafter called 'UREDA') on the other part, 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 UREDA indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize UREDA 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 UREDA 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 UREDA during the currency period of this guarantee. The GUARANTOR shall pay UREDA 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 UREDA 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**

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 Director, Uttarakhand Renewable Energy Development Agency,(UREDA), Energy Park Campus, Industrial Area, Patel Nagar, Dehradun (hereinafter called 'UREDA') on the other part, on the following terms and conditions.

Whereas the FIRM is entering into a agreement with UREDA 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 UREDA and FIRM.

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep UREDA indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize UREDA 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 UREDA 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 UREDA during the currency period of this guarantee. The GUARANTOR shall pay UREDA 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 UREDA 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.....

**FORMAT FOR BANK GUARANTEE FOR - MOBILIZATION ADVANCE**

This deed of Guarantee made on ..... day of Month & Year on Name & Address of the bank (hereinafter called the 'GUARANTOR') on the one part, on behalf of M/s Name & address of the tenderer (hereinafter called the 'FIRM') ) in favour of Director, Uttarakhand Renewable Energy Development Agency,(UREDA), Energy Park Campus, Industrial Area, Patel Nagar, Dehradun (hereinafter called 'UREDA') on the other part, on the following terms and conditions.

Whereas the FIRM has agreed for the Name & quantity of the work against Work order issued by UREDA bearing No. .... Dated ..... amounting to Rs..... and whereas in pursuance of the term of agreement No.....between UREDA and the FIRM, UREDA having agreed to pay mobilization advance of Rs. .... against bank guarantee, this guarantee is being made for the purpose release of mobilization advance.

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep UREDA indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize UREDA 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 UREDA 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 UREDA during the currency period of this guarantee. The GUARANTOR shall pay UREDA 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 UREDA 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 - PERFORMANCE SECURITY**

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 Director, Uttarakhand Renewable Energy Development Agency,(UREDA), Energy Park Campus, Industrial Area, Patel Nagar, Dehradun (hereinafter called 'UREDA') on the other part, on the following terms and conditions.

Whereas the FIRM has executed the 'Name of Work'..... under Agreement No..... between FIRM & UREDA and whereas in pursuance of the terms of the agreement, UREDA having agreed to pay the amount for performance security against bank guarantee, this guarantee is being made for the purpose of release of the performance security amount.

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep UREDA indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize UREDA 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 UREDA 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 UREDA during the currency period of this guarantee. The GUARANTOR shall pay UREDA 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 UREDA 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.....