BID DOCUMENT

FOR

Supply, Installation, Testing and commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of

A. LED based Solar Street Lighting Systems (MNRE Model – I)
B. LED based Solar Home Lighting System (MNRE Model – III/Model – V)

at different locations in the State of Assam.

BID NO: APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

NAME OF FIRM / COMPANY ________________

SIGNATURE OF BID ISSUING OFFICER
# ASSAM POWER DISTRIBUTION COMPANY LTD. (APDCL)
(A Successor Company of Erstwhile ASEB)
BIJULEE BHAWAN, PALTANBAZAR GUWAHATI 781001 ASSAM

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Topic</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>PART – 1</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Notice Inviting Tender</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Covering Letter</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Checklist</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Particulars of Bid</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>General Particulars of Bidder</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Project Execution Experience of Relevant Projects</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>Declaration by Bidder</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td><strong>PART – 2</strong></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Instructions to Bidder</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>Section - 1 Eligibility Condition</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Section - 2 Content of bid document</td>
<td>20</td>
</tr>
<tr>
<td>11</td>
<td>Section - 3 Preparation of Bid</td>
<td>22</td>
</tr>
<tr>
<td>12</td>
<td>Section - 4 Submission of Bid</td>
<td>25</td>
</tr>
<tr>
<td>13</td>
<td>Section - 5 Bid opening and evaluation</td>
<td>27</td>
</tr>
<tr>
<td>14</td>
<td>Section - 6 Award of Contract</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td><strong>PART – 3</strong></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>General conditions of contract</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td><strong>PART – 4</strong></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Scope of work &amp; Technical specification.</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td><strong>PART – 5</strong></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Warranty and Comprehensive Maintenance Contact &amp; Installation and Commissioning Format</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td><strong>PART-6</strong></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Technical Bid</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td><strong>PART- 7</strong></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Bank Guarantee Format</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td><strong>PART- 8</strong></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Contract Agreement Format</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td><strong>PART- 9</strong></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Price Bid</td>
<td>74-75</td>
</tr>
<tr>
<td>22</td>
<td>Authorization Letter &amp; MRHOV</td>
<td>76-77</td>
</tr>
</tbody>
</table>
PART-1

1. Notice to Bidder
2. Covering Letter
3. Checklist
4. Particulars of BID.
5. General Particulars of Bidder
6. Project execution Experience of Relevant Projects
7. Declaration by Bidder
NOTICE INVITING TENDER
Assam Power Distribution Company Ltd.
(A successor Company of Erstwhile ASEB)
BIJULEE BHAWAN, PALTAN BAZAR GUWAHATI- 781001
Tel.No. 0361-2735684, Fax: 0361-2739626
Website: www.apdcl.gov.in E-Mail: gmnre.apdcl@gmail.com

1.0 Sealed tenders are invited in two bid systems (Technical & Financial), from Original Equipment Manufacturer (Manufacturer means Manufacturer of SPV Module or PCU or battery)/System integrator (System integrator means Approved Channel Partners of MNRE) valid test certificates for their products for “Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems & Solar Home Lighting Systems at different locations in the State of Assam”.

<table>
<thead>
<tr>
<th>Item</th>
<th>Place</th>
<th>Earnest Money In Rs</th>
<th>Cost of Bid document In Rs</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems &amp; Solar Home Lighting Systems at different locations in the State of Assam”</td>
<td>At different locations of Assam</td>
<td>Rs. 3,75,000.00</td>
<td>Rs. 6,000.00</td>
</tr>
</tbody>
</table>

2.0 The complete Bidding Documents including technical specifications are available at APDCL’s website www.apdcl.org. Bid document may also be seen at the APDCL’s e-tendering portal http://apdcl.etenders.in. Interested bidders can download the Bidding Documents and commence preparation of bids to gain time.

3.0 The Bidder will be required to download the Bidding Documents from web portals mentioned in para 2.0 above. However, they will have to pay a non-refundable tender fee of INR 6,000/- in the form of demand draft in favour of The Chief General Manager (PP&D), APDCL, payable at Guwahati along with their bid and provide the DD details in the web documents. The acceptance of the bid shall be subjected to acceptance of the documents fee.

The Bidder must note the followings:

i) A Bidder must get it registered at the web portal https://apdcl.etenders.in

ii) A Bidder must download the Bidding Documents and submit Price – Bid electronically by using its own user ID & password on the portal

iii) A Bidder will be required to encrypt & sign its online bid using own Digital Signature Certificate (Class – II or higher with both Signing and Encryption Certificates). Prospective Bidders must procure DSC before participating in the tenders.

iv) A Bidder will be required to pay a Service Fee (Online) in order to participate in the bidding process. However, viewing & downloading of the bid document will be free of cost. This service fee will be in addition to the cost of bidding document to be paid to CGM (PP&D).
In case of any discrepancy between the documents downloaded by a bidder and official Bidding Documents (hard copy) kept at EMPLOYER’S office i.e., the office of the Chief General Manager (PP&D), APDCL, the later shall prevail.

4.0 A Single Stage Bid Envelope Bidding Procedure followed by e− bidding for price bids will be adopted and will proceed as detailed in the Bidding Documents.

5.0 Bid document may be obtained from the office of the undersigned during office hours from 12/01/2017 to 27/01/2017. Bids must be delivered in single sealed envelope to the address below on or before 14:00 hours (IST) on 27/01/2017. Price breakup shall be submitted electronically. Late bids will be rejected. Bid envelope i.e., Techno-Commercial Part shall be opened on the same day i.e., 27/01/2017 at 15:00 hrs (IST) in presence of the bidder’s representatives who choose to attend in person at the office chamber of GM (NRE), APDCL. Price Bids shall be opened in the presence of the bidder’s representatives who choose to attend at the time and date at the address given in the intimation for opening of Price Bids.

6.0 Date and Time of pre-bid Meeting shall be held on 20/01/2017 at 1200 Hrs. Any quarry/clarification in regard to the bid document shall be entertained & addressed in the Pre-Bid Meeting. No further clarification shall be entertained beyond the stipulated date.

7.0 The CGM (PP&D) reserves the right to reject any or all bids without assigning any reason thereof

8.0 For more information, visit our site at http://www.apdcl.org & http://apdcl.etenders.in

-S/d-
Chief General Manager (PP&D)
APDCL, Bijulee Bhawan, Paltanbazar,
Guwahati-1

Memo No.: APDCL/CGM (PP&D)/NRE-83/2015-16/226 (a) dated: 12/01/2017
Copy to:-
1. The Additional Chief Secretary, Power (Elect.) Dept., Govt. of Assam, Dispur, Guwahati - 6, for kind information.
2. The Managing Director, APDCL, Bijulee Bhawan, Paltanbazar, Guwahati-1, for kind information.
3. All the Chief General Manager, APGCL/ AEGCL/APDCL, Bijulee Bhawan, Paltanbazar, Guwahati-1, for information.
4. Smt. U. Saikia, Deputy Secretary to the Govt. of Assam, Power (Elect) Deptt., Dispur, Guwahati-6, for kind information.
5. The Asstt. General Manager (F&A), O/o the CGM (PP&D), APDCL, Bijulee Bhawan, 6th floor, Paltanbazar, Guwahati-1 for information.
6. The OSD to the Chairman, APDCL, along with a Soft Copy of the Bid Document for uploading in the official website
7. Office Notice Board.

-S/d-
Chief General Manager (PP&D)
APDCL, Bijulee Bhawan, Paltanbazar,
Guwahati-1
2. **Covering Letter:**

**FROM:**
M/s._ (Full name and address of the Bidder)___

______________________________________________________________

**To**
The Chief General Manager (PP&D),
Assam Power Distribution Company Ltd.
Bijulee Bhawan, Paltan Bazar
Guwahati-781001

**Subject:** Offer in response to NIT No: APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

Dear Sir,

I /We, the undersigned Bidder hereby submit my /our offer in full compliance to terms & conditions of the attached NIT for Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems & Solar Home Lighting Systems at different locations in the State of Assam. The application is submitted in single sealed envelope (Technical commercial bid) marked “Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems & Solar Home Lighting Systems at different locations in the State of Assam”.

I/ We hereby declare that the terms & conditions mentioned in the NIT have been read & I/ we agree that these conditions will be binding upon me / us.

**CONTACT PERSON**
Details of contact person are furnished as under:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Company</th>
<th>Address</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Phone No.</th>
<th>Fax No.</th>
<th>E-mail address</th>
</tr>
</thead>
</table>

We are enclosing herewith duly signed formats as desired by you in your NIT document for your consideration.

Dated the ______ day of _______ of 2017

Thanking you,

Yours faithfully,

(Signature, Name, Designation and Company's Seal of Business Address)
### 3. Check list

<table>
<thead>
<tr>
<th>SL. No</th>
<th>Annexure No</th>
<th>Particulars</th>
<th>Yes/No (Flag No*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Annexure-I</td>
<td>Details of Application Processing/ Bid Document fee (Demand Draft/ Bankers Cheque no. and date)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Annexure-II</td>
<td>Details of Earnest Money (Bank Draft /Bank Guarantee/ Bankers Cheque No. and date)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Annexure-III</td>
<td>Experience on Relevant project(s) Completed.</td>
<td></td>
</tr>
</tbody>
</table>
| 4      | Annexure-IV  | Enclose test reports/ certificate of **SPV Module** from IEC/NABL accredited laboratory as per relevant IEC standard for  
(a) Solar Street Lighting System (MNRE Model –I)                                                        
(b) Solar Home Lighting Systems (MNRE Model –III & V)                                                      |                   |
| 5      | Annexure-IV  | Enclose test reports/ certificate of **battery** from accredited laboratory as per relevant IEC standard or latest BIS standard for  
(a) Solar Street Lighting System (MNRE Model –I)                                                        
(b) Solar Home Lighting System (MNRE Model –III & V)                                                      |                   |
| 6      | Annexure-IV  | Enclose test reports/certificate of the complete system from MNRE authorized testing laboratory for  
(a) Solar Street Lighting System (MNRE Model –I)                                                        
(b) Solar Home Lighting System (MNRE Model –III & V)                                                      |                   |
| 7      | Annexure-V   | Copy of valid CST/VAT registration certificate                                                                                                                                                               |                   |
| 8      | Annexure-VI  | Certified Duly verified Turnover statement for the last three consecutive years i.e., years 2013-14, 2014-15 & 2015-16.                                                                                           |                   |
| 9      | Annexure-VII | Details of post commissioning service facilities in the state of Assam                                                                                                                                        |                   |
| 10     | Annexure-VIII| Authorization letter of representation on behalf of the Bidder                                                                                                                                               |                   |
| 11     | Annexure-IX  | • **In case of system integrator:** Enclosed an adequate proof of document of system integrator (i.e., Valid Certificate of Empanelment as a Channel Partner of MNRE)  
• **In case of Manufacturer:** Enclose an adequate proof of document of manufacturer, actually showing that they are manufacturing product (i.e., solar module or PCU or battery) by way production, testing and other facilities |                   |
| 12     | Annexure-X   | Enclosed **Technical Bid** as per the format prescribed in NIT (Details of the Product proposed by the bidder)                                                                                              |                   |

* Please flag the annexure and write number in the box.

(Signature of Bidder with seal)
4. PARTICULARS OF BID

1. NIT No. : APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017


3. Number of Systems : As required.

4. Period of work : 120 days from the award of work.

5. Cost of Application document : Rs 6,000/- in the form of Demand Draft/Bankers Cheque issued by any RBI licensed banks in favour of CGM (PP&D) APDCL payable at Guwahati.

6. Amount of Earnest money Deposited : Rs.3,75,000.00(Rupees three lakhs seventy five thousand only ) in the form of Demand Draft / Bankers Cheque/ Bank Guarantee (valid for 6 months) issued by any nationalized bank or schedule bank of RBI in favour of CGM (PP&D), payable at Guwahati, shall be attached with the bid document.

7. Date and Time of submission of Bid : 27/01/2017 at 1400 Hrs.

8. Date and Time of pre-bid Meeting : 20/01/2017 at 1200 Hrs.

9. Date and Time of opening of Technical Bid : 27/01/2017 at 1500 Hrs.


11. Name of firm/Company to whom bid document is issued. : 

12. Validity of Bid : 180 days from the date of opening.

13. Opening Date of Price Bid : To be intimated later on.

(Signature of Bidder with Seal)
### 5. GENERAL PARTICULARS OF BIDDER

<table>
<thead>
<tr>
<th>Name of Firm/Company (In Block Letters)</th>
<th>M/s.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal Address (In Block Letters)</td>
<td></td>
</tr>
<tr>
<td><strong>Nature of the Bidder in the NIT</strong></td>
<td></td>
</tr>
<tr>
<td>• Original Equipment Manufacturer</td>
<td></td>
</tr>
<tr>
<td>• System integrator</td>
<td></td>
</tr>
<tr>
<td><strong>Present Activities/ business of the bidder</strong></td>
<td></td>
</tr>
<tr>
<td>• Manufacturer (Solar Module, PCU, battery)</td>
<td></td>
</tr>
<tr>
<td>• System integrator (Approved Channel Partner of MNRE)</td>
<td></td>
</tr>
<tr>
<td><strong>Telegraphic Address</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Telephone No.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fax No.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>E-Mail Address</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Website</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Name of Representative of the firm / Company (In Block Letters)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Designation &amp; Employee No. of representative of the firm/ Company</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contact No. of the representative of the firm/ Company</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EMD amount</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EMD: Demand Draft / Banker’s Cheque /Bank Guarantee No. &amp; Date.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Bid Document Fee: Demand Draft/ Banker’s Cheque No. &amp; Date</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Financial Standing details of the Bidder</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Name and Address of the Indian / Foreign Collaborator, if any.</strong></td>
<td></td>
</tr>
</tbody>
</table>
If anything extra other than the price of items have been written in the price schedule.

Does the firm have been debarred from any work of Govt. Deptt. / PSU etc.

| **In case of System integrator:** Enclose an adequate proof of document of system integrator (Valid certificate of Empanelment as Channel Partner of MNRE) |
| **In case of Manufacturers:** Enclose an adequate proof of document of manufacturer, actually showing that they are manufacturing product (i.e., solar module or PCU or battery) by way of production, testing and other facilities. |

Nos. of pages / Nos. of Drawings / Copies attached with the Bid.

If the firm has any relative working with any of the successor companies of erstwhile ASEB, then please furnish the Name, Address & Designation of the person/persons concerned

(Signature of the Bidder with Seal)
### 6. EXPERIENCE

**NIT NO:** APDCL/CGM (PP&D)/NRE-83/2015-16/226  dated: 12/01/2017

**Name of Bidder:**

---

**Solar Street Lighting Systems**

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Name of the Organization &amp; Work order No.</th>
<th>Project Location</th>
<th>Nos. of Street lighting systems completed</th>
<th>Work Order value (Rs.in Lakhs)</th>
<th>Enclose copy work order (Yes/No)</th>
<th>Enclose work completion certificate (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Solar Home Lighting Systems**

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Name of the Organization &amp; Work order No.</th>
<th>Project Location</th>
<th>Nos. of solar home lighting systems completed</th>
<th>Work Order value (Rs.in Lakhs)</th>
<th>Enclose copy work order (Yes/No)</th>
<th>Enclose work completion certificate (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Solar Power Plant**

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Name of the Organization &amp; Work order No.</th>
<th>Project Location</th>
<th>SPV Power Plant Project Completed (Nos. &amp; Capacity)</th>
<th>Work Order value (Rs.in Lakhs)</th>
<th>Enclose copy work order (Yes/No)</th>
<th>Enclose work completion certificate (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

1. If Actual completion date is beyond the Schedule completion Date, please give reasons for the delay.
2. Attach work completion certificate of last three years.

**(Signature of the Bidder with Seal)**

* Please enclose only the copy of the **work orders** along with **completion certificates** excluding Annexure & other documents.
7. **DECLARATION BY THE BIDDER**

(Regarding NIT No APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017)

I/we ________________________________ (hereinafter referred to as the Bidder) being desirous of bidding for the work under the above mentioned bid and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the bid document, DO HEREBY DECLARE THAT

1. I/We am/are fully aware of all the requirements of the bid document and agree with all provisions of the bid document.
2. I/We am/are capable of executing and completing the work as required in the bid.
3. I/We am/are able to take all risks and responsibilities directly or indirectly connected with the performance of the bid.
4. I/We don’t have any collusion with other Bidder, any employee of APDCL or its successor Companies or with any other person or firm in the preparation of the bid.
5. I/We have not been influenced by any statement or promises of APDCL or any of its employees, but only by the bid document.
6. I/We am/are financially solvent and sound to execute the work.
7. I/We am/are sufficiently experienced and competent to perform the contract to the satisfaction of APDCL.
8. The information and the statements submitted with the bid are true.
9. I/We am/are familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10. I/We have not been debarred from similar type of work by APDCL and or Government undertaking/Department.
11. I/We don’t have any litigation against APDCL or its successor companies. For any false declaration APDCL have the right to cancel or reject without any notice.
12. This offer shall remain valid for **180 days** from the date of opening of the Techno-commercial bid.

12. I / We have attached herewith the earnest money as required in the bid document.

13. I / We also accept that in case, if I/we fail to undertake the work or sign the contract within the stipulated period, the earnest money can be absolutely forfeited by APDCL.

14. I / We also give the assurance to execute the bid work as per specifications & terms and conditions.

15. I/We have carefully read & understood the terms and conditions of the bid and agree to abide by them

Name of Director/President:

Address:

Phone Nos.:

Email id:

(Signature of Bidder with seal)
PART-2

1. Instructions to Bidders & Eligibility condition
2. Content of bid document
3. Preparation of Bid
4. Submission of Bid
5. Bid opening and evaluation
6. Award of Contract
7. Handing over Certificate
PART-2

SECTION 1: INSTRUCTION TO BIDDERS & ELIGIBILITY CONDITIONS

The bidder shall provide sufficient evidence to satisfy the following conditions that

1.1 The bidder is an Original Equipment manufacturer (Manufacturers means manufacturer of Solar Module or PCU or battery)/System integrator (Integrator means approved channel partner of MNRE) having valid tests report of their products from any of the NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers.

1.2. The bidder shall submit the following documents proposed in the Technical Bid

1.2.1 IEC certificate of Solar PV module for the proposed systems
   (a) Solar Street Lighting System (MNRE Model – I)
   (b) Solar Home Lighting System (MNRE Model – III & V)

1.2.2 Test report of Solar Module from any NABL / IEC Accredited Testing Laboratories for the proposed systems
   (a) Solar Street Lighting System (MNRE Model – I)
   (b) Solar Home Lighting System (MNRE Model – III & V)

1.2.3 Battery test report as per relevant IEC standard or latest BIS standard for the proposed systems
   (a) Solar Street Lighting System (MNRE Model – I)
   (b) Solar Home Lighting System (MNRE Model – III & V)

1.2.4 Test report of the completed Systems from MNRE approved test centers
   (a) Solar Street Lighting System (MNRE Model – I)
   (b) Solar Home Lighting System (MNRE Model – III & V)

Test certificate / report for the components can be from any of the NABL/IEC Accredited Testing Laboratories or MNRE approved test centers. **The Test Certificates / Reports should be in compliance with the latest MNRE specifications.**

1.3 The bidder should submit valid CST /VAT/Sales Tax Clearance certificate.

1.4 The bidder should submit the Turn over certificate (Excluding the auditor’s report) of the individual firm **duly signed by a registered Chartered Accountant.** The average annual Turn Over for the last three year of the firm should not be less than **Rs. 2.0 Crores.**

1.5 The Bidder should have experience in supply, installation and commissioning of LED based Solar Street Lighting Systems/Solar Home Lighting Systems / Solar Power Plant. Attach the copies of work order and satisfactory report from previous installation in support of the same.

1.6 The Bidder should submit the copies of work order and satisfactory performance report from previous installations in support of the same.
1.7 It is mandatory to submit the details of the Local associates of the firm in Assam. The local associates should have the necessary infrastructures to provide prompt O&M service and technical support in post installation period, i.e., CMC period.

1.8 Any misleading information will disqualify the bidder.

1.9 The Price bid shall be furnished as per following instructions:

1.9.1 The appropriate Price Schedules furnished in the Bidding Documents as indicated in PART –9, shall be uploaded on the web portal.

1.9.2 Price – Bid must be submitted electronically. The appropriate Price Schedules for each system as furnish in the Bidding Documents shall be uploaded on the web portal

1.10 Evaluation of Technical Bids:

1.10.1 The Tender Evaluation Committee shall evaluate the proposals received.

1.10.2 The Committee shall evaluate the Technical Bid on the basis of Bidder responsiveness to the “Scope of Work & Technical Specification”. A Bid shall be rejected, if it does not fulfill the requirements.

1.10.3 A Techno-commercial Bid will not be considered for evaluation in any of the following cases:

(i) The Techno-commercial Bid includes details of costs of the system, or

(ii) The Techno-commercial Bid reaches APDCL after the closing time and date specified.

1.10.4 The “Financial Bids” of only those bids shall be opened, who qualify in “Minimum Eligibility Conditions” as mentioned in PART -2 of clause no. 1.1, 1.2, 1.3,1.4,1.5,1.7 and score at least 60 points in technical evaluation. The “Points” for the “technical evaluation” shall be assigned as under:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Criteria</th>
<th>Points (Maximum Value)</th>
<th>Basis of evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The bidder is a Manufacturing Company of SPV Module / PCU / Battery Registered in India</td>
<td>5</td>
<td>Enclose Supporting document</td>
</tr>
<tr>
<td>2</td>
<td>MNRE accredited off – grid / on grid Channel partner / Programme Administrator</td>
<td>5</td>
<td>Enclose Supporting document</td>
</tr>
<tr>
<td>3</td>
<td>Bidder’s cumulative experience * in last 3 years in supply and installation/commissioning of total numbers of Standalone Solar Street Lighting Systems Cumulative nos. 0 to 200 nos. 200 nos. to 500 nos. 500 nos. to 1000 nos. (Maximum Value) 5 10 15</td>
<td>(Maximum Value) 5 10 15</td>
<td>Enclose work completion certificate</td>
</tr>
<tr>
<td>4</td>
<td>Bidder’s cumulative experience * in last 3 years in supply and installation/commissioning of total numbers of Solar Home Lighting Systems</td>
<td></td>
<td>Enclose work completion certificate</td>
</tr>
<tr>
<td></td>
<td>Cumulative nos.</td>
<td>(Maximum Value)</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>---</td>
</tr>
<tr>
<td>5</td>
<td>0 to 500 nos.</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>500 nos. to 1000 nos.</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>1000 nos. to 1500 nos.</td>
<td>(Maximum Value)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Cumulative Experience of the Bidder in Executing contracts of Solar Power Plant</th>
<th>(Maximum Value)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0 to 100 kWp</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>100 to 250 kWp</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>250 to 500 kWp</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>500 to 1000 kWp</td>
<td>(Maximum Value)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Bidder has Test Certificate for Solar Street Lighting Systems, SPV Module, Battery, Electronics etc from a MNRE authorized testing center</th>
<th>(Maximum Value)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Certificate for any two of the above</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Certificate for more than two of the above</td>
<td>(Maximum Value)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Value of a “Single Order” of Standalone Solar Street Lighting Systems/Solar Home Lighting system executed by the bidder</th>
<th>(Maximum Value)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Valued more than Rs. 25 Lakhs</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Valued more than Rs. 50 Lakhs</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Valued more than Rs. 1.0 Crore</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Valued more than Rs. 2.0 Crore</td>
<td>(Maximum Value)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Value of a “Single Order” of  Solar Power Plant executed by the bidder</th>
<th>(Maximum Value)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Valued more than Rs. 1.0 Crore</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Valued more than Rs. 2.0 Crore</td>
<td>(Maximum Value)</td>
<td></td>
</tr>
</tbody>
</table>

|   | The Bidder has ISO 9001 certification                                                                                             | 5               |   |

|   | The Bidder has ISO 14001 certification                                                                                            | 5               |   |

* Bidder’s experience should be in supply, installation / commissioning (contract executed, completed, handed over, work completion certificate) of Solar Street Lighting Systems/Solar Home Lighting System/Solar Power Plant.

1.10.5 APDCL shall simultaneously notify the qualified bidders in writing, indicating the date, time and location for opening of Financial Bid.

1.11 Evaluation of Financial Bids:

Each bid will be attribute a financial score. The cost quoted by the lowest financial proposal ($F_L$) for each system will be a given a financial score of 100 points. The financial score $F_S$ of any other bidder with a quoted cost $F$ will be computed proportionately as follows:
\[ Fs = \frac{F_1}{F} \times 100 \]
(F_1 & F are in Rupees)

### 1.12 Final Evaluation of Bids

1.12.1 The overall superiority of the bids will be ranked by giving 60% weightage to the Techno-commercial proposals and 40% weightage to the Financial Proposals. The final scores will be computed as follows:

\[ S = 0.6 \text{Ts} + 0.4 \text{Fs} \]

Where, \( S \) = Final Score of the bid

Ts = Technical Score of the bid.
Fs = Financial Score of the bid.

**Example**

**Solar Street Lighting System (MNRE Model – I)**

Let there be 4 (four) bids and their Technical Score & Financial Score & Financial offer are as given in the following table.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Technical score, Ts</th>
<th>Financial offer (F), Rs. In Lakhs</th>
<th>Financial score, (Fs) ( Fs = \frac{F_1}{F} \times 100 )</th>
<th>Total score ( S = 0.6\text{Ts} + 0.4\text{Fs} )</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>82</td>
<td>7.0</td>
<td>92.86</td>
<td>86.34</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>68</td>
<td>7.0</td>
<td>92.86</td>
<td>77.94</td>
<td>III</td>
</tr>
<tr>
<td>3</td>
<td>90</td>
<td>10.0</td>
<td>65.0</td>
<td>80.00</td>
<td>II</td>
</tr>
<tr>
<td>4</td>
<td>60</td>
<td>6.5</td>
<td>100.00</td>
<td>76.00</td>
<td>IV</td>
</tr>
</tbody>
</table>

**Solar Home Lighting System (MNRE Model – V)**

Let there be 4 (four) bids and their Technical Score & Financial Score & Financial offer are as given in the following table.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Technical score, Ts</th>
<th>Financial offer (F), Rs. In Lakhs</th>
<th>Financial score, (Fs) ( Fs = \frac{F_1}{F} \times 100 )</th>
<th>Total score ( S = 0.6\text{Ts} + 0.4\text{Fs} )</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>82</td>
<td>2.0</td>
<td>75.0</td>
<td>49.2 + 30 = 79.2</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>68</td>
<td>2.0</td>
<td>75.0</td>
<td>40.8 + 30 = 70.8</td>
<td>III</td>
</tr>
<tr>
<td>3</td>
<td>90</td>
<td>4.0</td>
<td>37.5</td>
<td>54 + 15 = 69</td>
<td>IV</td>
</tr>
<tr>
<td>4</td>
<td>60</td>
<td>1.5</td>
<td>100.00</td>
<td>36 + 40 = 76</td>
<td>II</td>
</tr>
</tbody>
</table>

Based on the above, the bidder’s rankings may be considered for award of the contract.
1.12.2 Conditional bids will also be summarily rejected.

1.12.3 Financial bids of only the technically qualified bidders will be opened for evaluation in the presence of qualified bidders. However, CGM (PP&D), Assam Power Distribution Company Limited shall not be bound to accept the lowest or any other tender or to assign any reason for non-acceptance or rejection of a tender.

(Signature of Bidder with seal)
SECTION 2: THE BID DOCUMENT

2.1 CONTENT OF BID DOCUMENT

2.1.1 The Bid procedure and contract terms are prescribed in the Bid Documents. In addition to the Bid Notice the Bidding documents include.

PART-I

a) Covering Letter
b) Check list
c) General Particulars of Bid
d) Project execution experience of relevant projects
E) Declaration by the Bidder

PART-II

a) Instruction to Bidders & Eligibility condition
b) Content of bid document
c) Preparation of Bid
d) Submission of Bid
e) Bid opening and evaluation
f) Award of Contract
g) Handing over certificate

Part – III: General conditions of contract
Part – IV: Scope of work & Technical specification
Part – V: Warranty and Comprehensive Maintenance Contract & Installation & Commissioning Format
Part – VI: Technical Bid
Part – VII: Bank Guarantee Format
Part – VIII: Contract Agreement Format
Part – IX: Price Bid (Sample Copy), Authorization Letter & MRHOV

The Bidder is expected to examine all instructions, forms, terms and specifications as mentioned in the Bid document. Failure to furnish all information required by the Bid documents or submission of a bid not substantially responsive to the Bid Document in every respect will be at the Bidder’s own risk and is likely to result in out-right rejection of the Bid.
2.2 INFORMATION REQUIRED WITH THE PROPOSAL

a) The Bidder may also provide information with the Bid in the form of separate sheets, drawings, catalogues etc.

b) Any Bid 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 bidder shall be approved and retained by the APDCL. Any deviation from the approved drawing and descriptive material submitted shall not be permitted during the execution of contract without specific written permission of APDCL.

2.3 LOCAL CONDITIONS

(a) It shall be imperative on the part of the bidder to fully acquaint with the local conditions of the works. APDCL shall not entertain any request from the Bidder for clarifications, regarding such local conditions.

2.4 CLARIFICATION OF BID DOCUMENTS

2.4.1 A prospective Bidder requiring any clarification of the Bid Documents may contact APDCL in writing or by Fax or at the E-mailing address gmnre.apdcl@gmail.com.

2.4.2 Verbal clarifications and information's given by the APDCL or its employees or its representatives shall not be in any way entertained.

2.5 AMENDMENT OF BID DOCUMENTS

2.5.1 At any time prior to the submission of the bid or prior to the opening of the bid APDCL may, for any reason, whether at its own initiative or in response to a clarification requested by other bidder, modify the Bid documents by amendments.

2.5.2 The amendment will be notified through website (www.apdcl.org) or by Fax/e-mail to all prospective Bidders, which have received the Bid documents and will be binding on them. APDCL will bear no responsibility or liability arising out of non-receipt of the same in time or otherwise.
SECTION 3: PREPARATION OF BID

3.1 LANGUAGE OF BID AND MEASURE
3.1.1 The language of the Bid should be English only. All correspondences should be in English only if otherwise stated. However, any printed literature furnished by the bidder may be written in another language, but that should accompanied by an English translation. The bid should follow ISI system for units of measurement.

3.2 DOCUMENT COMPRISING THE BID
3.2.1 The Bid shall comprise the following components.
(a) Covering letter.
(b) Bid form
(c) All relevant & necessary documents, declarations as enclosures.
(d) Tender Fee, Earnest Money Deposit (EMD).
(e) Authorization letter of the representative of the bidder

3.3 BID PRICE
3.3.1 DUTIES AND TAXES
The price shall be inclusive of all taxes and duties, custom duty, excise duty, service tax, C.S.T., local taxes, Trade Tax/VAT, Income Tax, Surcharge on income tax etc. if any. A Bidder 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 Bidder. If any new tax/duty is levied during the contract period the same will be borne by the firm exclusively. TDS will be deducted from the payment of the Bidder as per the prevalent laws and rules of Government of India and Government of Assam in this regard. The amount of taxes subject to, TDS shall be shown clearly by the firm in the bills.

3.3.2 BID CURRENCIES
Prices shall be quoted in Indian Rupees (INR) only.

3.5 BID SECURITY (Earnest Money)
3.5.1 The bidder shall furnish Earnest Money Deposit in the form of a Demand Draft/ Bank Guarantee issued by any nationalized bank.

3.5.2 Any bid not accompanied with the earnest money (EMD) shall be summarily rejected.

3.5.3 No Interest shall be payable on the amount of earnest money and the same will be released, to those bidders who fail to get the contract after signing the contract Agreement with the successful bidder. The EMD of successful Bidder shall be released only after submission of Security Deposit.

3.5.4 The Bid security (Earnest Money) may be forfeited:

a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the bid form.
b) If the successful Bidder fails to sign the contract within stipulated period.

c) If the Bidder fails to carry out the work as per the contract agreement.

3.5.5 SSI units registered under the Assam Preferential Stores Act 1989 are exempted from payment of Earnest money in respect of items registered , the items need not have to be reserved vide section 7(1)(a) of the act.

3.6 Security Deposit / Contract Performance Guarantee:

3.6.1 The successful bidder, who executes the contract agreement with APDCL, shall have to submit a Security Deposit / Contract Performance Guarantee amount equivalent to 10% of total work order value. The Security Deposit amount may be forfeited in case of non-execution of work against the work order placed. The responsibility of the extension of the same lies with the bidder. No written communication will be made to the bidder in this regard.

3.6.2 The validity of Security Deposit / Contract Performance Guarantee must be for 5 (five) years from the date of signing of the contract agreement.

3.6.3 The Security Deposit / Contract Performance Guarantee may be submitted in the form of Demand draft or Bank guarantee issued by any Nationalized Bank.

3.6.4. The Security Deposit / Contract Performance Guarantee shall be released only after the completion of CMC period.

3.6.5 The validity of the Security Deposit / contract performance guarantee shall be for 60 months, i.e., till completion of CMC period. The responsibility of the extension of the same lies with the bidder. No written communication will be made to the bidder in this regard.

3.7. PERIOD OF VALIDITY OF BID

3.7.1 Validity of the offer should be 180 days from the date of opening of the bid. Without this validity the bid will be rejected. The validity must be mentioned on the envelope otherwise bid may not be opened.

3.7.2 In exceptional circumstances APDCL will solicit the Bidder's consent to an extension of the period of validity. The request and the response there of shall be made in writing.

3.8 FORMAT AND SIGNING OF BID

3.8.1 The bid must contain the name, residence and places of business of the firm and must be signed and sealed by the competent authority. The name and designation of all persons signing the bid should be typed or printed below the signature.

3.8.2 The Bid of corporation/company must be signed by the legal signatory of the corporation/ company i.e. by the 'President', Managing Director or by the 'Secretary'. In case of others, proper authorization must be submitted.
3.8.3 The original copy of the Bid shall be typed or written in indelible ink and shall be signed by the authorized signatory. The letter of authorization shall be submitted along with power-of-attorney. All the pages of the bid shall be initialed by the person or persons signing the bid.

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

(Signature of Bidder with Seal)
SECTION 4: SUBMISSION OF BID

4.1 SEALING AND MARKING OF BID

4.1.1 The bid must be complete in all techno-commercial aspects 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 Fax/mail query required to be replied by fax/mail 2 days

4.1.3 Query by letter to be replied by letter 7 days

4.1.4 The Bidder should submit the Technical Bid in one envelope and Price Bid must be submitted electronically by using its own user ID & password on the portal

4.1.5 Sealed envelope should contain earnest money, technical specification, brochure literature etc. it should be superscripted with Bid No. APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017. All parts of bid documents and annexure duly signed should be submitted in the sealed envelope. Requisite earnest money in the form of Demand Draft/Bank Guarantee should be attached.

4.1.6 The proposals shall be submitted in two sets, one Original and one Duplicate. If there are discrepancies between the Original and the Duplicate copies, the data / information as per the Original shall prevail and be considered.

4.1.7 The following should be clearly indicated on the body of the sealed envelopes:-

   (i) N.I.T. No.
   (ii) Whether Techno-Commercial Bid or Price Bid.
   (iii) Name of the bidder.

4.1.8 All pages of Techno-commercial bid, in both Original and Duplicate copies of bids shall be signed by the authorized signatory of the bidder.

4.1.9 The envelope shall be addressed to the CGM (PP&D), APDCL, Bijulee Bhawan, Paltanbazar, Guwahati – 781001 & shall reach the Tender Drop Box within stipulated time kept outside of the office chamber of GM, NRE, O/o the CGM (PP&D), APDCL, Annex Building, Paltanbazar, Guwahati-1.

4.2 EXPENSES OF AGREEMENT

The Bidder is required to enter into a formal agreement with APDCL for the proper fulfillment of the contract. The expenses of completing and stamping of the agreement shall be paid by the bidder. The agreement shall be valid throughout, till completion of the work.
4.3 DEADLINE FOR SUBMISSION OF BID
Bid must be submitted at the date and time specified in the bid documents.

4.4 LATE BID
No late bid shall be entertained. Bids reaches in time in APDCL, Bijulee Bhawan through bid box shall only be considered valid. No claim regarding late submission shall be entertained in this regard.
SECTION 5: BID OPENING AND EVALUATION

5.1 OPENING OF BID
The procedure of opening of the bid shall be as under:

5.1.1 The envelope (Part – I) bearing bid specification number and subscribed ‘EM & TC’ shall be opened at the time and date as specified in the bid notice by APDCL, in the presence of bidders, who wishes to be present.

5.1.2 The financial bid shall be opened (after establishing technical suitability of the offer) as per schedule provided Tender Notice / details of tender. The financial bids of only those tenderers shall be opened whose envelope (Part – I) shall be found commercially clear and technically suitable.

5.1.3 The bid number & date should be stipulated in the top of the envelope.

5.1.4 In case it is not possible to open the envelope on the day fixed due to unavoidable circumstances then the opening of the envelope shall be postponed, to the next working day. It will be in the interest of the Bidder to send their authorized representatives well conversant with the bid and competent enough to take decision on technical and financial matter at the time of opening of the envelope.

5.2 CLARIFICATION OF BID

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

(Signature of Bidder with seal)
SECTION- 6: AWARD OF CONTRACT

6.1 APDCL RESERVES THE RIGHT OF NEGOTATION WITH ELIGIBLE BIDDER BEFORE THE FINALIZATION OF THE BID.

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

6.3 APDCL RESERVES THE RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS.

APDCL reserves the right to reject any or all the bids or accept any bid in total or in parts. APDCL has also reserved the right to split the work among L1, L2 and L3 bidder subject to the condition that L2 and L3 bidder accepts the rate of L1 bidder.

6.4 NOTIFICATION OF AWARD

Prior to the expiry period of bid validity, APDCL will notify the bidder through registered letter or e-mail or Fax, that the bid has been accepted.

6.5 EXECUTION PERIOD

The work shall have to be completed within 120 days from the date of award of work.

6.6 CONTRACT

Before execution of the work, a contract agreement for execution of the work shall have to be signed by the bidder, as per the draft agreement issued by APDCL. The bidder has to sign the agreement by submitting security deposit amount within the 10 working days of communication of acceptance of the offer by APDCL; otherwise earnest money of the bidder deposited with the bid shall be forfeited.

If required and desired by the end user the successful bidder may have to enter into an agreement with the end user on the similar terms & conditions as provided in the bid documents.

6.7 The whole work shall be on Turnkey basis. The tender shall be finalized on the basis of technical & financial score as mentioned in clause no. 1.12.

(Signature of Bidder with seal)
PART-3
General conditions of contract
PART 3: GENERAL CONDITIONS OF CONTRACT

1. DEFINITIONS

In the deed of contract unless the context otherwise requires:

1.1 APDCL shall mean the CGM (PP&D) or his representative of APDCL, Govt. of Assam with Head office at Bijulee Bhawan Paltan Bazar Guwahati and shall also include its successors in interest and assignees. The contractor shall mean the person whose bid has been accepted by APDCL and shall include his legal representatives, successors in interest and assignees.

1.2 The agreement shall be valid through till commissioning of the work and shall be on turn-key basis. The work shall be completed within 120 days from the date of award of contract. However APDCL 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, APDCL will be at liberty to get the work executed from the open market without calling any bid and without any notice to the contractor, at the risk and cost of the contractor. Any additional cost incurred by APDCL 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, APDCL may recover it from the contractors' pending claims against any work in the three successor companies of erstwhile ASEB or in any lawful manner.

1.3 That on the request of the contractor and also in the interest of the organization, APDCL is authorized to extend the validity of the agreement, subject to the condition, that the request of the contractor is received before the expiry of the agreement period, or any extended period granted to the contractor.

1.4 The bidder, in any case, will not be allowed to operate in the state through authorized dealers for execution of the work orders. It will be the sole responsibility of the contractor, to execute orders placed as per time schedule, and to ensure quality parameters, specifications and other requirements provided in the bid document and as per agreement.

1.5 In the interest of the work and the program, agreement executed between the bidder and the APDCL may be extended to a mutually agreed period, if the need so arises.

1.6 It shall be sole responsibility of the contractor to get verified the quality & quantity of the supplied material at the site of delivery.

2 LIQUIDATED DAMAGES

2.1 If the contractor fails to execute the works within the time periods specified in the contract, the APDCL shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damage, a sum equivalent to 1% of the price of the unperformed works/services for each week of delay until actual performance up to a maximum deduction of 10% of the delayed services. If the contractor fails to complete the works beyond the 10 weeks of delay period, the work order will be treated as cancelled and the 10% of the security money deposit will be forfeited. Once the maximum of the penalty is reached, APDCL may consider termination of the contract / blacklisting of the contractor.

3 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. APDCL shall have no liability in this regard.
FORCE MAJEURE,

4.1 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 event of force majeure circumstances.

4.2 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 fright embargoes.

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

5 The High court of Judicature at Guwahati and Courts subordinate thereto, at Guwahati, shall alone have jurisdictions to the exclusion of all other courts.

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

7 APDCL 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 APDCL.

8 If any question, dispute or difference whatsoever shall arise between APDCL and the contractor, in the 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 Principal Secretary/Secretary, Dept. of Power, Govt. of Assam or a person nominated by both the parties. This reference shall be governed by the Indian 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 APDCL or the arbitrator directs otherwise. The expenses for the arbitrator are to be borne by both the party equally.

9 APDCL may at any time by notice in writing to the contractor either stop the work all together or reduce or cut it down. If the work is stopped all together, the contractor will only be paid for work done and expenses distinctly incurred by him as on preparation or the execution of the work up to the date on which such notice is received by him. Such expenses shall be assessed by APDCL, whose decision shall be final and bidding 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.

10 INSPECTION AND TESTS

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

10.2 The APDCL 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 contract and / or the Technical specifications shall specify what inspections and test the APDCL required.
10.3  **INSPECTION AT WORKS.**

10.3.1 The APDCL, has duly authorized representative shall have at all reasonable times access to the premises of applicant firm or works and shall have the power at all reasonable time's to inspect and examine the materials and workmanship of the works during its manufacture.

10.3.2 The Bidder shall give APDCL **15 day’s written notice of any material being ready for testing.** It shall be mandatory that such notice should reach APDCL within 20 days of placement of supply order. Such tests shall be on the Bidder’s accounts/ expenses except for the expenses of the inspector. If APDCL wants to inspect the material other than its works/ factory (specified in the bid) than the whole expenses of the inspector shall be borne by the contractor. **APDCL reserves the full rights, to waive off inspection of material**

10.3.3 The Bidder is required to get the entire lot of the ordered material inspected at one time, before the supply of the materials. In case the Bidder fails to get the entire lot inspected at one time, the total expenses of the further inspection will be borne by the Bidder.

10.3.4 The inspection by APDCL and issue of dispatch instruction there on shall in no way limit the liabilities and responsibilities of the Bidder in respect of the agreed quality assurance program forming a part of the contract.

Nothing in clause 10 shall in any way release the Bidder from any guarantee or other obligations under this rate contract.

11. **WARRANTY**

11.1 The Bidder shall warrant as per standards for quality that anything to be furnished shall be new, 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.

11.2 Performance of Equipment: In addition to the warranty as already provided, the Bidder shall guarantee satisfactory performance of the equipment and shall be responsible for the period or up to the date specified in the scope of work hereof after the equipment has been accepted by the APDCL 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 APDCL

11.3 The Warranty period shall be **25 Years for the PV modules and 5 years for complete system including the battery** from the date of commissioning and handing over of the system. The contractor shall rectify defects developed in the system within Warranty period promptly. In case the defects are not rectified within 10 days of the receipt of the complaint by the contractor APDCL shall have full liberty to restore the system in working condition. The expenditure so incurred by APDCL shall be deducted from the contractor pending claims, security deposit or in other law full manner.

11.4 Since the maintenance of the system may also be taken up by the contractor after expiry of 5 years of warranty period if the end user/APDCL so desires, the contractor shall take up annual maintenance of the installed system.
11.5 The contractor shall maintain the system for 05 years (mandatory) under comprehensive maintenance contract with the APDCL/end user.

12. Notice statement and other communication send by APDCL through registered post or telegram or fax or Email to the contractor at his specified addresses shall be deemed to have been delivered to the contractor.

13. Any work which is not covered under this contract but is essentially required for the completion of job (to the satisfaction of APDCL) shall be carried out by the contractor as extra item for which payment shall be made separately at the rates decided by APDCL.

14. The work shall be carried out by the contractor as per design submitted by the bidder and approved by APDCL along with the Bid. Any deviation from the approved design during implementation must be brought to the notice of APDCL.

15. The contractor shall provide one copy of instruction manual and routine maintenance manual with each system supplied or installed, this shall be in English.

   The following minimum details must be provided with manual for LED based Solar Street Lighting & Solar Home Lighting Systems:
   
   (a) About the complete photovoltaic system including PV modules, Pole, battery, Luminaries and electronics etc.
   
   (b) Do's and Don'ts
   
   (c) Clear instructions on regular maintenance and trouble shooting of the system
   
   (d) Name & address of the contact person in case of non-functioning of the system. Firm shall provide address post card and log card with the system for proper record and quick maintenance of installed system during warrantee and CMC period.

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

17. PATENT RIGHT AND ROYALITIES.

   The Contractor shall indemnify the APDCL 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.

18. PACKING FORWARDING

18.1 Contractors, wherever applicable, shall after proper painting, pack and crate all the equipment in such manner as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till time of installation. Contractor shall be held responsible for all damage due to improper packing.

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

19. DEMURRAGE WHARFAGE, ETC

   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.
20. **INSURANCE**

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

20.2 All the equipment and materials including spares, if any, being supplied by the contractor shall be completely insured at his own cost from the time of dispatch till installation & commissioning of the system and taking over by beneficiary/User in accordance with the Bidding Documents.

20.3 It will be the responsibility of the contractor to lodge, pursue and settle all claims with the Insurance Company for all equipment / materials in case of any damage, loss, theft, pilferage or fire during execution of Contract and APDCL shall be kept informed about it. The contractor shall be responsible for replacement of the lost /damaged materials promptly irrespective of the settlement of the claims by the underwriters and the contractor shall ensure that the work progress is as per the agreed schedule without cost over-run/time over-run. The losses, if any, for such replacement shall be borne by the contractor.

21. **TRANSPORTATION**

The Bidder is required under the contract to deliver the goods to the site. (The storage/ handling etc shall be sole responsibility of the contractor till the commissioning/ handover of the system). **No ‘C’ forms will be issued from APDCL.**

22. **TERMINATION FOR INSOLVENCY**

APDCL 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 thereafter to the APDCL.

23. **TERMINATION FOR CONNIVANCE**

The APDCL, may by written notice sent to the Bidder, terminate the contract, in whole or in part at any time for its connivance. The notice of termination shall specify that termination is for the bidder’s connivance in the interest of APDCL.

24. **APPLICABLE LAW**

The contractor shall be interpreted in accordance with the laws of the purchaser's country i.e. India. The station of APDCL Headquarter **Guwahati shall have exclusive jurisdiction** in all matters arising under this contract.

25. **NOTICE**

25.1 Any notice given by one party to the other pursuant to the contract shall be sent in writing or by telegram or telex/ cable or Email and confirmed in writing to the address specified for that purpose in the special condition of contract.

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

26. **TAXES AND DUTIES**

The price shall be **inclusive** of all taxes and duties, custom duty, excise duty, service tax, sales tax, C.S.T., local taxes, Trade Tax/VAT, Income Tax, Surcharge on income tax etc. if any. An Applicant firm 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 borne by the firm exclusively. TDS will be deducted from the payment of the contractor as per the prevalent laws and rules of Government of India and Government of Assam in this regard.

27. **OTHERS:**

27.1 I-V curve of the each PV module technical details such as $V_{oc}$, $I_{sc}$, $V_{mp}$, FF, cell efficiency and $P_{max}$ etc shall be supplied along-with each consignment and copy should be sent to APDCL HQ for records.

27.2 The Contractor in consultation with concerned official/officials of APDCL will conduct training program for users, focusing on main features, operation and maintenance of the systems.

27.3 The Bidder shall continue to provide spare parts after the expiry of warranty period at the users cost if desired by the user. If the contractor fails to continue to supply spare parts and services to users APDCL shall take appropriate action against the firm.

27.4 After successful commissioning of the system and training, the system will be handed over the person designated by the end user.

27.5 It shall be the sole responsibility of the contractor to get verified the quality & quantity of the supplied material at the site of delivery.

27.6 If APDCL requires to place a work order for a specific project or work on the contract rate, in that condition a separate agreement may be executed with the contractor.

27.7 Firm shall be responsible for proper installation of system with required orientation/ proper sitting of Solar Module. Firm shall depute an authorized representative whenever required at the time of installation & commissioning, inspection etc.

27.8 The bid document signed and sealed on each page and annexure duly attached in the last of the document making one document should be enclosed. Typing the formats in other pages, changing the serial order, loose papers etc will not be accepted.

28. **COMPLETION OF WORK**

On completion of the work, the bidder shall submit 3 sets of “As Executed Report” to CGM (PP&D), APDCL which will include photographs of the installed systems, drawings and as executed reports of various systems containing details of installation from the point of view of future maintenance of the installed systems. This report must also contain all Technical Details, Detailed Circuit Diagram of the Electronic/Electrical components of all the system. The report shall include satisfactory performance report from appropriate authority for each site along with photograph of the installed system with the representative of the authority and the party.

**Consignee:** The material shall be dispatched to the bidder’s own store / local associate at Assam. The material will be verified by authorized official/officer of APDCL at the bidder’s store & will be handed over to the bidder again for installation & commissioning at site. The material receipt & handing over voucher (MRHOV) as per the format at page No. 77
29. **PAYMENTS:**

The payment shall be made as per the following terms and conditions:

29.1 90% of the contract value against successful completion of systems including supply, installation & commissioning of the system along with bill, challans, MRHOV duly countersigned by authorized officer, handing over certificate, bill of material (BOM), warranty card & installation & commissioning certificate will be paid in a maximum of 2 progressive bills.

29.3 The balance 10% of the contract value shall be released in 3 (three) installments, as mentioned below against submission of System Maintenance Log Book, receipt of satisfactory performance report of the system from the authorized signatory of the end user & concerned Sub-Divisional Engineer.

(A) 3% of the contract value after 1st 18 months from the date of successful completion of system
(B) 3% of the contract value after next 18 months
(C) 4% of the contract value for last 24 months along with security deposit.

(Signature of Bidder with seal)
PART-4
Scope of work & Technical specification
1.0 SCOPE OF WORK:

The work shall include Design, Supply, Installation; Testing & Commissioning of Standalone LED based solar street lighting systems & Solar Home Lighting Systems including 5 years warranty cum mandatory CMC at different locations of Assam on turnkey basis.

A. Design, develop, procure, construct and commission Standalone LED based Solar Street Lighting Systems, which includes, but is not limited to the following:

   a) Solar PV modules
   b) Metallic frame structure fixed on the pole to hold the module,
   c) Battery
   d) Light Source
   e) Pole
   f) Electronics
   g) Cable & accessories
   h) Transportation, unloading, and loading of all equipment at Site
   i) Project Management including adherence to all requisite safety practices

Each Solar Street Lighting System mainly will consist of the following parts:

**Solar Street Light (MNRE Model – I)**

1. SPV Module (40 Wp)                  1 No
2. 12 V 40 AH Battery                  1 No
3. Complete Luminary with LED (7 Watt) 1 No
4. GI Pole with Module Frame           1 No
5. Tin coated Copper wire set          1 set
6. Battery Box                         1 No
7. Spare set of fuse                   1 set
8. O&M manual both in English language 1 set

Any other parts required as per MNRE Specification/ accessories

B. Design, develop, procure, construct and commission LED based Solar Home Lighting Systems, which includes, but is not limited to the following:

**Solar Home Light (MNRE Model – III)**

1. SPV Module (24 Wp)                  1 No
2. 12 V 20 AH Battery @ C/20           1 No
3. W- LED (2.5 W)                       2 No
4. DC Fan (10 W)                        1 No
5. USB port for Mobile Charging         1 No
8. O&M manual both in English language  1 set
Solar Home Light (MNRE Model – V)

1. SPV Module (40 Wp) 1 No
2. 12 V 40 AH Battery @ C/10 1 No
3. W-LED (2.5 W) 2 No
4. DC Fan (20 W) 1 No
5. USB port for Mobile Charging 1 No
6. O&M manual both in English language 1 set

Note: APDCL reserve the rights to select the type of Solar Home Lighting Systems from above said Models. Decision of APDCL in this regard shall be binding on selected bidder / bidders.

C. Scope of works for Standalone LED based solar street lighting system & W-LED based Solar Home Lighting Systems shall include:

1.1 Supply of the complete systems, including all necessary components, subcomponents, spares, and tools etc. as per technical specifications given elsewhere in this document.

1.2 Erection and commissioning of the supplied systems on the specified site.

1.3 Any other work urgently required as per site conditions.

1.4 The bidder must also provide a detailed operation and maintenance manual specific to the installed systems.

1.5 Fabrications, supply and the installation of suitable support for the PV panels, Light source, Mounting Pole and other components whichever is required with the accessories.

1.6 Civil work for mounting the pole.

1.7 Standalone LED based Solar Street Lighting Systems & Solar Home Lighting Systems shall be installed as per the specifications provided in the technical offer.

1.8 Supply of manual for Operation and Maintenance of all the system in English.

1.9 Supply and installation of control equipments required for the system.

1.10 Training to the user for operation and maintenance of the system after 5 years

1.11 Any additional works not covered above, but necessary for the functioning of the system and required as per specification incorporated. The works of minor nature, which are not mentioned, shall be incorporated by the bidder.

1.12 Regarding actual work to be carried out at the site bidder needs to execute the work in consultation with the office of CGM (PP&D), APDCL, Guwahati.
1.13 The CMC period shall be 5 years of the complete system from date of commissioning of system. The successful bidder shall visit the installation quarterly and carry out regular servicing of installed systems and submit performance reports of installed system duly certified by (preferably engineer of Bidder/ Authorized Representative of Beneficiary Organization) to CGM (PP&D), APDCL, Guwahati.

1.14 The successful bidder should supply and install a signboard of size 4ft.X 3ft. made of Aluminium sheet and MS angle at a suitable location at the site of each project location as per direction of the official of APDCL. The signboard should be written as follows:

Name of Project Location: _______________________________
Installed PV capacity of Solar Street Light:__________________
Installed & Commissioned by:___________________________
Date of Installation: ____________________________________
Name of the Implementing Agency: Assam Power Distribution Company Limited, Bijulee Bhawan, Paltanbazar, Guwahati-1
Address of the service center: _______________________
Name of Contact Person:________________________________
Contact Number: ______________________

2.0 BROAD PERFORMANCE SPECIFICATIONS OF SOLAR STREET LIGHTING SYSTEM:

<table>
<thead>
<tr>
<th>PV Module</th>
<th>40 Wp under STC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>VRLA, 12V- 40 AH @ C/10</td>
</tr>
<tr>
<td>Light Source</td>
<td>White Light Emitting Diode (W-LED) 7 Watt (Max.), W-LED luminaire, dispersed beam, soothing to eyes with the use of proper optics and diffuser</td>
</tr>
<tr>
<td>Light Output</td>
<td>Minimum 16 Lux when measured at the periphery of 4 meter diameter from a height of 4 meter. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.</td>
</tr>
<tr>
<td>Mounting of light</td>
<td>Pole mounted, Minimum 4 meters above the ground level</td>
</tr>
<tr>
<td>Electronics Efficiency</td>
<td>Minimum 85% total</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>Dusk to dawn at full brightness</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3 days or Minimum 42 operating hours per permissible discharge</td>
</tr>
</tbody>
</table>

3.0 DETAILED SPECIFICATIONS OF COMPONENT OF SOLAR STREET LIGHTING SYSTEMS:

3.1. SOLAR PV MODULES:

i. Indigenously manufactured PV module should be used.
ii. The PV module should have crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECC accredited Laboratory.
iii. The power output of the module(s) under STC should be a minimum of 40 Wp at a load voltage* of 16.4 ± 0.2 V.
iv. The open circuit voltage* of the PV modules under STC should be at least 21.0 Volts.

v. The module efficiency should not be less than 12%.

vi. The terminal box on the module should have a provision for opening it for replacing the cable, if required.

vii. There should be a Name Plate fixed inside the module which will give:
    a. Name of the Manufacturer or Distinctive Logo.
    b. Model Number
    c. Serial Number
    d. Year of manufacture

viii. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the Tedlar sheet of the module.

*The load voltage and Voc conditions of the PV modules are not applicable for the system having MPPT based charge controller.

3.2 Battery:

i. VRLA Type.

ii. The battery will have a minimum rating of 12V, 40 Ah at C/10 discharge rate.

iii. 75% of the rated capacity of the battery should be between fully charged and load cut off conditions.

iv. Battery should conform to the latest BIS/International standards.

3.3 LIGHT SOURCE:

i. The light source will be a white LED type.

ii. The colour temperature of white LED used in the system should be in the range of 5500oK–6500oK.

iii. W-LEDs should not emit ultraviolet light.

iv. The light output from the white LED light source should be constant throughout the duty cycle.

v. The lamps should be housed in an assembly suitable for outdoor use.

vi. The temperature of heat sink should not increase more than 20oC above ambient temperature during the dusk to dawn operation.

3.4 ELECTRONICS:

i. The total electronic efficiency should be at least 85%.

ii. Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the year.

iii. No Load current consumption should be less than 20 mA.
iv. The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.

v. The PCB containing the electronics should be capable of solder free installation and replacement.

vi. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

3.5 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. Fuse should be provided to protect against short circuit conditions.

iv. Protection for reverse flow of current through the PV module(s) should be provided.

v. Electronics should have temperature compensation for proper charging of the battery throughout the year.

vi. Adequate protection should be provided against battery reverse polarity.

vii. Load reconnect should be provided at 80% of the battery capacity status.

3.6 MECHANICAL COMPONENTS:

i. A corrosion resistant metallic frame structure should be fixed on the pole to hold the SPV module.

ii. The frame structure should have provision to adjust its angle of inclination to the horizontal, so that it can be installed at the specified tilt angle.

iii. The pole should be made of Galvanised Iron (GI) pipe.

iv. The height of the pole should be 4 metres above the ground level, after grouting and final installation.

v. The pole should have the provision to hold the luminaire.

vi. The lamp housing should be water proof and should be painted with a corrosion resistant paint.

vii. A vented, acid proof and corrosion resistant metallic box or plastic box [made of Polypropylene Copolymer (PP-CP)] with a locking arrangement for outdoor use should be provided for housing the battery.

3.6 INDICATORS:

i. The system should have two indicators, green and red.

ii. The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.

iii. Red indicator should indicate the battery “Load Cut Off” condition.
3.7 QUALITY AND WARRANTY

i. The street lighting system (including the battery) will be warranted for a period of five years from the date of supply.

ii. The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.

iii. The Warranty Card to be supplied with the system must contain the details of the system.

3.8 OPERATION and MAINTENANCE MANUAL:

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:

i. Basic principles of Photovoltaics.

ii. A small write-up (with a block diagram) on Solar Street Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.

iii. Type, Model number, Voltage & capacity of the battery, used in the system.

iv. The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system.

v. About Charging and Significance of indicators.

vi. Clear instructions about erection of pole and mounting of PV module (s) and lamp housing assembly on the pole.


viii. DO’s and DONT’s.

ix. Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar street lighting system.

4.0 BROAD PERFORMANCE SPECIFICATIONS OF SOLAR HOME LIGHTING SYSTEM

<table>
<thead>
<tr>
<th>Module</th>
<th>Model – III: 24 Watt peak under STC</th>
<th>Model – V: 40 Watt peak under STC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>Model – III: VRLA, 12V-20AH @ C/20</td>
<td>Model – V: VRLA, 12V-40AH @ C/10</td>
</tr>
<tr>
<td>Light Source</td>
<td>2.5 Watts (max.) White Light Emitting Diode (W-LED)</td>
<td>Model – III: Two White LED luminaires</td>
</tr>
<tr>
<td>DC fan</td>
<td>Model – III: one DC fan of wattage up to 10 W</td>
<td>Model – V: One DC fan of wattage up to 20 W</td>
</tr>
<tr>
<td>Light Output</td>
<td>Minimum 15 Lux when measured at the periphery of 2.5 meter diameter from a height of 2.5 meter. At any point within area of 2.5mtr diameter periphery the light level should not be more than three times of the periphery value. The illumination should be uniform without Dark Bands or abrupt variations and soothing to the eyes. Higher output would be preferred.</td>
<td></td>
</tr>
</tbody>
</table>
Multiple Light Levels  

To take care of different lighting needs as per user's requirement. The lamp should have multiple levels of light (at least two levels) to take care of different lighting needs during the night.

<table>
<thead>
<tr>
<th>Mounting of light</th>
<th>Wall or ceiling</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Electronics</th>
<th>Min 85 % efficiency</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Average duty cycle</th>
<th>5 hours a day under average daily insolation of 5.5 kWh/ sq.m. on a horizontal surface.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Facility for Mobile Charging</th>
<th>USB port for Mobile Charging. However, in case of mobile charging, the duty cycle for light to be reduced/adjusted accordingly.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Autonomy</th>
<th>3 days or Minimum 15 operating hours per permissible discharge. OR Minimum 6 operating hours per permissible discharge at full light level (In case of NiMH or Lithium-Ferro Phosphate).</th>
</tr>
</thead>
</table>

### 5.0 DETAILED SPECIFICATIONS OF COMPONENT OF SOLAR HOME LIGHTING SYSTEMS

#### 5.1 PV MODULE (S):

(i) Indigenously manufactured PV modules should be used

(ii) The PV modules more than 12 Wp capacity should be made up of crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.

(iii) The power output of the module(s) under STC should be a minimum of 24 Wp or 40 Wp.

(v) The Load voltage* of 16.40 V for 12 V battery or appropriate voltage for charging of battery used, under the standard test conditions (STC) of measurement.

(vi) **The module efficiency for** PV modules 24 Wp / 40 Wp capacity should **not be less than** 12%.

(vii) The terminal box on the module should have a provision for opening, for replacing the cable, if required.

(viii) There should be a Name Plate fixed inside the module which will give:

   a. Name of the Manufacturer or Distinctive Logo.
   b. Model Number
   c. Serial Number
   d. Year of manufacture

*The Load voltage conditions of the PV modules are not applicable for the system having MPPT.

#### 5.2 BATTERY:

(i) Battery should have a minimum rating of 12V, 20 Ah at C/20 rate of discharge or 12 V, 40 Ah at C/10 rate of discharge, depending on the Model.

(ii) 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions

(iii) Battery should conform to the latest BIS/ International standards
5.3 **LIGHT SOURCE:**

(i) The light source will be of white LED type.

(ii) The colour temperature of W-LEDs used in the system should be in the range of 5500oK–6500oK.

(iii) LEDs should not emit ultraviolet light.

(iv) The light output from the W-LED light source should be constant throughout the duty cycle.

(v) The lamps should be housed in an assembly suitable for indoor use.

5.4 **ELECTRONICS:**

i. The total electronic efficiency should be at least 85%.

ii. Electronics should have temperature compensation for proper charging of the battery throughout the year. The idle current should be less than 2mA.

iii. The voltage drop from module terminals to the battery terminals should not exceed 0.8 volts including the drop across the diode and the cable when measured at maximum charging current.

iv. The PCB containing the electronics should be capable of solder free installation and replacement.

v. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

vi. The system should have a USB port for mobile charging.

5.5 **ELECTRONIC PROTECTIONS:**

(i) Adequate protection is to be incorporated under “No Load” condition, e.g. when the lamps are removed and the system is switched ON.

(ii) The system should have protection against battery overcharge, deep discharge condition.

(iii) Load reconnect should be provided at 80% of the battery capacity status.

(iv) Adequate protection should be provided against battery reverse polarity.

(v) Fuses should be provided to protect against short circuit conditions.

(vi) Protection for reverse flow of current through the PV module(s) should be provided.
5.6 MECHANICAL COMPONENTS:

(i) Corrosion resistant metallic frame structure should be provided to hold the SPV module.

(ii) The frame structure should have provision to adjust its angle of inclination to the horizontal, so that it can be installed at the specified tilt angle.

(iii) Light source should be either for wall mounted or ceiling mounted or can be hung from the ceiling in a stable manner, as per site requirements.

(iv) A vented plastic/ wooden/ metallic box with acid proof corrosion resistant paint for housing the storage battery indoors should be provided.

5.7 INDICATORS:

- The system should have two indicators, green and red.
- The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.
- Red indicator should indicate the battery “Load Cut Off” condition

5.8 QUALITY AND WARRANTY:

(i) The Solar home lighting system will be warranted for a period of five years from the date of supply.

(ii) The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. PV modules used in Solar Home Lighting System must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.

(iii) The battery for Model-III & V should be warranted for a period of five years.

(iv) 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.

5.9 OPERATION and MAINTENANCE MANUAL:

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar Home Lighting System. The following minimum details must be provided in the Manual:
- Basic principles of Photovoltaics.
- A small write-up (with a block diagram) on Solar Home Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.
- Significance of indicators.
• Type, Model number, voltage & capacity of the battery, used in the system.
• The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system must be indicated in the manual.
• Clear instructions about mounting of PV module(s).
• Clear instructions on regular maintenance and trouble shooting of the Solar Home Lighting System.
• DO's and DONT's.
• Name and address of the contact person for repair and maintenance.

4.0 AUTHORIZED TESTING LABORATORIES/ CENTERS:

Test certificates / reports for the BoS items/components can be from any of the NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers.

(Signature of Bidder with seal)
PART-5

WARRANTY AND COMPREHENSIVE MAINTENANCE CONTRACT

&

INSTALLATION & COMMISSIONING FORMAT
PART - 5

BID NO. APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

WARRANTY (INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT) OF 5 YEARS FOR LED based Solar Street Lighting Systems & Solar Home Lighting Systems:

i. The Solar Street Lighting System & Solar Home Lighting Systems (including the battery) will be warranted for a period of five years from the date of supply.

ii. The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.

During the warranty following maintenance will required to be carried out by the contractor.

i. The Selected Bidder shall be solely responsible for commencement to completion of the work. It shall be responsible for any loss or damage happens at the work place or during the erection of the system, not already approved by the APDCL and Primary Beneficiary, and shall, at its own cost, arrange for repair or compensation.

ii. The Selected Bidder(s) shall warranty that the equipment used in installing the system are new and unused.

iii. The Selected Bidder shall provide warranty, in the name of the Primary Beneficiary, of the complete system towards any defect in design of the system, equipment used including spare parts for a period of five (5) years from the date of Commissioning of the system. The Warranty period shall be 25 Years for the PV modules.

iv. Any defect noticed in the system during the period of five (5) years from the date of Commissioning of the system shall be rectified/replaced by the Selected Bidder on its own motion or on due intimation by the APDCL or by the owner of the system, as the case may be, free of charges.

v. The replacement of the defective component at the cost of successful Bidder shall be made with similar and/or equivalent make. The replaced component shall not, in any situation, reduce the performance of the system.

vi. The Selected Bidder shall commence the replacement/rectification of the defect within seven (7) days from the date of identification of such defect and shall rectify the defect within mutually agreed time, failure in doing so shall enable the APDCL or the Primary Beneficiary to rectify the defect at the expense of Selected Bidder.

vii. The Selected Bidder shall provide warranty certificate along with the Commissioning report to the Primary Beneficiaries with a copy to the APDCL.

49
viii. Since the maintenance of the system may also be taken up by the contractor/bidder after expiry of 05 years of warranty period if the end user/”APDCL” so desires, the contractor/bidder shall take up annual maintenance of the installed system.

ix. The contractor/ bidder shall maintain the system under annual maintenance contract with the end user.

x. The safety and security of the system shall be sole responsibility of the user.

xi. The CMC (within warranty period) shall be executed by the firm himself or the authorized dealer/service center of the firm in the concerned district. The CMC will include the total system including battery etc whatsoever. **It is mandatory for the contractor to open an authorized service center in the concerned district before the supply/installation of the system.**

xii. Necessary maintenance spares for five years trouble free operation shall also be supplied with the system.

xiii. The supplier shall be responsible to replace free of cost (including transportation and insurance expenses) to the purchaser whole or any part of supply which under normal and proper use become dysfunctional within one month of issue of any such complaint by the purchaser.
FORMAT OF WARRANTY CARD TO BE SUPPLIED WITH INSTALLED SYSTEM

WARRANTY CARD: (In duplicate)

SOLAR STREET LIGHTING SYSTEM

Project Site: 
Capacity of Solar Street Light: 
Work order No: 
Date of Installation: 
Warranty valid upto for the complete system:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Component</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brand Name</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type of Module (Mono/Poly Crystalline)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity of each Module (Wp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serial Nos. of module</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total nos. of the Module:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Date of Installation of the system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>2</td>
<td>Solar PV Module</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type of Battery: (Tubular Lead Acid /VRLA/GEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity (V&amp;AH)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depth of Discharge Proposed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Autonomy (Days)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>3</td>
<td>Battery</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type (LED/CFL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wattage (W)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>4</td>
<td>Luminaire</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type (LED/CFL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wattage (W)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>5</td>
<td>Charge Controller</td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rating:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>6</td>
<td>Pole</td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Height</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>7</td>
<td>Cable</td>
<td>Make &amp; Size</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
</tbody>
</table>

Place & Date: (Signature) 
Name & Designation 
Name & Address of the Manufacturer/Supplier 
(SEAL)

(During the warranty period MNRE / Implementing Agency / Users reserve right to cross check the performance of the systems with the minimum performance levels specified in the MNRE specifications).
FORMAT OF WARRANTY CARD TO BE SUPPLIED WITH INSTALLED SYSTEM

WARRANTY CARD: (In duplicate)

SOLAR HOME LIGHTING SYSTEM

Project Site:
Capacity of Solar Home Lighting System:
Work order No:
Date of Installation:
Warranty valid upto for the complete system:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Component</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brand Name</td>
<td>Model No</td>
</tr>
<tr>
<td>2</td>
<td>Solar PV Module</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type of Module (Mono/Poly Crystalline)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity of each Module (Wp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serial Nos. of module</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total nos. of the Module:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Date of Installation of the system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>3</td>
<td>Battery</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type of Battery: (Tubular Lead Acid /VRLA/GEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity (V&amp;AH)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depth of Discharge Proposed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Autonomy (Days)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>4</td>
<td>Lumainare</td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type (LED/CFL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wattage (W)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>5</td>
<td>Charge Controller</td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rating:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
<tr>
<td>7</td>
<td>Cable</td>
<td>Make &amp; Size</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warranty valid upto:</td>
</tr>
</tbody>
</table>

Place & Date: ____________________________
(Signature)
Name & Designation
Name & Address of the Manufacturer/Supplier
(SEAL)

(During the warranty period MNRE / Implementing Agency / Users reserve right to cross check the performance of the systems with the minimum performance levels specified in the MNRE specifications).
## FORMAT OF INSTALLATION & COMMISSIONING CERTIFICATE, HANDING OVER CERTIFICATE

### (SOLAR STREET LIGHTING SYSTEM)

**(A) INSTALLATION AND COMMISSIONING CERTIFICATE:**
Certified that ____ (Nos.) standalone LED based solar street lighting systems has been installed, commissioned and tested successfully as per the specification at (location details - full address of site)________________________________________________________________________ and has been handed over to (Beneficiary Organization as per Work Order) on the date of___________ with the following assets.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Item Description</th>
<th>Check List (Description)</th>
<th>Photographs of the Installed Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solar PV Module</strong></td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Module Sl. No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Cell (Mono/Polycrystalline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating of each module (Watt)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Nos. of Module Installed (Nos.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year of Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Module Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Isc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fill Factor</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sl. No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating of each battery (Voltage and AH Capacity @C/10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total nos. of batteries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Light source</strong></td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wattage:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Controller of solar street light</strong></td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type: (MPPT/PWM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cable</strong></td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mounting Pole</strong></td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Material:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Height &amp; Dimension:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Battery Box</strong></td>
<td>Make &amp; Material:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Locking arrangement:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Installation Report:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Item Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Verified that the system is installed at the Ground</td>
<td>YES/NO</td>
</tr>
<tr>
<td>2</td>
<td>Verified that civil work for Pole Foundation carried out as per recommendation.</td>
<td>___ Kg.</td>
</tr>
<tr>
<td>3</td>
<td>Verified the Height of Pole</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Verified that the Modules are fixed properly in the structure on the pole to hold the SPV module.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Verified that Solar Module is Installed in Shadow free area and correctly oriented towards south face.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Verified that mounting pole is installed as per standard practices</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Verified that the controller of solar street light unit is installed as per standard installation practices.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Verified that the battery is installed as per standard installation practices.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Verified that the LED light is installed as per standard installation practices.</td>
<td></td>
</tr>
</tbody>
</table>

### Commissioning Report:

M/s ______________________________________________ has installed, commissioned and handed over _____ nos. of LED based Solar Street Lighting Systems. The usage and the minimum maintenance for the systems have been explained to end user and APDCL Officials at site. During commissioning, the above system was tested and found to be working satisfactorily.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Date</th>
<th>Time</th>
<th>PV Voltage</th>
<th>Battery Voltage</th>
<th>Controller Status</th>
<th>Light source</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Countersigned by**

M/S ______________________________________________

Authorized Signatory of the Project Site

Signature & Date: …………………………
Name: …………………………
Designation of Authorized Signatory: …………………
With seal

**List of enclosures:**
1. Test certificate of the components
2. Original color photographs of the installed system
(D) **Handing Over Certificate:**

Certified that ___ (Nos.) standalone LED based solar street lighting systems has been installed, commissioned and tested successfully as per the specification at (location details - full address of site)________________________________________________________________________and has been handed over to (Beneficiary Organization as per Work Order) on the date of___________with the following assets.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Item Description</th>
<th>Check List (Description)</th>
<th>Photographs of the Installed Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar PV Module</td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Module Sl. No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Cell (Mono/Polycrystalline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating of each module (Watt)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Nos. of Module Installed (Nos.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year of Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Module Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Isc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fill Factor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td>Make</td>
<td></td>
<td>Enclose in a separate sheet &amp; it should be countersigned by authorized signatory of the project site</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sl. No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating of each battery (Voltage and AH Capacity @C/10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total nos. of batteries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light source</td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wattage:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controller of solar street light</td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type: (MPPT/PWM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable</td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mounting Pole</td>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Material:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Height &amp; Dimension:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Box</td>
<td>Make &amp; Material:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Locking arrangement:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Handed Over by: ____________________________

For M/s. ____________

(Authorized Signatory)

Name: ____________________________

Signature: ____________________________

Full Name & Designation: ____________________________

Seal & Date: ____________________________
(Counter signed by APDCL Officer)

Signature
Name of APDCL Official
Seal

Copies:
1. Copy to User
2. Copy to be forwarded to CGM (P.P & D.), APDCL (by concern APDCL officer)
3. Copy to Contractor.
4. Copy to ____________________________ for information.
FORMAT OF INSTALLATION & COMMISSIONING CERTIFICATE TO BE SUPPLIED WITH EACH W-LED BASED SOLAR HOME LIGHTING SYSTEM

I Shri/Smt ................................................................. S.O/W.O......................................................... Village .......................................................... Block ................................................... District ......................... do hereby certify the following:

1. I have received the W-LED based Solar Home Lighting System (MNRE, Model – III / Model -V) in full and in good condition with tools & tackles, Operation & Maintenance Manual including warranty card.

2. Installation & Commissioning of the Solar Home Lighting System has been successfully completed and the system is working satisfactory.

3. The Serial Nos. of the system is:

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Installed Capacity</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar PV Module</td>
<td>______ Watt</td>
<td></td>
</tr>
<tr>
<td>VRLA Battery</td>
<td>______ V; ________ Ah</td>
<td></td>
</tr>
<tr>
<td>Solar Charge Controller</td>
<td>______ V; ________ Amp</td>
<td></td>
</tr>
<tr>
<td>Luminary</td>
<td>______ Watt</td>
<td></td>
</tr>
</tbody>
</table>

4. Date of Installation: ____________________________________

5. The GPS co-ordinate of the village: Latitude _____________ & Longitude: _______________

6. Training of usage of the said Solar Home Lighting System has been imparted to me. I have been explained in my vernacular all the above. I have understood the same and hereby willing agree and sign this document.

Signature of beneficiary:

Seal & Signature of President
VEC (Name of Village)

Seal & Signature of Secretary
VEC (Name of Village)

Seal & Signature of Sarkari / Lat Gaon Burah Secretary

Seal & Signature of Gaon Panchayat Secretary

Signature:
Name & Designation:
Name & Address of the Manufacturer/Supplier (Seal)
Date:
Encl:
1. The copy of Voter ID of the beneficiary
Format
Village Completion Certificate

To,

The Chief General Manager (PP&D)
Assam Power Distribution Company Limited
Bijulee Bhawan, Paltanbazar, Guwahati-1

Sub: Submission of Village Completion Certificate
Ref: 1. NIT No._____________________________________________________
2. LOA No.____________________________________________________________________________

To Whom It May Concern

This is to certify that M/s ________________________________________________ <Name of the bidder> has successfully completed the Installation & Commissioning of ________________________________ Nos. of W-LED based Solar Home Lighting System (MNRE, Model – III / Model -V) at ________________________________________________________________ village having census code no. ____________________________ under ____________________________ Goan Panchayat or VCDC of block ____________________________ in ________________________ district of Assam on the date of ____________________________ against budgetary provision of Annual Plan 2016-17, GOA conducted by Assam Power Distribution Company Limited (APDCL), Bijulee Bhawan, Paltanbazar, Guwahati-1.

Signature:
Name:___________________________________________________________
Designation:_____________________________________________________ 
Name & Address of the Manufacturer/Supplier (Seal)__________________________
Date:____________________________________________________________________

Seal & Signature of President VEC (Name of Village)
Seal & Signature of Secretary VEC (Name of Village)
Seal & Signature of Sarkari / Lat Gaon Burah P. G. Secretary
Seal & Signature of Gaon Panchayat Secretary ____________________________

Seal & Signature: ____________________________________________________________________ 

Countersigned by

Asst. General Manager (RE Monitoring) ____________________________
APDCL ________________ District

(DC/Circle Officer/BDO) ____________________________
Name: ____________________________
Designation: ____________________________
Date: ____________________________
Seal: ____________________________
PART-6
TECHNICAL BID
Design, Supply, Installation, Testing, and Commissioning with a provision for incorporate of some additional smart features for future expansion in the pole including 5 years warranty cum Mandatory Comprehensive Maintenance Contract (CMC) of Standalone LED based Solar Street Lighting System at different locations of Assam.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>System Design Details</th>
<th>Proposed by the Bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPV MODULES</strong></td>
<td>Make:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attach details- (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Solar Cell</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Mono crystalline / Poly crystalline)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacity of module (W)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Module efficiency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voc &amp; Vmp:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Isc &amp; Imp:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FF efficiency:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enclosed certificate of testing conforming to relevant IEC standard (Yes/No)</td>
<td></td>
</tr>
<tr>
<td><strong>Battery Capacity</strong></td>
<td>Make</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attach Details- (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating/cell (Voltage &amp; AH capacity @C/10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enclosed certificate of testing conforming latest BIS/ International standards (Yes/No)</td>
<td></td>
</tr>
<tr>
<td><strong>Battery Box</strong></td>
<td>Make:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Material &amp; Locking Arrangement:</td>
<td></td>
</tr>
<tr>
<td><strong>Mounting Pole</strong></td>
<td>Make &amp; Material:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attach details: (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Height of the Pole</td>
<td></td>
</tr>
<tr>
<td><strong>Controller of solar street lighting system</strong></td>
<td>Make &amp; Model:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attach details: (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating:</td>
<td></td>
</tr>
<tr>
<td><strong>LED Light source</strong></td>
<td>Make &amp; Model:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attach details: (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sl. NO:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wattage (Watt):</td>
<td></td>
</tr>
<tr>
<td><strong>Test certificate</strong></td>
<td>Enclose test certificate of complete system as per MNRE requirement (Yes / No)</td>
<td></td>
</tr>
</tbody>
</table>
• The above shows the design parameters & is the minimum which needs to quote by the bidder for the standalone LED based Solar Street Lighting System.

• It may have some conflicting situations at some point, as per the requirements of the system, which may be clarified during pre-bid meeting or with written communication.

  (Laboratory Test certificate for each component should be enclosed)

(Signature of Bidder with seal)
**PART – 6**
BID NO. APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

**TECHNICAL BID**
Section – B

**Solar Home Lighting System**

Design, Supply, Installation, Testing, and Commissioning with a provision for incorporate of some additional smart features for future expansion in the pole including 5 years warranty cum Mandatory Comprehensive Maintenance Contract (CMC) of Standalone LED based Solar Street Lighting System at different locations of Assam.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>System Design Details</th>
<th>Proposed by the Bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MNRE Model – III</td>
</tr>
<tr>
<td><strong>SPV MODULES</strong></td>
<td><strong>Make:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attach details- (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type of Solar Cell</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Mono crystalline / Poly crystalline)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Capacity of module (W)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Module efficiency</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Voc &amp; Vmp:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Isc &amp; Imp:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FF efficiency:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Enclosed certificate of testing conforming to relevant IEC standard (Yes/No)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Battery Capacity</strong></td>
<td><strong>Make</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Attach Details:</strong>(Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type:</strong> (VRLA/Gel)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Rating/cell</strong> (Voltage &amp; AH capacity @C/20 &amp; C/10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Enclosed certificate of testing conforming latest BIS/International standards (Yes/No)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Charge Controller</strong></td>
<td><strong>Make &amp; Model:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Attach details:</strong>(Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Rating:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LED Light source</strong></td>
<td><strong>Make &amp; Model:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Attach details:</strong>(Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Wattage</strong> (Watt):</td>
<td></td>
</tr>
<tr>
<td><strong>Test certificate</strong></td>
<td><strong>Enclose test certificate of complete system as per MNRE requirement (Yes / No)</strong></td>
<td></td>
</tr>
</tbody>
</table>

- The above shows the design parameters & is the minimum which needs to quote by the bidder for the W-LED based solar home lighting system.
• It may have some conflicting situations at some point, as per the requirements of the system, which may be clarified during pre-bid meeting or with written communication.

(Laboratory Test certificate for each component should be enclosed)

(Signature of Bidder with seal)
PART - 7

BANK GUARANTEE FORMAT
PART - 7
BANK GUARANTEE FORMAT
PROFORMA OF BANK GUARANTEE
FOR
SECURITY DEPOSIT
(To be stamped in accordance with Stamp Act)
[The non-judicial stamp paper should be in the name of issuing Bank]

Ref._________________________ Bank Guarantee No_________________________
Date ______/______/_______

To
The Chief General Manager (PP&D)
APDCL, Bijulee Bhawan, 6th Floor,
Paltanbazar, Guwahati – 1.

Dear Sir,

In consideration of _____________________________ (Hereinafter referred to as ‘APDCL’ which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s _____________________________ with its Registered/Head office at _____________________________ (hereinafter referred to as the “Contractor” which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract by issue of APDCL’s Work Order No.___________________________ dtd. ___________ and the same having been acknowledged by the Contractor, resulting in a Contract, valued at___________________________ for___________________________ (scope of Contract) and the Contractor has agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to 10% (ten per cent) of the said value of the Contract to APDCL.

We _____________________________ having its Head Office at _____________________________ (hereinafter referred to as the ‘Bank’, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the APDCL on demand any and all money payable by the Contractor to the extent of _____________________________ _____________________________ as aforesaid at any time up to 1 year (one year) without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor.
Any such demand made by APDCL on the Bank shall be conclusive and binding notwithstanding any
difference between APDCL and the Contractor or any dispute pending before any Court, Tribunal,
Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its
currency/extended period without previous consent of APDCL and further agrees that the guarantee herein
contained shall continue to be enforceable till APDCL discharges this guarantee.

APDCL shall have the fullest liberty without affecting in any way the liability of the Bank under this
guarantee, from time to time to extend the time for performance of the Contract by the Contractor. APDCL
shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise
of any powers vested in them or of any right which they might have against the Contractor, and to exercise
the same at any time in any manner, and either to enforce or to forbear to enforce any covenants,
contained or implied, in the Contract between APDCL and the Contractor or any other course or remedy or
security available to APDCL. The Bank shall not be released of its obligations under these presents by any
exercise by the APDCL of its liberty with reference to the matters aforesaid or any of them or by reason of
any other act of omission or commission on the part of the APDCL or any other indulgences shown by the
APDCL or by any other matter or thing whatsoever which under law would, but for this provision have the
effect of relieving the Bank.

The Bank also agrees that the APDCL at its option shall be entitled to enforce this Guarantee against the
Bank as a principal debtor, in the first instance without proceeding against the Contractor and not
withstanding any security or other guarantee the APDCL may have in relation to the Contractor’s liabilities.

Notwithstanding anything contained hereinabove, our liability under this guarantee is restricted to __________
and it shall remaining in force up to and including ________________
and shall be extended from time to time for such period (not exceeding one year), as may be
desired by M/S ______________________________ on whose behalf this guarantee has been
given.

Dated this ___________ day of ___________________________, at ________________

WITNESS

_________________________       ___________________________
(Signature)                    (Signature)

_________________________       ___________________________
(Name)                        (Name)
(Official Address)  (Designation with Bank Stamp)

Attorney as per Power
Of Attorney No. __________
Date _____ / _____ / _____
Format for submitting Bank Guarantee in Lieu of Earnest Money

<table>
<thead>
<tr>
<th>NIT No:</th>
<th>Dated:</th>
</tr>
</thead>
</table>

(To be submitted in Rs. 50/- Non-Judicial Stamp Paper to be purchased in the name of the issuing bank)

To
The Chief General Manager (PP&D)
Assam Power Distribution Company Ltd.
Bijulee Bhawan, Paltan Bazar,
Guwahati-781001

WHEREAS __________________________ (Supplier’s/ Tenderer’s name) (thereinafter referred to as “Supplier”), a company registered under Companies Act, and having its registered office at _______________________________ is required to deposit with you, the Purchaser, the Earnest Money amounting of Rs. _______/-(Rupees in word) by the way of Bank Guarantee from a Nationalized Bank/Schedule Bank of RBI in connection with its tender for the work with reference to NIT No __________________________ dtd. __________, as per specification and terms and Conditions enclosed therein.

WHEREAS the Supplier as per “clause No __________ of the bid document has to deposit Earnest Money” & has agreed to deposit an irrevocable Bank Guarantee in your favour through us operative till validity of offer upto __________.

1. We (Name of the Bank) and branch office at __________________________ hereby agree and undertake to pay you on demand the said amount of Rs. _______ (Rupees in words only) without any protest or demur in the event the Supplier/ Tenderer after submission of his tender, resiles from or withdraws his offer or modifies the terms and conditions thereof in a manner not acceptable to you or expresses his unwillingness to accept the order placed/ letter of intent issued on the Supplier/Tenderer for the work under “Notice inviting tender ref. No __________________________ dtd __________________________.”

2. Your decision as to whether the Supplier/ Tenderer has resiled from or has withdrawn his offer or has modified the terms and conditions thereof in a manner not acceptable to you or has expressed his unwillingness to accept the order placed/ letter of intent issued by you on the Supplier/ Tenderer for the work under “Notice inviting tender ref. No __________________________ dtd __________________________.”
dtd.__________” in this regard, shall be final and binding on us and we shall not be entitled to question the same.

3. Notwithstanding anything contained in the foregoing, our liability under this Guarantee shall be restricted to Rs.______ (Rupees in words).

4. This Guarantee shall remain valid and in full force and effect upto (Expiry Date) and shall expire hereafter unless an intimation is given to the bank by you earlier in writing discharging us from our obligation under this Guarantee.

5. We shall not revoke this Guarantee during its currency except by your consent in writing.

6. This Guarantee shall not be affected by any change in the constitution of the Supplier/ Tenderer or yourselves or ourselves but shall ensure to your benefit and be enforceable against our legal successors or assignees by you or your legal successors.

7. Notwithstanding anything contained herein above unless a demand or claim under this Guarantee is made on us in writing within six months from the date of expiry of this Guarantee we shall be discharged from all liabilities under this Guarantee thereafter.

8. We have power to issue this Guarantee under our memorandum and articles of association and the undersigned who is executing this Guarantee has the necessary power to do so under a duly executed power of attorney granted to him by the bank.

Signed and delivered for and on behalf of _________________________________

Bank. (Banker’s Name)

Name of Bank Manager: _____________________________________________

Address: __________________________________________________________
PART- 8
CONTRACT AGREEMENT FORMAT
CONTRACT AGREEMENT FORMAT

This contract (hereinafter, together with all attachment annexed hereto and forming its integral part thereof, call the Contract) is made on the_________day of the month of_______________2017, between, Assam Power Distribution Company Limited, having its head quarter at Bijulee Bhawan, Paltan Bazar, Guwahati-781001 and represented by the Chief General Manager (PP&D), having his office at Bijulee Bhawan, Paltan Bazar, Guwahati-781001 (hereinafter referred to as APDCL which expression shall unless repugnant to the context of meaning thereof includes its successors and assigns) of the one part and__________________________
__________________________, a Company registered under the Laws of__________________________
__________________________and having its registered office at__________________________, (hereinafter called the contractor which expression shall unless repugnant to the context of meaning thereof includes its successors and assigns) of the other part.

WHEREAS

(A) APDCL has placed work order for Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems/ W-LED based Solar Home Lighting System (MNRE Model – III / Model – V) at different locations in the State of Assam and provides other services as covered in this contract vide work order ____________dtd. _____________.

(B) The contractor has accepted the work order as set forth above vide reference No. ____________

(C) The contractor, having represented to APDCL that they have the required professional skill, personnel and technical resource have agreed to provide the services on the terms and conditions set forth in this contract.

NOW THEREFORE THE PARTIES HERETO HEREBY AGREE AND COVENANT AS FOLLOWS:

1. The parties hereto hereby covenant, bind and undertake to observe and perform this contract faithfully for the work of “Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems/ W-LED based Solar Home Lighting System (MNRE Model – III / Model – V) at different locations in the State of Assam” and execute, perform and do all works and things mentioned and described in the contract and in all other documents annexed hereto and in accordance with such conditions, specifications and terms and conditions forming part of this contract to the entire satisfaction of APDCL and shall respect, perform, observe and fulfill all such terms, conditions and specifications which are expressed or intended to be performed, observed or fulfilled by the contractor.

2. The following documents, which are deemed to be integral part of this contract as in herein, set out verbatim and / or is hitherto annexed, shall be binding on the parties.

a. Annexure – A: Copy of Letter of Intent, if any
b. Annexure – B: Copy of work order No
C. Annexure – C: Copy of Contractor’s Acceptance Letter
D. Negotiation record, if any

3. Security Deposit: The contractor has deposited a security amount to the tune of ________________

by ________________
The security deposit will be released after successful and satisfactory completion of installation and commissioning of the full ordered systems & completion of the CMC period.

4. The parties hereto hereby agree and declare that in consideration of the payments to be made by APDCL, the contractor shall execute the work as defined in the contract in the manner and as prescribed in this contract or which are implied or may be necessary for the completion of the said work or incidental thereto on the terms and conditions mentioned in the contract.

In witness whereof the parties hereto have signed this agreement hereunder on the date respectively mentioned against signature of each.

FOR AND ON BEHALF OF
SUPPLIER / MANUFACTURER
/CONTRACTOR

ASSAM POWER DISTRIBUTION COMPANY LIMITED

PLACE:

DATE:

WITNESS:

1. 

2.
PART- 9

PRICE BID

(Price - Bid must be submitted electronically. The appropriate Price Schedules for each system as furnish in the Bidding Documents shall be uploaded on the web portal)
Price Schedule for the “Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting Systems at different locations in the State of Assam”:

Regarding NIT NO.: APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of Work</th>
<th>Unit Quoted Rate of Standalone LED based Solar Street Lighting System (Rs.)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Supply of Materials</td>
<td>Installation &amp; Commissioning of the Plant</td>
</tr>
<tr>
<td>1</td>
<td>Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Street Lighting systems at different locations in the State of Assam</td>
<td>SAMPLE COPY (Price – Bid must be submitted electronically)</td>
<td></td>
</tr>
</tbody>
</table>

Note:

1. Supply of material, Installation and Commissioning rates as well as CMC rates shall be inclusive of all applicable taxes & duties etc.
2. No concessional ‘C’ form will be issued by the Department. The contractor has to arrange accordingly.
3. CMC will start after successful installation & commission of the plant.
4. It is mandatory to quote all the items i.e., Supply of Materials, Installation & Commissioning of the Plant & CMC for 5 years.

Signature of the bidder with seal
Price Schedule for the “Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of W-LED based Solar Home Lighting Systems at different locations in the State of Assam”:

Regarding NIT NO.: APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of Work</th>
<th>Unit Quoted Rate of W-LED based Solar Home Lighting System (Rs.)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Supply of Materials</td>
<td>Installation &amp; Commissioning of the Plant</td>
<td>CMC for 5 Years</td>
</tr>
<tr>
<td>1</td>
<td>Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Home Lighting systems (MNRE Model – III) at different locations in the State of Assam</td>
<td></td>
<td>SAMPLE COPY (Price - Bid must be submitted electronically)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Supply, Installation, Testing and Commissioning including 5 years Operation, Comprehensive Warranty and Maintenance of LED based Solar Home Lighting systems (MNRE Model – V) at different locations in the State of Assam</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:

(1) Supply of material, Installation and Commissioning rates as well as CMC rates shall be inclusive of all applicable taxes & duties etc.
(2) No concessional 'C' form will be issued by the Department. The contractor has to arrange accordingly.
(3) CMC will start after successful installation & commission of the plant.
(4) It is mandatory to quote all the items i.e., Supply of Materials, Installation & Commissioning of the Plant & CMC for 5 years.

Signature of the bidder with seal
To The Chief General Manager (PP&D)
APDCL, Annex Building
Bijulee Bhawan, Paltan Bazar
Guwahati-1

Sub.: Authorization Letter

Ref.: APDCL/CGM (PP&D)/NRE-83/2015-16/226 dated: 12/01/2017

Sir,

__________________________

__________________________

__________________________

Designation: ____________________  Designation: ____________________
Seal: ____________________  Seal: ____________________
Date: DD/MM/YY  Date: DD/MM/YY
## Annexure – IX

### MATERIALS RECEIVED & HANDING OVER VOUCHER (MRHOV)

**Address of the Contractor**: ____________________________________________

**Name of Work**: ______________________________________________________

**Office of the Project Authority**: ________________________________________

**Name of Division**: ________________________________________________

**Work order No.**: _____________________________________________________

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description</th>
<th>Accounting Code</th>
<th>Quantity</th>
<th>Value as per Contract</th>
<th>Mode Dispatch viz</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supplied</td>
<td>Rejected</td>
<td>Accepted</td>
<td></td>
</tr>
</tbody>
</table>

**Received from the Turnkey Contractor / Supplier**  By authorized APDCL official

**Handed over & received by**  the turnkey contractor

**Entry Made in Stock**  Checked & countersigned by CEO, Electrical Circle

<table>
<thead>
<tr>
<th>Sig:</th>
<th>Name:</th>
<th>Designation:</th>
<th>Date:</th>
<th>Seal</th>
<th>Sig:</th>
<th>Name:</th>
<th>Designation:</th>
<th>Date:</th>
<th>Seal</th>
</tr>
</thead>
</table>

**NB**: The DGM of concerned circle shall authorize the official for receipt of material & subsequent handover of materials to turnkey contractor after maintaining the store ledger.