

**TENDER DOCUMENT**

**FOR**

**SUPPLY OF SOLAR PV LANTERN SYSTEM**

TENDER NO. AEDB/ Balochistan/2/SL/2006

NAME OF FIRM -----

Dated 13 Nov, 2006

SIGNATURE OF TENDER ISSUING OFFICER

AEDB prime Minister's Secretariat Islamabad

Tele. 92-51-9201172

Email: q\_uddin@yahoo.com

## TABLE OF CONTENTS

<b>SL No.</b>	<b>TOPIC</b>	<b>PAGE</b>
<b>PART-1</b>		
1	Tender Notice	3
2	Covering Letter	4
3	Particulars of Tender	5
4	General Particulars of Tender	6
5	Experience: Relevant Project Completed	7
6	Declaration of Tender	8
<b>PART-2</b>		
	Section -1 : Introduction : Eligibility condition	9
	Section -2 : Tender document	10
	Section -3 : Preparation of Tender	12
	Section -4 : Submission of Tender	15
	Section -5 : Tender opening and evaluation	16
	Section -6 : Award of Contract	17
<b>PART-3</b>		
	General condition of contract	18
<b>PART-4, 5</b>		
	Scope of work & Technical specification	23
<b>PART-6</b>		
	Table of Technical Specifications	27
<b>PART-7</b>		
	Warranty and Annual Maintenance	29
<b>PART-8</b>		
	Financial Bid	30
<b>ANNEXE-1</b>		
	Integrity Pact	31

## Part-I

### 1. **Tender Notice:**

**Alternative Energy Development Board  
Prime Minister's Secretariat, Islamabad  
Telephone 9201172  
Website: [www.aedb.org](http://www.aedb.org)**

### **Tender Notice**

Sealed tenders are invited for the supply of 100 Solar Lanterns from reputed manufacturers or their authorized dealer.

Tender document (TD) can be downloaded free of cost on AEDB website ([www.aedb.org](http://www.aedb.org)) or alternatively be obtained in hard copy against payment of Rs. 200 made through Demand Draft/pay order drawn in favor of Director AEDB, payable at Islamabad. Price preference S.R.O. 827(1) 2001 dated 3<sup>rd</sup> Dec 2001 as amended S.R.O. 660(1)/ 2002 dated 28<sup>th</sup> Sep 2002 shall be applicable on supplies.

The Tender should reach AEDB by 1:00 PM. on 25<sup>th</sup> November,2006. The proposal will be opened on the same day at 1:30 PM in the conference room of AEDB in the presence of the bidders who choose to be present.

**In charge Projects for Balochistan, AEDB**  
Ph No. 051-9201172

**2. Covering Letter :**

**From,**

(Full name and address of the tenderer)

M/S .....  
.....  
.....  
.....

**To,**

The In charge Projects For Balochistan  
Room No 344, AEDB, Prime Minister's Secretariat,  
Islamabad.

**Subject: Offer in response to TENDER NO. AEDB/ Balochistan/2/SL/2006**

Sir,

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

**(Signature of tenderer )**

**3. PARTICULARS OF TENDER :**

Tender No. : **TENDER NO. AEDB/ Balochistan/2/SL/2006**

- |  |   |
|--|---|
| 1. Particulars of the work:  | Supply of PV solar lanterns   |
| 2. Period of work:   | Two months from the award of work   |
| 3. Cost of tender document:  | Rs. 200 in the form of Bank Draft/Pay Order payable at Islamabad in favor of AEDB Islamabad |
| 4. Last date and time of :<br>submission of tender   | 1:00 PM on 25 <sup>th</sup> November, 2006  |
| 5. Amount of Earnest money deposited :   | Rs. 10,000.00 in the form of Bank Draft/Bank Guarantee                                      |
| 6. Period of validity of tender for :<br>acceptance  | Six months from opening of tender   |
| 7. Date and time of opening of tender :  | on 25 Nov, 2006 at 1.30 p.m.  |
| 8. Place of opening of tender :  | Room No 339B Pm Secretariat Islamabad   |
| 9. Name and status of firm / :<br>Company/individual to whom<br>tender document is issued. |   |

**(Signature of tenderer)  
with seal**

4. **GENERAL PARTICULARS OF TENDERER :**

1. Name of firm:
2. Postal Address:
3. Telephone, Telex, Fax No:
4. E-mail:
5. Web site/e mail address:
6. Name and designation of the representative of the tenderer to whom all references shall be made:
7. Amount of earnest money deposited:
8. Details of bank draft/bank guarantee:
9. Name and address of the Pakistani/foreign : collaboration, if any.
10. Has anything/extra other than price of items : (as mentioned in price schedule ) been written in the price schedule.
11. Has the contractor/firm have to pay arrears of income tax, if yes, up to what amount. :
12. Has the contractor/firm have been ever debarred by any Govt. Deptt./ Undertaking for undertaking any work.
13. Details of offer (please mention number of pages and number of Drawings.) :
14. Reference of any other information attached: by the tenderer (please mention no. of pages & no. of drawings)
15. Has the contractor have any relative working : in AEDB, if yes, state the name and designation.

**(Signature of Tenderer)**  
**with seal**

5. **EXPERIENCE -(RELEVANT PROJECT(s) COMPLETED) :**

(Please fill in information about similar projects undertaken).

1. Name of organization which has :  
awarded the works.

(Please enclose list of organization)

2. Name of the location of the work. :

(Please enclosed list of installation)

3. Total contract amount. :

4. Year of award. :

5. Detail of involvement in work as an :  
individual or as a company.

6. Was the work satisfactorily completed :  
within stipulated period ?

**(Signature of tenderer)  
with Seal**

6. **DECLARATION BY THE TENDERER :**

**Regarding TENDER NO. AEDB/ Balochistan/2/SL/2006**

I/We \_\_\_\_\_  
(hereinafter referred to as the Tenderer) being desirous of tendering for the work under the above mentioned 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.
2. The Tenderer is capable of executing and completing the work as required in the tender.
3. The Tenderer accepts all risks and responsibilities directly or indirectly connected with the performance of the tender.
4. The Tenderer has no collusion with other contractor, any employee of AEDB or with any other person or firm in the preparation of the bid.
5. The Tenderer has not been influenced by any statement or promises of AEDB or any of its employees but only by the tender document.
6. The Tenderer is financially solvent and sound to execute the work.
7. The Tenderer is sufficiently experienced and competent to perform the contract to the satisfaction of AEDB.
8. The information and the statements submitted with the tender are true.
9. The Tenderer is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, Provincial and Central Government that may effect the work, its performance or personnel employed therein.
10. The Tenderer has not been debarred from similar type of work by AEDB and or Government undertaking/ Department.
11. This offer shall remain valid for acceptance for 6 (six) months from the date of opening of the tender.
12. The Tenderer has attached herewith the earnest money as required in the tender document.
13. The Tenderer accepts that the earnest money be absolutely forfeited by AEDB, if the tenderer fails to undertake the work or sign the contract within the stipulated period.
14. The Tenderer gives the assurance to execute the tendered work as per specifications, terms and conditions.
15. The Tenderer shall sign the integrity pact given at Annex I of this document.

**(Signature of tenderer)**  
**WITH SEAL**

## **PART-2**

### **INSTRUCTION TO TENDERERS**

#### **Section I:-Introduction**

##### **1.1 ELIGIBLE TENDERERS**

The Tenderer shall provide sufficient evidence to satisfy the following conditions

1. The Tenderer is a manufacturer/assembler and/or official supplier of manufacturer/assembler of one or more major sub systems of solar lanterns /SPV based products.
2. The Tenderer have successfully executed SPV project. A copy of certificate from concern agency pertaining to successful execution and operation of project/work may be enclosed.
3. The Tenderer should have valid registration certificate with the AEDB. A copy of which should be enclosed. Otherwise, the process shall be initiated before the opening of the financial tender.
5. The Tenderer should have adequate financial stability and status to meet the financial obligations pursuant to the scope of work. Last years audit report/ balance sheet by CA should be enclosed (if available).
6. The Tenderer should have adequate network for inventory of the material and services. The detail of which should be submitted. The supplier shall establish repair facilities at AEDB office at Quetta. The manpower provided by the AEDB/Governor House shall be trained by the supplier to establish the 1<sup>st</sup> and 2<sup>nd</sup> line maintenance facilities for the lantern.

**(Signature of Tenderer)  
with Seal**

## **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 bidding documents include:

Part (1)

- a) Covering Letter
- b) General Particulars of Tender
- c) Experience – relevant project(s) completed
- d) Declaration by the Tenderer

Part (2) Instruction to Tenderer

Part (3) General Conditions of Contract

Part (4) Scope of Work & Technical specifications

Part (5) Details of warranty

Part (6) Technical offer

Part (7) Financial Bid

The tenderer is expected to examine all instructions, forms, terms and specifications as mentioned in the Tender document. Failure to furnish all information required by the Tender documents or submission of a bid not substantially responsive to the Bid Document in every respect will be at the tenderer's risk and is likely to result in outright rejection of the Tender.

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

a) The Tenderers 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 drawings and comprehensive descriptive materials in support of technical specifications.

b) The above information may be provided with the Tender in the form of separate sheets, drawings, catalogues etc.

c) Any Tender not containing sufficient descriptive material to describe the equipment proposed may be treated as incomplete and hence may be rejected. Such descriptive materials and drawings submitted by the Tender will be retained by the AEDB. Any departure from these drawing and descriptive material submitted will not be permitted during the execution of contract without specific written permission of the AEDB.

### **2.3 LOCAL CONDITIONS**

It will be imperative on each bidder to fully inform himself of all local conditions and factors which may have any effect on the execution of the works covered under these documents and specifications.

### **2.4 CLARIFICATION OF TENDER DOCUMENTS**

2.4.1 A prospective Tenderer requiring any clarification of the Tender Documents may contact the AEDB in writing or by Fax at the AEDB's mailing address indicated in the Invitation for Tender, at least 4 days before the opening of the tender.

### **2.5 AMENDMENT OF TENDER DOCUMENTS**

2.5.1 At any time prior to the submission of the tender or prior to the opening of the financial bid the AEDB may for any reason, whether at its own initiative or in response to a clarification requested by a Tenderer, modify the Tender documents by issuing amendments.

2.5.2 The amendment will be notified in writing or by Fax to all prospective tenderers who have notified the AEDB their intention to bid. These amendments will be binding on them. AEDB will bear no responsibility or liability arising out of non-receipt of the same in time or otherwise.

**(Signature of Tenderer)**  
**with seal**

## **SECTION -3: PREPARATION OF TENDER**

### **3.1 LANGUAGE OF BID AND MEASURE**

3.1.1 The Tender prepared by the Tenderer and all correspondence and documents relating to the bid exchanged by the Tenderer and AEDB shall be written in the English provided that any printed literature furnished by the Tender may be written in another language so long as accompanied by an English translation of its pertinent passages, in which case, for purpose of interpretation units of measurement shall be metric in accordance with System International.

### **3.2 DOCUMENTS COMPRISING THE BID**

3.2.1 The Tender prepared by the Tenderer shall comprise of the following components.

- (a) Covering letter as provided in tender document.
- (b) Tender form
- (c) Documentary evidence establishing that the bidder is eligible to Tender and is qualified to perform the contract, if the tender is accepted.
- (d) Bid security (Earnest money) furnished in accordance with the tender.
- (e) Authorization letter of the Tenderer, for the person representing his firm, that he is authorized to discuss and with specific mention of this tender.

### **3.3 BID PRICE**

3.3.1 The Tenderer shall indicate prices on the appropriate financial bid schedule attached to these documents.

#### **3.3.2 DUTIES AND TAXES**

The price quoted should include all taxes and duties, custom duty, excise duty, services-tax, sales-tax, G.S.T, local-taxes, Trade-tax, income-tax, Surcharge on income-tax etc. if any.

A supplier/ contractor shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government income tax & service tax norms will be payable by the contractor. If any new tax/duty is levied during the contract period, the same will be absorbed by the firm exclusively. Taxes shall be deducted from the payment of the contractor as per the prevalent laws and rules of GOP in this regard.

### **3.4 BID CURRENCIES**

3.4.1 Prices shall be quoted in Pakistani Rupees only.

### **3.5 BID SECURITY**

3.5.1 Pursuant to clause 3.2 the bidder shall furnish, as part of its bid, bid security of Rs. 10,000-00 as mentioned in the tender notice in the form of a bank draft /pay order

issued by a schedule bank, or State Bank of Pakistan and its subsidiary banks, or in the form of Bank Guarantee valid for a period of Twelve months.

3.5.2 No Interest shall be payable on the amount of earnest money and the same will be released, after the tenders have been decided, to those tenderers who fail to get the contract.

3.5.3 The successful Tenderers' bid security (earnest money) shall be kept as a Security deposit against the work awarded to them. If the earnest money has been provided in the form of bank guarantee, then the Tenderer will have to extend it, equivalent to the contract period. The Tenderer shall also be responsible to extend the period of bank guarantee, if the work is not completed within the stipulated period, upto a period, from the date of execution of last order and four months.

3.5.4 The security deposit/ bank guarantee shall be released only after completion of work in all respect along with the final payment. This security deposit shall be forfeited, or the bank guarantee may be invoked, if the tenderer fails to execute the work or its parts.

3.5.5 The Tender security (earnest money) may be forfeited:

- a) If a Tender withdraws its tender during the period of tender validity specified by the Tenderer on the tender form.
- b) If the successful tenderer fails to sign the contract within stipulated period.

### **3.6 PERIOD OF VALIDITY OF TENDER**

3.6.1 Validity of the offer shall be six months from the date of opening of the tender. Without this validity the tender will be rejected. The validity must be mentioned on the envelope otherwise tender may not be opened.

3.6.2 In exceptional circumstances; the AEDB will solicit the tenderer's consent to an extension of the period of validity. The request and the response there of shall be made in writing. The contract performance security provided under clause 3.5.4 shall also be suitably extended.

### **3.7 FORMAT AND SIGNING OF TENDER**

3.7.1 The bid must contain the name, residence and places of business of the persons making the tender and must be signed and sealed by the Tenderer with his usual signature. The name and designation of all persons signing should be typed or printed below the signature.

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

3.7.3 Tender by corporation/ company must be signed with the legal name of the corporation/ company be the 'President', 'Managing Director' or by the 'Secretary', 'Agent' or other designation. Without disclosing his principal the tender may be rejected.

3.7.4 The original copy of the tender shall be typed or written in indelible ink and shall be signed by the Tenderer or a person duly authorized to bid and bidder to the contract. The letter of authorization shall be indicated by written power-of-attorney accompanying the tender. All pages of the bid shall be initialed by the person or persons signing the tender.

3.7.5 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the tender in which case such corrections shall be initialed by the person or persons signing the tender.

3.7.6 A soft copy of the bid document shall be provided to the AEDB or sent on the e-mail address given.

**(Signature of Tenderer)  
with seal**

## **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 certificate, drawings, informative literature etc. as required in the specification. Any queries made should be promptly replied within following time schedule.

4.1.2 Written query required to be replied :4 days

4.1.3 First sealed envelope (part-I) should contain earnest money, technical specifications, brochure, literature etc. It should be super scribed with Tender No: AEDB/Balochistan/2/SL/2006. All parts of tender documents except price bid duly signed should be submitted in the first envelope. Requisite earnest money in the form of Bank Draft/ Bank Guarantee should be attached.

4.1.4 The tenderer should submit price bid duly signed on the original Financial Bid attached with this tender document. Second sealed envelope (part-II) should contain financial bid only. It should be superscribed with Tender No: AEDB/BALOCHISTAN/2/2006 and “Financial bid”. Any thing in regard of financial condition, payment terms, rebate etc. mentioned in financial bid may make the tender invalid. Therefore, it is in the interest of the tenderer not to write any thing extra in part-II except price.

4.1.5 The envelope shall be addressed to the Senior Officer In charge Projects For Balochistan, AEDB, Room No 339B, Prime Minister's Secretariat, Islamabad.

### **4.2 EXPENSES OF AGREEMENT**

A formal agreement shall be entered with the contractor, according to the draft agreement issued by the AEDB, for the proper fulfillment of the contract. The expenses of completing and stamping of the agreement shall be paid by the contractor.

### **4.3 DEADLINE FOR SUBMISSION OF BIDS**

Bids must be received by the AEDB at the date, time and address specified in the tender notice/ tender documents.

### **4.4 LATE BIDS**

Any bid received after the deadline for submission of bids prescribed by the AEDB pursuant to clause 4.3 shall be rejected and / or returned unopened to the Tenderer.

**(Signature of Tenderer)  
with seal**

## **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 envelope (part-I) bearing tender no shall be opened at the time and date mentioned in the tender notice by AEDB's representatives in the presence of bidders, who choose to be present.

5.1.2 Second envelope (part-II) containing price bid shall be opened (after obtaining financial clarifications and establishing technical suitability of the offer) as per time and date provided in the tender notice. Second envelope of only those tenderer shall be opened whose first envelope (part-I) shall be found commercially clear and technically suitable.

5.1.3 In case it is not possible to open second envelope (part-II) on the day fixed due to unavoidable circumstances, opening of the second envelope shall be postponed, and intimation of this effect shall be sent to tenderers by email/ fax. It will be in the interest of the tenderer to send their authorized representatives well conversant with the tender and competent enough to take decision on technical and financial matter at the time of opening second envelope.

### **5.2 CLARIFICATION OF TENDER**

5.2.1 To assist in the examination, evaluation and comparison of bids, the AEDB may at its discretion ask the bidder for a clarification on its bid. The request for clarification and the response shall be in writing.

**(Signature of Tenderer)  
with seal**

## **SECTION -6: AWARD OF CONTRACT**

### **6.1 AEDB RESERVES THE RIGHT OF NEGOTATION WITH ELEGIBLE TENDERERS BEFORE THE FINALIZATION OF THE TENDER**

6.2 The AEDB reserves the right at the time of award of contract to increase or decrease the quantity of goods without any change in price or other terms and conditions.

**6.3 AEDB RESERVES THE RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**, without assigning any reason. AEDB also reserves the right to reject any or all the tenders or accept any tender in total or in parts or work may be divided among various tenderers without assigning any reason thereof.

### **6.4 NOTIFICATION OF AWARD**

Prior to the expiration of the period of tender validity the AEDB will notify the tenders by registered letter or email or Fax, to be confirmed in writing by letter, that the bid has been accepted.

### **6.5 EXECUTION PERIOD**

The work shall have to be completed within two months from the date of award of work

### **6.6 CONTRACT**

Before execution of the work, a contract agreement for execution of the work shall be signed with the contractor, as per the draft agreement issued by AEDB. It will be same for all the eligible tenderers and no deviations will be accepted. Tenderers have to sign the agreement within 15 days of communication of acceptance of the offer of tenderer by AEDB otherwise earnest money deposited with the tenderer shall be forfeited . If required and desired by the end user the successful tenderer may have to enter in an agreement with the end user on the similar terms & conditions as provided in the tender documents.

6.6.1 The Contractor/Supplier shall have to sign the “ integrity clause “ as part of the contract.

**(Signature of Tenderer)**  
**with seal**

## **PART 3 : GENERAL CONDITIONS OF CONTRACT**

### **3.1 DEFINITIONS**

In the deed of contract unless the context otherwise requires:

3.1.1 AEDB shall mean The Alternative Energy Development Board or its representative and shall also include its successors in interest and assignees. The contractor shall mean the person whose tender has been accepted by AEDB and shall include his legal representatives, successor in interest and assignees.

3.1.2 The agreement shall be on turn-key basis. The work shall be completed within two months from the date of placement of supply order. However AEDB may in case of urgency, ask the firm to complete the work earlier, with the mutual consent of the contractor. In case the contractor fails to execute the said work within stipulated time, AEDB will be at liberty to get the work executed from the open market without calling any tender and without any notice to the contractor, at the risk and cost of the contractor. Any additional cost incurred by AEDB shall be recovered from the contractor. If the cost of executing the work as aforesaid shall exceed the balance due to the contractor, and the contractor fails to make good the additional cost, AEDB may recover it from the contractor's pending claims against any work in AEDB or in any lawful manner.

3.1.3 That on the request of the tenderer and also in the interest of the organization the AEDB is authorized to extend the validity of the agreement.

3.1.4 The rate shall be valid for a period of one year from the date of agreement. The firm will not increase the rate within this period, however they can reduce the price with their willingness.

### **3.2 LIQUIDATED DAMAGES**

3.2.1 If the contractor fails to perform the services within the time periods specified in the contract work order, the AEDB shall without prejudice to its other remedies under the contract shall deduct from the contract price as liquidated damage, a sum equivalent to 1% of the price of the unperformed services for each week of delay until actual performance up to a maximum deduction of 10% of the delayed services, of the contract price. Once the maximum is reached, the AEDB may consider termination of the contract.

3.2.2 The contractor shall have to comply with all the rules, regulations, laws and by-laws for the time being in force and the instructions if any, of the organization, in whose premises the work has to be done. AEDB shall have no liability in this regard.

### **3. 3 FORCE MAJEURE**

3.3.1. 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 the event of force majeure circumstances.

3.3.2 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. Such events may include, but are not restricted to, acts of Govt. either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

3.3.3 If a force majeure situation arises, the contractor shall promptly notify the AEDB in writing within a week from the date, situation so arises.

3.3.4 The High court of Rawalpindi/Islamabad and courts subordinate thereto, shall alone have jurisdictions to the exclusion of all other courts.

3.3.5 The contractor shall not without the consent in writing of AEDB, transfer, assign or sublet the work under this contract or any substantial part thereof to any other party.

3.3.6 AEDB shall have at all reasonable time access to the works being carried out by the contractor under this contract. All the work shall be carried out by the contractor to the satisfaction of AEDB.

3.3.7 If any question, dispute or difference what so ever shall arises between AEDB and the contractor, in connection with this agreement except as to matters, the decisions for which have been specifically provided, either party may forthwith give to the other notice in writing of existence of such question, dispute or difference and the same shall be referred to the sole arbitration of the Secretary Min of Water & Power or a person nominated by him. This reference shall be governed by the Pakistan Arbitration Act, and the rules made there under. The award in such arbitration shall be final and binding on both the parties. Work under the agreement shall be continuing during the arbitration proceedings unless the AEDB or the arbitrator directs otherwise.

3.3.8 AEDB may at any time by notice in writing to the contractor either stop the work altogether or reduce or cut it down. If the work is stopped altogether, 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. Such expenses shall be assessed by AEDB, whose decision shall be final and biding on the contractor. If the work is cut down the contractor will not be paid any compensation what so ever for the loss or profit which he might have made if he had been allowed to complete all the work included in the contract.

### **3.4 INSPECTION AND TESTS**

3.4.1 The following inspection procedures and tests are required by the AEDB in the presence of AEDB's representative, if so desired by AEDB.

3.4.2 The AEDB or its representative shall have the right to inspect and / or to test the goods to confirm their conformity to the contract. The special conditions of the contract and /or the technical specifications shall specify what inspections and test the AEDB required.

3.4.3 Inspection at works.

3.4.4 The AEDB, his duly authorized representative shall have at all reasonable times access to the suppliers premises or works and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture.

3.4.5 The supplier shall give AEDB 15 days written notice of any material being ready for testing. It shall be mandatory that such notice should reach AEDB within 30 days of placement of supply order. Such tests shall be on the suppliers accounts/ expenses except for the expenses of the inspector. AEDB also reserves the right to waive off inspection of the material.

3.4.6 The supplier is required to get the entire lot of the inspected at one time, before the supply of the materials. In case the suppliers fails to get the entire lot inspected at one time, the total expenses of the further inspection will be borne by the supplier/contractor.

3.4.7 The inspection by AEDB and issue of dispatch instruction there on shall in no way limit the liabilities and responsibilities of the supplier in respect of the agreed quality assurance programme forming a part of the contract. Nothing contained in clause 3.4 and in case AEDB waives off inspection at works shall in no way release the supplier from any guarantee or other obligations under this rate contract.

### **3.5 WARRANTY**

3.5.1 The supplier shall warrant as per standards for quality that anything to be furnished shall be free from all defects and faults in material, workmanship and manufacture, shall be of the highest grade and consistent with established and generally accepted standards for material of the type ordered, shall be in full conformity with the specifications, drawing or samples, if any and shall if operable, operate properly.

3.5.2 Performance of Equipment: In addition to the warranty as already provided, the supplier shall guarantee satisfactory performance of the equipment and shall be responsible for the period or up to the date specified in PART- 7, hereof after the equipment has been accepted by the AEDB to the extent for any defects that may develop such defects shall be removed at his own cost when called upon to do so by the AEDB.

3.5.3. Notice, statement and other communication send by AEDB through registered post or email or fax to the contractor at his specified addresses shall be deemed to have been delivered to the contractor.

### **3.6 PATENT RIGHT AND ROYALTIES.**

The tender shall indemnify the AEDB against all third party claims of Infringement of patent, royalties trademark or industrial design rights arising from use to the goods or any part thereof.

### **3.7 PACKING & FORWARDING**

3.7.1 Contractors wherever applicable shall after proper painting, pack and crate all the equipment in such a manner so as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till the time of installation/distribution amongst the end users. The contractor shall be held responsible for all the damages due to improper packing.

3.7.2 The contractor shall inform the AEDB of the date of each shipment from his works, and the expected date of arrival at the site for the information of the AEDB project offices at least 7 days in advance.

### **3.8 DEMURRAGE WHARFAGE, ETC**

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

### **3.9 INSURANCE**

The goods supplied under the contract shall be fully insured against loss or damage, incidental to manufacture or acquisition, transportation, shall be included in the bid price.

### **3.10 TRANSPORTATION**

The Tenderer is required under the contract to deliver the goods to the AEDB office at Quetta. The Lanterns shall be inspected for operation and then delivered to the agency designated by the governor house.

### **3.11 TERMINATION FOR INSOLVENCY**

AEDB may at any time terminate the contract by giving written notice to the contractor without compensation to the contractor, if it 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 there after to the AEDB.

### **3.12 TERMINATION FOR CONVENIENCE**

The AEDB, may by 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 AEDB.

### **3.13 APPLICABLE LAW**

The contract shall be interpreted in accordance with the laws of the purchaser's country i.e. Pakistan. The station of AEDB Headquarter Islamabad shall have exclusive jurisdiction in all matters arising under this contract.

### **3.14 NOTICE**

3.14.1 Any notice given by one party to the other pursuant to the contract shall be sent in writing or by email or fax and confirmed in writing to the address specified for that purpose in the special condition of contract.

3.14.2 A notice shall be effective when delivered or on the notice's effective date, whichever ever is later.

### **3.15 PAYMENTS:**

The payments shall be made as per the following terms and conditions.

3.15.1. The firm may be given a mobilization advance maximum of the 30% of the contract value, against bank/ insurance guaranty.

3.15.2. The part delivery / part payment will be permissible. The minimum part delivery is limited to 50% of the contracted quantity. Payment shall be cleared after acceptance/receipt certificate is issued from the Governor House/Representative.

3.15.3. Deductions on account of income tax and trade tax shall be made as per the laws if applicable, at the time of supplies.

**(Signature of Tenderer)  
with seal**

## **PART-4 SCOPE OF WORK**

The scope of work includes the sale of solar PV lantern to the AEDB on consignment basis. The scope of work also includes the establishment of after sales service centers at Quetta and provide after sales services at least for a period of two years with the help of AEDB's Quetta office.

## **PART-5 TECHNICAL SPECIFICATIONS OF SOLAR LANTERN**

### **1 DEFINITION:**

A Solar Photovoltaic 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 portable lighting device suitable for either indoor or outdoor lighting covering a full range of 360 degree.

### **2 TEST**

Solar lanterns to be procured under the present tender shall have a certificate of compliance with the following specifications or with PV Gap recommended practices by a test laboratory acceptable to the AEDB.

Nevertheless, in order to encourage local production, AEDB reserves the right of testing a specimen of locally manufactured or assembled solar lantern according to the following specifications by an independent and internationally recognized institute, e.g. Fraunhofer ISE Freiburg/Germany, results of which and recommendations for improvement will form part of the bid assessment.

### **3 GENERAL SPECIFICATIONS**

3.1 The solar lantern shall provide a minimum of four hours of lighting per day over a duration of two days, one of which is considered as under average daily solar radiation conditions of 4 kwh /sq.m on a horizontal surface, and the following one considered without irradiance (reserve of 1 day).

3.2 No blackening or reduction in the lumen output by more than 10% shall be observed after 1000 ON/OFF cycles(two minutes ON and four minutes OFF is one cycle).

3.3 The lantern shall be protected against dust, water and foreign bodies.

3.4 The performance guarantee shall cover at least 5 years.

3.5 Technical specifications of solar lantern and all major components have to be detailed in the bid document.

## **4 TECHNICAL SPECIFICATIONS OF COMPONENTS**

### **4.1 LAMPS**

Lamps shall be of minimized energy consumption type and have a nominal input voltage of 12V.

The lamps must ensure safe and reliable operation in the whole voltage range of -10% to + 25% of the nominal voltage (10.8 V to 15 V), and in the whole range of temperatures from -5° C to +45° C.

The power consumption of lamp load shall be limited to 5 W

The minimum luminous flux of the lamp(s) shall exceed 100 lm.

The lamp(s) must be protected against reversed polarity

The emitted light shall be cool or warm white.

The warranty shall cover at least 3 years.

### **4.2 BATTERY**

The battery shall be maintenance free type.

The warranty shall cover at least 1 year.

The battery should be of reputed make, including certificate based on international standards, e.g. IEC 61427: 2005.

### **4.3 ELECTRONIC CONTROL UNIT**

The Printed Circuit Board containing the electronics should be capable of solder free installation and placement.

Adequate protection is to be incorporated under no load condition (i.e. when the lamp is removed and the lantern is switched on).

Battery cut off and reconnect should be provided to protect it against overcharge and deep discharge condition.

The “load voltage disconnect” (LVD) must respect the established limits for the maximum discharge depth (PD<sub>max</sub>) of the battery.

The “load voltage reconnect” must be set up in order to allow a minimum charging time after the load has been disconnected.

High voltage and low voltage disconnect shall be selected in order to ensure a minimum of 600 cycle life of the battery (according to specifications given by the battery manufacturer).

Charging current of the battery must be limited to protect the battery from damage resulting from high charging current.

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.

Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

The idle mode current, that is the self-consumption when no lamp is lit, should not exceed 0.5 mA.

#### 4.4 P.V. MODULE

Solar panels shall have a certificate of compliance, issued by a test laboratory of international reputation, with the IEC 61215:2005 (IEC 61646 if appropriate). However, solar panels if of same make than certified panels of bigger size of a single manufacturer are acceptable.

The module shall have an arrangement (stand) for mounting at an optimum angle in the direction facing the sun.

The terminal box on the module shall have a provision for opening, in order to replace the cable, if required. Protection from reverse current flow from the battery to the Panel must be incorporated.

A strip containing the following details should be laminated inside the module. It should be clearly visible from the front side:

- Name of manufacturer or distinctive logo
- Model or Type no.
- Serial number.
- Year of manufacturing.
- Peak Watt Rating, Voltage & Current at MPP, open circuit & short circuit voltage

Solar panels have to be packed for safe transportation on non metallic roads.

Solar panels shall have framed module with a rain tight junction box accepting cable fitting.

The warranty shall cover at least 10 years.

#### 7. OTHER FEATURES

The lantern shall be provided with two LED indicators. A light to indicate charging in progress and an LED to indicate the battery status. The charging indicator shall glow only when the battery is actually being charged. The battery status indicator shall be routed through the ON/OFF switch, to save on the battery consumption during the switched off condition of the lantern.

A good reliable switch suitable for DC use shall be provided on to the lantern.

A water resistant, mechanically robust and UV resistant cable of at least 5 meters long shall be provided for inter connection between the module and the lantern.

The following details shall be marked indelibly on the lantern:

- i. Name of manufacturer or distinctive logo and year.
- ii. Model no.
- iii. Serial no.

An operation, instruction and maintenance manual of the lantern printed in English and Urdu shall be provided with solar lantern.

The following minimum details must be provided in the maintenance manual:

- About photovoltaic
- About solar lantern
- About PV module
- About LEDs/CFL
- About battery
- Clear instructions about mounting/using of PV module.
- About electronics

- About charging and significance of indicators.
- Do and don'ts
- Clear instructions on regular maintenance and trouble shooting of the lantern.
- Name and address of the person or service centre to be contacted in case of failure of component.
- A warrantee card to be supplied with the system must contained details of the system supplied.

**(Signature of Tenderer)**  
**with seal**

**PART -6**  
**Table of technical specifications**

<b>General</b>	
Number of hours of operation (without recharge)	
Rated light output	
Dimensions	
Weight (without panel)	
Casing	
Protection against dust, water and foreign bodies (Yes/No)	
Performance guarantee (excluding battery and lamp)	
<b>Solar module</b>	
Manufacturer / Model	
Type (monocrystalline, polycrystalline, amorphous)	
Nominal Power @ Standard Testing Conditions (STC) in wp	
Weight in kg	
Dimensions in cm (Height, width, length)	
Operating temperature range in °C	
Certificate (Yes/No)	
Name of the laboratory issuing the certificate	
Guarantee (Years)	
<b>Mounting structure</b>	
Material	
Dimensions (cm), angle(°) and weight (kg)	
Type of Anti-corrosion protection if any	
<b>Battery</b>	
Manufacturer / Model	
Type of battery	
Nominal Voltage in V	
Battery capacity at °25C in Ah	
Maximum depth of discharge in %	
Operating temperature range in °C	
Cycle performance (DOD and discharge rate to be specified)	
Guarantee	
Certificate (Yes/No)	
Name of the laboratory issuing the certificate	

<b>Lamp (if several lamps, please indicate aggregated values)</b>	
Type of lamp (CFL, LED)	
Manufacturer/Model	
Wattage	
Luminous efficiency (lm/W) @ 25°C and nominal voltage	
Luminous flux (lm) @ 25°C and nominal voltage	
Colour of light	
Reverse polarity protection (Y/N)	
Lifetime (hours or cycles)	
Certificate (Yes/No)	
Name of the laboratory issuing the certificate	
Performance guarantee (year)	
<b>Electronics</b>	
Charging method	
High voltage disconnect (V) @25°C	
Low voltage disconnect (V) @25°C	
Low voltage reconnect (V) @ 25°C	
Maximum charge current (Amp)	
Maximum discharge current (Amp)	
Protection against reverse polarity?	
Protection against short-circuit?	

**(Signature of Tenderer)  
with seal**

**PART- 7**  
**WARRANTY &**  
**MAINTENANCE AFTER EXPIRY OF ONE YEAR WARRANTY PERIOD**

**(A) Warranty**

It is an essential part of the contract that the Tenderer shall provide warranty of full system for one year. During the warranty period following maintenance shall be required to be carried out by the contractor:

1. Replacement (if required) of the any component or sub-components of the system for proper operation of the system.
2. Repairing/replacement of all defective components and sub-components including battery as per the requirement to ensure proper operation of the system.
3. In case of full damage or breakage of the component due to negligence or fault of beneficiary the same shall be replaced at users cost.
4. The safety and security of the system shall be the sole responsibility of the user.

**(B) Maintenance after expiry of one year warranty period**

1. In order to safeguard the environment, the supplier needs to make an arrangement to buy back the unserviceable/used batteries on replacement.
2. The firm /supplier either by himself or through this authorized shop/dealer etc. will maintain a stock of essential spares and consumables to ensure sufficient stock of spares and consumable for periodically replacing the consumed/ damaged items for a period of at least 5 years.

**(Signature of Tenderer)**  
**with seal**

**Part -8  
FINANCIAL BID**

**TENDER NO:-AEEDB/Balochistan/2/SL/2006**

(a) As per scope of work and technical specification specified in the document, rate for supply of **Complete Solar Lantern with warrantee specified** in the tender document.

-----

**Parts**

- (b) Battery            Model -----  
                                 capacity -----  
                                 Offered price -----
- (c) PV Module,      rating -----  
                                 Offered Price -----
- (d) Solar Lamp cluster of LEDs  
                                 Offered Price -----.
- (e) Electronic Panel  
                                 Offered Price -----.
- (f) Chassis and switches with wiring harness:  
                                 Offered Price -----.

Note:

- Certified that rate offered above are as per specifications term and conditions specified in the offer document.
- The rates are inclusive of all taxes and duties, insurance, transportation what so ever. If any new tax/duty is levied by the Govt. during the contract period, the same will be absorbed by the firm without enhancing the approved price of the solar lantern.
- The spare rates are valid for one year.

**(Signature of the Firm)  
with seal**

**Signature of the document issuing Officer.**

# **ANNEXE I**

## **Integrity Pact**

[The Seller/Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing, [The Seller/Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[The Seller/Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[The Seller/Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regards, [The Seller/Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [The Seller/Supplier] as foreshadowed for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege, or other obligation or benefit in whatsoever form from GoP.