

Office Of The
Jalpaiguri Zilla Parishad
NOTICE INVITING TENDER NO:3/2009-2010(Electrical)

1) The sealed tender is invited by the undersigned for Supply and installation of 400±10% Nos Solar Home Lighting System Model-2(2 lights) as per MNRE specification 2009-2010 SPV Programme at the Beneficiaries Premises at various location of this District from the bonafied outsider designer and manufacturer of solar lighting system having experience of the similar type of jobs. The Tender must be reached in the tender box which kept in the chamber of the undersigned **on 07/12/2009 upto 02:00PM** and will be open by the undersigned at 3:00Pm on the same date in presence of those bidder who may present at the time of opening the tender. Details of the technical specification and other information of this work may be seen in the office of the undersigned during normal office hours and log in to www.jalpaigurizp.org (Tender Link)

2) Tender Documents:-

Intending bidder may obtain Bidding documents in person or through their authorized agents from this Jalpaiguri Zilla Parishad Office from 1st December to 4th December from 11:00AM to 04:00PM on all working days by DD on any nationalized bank in favour of the Addl. Executive Officer, Jalpaiguri Zilla Parishad or cash receive of Rs.1000.00 (One thousand). The Bidding Document may also be downloaded from above-mentioned site & the price of bidding document of Rs.1000.00 (One thousand) has to be paid while submitting the bid in separate envelope. Any sealed cover of bid received after the time set forth will not be entertained and will be returned unopened. Jalpaiguri Zilla Parishad does not take any responsibility for the delay caused by the courier or postal authorities or the messenger whomsoever may be appropriate.

3) Eligibility of Firm/Agency:-

a. The bidder must have the Test Certificate of SPV HLS System confirming MNRE, Govt.of India, specification, issued from acc edited test center of MNRE, Govt. of India,, Govt. of India, on or after 1 st April 2009

And

b. The bidder must have Service Unit or Business Office or Manufacturing Unit in Kolkata/Siliguri/Jalpaiguri or other part of West Bengal

And

c. The bidder should have experience of supply and installation of at least total 100 nos. of SPV Home Lighting System under MNRE Programme through State Nodal Agencies (SNA) during the MNRE programme year 2006-2007 and 2007 -2008.

4) Earnest Money:-

The bidder shall have to submit Rs.20,000.00(Rupees twenty thousand) along with the tender as Earnest Money in shape of Bank Draft or bankers cheque on any nationalized bank payable at Jalpaiguri in favour of the Addl. Executive Officer, Jalpaiguri Zilla Parishad. However, registered SSI units will get exemption from submission of Earnest Money but supporting document has to be submitted with offer. If any SSI unit is awarded the work, they must deposit an amount equivalent to 2% (Two percent) of the order value as execution guarantee, which will be subsequently adjusted in realizing 10%security money while making progressive payments. SSI Unit may, however, instead of depositing 2% as execution guarantee may submit Bank Guarantee of equivalent amount to be issued by an authorized bank as per format to be confirmed by Zilla Parishad Authority. Without earnest money tender of the bidder will be summery rejected.

5) Rate:

The rate should be quoted in Bidding Document duly filled in and signed along with official seal annexing desired documents, must be put in the proper envelop duly sealed with clear recording of the Notice Inviting Tender number and due date of opening on the envelope and should be submitted to this office on 07-12-2009 up to 2:00 PM and the

tenders will be opened at 3:00 PM on the same day in presence of intending bidders, if any. Rate should be quoted including All duties, taxes, royalties, cess, [including 1% cess under W.B. Building and other Construction Workers (Regulation of Employments & Condition of Service) Act, 1996], toll, service taxes and other levies payable by the agency/firm under the Contract to the State / Central Government.

6) Agreement:

The successful bidder will have to execute the agreement in duplicate within seven days from the date of receipt of acceptance letter of rate prior to execute the formal agreement in non Judicial stamp paper of Rupees Ten.

7) Canvassing in connection with bid is strictly prohibited and the bid submitted by the firm/agency will liable to rejection, if it is reported that the bidder has made canvassing.

8) The agency/firm should follow the Labour Registration Act. as per rules.

9) If the agency/firm imposes conditions, which are in addition to or in conflict with the conditions mentioned herein, their tenders is liable to summary rejection.

10) In the event any dispute, the Zilla Parishad authority shall decide on appropriate measures in the interest of public Service.

11) This Zilla Parishad authority does not bind itself to accept the lowest rate but reserves the right to accept any rate and to reject an/ all the tenders without assigning any reason.

Sd/-

District Engineer
Jalpaiguri Zilla Parishad

Memo No:-500/(29)/Eng

Date:-17/11/2009

Copy forwarded to the:-

1. The Sabhadhipati, Jalpaiguri Zilla Parishad.
2. The Sahakari Sabhadhipati, Jalpaiguri Zilla Parishad.
3. The Karmadhakya-----Sthayee Samity, Jalpaiguri Zilla Parishad.
4. The District Magistrate, Jalpaiguri and Executive Officer, Jalpaiguri Zilla Parishad.
5. The Addl. Executive Officer, Jalpaiguri Zilla Parishad.
6. The Secretary, Jalpaiguri Zilla Parishad
7. The Project Director D.R.D. Cell Jalpaiguri Zilla Parishad.
8. The Executive Engineer, (R.D.) Jalpaiguri Zilla Parishad.
9. The Assistant Engineer _____ Sub-Division, Jalpaiguri Zilla Parishad.
10. The Office Superintendent/ Head Assistant Jalpaiguri Zilla Parishad.
11. The Accountant Jalpaiguri Zilla Parishad.
12. Sri. Rana Chandra, DIA, Jalpaiguri Zilla Parishad with request to publish the above notice to respective web site.
13. The Cashier/ Asstt. Cashier Jalpaiguri Zilla Parishad.
14. Sri. Bimal Toppo, DA, Jalpaiguri Zilla Parishad.
15. Notice Board Jalpaiguri Zilla Parishad General/ Engineering Section.

District Engineer
Jalpaiguri Zilla Parishad

OFFICE OF THE JALPAIGURI ZILLA PARISHAD
ABRIDGED COPY OF N.I.T.NO-3/2009-2010(Electrical)

The sealed tender are invited by the U/S for S&I of 400±10% Nos Solar Home Lighting System Model-2 at the Beneficiaries Premises of this District by 02:00PM on 07/12/2009. Details and other e-tendering documents may also be obtained from this Zilla Parishad web site www.jalpaigurizp.org (Tender Link).

Sd/-

District Engineer
Jalpaiguri Zilla Parishad

Memo No: 501/(2)

Date: 17/11/2009

Copy forwarded to:-

1. The General Manager, Creative adds, 75, Hill Cart Road, Rampada Bhawan, 2nd Floor, Siliguri-01, with the request to arrange for publication the above notice once (restricted the size to **7cmx4cm=28sqcm**) for the following daily newspapers within 23/11/2009 and submit the bill with clippings.
 - a) Ananda Bazar Patrika, Tender Edition
 - b) The Statesman, Tender & Notice Kolkata, Siliguri (BBSR), Monday to Saterdag
 - c) Janpath Samachar (Hindi), Tender (Display) (B/W).
2. The District Information and Cultural Officer, Jalpaiguri with request to publish the notice at least two local news paper within 30/11/2009.

District Engineer
Jalpaiguri Zilla Parishad

*Office Of The
Jalpaiguri Zilla Parishad*

Station Road, Jalpaiguri

Bidding Document

NIT No-3/2009-2010(Elect)

**Supply and installation of 400±10% Nos Solar
Home Lighting System Model-2(2 lights) as per
MNRE specification 2009-2010 SPV Programme at
the Beneficiaries Premises at various location of
the District Jalpaiguri.**

SL No-_____

Jalpaiguri-735101

Price: Rs.1000.00

Office Of The
Jalpaiguri Zilla Parishad
NOTICE INVITING TENDER NO:3/2009-2010(Electrical)

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2) Tender Documents:-

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a. The bidder must have the Test Certificate of SPV HLS System confirming MNRE, Govt. of India, specification, issued from acc edited test center of MNRE, Govt. of India,, Govt. of India, on or after 1 st April 2009

And

b. The bidder must have Service Unit or Business Office or Manufacturing Unit in Kolkata/Siliguri/Jalpaiguri or other part of West Bengal

And

c. The bidder should have experience of supply and installation of at least total 100 nos. of SPV Home Lighting System under MNRE Programme through State Nodal Agencies (SNA) during the MNRE programme year 2006-2007 and 2007 -2008.

4) Earnest Money:-

The bidder shall have to submit Rs.20,000.00(Rupees twenty thousand) along with the tender as Earnest Money in shape of Bank Draft or bankers cheque on any nationalized bank payable at Jalpaiguri in favour of the Addl. Executive Officer, Jalpaiguri Zilla Parishad. However, registered SSI units will get exemption from submission of Earnest Money but supporting document has to be submitted with offer. If any SSI unit is awarded the work, they must deposit an amount equivalent to 2% (Two percent) of the order value as execution guarantee, which will be subsequently adjusted in realizing 10% security money while making progressive payments. SSI Unit may, however, instead of depositing 2% as execution guarantee may submit Bank Guarantee of equivalent amount to be issued by an authorized bank as per format to be confirmed by Zilla Parishad Authority. Without earnest money tender of the bidder will be summery rejected.

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6) Agreement:

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Sd/-

District Engineer
Jalpaiguri Zilla Parishad

Key Dates

Name of the Work:	Supply and installation of 400Nos + 10% Solar Home Lighting System Model-2(2 lights) as per MNRE specification 2009-2010 SPV Programme at the Beneficiaries Premises at various location of this District Jalpaiguri.
NIT Reference	NIT no-3/2009-2010(Electrical)
NIT Issue Reference	500/(29) Eng, Date-17/11/2009
Last Date of Purchase of Bidding Document	04/12/2009 upto 04:00PM
Pre Bid Discussion	04/12/2009 at 04:00PM at the chamber of the undersigned
Last date of submission of bid	07/12/2009 at 02:00PM
Opening of Bid	07/12/2009 at 03:00PM
Validity of bid	180 days from the date of opening bid

This Bidding Document is issued to M/S
.....on against their request letter no
.....Datedand on payment of the cost of
tender papers amounts to Rs.1,000.00 (Rupees one thousand)only vide DD No.
..... Dated or Cash Rs.1,000.00 (Rupees One
thousand) only vide ZP MR no.....

Issued by

**District Engineer,
Jalpaiguri Zilla Parishad**

CHECK LIST

Please Mark '√', if the document is properly furnished or mark 'X', if the document is not furnished

1	Copy of the test certificate issued from authorized test center of MNRE, Govt. of India, on or after 1 st April 2009 for the individual model (Model II)	
2	Photocopy of receipt issued by Jalpaiguri Zilla Parishad for purchase of Bidding Document	
3	Bid Form duly filled in on Bidder 's Letter head	
4	Schedule-I: General Particulars duly filled in and indicating Annexure of desired documents.	
5	Schedule-II: Schedule of Past Experience duly filled in and indicating Annexure of desired documents.	
6	Schedule-III: Technical bid duly filled in.	
7	Schedule-IV: Price bid (A and B))duly filled in.	
8	Earnest money for an amount of Rs.20,000.00 in form of Demand Draft or Banker 's Cheque to be drawn in favour of the Addl. Executive Officer, Jalpaiguri Zilla Parishad.	
9	The manufacturer having SSI Certification should submit certified copy of the document as proof of SSI Unit with validity	
10	Original copy of the Bidding Document duly signed with seal on each and every pages	
11	Annexure of Schedule -I	
12	Annexure of Schedule -II	

Note: All relevant documents must be annexed with the offer with proper marking. If any desired information or document is not applicable, proper clarification must be submitted in respective column, other wise the bid will be treated as canceled.

Seal of the company

Signature

Name

Designation

Date

SCHE ULE-I
GENERAL PARTICULARS

NIT No.-----

SI No	Items	Details
1	Name of the of the Firm	
2	Nature of the Firm (Ltd., Pvt.Ltd., Ownership, Partnership, SSI Unit etc.)	
3	Complete Address of Registered Office	Annexure.....
4	Complete Address of Manufacturing Units	Annexure.....
5	If you have any Business Office in Kolkata or any parts of West Bengal, give details of the Office In-Charge, Address, Telephone Number and e-mail address	Annexure.....
6	Address of the Company 's own Service Centers in West Bengal with details of the In-charge of the Se vice Centres, Address, Telephone Number and e-mail address	Annexure.....
7	CST Registration No	
8	VAT Registration No	
9	PAN Ca d No.	
10	PF Registration No.	
11	ESI Registration No.	
12	Last Annual Turnover with documentary proof	Annexure.....
13	Name of the Bankers	
14	Solvency Certificate or Comfort letter from Banker	Annexure.....
15	Technical Literature, Brochures and Catalogs	Annexure.....
16	Copy of Income Tax Return for last financial year to be enclosed	Annexure.....
17	Copy of VAT Return	Annexure.....
18	Copy of the Test Certificates of respective Model issued from accredited test center of MNRE, Govt. of India on or after 1 st April 2009	Annexure.....
19	Technical staff details	Annexure.....
20	Other Document if any	Annexure.....

Seal of the company

Full Signature

Name

Designation

Date

Note: All relevant documents must be annexed with the offer with proper marking. If any desired information or document is not applicable, proper clarification must be submitted in respective column, other wise the bid may be treated as canceled.

SCHEDULE - II
SCHEDULE OF PAST EXPERIENCE
(To be Completed and Submitted with the offer)

Sl no	Purchaser's Name	Model no.	Order Quantity	Installation Sites	Name of the Programme	Programme year	Completion Date	Copy of order	Payment certificate
1								Annexure.....	Annexure.....
2								Annexure.....	Annexure.....
3								Annexure.....	Annexure.....
4								Annexure.....	Annexure.....
5								Annexure.....	Annexure.....
6								Annexure.....	Annexure.....
7								Annexure.....	Annexure.....
8								Annexure.....	Annexure.....
9								Annexure.....	Annexure.....
10								Annexure.....	Annexure.....

(Photocopies of the Order and **Payment certificate** (Not Completion Report) from the **Purchaser** for the works, should be attached indication reference of annexing)

Seal of the company

Date

Full Signature

Name

Designation

General Specification

Solar PV Home Lighting System:

1. The work involves timely procurement and transportation upto site in properly packed condition of all equipment, materials and miscellaneous item required to complete the work.
2. Supply, installation, testing and commissioning of about $400 \pm 10\%$ numbers Solar PV Home Lighting System including 5 years comprehensive maintenance conforming to the Specification & Guide Line of MNRE, Government of India.
3. The test report from acc edited test center MNRE, Govt.of India, report issued on **MNRE 2009-2010 SPV PROGRAMME**
4. The equipment and materials for each of the Solar PV Home Lighting Systems shall include but not limited to the followings:
 - a) Sola PV Module.
 - b) Lead acid battery having positive tubular plate, low maintenance and flooded electrolyte type.
 - c) Luminary Fixture comprises with Compact Fluorescent Lamp with inbuilt inverte .
 - d) Charge Controlling Unit.
 - e) Switch Board having switches and plugs.
 - f) Internal wiring with PVC insulated 650V grade 2 X 2.5 sqmm ISI marked multi strand copper wire (ISI Appd) drawn through PVC conduit (ISI marked) including required wiring materials.
 - g) Well-ventilated acid proof, corrosion resistant battery box made of sheet metal or wood or Plastic.
 - h) SPV Module Mounting Structure made of MS coated with anticorrosive paint suitable to hold SPV Module including required fixing arrangement on roof.
 - i) Instruction manual for operation and maintenance

5. Brief Specification:

MNRE 2009-2010 SPV PROGRAMME

Model-2(2 light)

Sl No	Items	Rating
1	Solar PV Module	1xMinimum 37 Wp under STC
2	Lead Acid Battery	1x12V, 40AH at C-10 Dischage regime and 27°C
3	Luminary Fixture	2x11W CFL
4	Charge controller	12V, 5A
5	Switch Board	1 no.
6	Plug point	1x5A, 3 pin
7	Plug switch	1x5A Piano Type
8	Light Switch	2x5A Piano Type
9	Internal Wiring	Average 15 circuit meter
10	Module Mounting Structure	1 No
11	Battery Box	1 No

Details specification of MNRE is enclosed.

SCHE ULE-III
Technical Bid:
Model-2(2 light)

Sl No	Items		Rating
1.1	Solar PV Module make		
1.2	Solar PV Module Model		
1.3	Type of PV Module		Mono/Poly Crystalline
2.1	Lead Acid Battery Make		
2.2	Lead Acid Battery Model		
2.3	Type of Battery Box		Wooden/Sheet metal/Plastic
3.1	Luminary Fixture Make		
3.2	Luminary Fixture Model		
4.1	Charge Controller Make		
4.2	Charge Controller Protection	Short Circuit	Yes/No
		Reverse Flow	Yes/No
		Low Voltage & Deep Discharging	Yes/No
		Over Voltage/Over Charging	Yes/No
		Reverse polarity protecting	Yes/No
4.3	Charge Controller Indication		
5.1	Switch Board		Wooden/FRP/Metal
5.2	Plug/Switch make		
5.3	Cables and Wires make		
5.4	PVC conduit make		

Seal of the company

Full Signature

Name

Designation

Date

SCHEDULE-IV

Price Bid: A
Model-II Solar PV Home Lighting System as per MNRE specification

Sl. No	Name of Item	Unit	Rate
1	Supply and installation including five years comprehensive maintenance of Model-II Solar PV Home Lighting System with minimum 37 Wp Solar PV Module as per Specification & Guidelines of MNRE and WBREDA at the Beneficiaries Premises at various location of the District, Jalpaiguri	Set	
In Words:			

(Authorized Signatory)

Name

Designation

Company Seal

Date..

General Terms & Conditions

1 Scope of Work: The work involves design and manufacturing, shop testing and transportation to site in properly packed condition of all equipment, materials and miscellaneous item required to complete the installation of Solar PV Home Lighting Systems. Receiving, unloading and transportation at site. Final check-up of equipment, installation at the beneficiaries ' premises and putting the system into successful functional operation. Handing over the Complete Solar Home Lighting System to the beneficiaries.

Five years trouble free comprehensive maintenance of the Solar PV Home Lighting Systems.

2 Mode of Work: The entire work shall be performed on turnkey basis. Any minor item(s) not included in the schedule, shall have to be supplied and fitted by the Contractor without any extra cost. The contractor shall have to supply the systems to the selected and confirmed beneficiaries.

3 Modality of Implementation of the Programme: The Zilla Parishad authority will provide the list of bonafied beneficiaries immediately after placement of order. The bonafied beneficiaries shall carry *Documentary proof of Identity* in triplicate. The contractor shall supply and install the system at the premises of beneficiaries, who will only have the *Documentary proof of Identity*. The contractor shall collect two copies of *Documentary proof of Identity* from the beneficiary only after installation and certification from use. The contractor shall submit one copy of *Documentary proof of Identity* to this Zilla Parishad immediately after handover of system to the beneficiary and shall keep one copy with them as record. On progress, the contractor shall submit report of installation along with bill and other documents. The Zilla Parishad will conduct physical verification and accordingly payment will be released. There will be no scope of collecting any amount in kind or cash from any beneficiary for installation of Solar Home Lighting Systems. The photograph of installation, copy of the performance certificate and other relevant documents need to be submitted by the contractor against installation shall be informed in due course before starting of the execution of the work. The ownership of the Solar PV Home Lighting Systems will lie with the contractor till physical verification of the system to be conducted by Zilla Parishad or its authorized representative.

5 Materials & Equipments: The contractor shall supply all materials & equipments in good order any condition. The supply of materials & equipments related to the work shall also include transportation; loading & unloading at work site along with proper pilfer proof storage. Zilla Parishad in no case shall be held responsible for any loss or damage or theft of materials & equipments, so long those shall continue to remain under the custody of the contractor.

6 Volume of Work : It has been estimated that total quantity is about 400 \pm 10% number of Solar PV Home Lighting System in respective of Model shall have to be supplied and installed at the premises of beneficiaries to be identified by Zilla Parishad at any locations in the selected villages. Specific Model of Solar PV Home Lighting System to be installed shall be as per instruction of Zilla Parishad authority on demand and choice of the beneficiaries.

7 Statutory Acts, Rules & Regulations: The work shall be done in compliance with the I.S. specification, I.E. Rules, Indian Electricity Act and other relevant rules, act & regulations now in force with latest amendments, if any. Unless otherwise stated the specification, scope of work and services and the basic minimum facilities shall be as per guideline of MNRE, Government of India.

8 Controlling Officer: Addl. Executive Officer, Jalpaiguri Zilla Parishad shall be the Controlling Office of the Work.

9 Supervising Officer: District Engineer, Jalpaiguri Zilla Parishad shall be the Supervising Office of the Work.

10 Road Permits: The contractor will arrange the waybill if require and Zilla Parishad will not take any responsibility in this process.

11 Testing: Battery :Batch testing of battery (2nos in each 40 to 300 nos. of batch)to be submitted by the contractor. **SPV Module :** IV curves of the entire SPV module are to be submitted the by contractor for supplied SPV module. All testing will be arranged by the cont actor within the cont act value. All the test reports in original are to be submitted by the contractor at this Zilla Parishad before inspection.

12 Inspection: Material Inspection will be carried out in phase-wise after submission of all test reports and certificates and after completion of the manufacturing work, against formal intimation from the contractor. The material shall have to be dispatched to the site after inspection and clearance.

13 Tools &Tackles: The Contractor shall provide all reliable tools &tackles for proper execution of work. Zilla Parishad ,shall in no way, responsible for supply of any tools & tackles for installation and maintenance of Solar PV Home Lighting Systems.

14 Accident Risk: Zilla Parishad shall not be responsible in connection with any sorts of accident, which may occur during transportation of materials or equipments and execution of works. The Contractor shall have to provide safety and precautionary arrangement for his workmen in order to avoid any such incident or accident.

15 Stoppage of Work: The Zilla Parishad shall neither be responsible nor be liable to bear any compensation for any interruption of work in the site due to war, strike, earthquake, lighting flood, cyclone etc.

16 Liquidated Damage: Scheduled date of completion shall be treated as essence of the contractor. Liquidated damage shall be imposed at the rate of 0.5%of the unexecuted value per week delay up to a maximum of 2.5%at the sole discretion of the Controlling Office .If there is a valid acceptable reason for delay execution, the Controlling Office may at his discretion consider lower down of the penalty rate or even waive the penalty on having written prayer from the controlling along with valid reason.

17 Risk Purchase: If the Contractor fails on receipt of the order ,to take up the work within a reasonable period or leave the work site after partial execution of the work, The Zilla Parishad authority shall have the liberty to get the work done through other agency at his risk and additional cost, if any. If the situation so warranted compelling Zilla Parishad authority to cancel the order placed on the contractor, he shall be liable to compensate the loss or damage, which Jalpaiguri Zilla Parishad may sustain due to reason of failure on his pa t to execute the work in time.

18 Completion Time: 60 (sixty) days from the date of handing over the beneficiary list.

19 Agreement: The successful bidder will have to execute the agreement in duplicate within seven days from the date of receipt of acceptance letter of rate prior to execute the formal agreement in non Judicial stamp paper of Rupees Ten.

20 Guarantee: The Solar PV Module shall have to be guaranteed for minimum period of 10 years. The batteries and Balance of System (BOS) shall have to be

guaranteed for five years for satisfactory performance. Guarantee for CF Lamps must be for 1(one) year .Zero date of commencement of defect liability period i.e. guarantee period shall reckon from date of completion of project. If any defect developed during the guaranteed period, the contractor shall be liable to replace or repair of defective part(s) at their own risk and responsibility as and when required.

21 Price : The quoted ate shall be fixed and firm inclusive of all taxes and duties and other incidental charges as applicable in West Bengal. No claim for escalation due to any reason and circumstances shall be entertained.

22 Security Deposit : An amount equal to 10% of the executed work value will be retained as security money for a period of five years. The Earnest Money shall be adjusted with security money. The security money shall be realized during release of each Running Account bill proportionately and finally shall be adjusted with final bill. The security money shall be retained for a period of five (5) years from date of completion of project and shall be released subject to satisfactory fulfillment of guarantee obligation. However, the contractor shall liable to fulfill guarantee obligation for the PV Modules for the rest five years. A declaration in this respect shall have to be submitted as per approved format to Zilla Parishad apart of issuance of guarantee Card to individual beneficiaries. Zilla Parishad Authority may, however, consider release of security money against BG of equivalent amount to be issued by an authorized bank as per format to be confirmed by Zilla Parishad Authority.

23 Earnest Money: An amount of Rs.20,000.00 (Twenty thousand) is to be submitted with offer in the form of Demand Draft or Banke 's Cheque in favor of the Addl. Executive Officer, Jalpaiguri Zilla Parishad, payable at Jalpaiguri. .Manufacturers registered as SSI Unit will get exemption from submission of earnest money at the time of submission of bid document. If any SSI unit is awarded the work, they must deposit an amount equivalent to 2% (Two percent) of the order value as execution guarantee, which will be subsequently adjusted in realizing 10%security money while making progressive payments. SSI Unit may, however, instead of depositing 2% as execution guarantee may submit Bank Guarantee of equivalent amount to be issued by an authorized bank as per format to be confirmed by Zilla Parishad Authority.

24 Payment: Zilla Parishad Authority will consider progressive payment. After completion of the work and on submission of bill in triplicate along with the desired documents, Zilla Parishad Authority shall arrange for payment against joint inspection, which will be carried out by the representative of Zilla Parishad Authority and the Contractor.

25 Mode of Payment: Zilla Parishad Authority will consider payment 80%of the executed work value after installation and commissioning of the complete system subject to satisfactory report as to be prepared after joint inspection. Total 10%payment duly adjusting earnest money or execution guarantee will be retained as Security Deposit as per **Security Deposit** clause. Balance 10% of the executed work value shall be treated as cost of Comprehensive Maintenance. The payment of Comprehensive Maintenance Charge shall be released on yearly basis in five equal installments subject to satisfactory service performance of Comprehensive Maintenance. During release of each installment towards AMC Charge, the contractor shall have to produce bill along with maintenance report.

26 Legal cases: All attempts must be made to settle any dispute through mutual understanding. In case, if such attempts fail, settlement is required to be made within the jurisdiction of Kolkata High Court only.

27 Deliverables to users: Apart from supply installation of Solar PV Home Lighting Systems, the contractor shall provide (i) Maintenance Manual (ii) Guarantee Card for the Hardware (iii) List of components supplied and installed with Serial Number, Maker's Name etc. to the beneficiaries. A declaration against receipt of the same, duly signed by the beneficiary is to be submitted to Zilla Parishad Authority.

28 Deliverables to Zilla Parishad Authority :

The contractor shall submit the following documents after completion of installation work:

- a) Zilla Parishad Copy of Documentary Proof of Identity
- b) Photographs of Installation
- c) List of Beneficiaries, to whom Solar PV System have been given as per format provided by Zilla Parishad Authority
- d) Declaration of beneficiary in respect of receipt of deliverables to the users.

Note: All deliverable documents (except photographs) to be submitted to Zilla Parishad Authority shall carry the signature of the beneficiary. Signature of any member of the family shall not be accepted. Instead of signature, Left Thumb Impression shall also be accepted in case the beneficiary can't sign but the LTI is to be verified and attested by any Government Officials. The photograph of installation of system shall be coloured and post card size. The photograph shall show clear view of the module on the roof with clear background and covering maximum portion of the house or indoor installation with at least three individual components of battery, charge controller, luminaries and switch board with clear view indoor arrangement. The photograph shall also contain the close and clear view of beneficiary, to whom the PV System shall be allotted.

29 Comprehensive Maintenance:

The contractor shall be responsible for routine and break down maintenance of the Solar PV HLS to be supplied by them at their own risk and cost for a period of five years from the date of completion of the project. The scope of Comprehensive Maintenance shall also include supply of spares and accessories as may be required to operate their supplied system trouble free. In case any major components like Charger Controller, PV Module and Battery needs to be repaired, the contractor shall arrange for repairing at site or in case the component needs to be repaired at factory and may require more than three days, the contractor shall arrange for providing a back up to keep the system operational. A quarterly maintenance report as per Zilla Parishad format shall have to be submitted to Zilla Parishad Authority. The contractor will maintain the documents of maintenance service at their local service center. Zilla Parishad Authority or authorized representative of this Zilla Parishad may check time to time the relevant document at site. Each system should be attended at least **once in every two months** to check up and routine maintenance and in case of break down maintenance the contractor shall attend for restoration of system as and when required. One service center should be set up at the respective village and shall be attended by trained Technician(s) with adequate stock of spares in order ensure on site maintenance of Solar PV Home Lighting System. The Service Center shall keep adequate stock of spare of electronics parts, luminaries and CFLs, metallic structures and SPV Modules. The service centre shall also be well equipped with all tools and tackles, checking and measuring instruments. Providing of distilled water is also within the scope of

maintenance. The contractor top up batteries with quality distilled water periodically. It is desirable that the contractor will install Solar Distillation Plant at or near service station to ensure availability of distilled water as and when required by the users. The selection of technician(s) shall have to be explored from the village where service center would be located. Number of technician(s) shall be one against each 250 nos. systems or part thereof. The contractor shall submit details of their maintenance technicians with contact address, telephone number etc .immediately after installation of Solar PV Home Lighting Systems.

30 End User: The contractor shall supply and install the system in the premises of the selected beneficiaries to be confirmed Jalpaiguri Zilla Parishad. However, before installation of the system, the contractor shall have to obtain *Documentary proof of Identity* from the beneficiary to make sure the identity of the beneficiary and his premises. Contractor shall be held responsible for any information is over looked, suppressed or intentionally misrepresented.

31 Installation Sites: The Solar PV Home Lighting System shall have to be installed in beneficiaries premises within various location of Jalpaiguri District..

BID FORM
(To be submitted by bidders on official letter head of the company)

No

Dated

To,
The District Engineer
Jalpaiguri Zilla Parishad
Station Road, Jalpaiguri
Pin-735101

Sub: Offer for Supply and installation including five years comprehensive maintenance of Model-II Solar PV Home Lighting System with minimum 37 Wp Solar PV Module as per Specification & Guidelines of MNRE and WBREDA at the Beneficiaries Premises at various location of this District, Jalpaiguri

Sir,

We the under signed Bidder, having read and examined in details the specification, general terms & conditions of the tender, do are hereby submitting our offer to execute the contract as per specification as set forth in the bid document.

1. The information & documents as enclosed herewith are correct & authentic and original documents are with us and those can be produced as and when required by you.
2. We offer to supply and installation including 5 years comprehensive maintenance of Model-II Solar PV Home Lighting System at a unit cost of Rs..... as per Price Bid: A.
3. The rates offered by us are fixed and firm during entire period of contract irrespective of date of completion and not subject to any price escalation.
4. We further declare that price quoted in our offer is in accordance with your Bidding Document
5. We declare that we are making the offer on the basis of a divisible contract on a single source responsibility basis.
6. We have enclosed earnest money amounting to Rs.1.2 (One point two lakh) only in the form of Demand Draft/Banker's Cheque on Branch..... Bank vide DD/Cheque No.....dated
7. Our company is registered as SSI Unit and as proof we are attaching herewith a copy of the registration certificate as Annexure (For SSI Unit)
8. We declare that contract shall be executed strictly in accordance with the General Terms & Conditions and General Technical Specifications and as per instruction of Jalpaiguri Zilla Parishad Authority.
9. We understand that you are not bound to accept the lowest or any bid you may receive against this tender. We also understand that the work may be split to more than one contractor, if required, without assigning any reason whatsoever.
10. We fully understand that the completion time stipulated in bidding document is the essence of the contract. If you accept this offer, we agree to provide services and

complete the entire work within the completion time stipulated in the Bidding Document. We also understand that if work is awarded to us, until a formal work order is prepared and placed, this offer together with your Letter of Intent thereof shall constitute a binding contract between us.

11. We also declare that we will not debar from executing the work if we are awarded with the contract.

In case we do not accept the award of contract or letter of intent, our earnest money may be forfeited.

(Authorized Signatory)

Name

Designation

Company Seal

SPECIFICATIONS FOR SOLAR PHOTOVOLTAIC SYSTEMS(CFL based)

(MNRE 2009-2010 SPV PROGRAMME)

Manufacturers should get the samples tested at Solar Energy Centre or ERTL, Kolkata or CPRI, Bangalore. All test centres should quantify all the measured parameters with appropriate remarks. At the end of the report the test center should provide a note on qualification or disqualifications of the sample with adequate reasons.

Validity of test reports is twenty four (24) months from date of issue or modification of specifications whichever is earlier

SOLAR HOME LIGHTING SYSTEMS

I. DEFINITION

A solar home lighting system aims at providing solar electricity for operating lights and/or fan or energizing a DC operated portable TV set for specified hours of operation per day.

II. MODELS

MODEL – 1 (1 Light Point)

Component Specifications

PV Module 1X 18 W under STC

Lamps 1X CFL (9W /11W)

Battery 1X 12V, 20 AH Tubular plate Lead Acid or VRLA Gel Type

Other components: control electronics, module mounting hardware, battery box, inter-connecting wires/ cables, switches, etc. Operation, instruction and maintenance manual.

MODEL - 2 (2 Lights)

Component Specifications

PV Module 1X 37 W under STC

Lamps 2X CFLs (9W /11W)

Battery 1X 12V, 40 AH Tubular plate Lead Acid or VRLA Gel Type

Other components: control electronics, module mounting hardware, battery box, inter-connecting wires/ cables, switches, etc. Operation, instruction and maintenance manual.

MODEL - 3 (2 lights and 1 fan)

Component Specifications

PV Module(s) 2X 37 W or 1 X 74 W under STC
Lamps 2X CFLs (9W /11W)
Fan 1X DC Fan (with wattage less than 20 W)
Battery 1X 12V, 75 AH Tubular Plate Lead Acid or VRLA GEL Type
Other components: control electronics, module mounting hardware, battery box, inter-connecting wires/ cables, switches, etc. Operation, instruction and maintenance manual.

MODEL - 4 (4 lights)

Component Specifications
PV Module(s) 2X 37 W or 1 X 74 W under STC
Lamps 4 X CFLs (9W /11W)
Battery 1X 12V, 75 AH Tubular Plate Lead Acid or VRLA Gel Type
Other components: control electronics, module mounting hardware, battery box, inter-connecting wires/ cables, switches, etc. Operation, instruction and maintenance manual.

Notes :

- i) All models will have a socket to provide power for a 12V DC TV set which can be purchased separately.
- ii) A small white LED may be provided as an optional feature, with an independent switch.

III. DUTY CYCLE

The system should be designed under average daily insolation of 5.5 kWh/ sq.m. on a horizontal surface

MODELS AVERAGE HOURS OF OPERATION / DAY

Model 1	1 Light, (3-4 Hours)
Model 2	2 Lights, (3-4 Hours)
Model 3	2 Lights, (2-3 hours), 1 Fan(2-3 hours)
Model 4	4 Lights, (3-4 Hours)

IV. LAMPS

- (i) The lamps will be of compact fluorescent (CFL) type, 4 - Pin type, with ratings of 9W or 11W with a suitable pre-heating circuit .
- (ii) The light output from the lamps should be around 550 +/- 5 % lumens (for 9 W CFL) and 850 +/- 5 % lumens (for 11 W CFL). Also please see (iii) of VI given below.
- (iii) The lamps should be housed in an assembly suitable for indoor use, with a reflector on its back. While fixing the assembly, the lamp should be held in a base up configuration.

V. BATTERY

- (i) **The battery will be of flooded electrolyte , positive tubular plate type, low maintenance lead acid or gel type VRLA.**
- (ii) The battery will have a minimum rating of 12V, 20 or 40 or 75 Ah (at C/10) discharge rate depending on Model.
- (iii) 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.

VI. ELECTRONICS

- (i) The inverter should be of quasi sine wave/sine wave type, with frequency in the range of 20 - 30 KHz. Half-wave operation is not acceptable.
- (ii) The total electronic efficiency should be not less than 80 %.
- (iii) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON followed by four minutes OFF is one cycle).
- (iv) The idle current consumption should not be more than 10 mA

VII. PV MODULE (S)

- (a) **The PV module (s) shall contain mono/ multi crystalline silicon solar cells. It is preferable to have certificate for the supplied PV module as per IEC 61215(revised) specifications or equivalent National or International Standards . In case if the supplied PV module is not a regular PV module of the manufacturer and does not have certificate as per IEC 61215(revised) specifications ,then the manufacturer should have the required certification for at least one of their regular modules. Further, the manufacturer should certify that the supplied module is also manufactured using same material design and process similar to that of certified PV module.**
- (b) The power output of the module(s) under STC should be a minimum of 18 W or 37 W or 74 W. In case of Model 4 & 5 either two modules of 37 W each or one module of 74 W should be used.
- (c) The operating voltage corresponding to the power output mentioned above should be 16.4 V.
- (d) The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.
- (e) The terminal box on the module should have a provision for opening for replacing the cable, if required.
- (f) A strip containing the following details should be **laminated inside** the module so as to be clearly visible from the front side:
 - g) **Name of the Manufacturer or distinctive Logo**
 - h) **Model or Type No.**
 - i) **Serial No.**
 - j) **year of make**

VIII. DC FAN

The wattage of the fan should not be more than 20 Watts and it should operate at 12V DC.

IX. ELECTRONIC PROTECTIONS

- (i) Adequate protection is to be incorporated under no load conditions, e.g. when the lamps are removed and the system is switched ON.
- (ii) The system should have protection against battery overcharge and deep discharge conditions.
- (iii) Fuses should be provided to protect against short circuit conditions.
- (iv) A blocking diode, should be provided as part of the electronics, to prevent reverse flow of current through the PV module(s), in case such a diode is not provided with the PV module(s).
- (v) Full protection against open circuit, accidental short circuit and reverse polarity should be provided.
- (vi) Electronics should operate at 12 V and **should have temperature compensation** for proper charging of the battery through out the year

X. MECHANICAL COMPONENTS

- (i) Metallic frame structure (with corrosion resistance paint) to be fixed on the roof of the house to hold the SPV module(s). The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that it can be installed at the specified tilt angle.
- (ii) A vented metallic / plastic box with acid proof corrosion resistance paint for housing the storage battery indoors should be provided.

XI OTHER FEATURES

- (i) The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.
- (ii) There will be a Name Plate on the system which will give:
 - (a) Name of the Manufacturer or Distinctive Logo.
 - (b) Serial Number.
- (iii) Components and parts used in solar home systems should conform to the latest BIS specifications, wherever such specifications are available and applicable.
- (iv) **PV module(s) will be warranted for a minimum period of 15 years from the date of supply and the solar home system (including the battery) will be warranted for a period of two years from the date of supply.** The Warranty Card to be supplied with the system must contain the details of the system supplied, as given in the Annexure-12. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.

- (v) Necessary lengths of wires / cables, switches suitable for DC use and fuses should be provided
- (vi) An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the solar home system.

The following minimum details must be provided in the Manual:

- (a) About Photovoltaics
- (b) About solar home system - its components and expected performance
- (c) About PV module.
- (d) About CFL.
- (e) About battery.
- (f) Clear instructions about mounting of PV module(s).
- (g) About electronics.
- (h) About charging and significance of indicators.
- (i) DO's and DONT's,
- (j) Clear instructions on regular maintenance and trouble shooting of solar home system.
- (h) Name and address of the person or service center to be contacted in case of failure or complaint.

SOLAR STREET LIGHTING SYSTEM

I. DEFINITION

A stand alone solar photovoltaic street lighting system comprises a compact fluorescent lamp, lead acid battery, PV module(s), control electronics, inter-connecting wires/cables, module mounting hardware, battery box, Operation, instruction and maintenance manual.

II. DUTY CYCLE

The system should be designed to automatically switch ON at dusk, operate throughout the night and automatically switch OFF at the dawn, under average daily insolation of 5.5 kWh/ sq.m. on a horizontal surface.

III. LAMP

- (i) The lamp will be of compact fluorescent (CFL) of 11W, 4 - Pin type. With adequate pre-heating circuit.
- (ii) The light output from the lamp should be around 850 +/- 5 % lumens. Also please see (iii) of V given below.
- (iii) The lamp should be housed in a weather proof assembly suitable for outdoor use, with a reflector on its back. While fixing the assembly, the lamp should be held in a base up configuration.

IV. BATTERY

- (i) **Flooded electrolyte type, positive tubular plate, low maintenance lead acid or gel type VRLA**
- (ii) The battery will have a minimum rating of 12V, 75 Ah (at C/10) discharge rate.
- (iii) 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.

V. ELECTRONICS

- (i) The inverter should be of quasi sine wave/ sine wave type, with frequency in the range of 20 - 30 KHz. Half-wave operation is not acceptable.
- (ii) The total electronic efficiency should be not less than 80 %.
- (iii) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON followed by four minutes OFF is one cycle).
- (iv) The idle current consumption should not be more than 10 mA.
- (v) The PV module itself will be used to sense the ambient light level for switching ON and OFF the lamp.

VI. PV MODULE (S)

- (i) **The PV module (s) shall contain mono/ multi crystalline silicon solar cells. It is preferable to have certificate for the supplied PV module as per IEC 61215(revised) specifications or equivalent National or International Standards . In case if the supplied PV module is not a regular PV module of the manufacturer and does not have certificate as per IEC 61215(revised) specifications ,then the manufacturer should have the required certification for at least one of their regular modules. Further, the manufacturer should certify that the supplied module is also manufactured using same material design and process similar to that of certified PV module**
- (ii) The power output of the module(s) under STC should be a minimum of 74 W. Either two modules of minimum 37 W output each or one module of 74 W output should be used.
- (iii) The operating voltage corresponding to the power output mentioned above should be 16.4 V.
- (iv) The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.
- (v) The terminal box on the module should have a provision for opening for replacing the cable, if required.
- (vi) A strip containing the following details **should be laminated** inside the module so as to be clearly visible from the front side:
 - a) Name of the Manufacturer or distinctive Logo
 - b) Model or Type No.
 - c) Serial No.
 - d) year of make

VII. ELECTRONIC PROTECTIONS

- (i) Adequate protection is to be incorporated under no load conditions e.g. when the lamp is removed and the system is switched ON.
- (ii) The system should have protection against battery overcharge and deep discharge conditions.
- (iii) Fuses should be provided to protect against short circuit conditions.
- (iv) A blocking diode, should be provided as part of the electronics, to prevent reverse flow of current through the PV module(s), in case such a diode is not provided with the solar module(s).
- (v) Full protection against open circuit, accidental short circuit and reverse polarity should be provided.
- (vi) Electronics should operate at 12 V and **should have temperature** compensation for proper charging of the battery through out the year.

VII. MECHANICAL HARDWARE

- (i) A metallic frame structure (with corrosion resistance paint) to be fixed on the pole to hold the SPV module(s). The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that the module(s) can be oriented at the specified tilt angle.
- (ii) The pole should be made of mild steel pipe with a height of 4 metres above the ground level, after grouting and final installation. The pole should have the provision to hold the weather proof lamp housing. It should be painted with a corrosion resistant paint.
- (iii) A vented, acid proof and corrosion resistant painted metallic box for outdoor use should be provided for housing the battery.

IX. OTHER FEATURES

- (i) The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.
- (ii) There will be a Name Plate on the system, which will give:
 - (a) Name of the Manufacturer or Distinctive Logo.
 - (b) Serial Number.
- (iii) Components and parts used in the solar street lighting systems should conform to the latest BIS specifications, wherever such specifications are available and applicable.
- (iv) **The PV module(s) will be warranted for a minimum period of 15 years from the date of supply and the street lighting system (including the battery) will be warranted for a period of two years from the date of supply.**
The Warranty Card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
- (v) Necessary lengths of wires/cables and fuses should be provided
- (vi) An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the solar street lighting system.
The following minimum details must be provided in the Manual:
 - (a) About Photovoltaics
 - (b) About solar street lighting system - its components and expected performance
 - (c) About PV module.
 - (d) About CFL.
 - (e) About battery.
 - (f) Clear instructions about erection of pole and mounting of PV module and lamp housing assembly on the pole.
 - (g) About electronics.
 - (h) About charging and significance of indicators.

- (i) DO's and DONT's,
- (j) Clear instructions on regular maintenance and trouble shooting of the solar street lighting system.
- (h) Name and address of the contact person in case of non-functionality of the solar street lighting system.