BID DOCUMENT

FOR

DESIGN, SUPPLY, INSTALLATION & COMMISSIONING OF “STANDALONE LED BASED SOLAR WIND HYBRID STREET LIGHT” AT DIFFERENT PROBABLE LOCATIONS OF ASSAM SUCH AS MAJULI, NC HILLS, TINSUKIA, DHEMAJI, KARBI AGLONG ETC.

BID NO. APDCL/CGM(PP&D)/NRE-14/2013-14/19 dated: 28/10/2014

NAME OF FIRM / COMPANY _______________________

SIGNATURE OF BID ISSUING OFFICER
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<th>Topic</th>
<th>Page No.</th>
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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

Sealed tenders are invited in two bid systems (Technical & Financial), from Channel Partner of MNRE/Enlisted manufacturers of C-WET/ Original Equipment Manufacturer (Manufacturer means Manufacturer of SPV Module or Wind Turbine) having valid test certificates for their products for “Design, Supply, Installation, Testing and Commissioning of Standalone LED based Solar Wind Hybrid Street Lighting System with 5 Years Warranette cum Mandatory CMC” at different probable locations 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>Standalone LED based Solar Wind Hybrid Street Lighting System</td>
<td>At different probable locations of Assam</td>
<td>Rs. 10,00,000.00</td>
<td>Rs. 10,000.00</td>
</tr>
</tbody>
</table>

Bid document may be obtained from the office of the undersigned during office hours from **30/10/2014 to 15/11/2014** on payment of **Rs. 10000.00** being the cost of Bid Document in the shape of Demand Draft/ Bankers Cheque in favour of the Chief General Manager (PP&D) APDCL. The Bid Document can also be downloaded from website [www.apdcl.gov.in](http://www.apdcl.gov.in), in which case an amount equal to the cost of the document is to be enclosed as Demand Draft / Bankers Cheque along with the Bids failing which the bid shall not be considered. The Earnest Money (EMD) shall be deposited in the form of Demand Draft/ Bankers Cheque/ Bank Guarantee issued from any Nationalized Bank in favour of CGM (PP&D) ASSAM POWER DISTRIBUTION COMPANY LTD. payable at Guwahati. The CGM (PP&D) reserves the right to reject any or all bids without assigning any reason thereof.

**Date and Time of pre-bid Meeting : 10/11/2014 at 1200 Hrs.**

*N.B. Those firms who have procured the bid documents will only be eligible to attend the pre-bid meeting.*

It is suggestive on the part of the bidder to attend the Pre-bid meeting as convened at specified date & time for clarification/interpretation on the bid document to bring necessary modification if needed.

-S/d-
Chief General Manager (PP&D)
APDCL, Bijulee Bhawan, Paltanbazar,
Guwahati-1
Memo No.: APDCL/CGM(PP&D)/NRE-14/2013-14/19 dated: 28/10/2014

Copy to:-
1. **The MD**, APDCL, Bijulee Bhawan, Paltanbazar, Guwahati-1, for kind information.

2. **The Commissioner & Secretary**, Power (Elect.) Dept., Govt. of Assam, Dispur, Guwahati - 6, for kind information.

3. **The OSD to the Chairman**, APDCL, along with a Soft Copy of the Bid Document for uploading in the official website.


5. **All the Chief General Manager**, APGCL/ AEGCL/APDCL, Bijulee Bhawan, Paltanbazar, Guwahati-1, for information.

6. **Smt. U. Saikia**, Deputy Secretary to the Govt. of Assam, Power (Elect) Deptt., Dispur, Guwahati-6, for kind information.

7. The Asstt. General Manager (F&A), O/o the CGM (PP&D), APDCL, Bijulee Bhawan, 6th floor, Paltanbazar, Guwahati-1 for information.

8. 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-14/2013-14/19 dated: 28/10/2014

Dear Sir,

I /We, the undersigned Bidder hereby submit my /our offer in full compliance to terms & conditions of the attached NIT for setting up of Standalone LED based solar wind hybrid street lighting system at different locations of Assam. The application is submitted in two sealed envelope (one Technical & one financial) marked "Design, Supply, Installation & Commissioning with 5 years warranty cum mandatory CMC of Standalone LED based solar wind hybrid street lighting system".

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></th>
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</thead>
<tbody>
<tr>
<td>Designation</td>
<td></td>
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<tr>
<td>Company</td>
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<tr>
<td>Address</td>
<td></td>
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<tr>
<td>Phone No.</td>
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<tr>
<td>Fax No.</td>
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<tr>
<td>E-mail address</td>
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</table>

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

Dated the ______ day of ______ of 2014

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>
<tr>
<td>4</td>
<td>Annexure-IV – (A)</td>
<td>Enclose test reports/ certificate of <strong>SPV Module</strong> from IEC/NABL accredited laboratory as per relevant IEC standard</td>
<td></td>
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<tr>
<td>5</td>
<td>Annexure-IV – (B)</td>
<td>Enclose test reports/ certificate of <strong>Wind turbine</strong> from accredited laboratory as per relevant IEC standard</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Annexure-IV – (C)</td>
<td>Enclose test reports/ certificate of <strong>Controller of wind solar hybrid street light</strong> from accredited laboratory as per relevant IEC standard</td>
<td></td>
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<tr>
<td>7</td>
<td>Annexure-IV-(D)</td>
<td>Enclose <strong>CE certificate</strong> for Wind Turbine</td>
<td></td>
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<tr>
<td>8</td>
<td>Annexure-IV-(E)</td>
<td>Enclosed <strong>ISO 9001: 2008 certificate</strong> for wind turbine and hybrid system manufacturing, supply and project integration</td>
<td></td>
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<tr>
<td>9</td>
<td>Annexure-IV-(F)</td>
<td>Enclosed certificate of <strong>LED driver safety, LED driver performance, Luminaries for road &amp; street light</strong>, from accredited laboratory as per relevant IEC standard</td>
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<tr>
<td>10</td>
<td>Annexure-V</td>
<td>Copy of valid CST/VAT registration certificate</td>
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<tr>
<td>12</td>
<td>Annexure-VII</td>
<td>Details of post commissioning service facilities in the state of Assam</td>
<td></td>
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<tr>
<td>13</td>
<td>Annexure-VIII</td>
<td>Authorization letter of representation on behalf of the Bidder</td>
<td></td>
</tr>
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</table>
| 14 | Annexure – IX | **In case of Channel Partner**  
  • Enclosed latest accreditation certificate issued by agencies approved by MNRE under JNNSM  
**In case of Manufacturer**  
  • Enclose an adequate proof of document of manufacturer, actually showing that they are manufacturing product (i.e., solar module or wind turbine) by way production, testing and other facilities | |
| 15 | 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. Ltd. NIT No. : APDCL/CGM (PP&D)/NRE-14/2013-14/19 dated 28/10/2014

2. Particulars of the work : “Design, Supply, Installation & Commissioning of Standalone LED based solar wind hybrid street lighting system with 5 years warranty cum mandatory CMC” at different locations of Assam.

3. Number of Systems : As per the requirement at different probable locations of Assam such as Majuli, NC Hills, Tinsukia, Dhemaji, etc.

4. Estimated Cost : Rs. **3.88 Lakhs**

5. Period of work : **90 days** from the award of work.

6. Cost of Application document : Rs 10,000/- in the form of Demand Draft/Bankers Cheque issued by any RBI licensed banks in favour of CGM (PP&D) APDCL payable at Guwahati.

7. Amount of Earnest money Deposited : Rs.10,00,000.00 (Rupees ten lakhs only) in the form of Demand Draft/ Bankers Cheque/ Bank Guarantee (valid for 3 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 (**refer page no.59**).

8. Date and Time of submission of Bid : **17/11/2014 at 1400 Hrs.**

9. Date and Time of pre-bid Meeting : **10/11/2014 at 1200 Hrs.**

10. Date and Time of opening of Technical Bid : **17/11/2014 at 1500 Hrs.**

11. Place of opening of bid : **Office Chamber of General Manager (NRE), 0/o The Chief General Manager (PP&D), APDCL, Annex Building, Bijulee Bhawan, Paltan Bazar Guwahati-1.**

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

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

14. 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>
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</thead>
<tbody>
<tr>
<td>Postal Address (In Block Letters)</td>
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<tr>
<td>Telegraphic Address</td>
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<tr>
<td>Telephone No.</td>
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<td>Fax No.</td>
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<td>E-Mail Address</td>
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<tr>
<td>Website</td>
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<tr>
<td>Name of Representative of the firm / Company (In Block Letters)</td>
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<tr>
<td>Designation &amp; Employee No. of representative of the firm/ Company</td>
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<tr>
<td>Contact No. of the representative of the firm/ Company</td>
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<td>EMD amount</td>
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<tr>
<td>EMD Bank Draft / Banker’s Cheque /Bank Guarantee No. &amp; Date.</td>
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<tr>
<td>Bid Document Fee Bank Draft/ Banker’s Cheque No. &amp; Date</td>
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<tr>
<td>Financial Standing details of the Bidder (Annexure VI)</td>
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<tr>
<td>Name and Address of the Indian / Foreign Collaborator, if any.</td>
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<td>If anything extra other than the price of items have been written in the price schedule.</td>
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<td>Does the firm have been debarred from any work of Govt. Deptt. / PSU etc.</td>
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<td><strong>In case of Channel Partner</strong></td>
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<td>• Enclose latest Accreditation Certificate issued by agencies approved by MNRE under JNNSM</td>
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<td><strong>In case of Manufacturers</strong></td>
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<td>• Enclose an adequate proof of document of manufacturer, actually showing that they are manufacturing product (i.e., solar module or wind turbine) by way of production, testing and other facilities</td>
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<tr>
<td>Nos. of pages / Nos. of Drawings / Copies attached with the Bid.</td>
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<td>If the firm has any relative working with any of the successor companies of erstwhile ASEB, then please furnish the Name, Address &amp; Designation of the person/persons concerned</td>
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(Signature of the Bidder with Seal)
6. EXPERIENCE

NIT NO. APDCL/CGM (PP&D)/NRE-14/2013-14/19 dated: 28/10/2014

SPV POWER PLANT/SOLAR STREET LIGHTING PROJECT COMPLETED

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<td>Total</td>
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SOLAR WIND HYBRID PROJECT COMPLETED

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Name of the Organization</th>
<th>Project Location</th>
<th>Capacity &amp; Nos. of solar wind hybrid project completed (kWp &amp; Nos.)</th>
<th>Work Order value (Rs.In Lakhs)</th>
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<tbody>
<tr>
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<td>Total</td>
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Note: 1. If Actual completion date is beyond the Schedule completion Date, please give reasons for the delay.

Note: 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-14/2013-14/19 dated: 28/10/2014)

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 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. The bidder is an Accredited Channel Partner of MNRE/Empanelled manufacturers of C-WET/Original Equipment Manufacturers (Manufacturers means manufacturer of Solar Module or Wind Turbine) having valid test report of SPV modules, Wind turbine, LED, Electronics Controller (not more than one year old) from any of the NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers.

2. The bidder shall submit

2.1 IEC certificate of Solar PV module,
2.2 IEC certificate of Wind Turbine
2.3 IEC certificate of Controller of wind solar hybrid street light
2.4 CE certificate of Wind Turbine
2.5 IEC certificate of LED driver safety, LED driver performance, Luminaries for road & street light, from accredited laboratory as per relevant IEC standard.

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 or as per relevant IEC standard.

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

4. The bidder should submit the Turn over certificate (Excluding the auditor’s report) of the individual firm duly signed by a C.A. The average Turn Over for the last three year of the firm should not be less than Rs. 10.00 Crores.

5. The Bidder should have experience in design, supply, manufacturing, testing, installation and commissioning of SPV Power Plant / Solar Street Lighting System / Solar Wind Hybrid System during last 3 years. (Please attach copies of work order and satisfactory report from previous installations in support of the same).

6. 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.


8. Any misleading information will disqualify the bidder.

9. The Price bid shall be furnished as per following instructions:-
i) The price proposals shall be submitted as per the schedules at PART-9.

ii) System breaks up of Installation & CMC rates are to be quoted as per the schedule at PART-9.

10. Evaluation of Technical Bids:

10.1. The Tender Evaluation Committee shall evaluate the proposals received.

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.

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.

10.4. Financial Bid of those bidders shall be opened, who are found to be Techno-commercially responsive. APDCL shall simultaneously notify the qualified bidders in writing, indicating the date, time and location for opening of Financial Bid.

11. FINAL EVALUATION OF BIDS.

11.1 The bid of any bidder who has not complied with one or more of the conditions as innumerated in the bid document will be summarily rejected.

11.2 Conditional bids will also be summarily rejected.

11.3 Subsequently, the technical bids will be evaluated by the Tender Evaluation Committee of the Assam Power Distribution Company on the basis of technical bid and technical specifications.

11.4 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) Bid Form
c) General Particulars of Bid
d) Experience – Solar PV Power Plant /Solar Street Light/Solar Wind Hybrid
E) Declaration by the Bidder

PART-II

Instruction to Bidder
General Condition of Contract
Scope of Work & Technical specifications
Details of Warranty
Technical Bid

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 outright 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.gov.in) 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 be 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) Earnest Money Deposit (EMD).
(e) Authorization letter of the representative of the bidder (As Annexure-VIII).

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, sales tax, C.S.T., local taxes, Trade Tax/VAT, Income Tax, Surcharge on income tax etc. if any. The Tax Components should be shown separately in the price bid. 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. (refer page no.59).

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. The EMD of successful Bidder shall be
released only after submission of Security Deposit (Refer Part -7 & page no.55). The Security Deposit shall be released only after the expiry of the agreement.

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.

3.6 Security Deposit:

3.6.1 The successful bidder, who executes the contract agreement with APDCL, shall have to submit a Security Deposit 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.

3.6.2 The Security Deposit may be submitted in the form of Demand draft or Bank guarantee issued by any Nationalized Bank. In case of Bank Guarantee is submitted the Security Deposit will be referred as work Performance Bank Guarantee.

3.6.3 After satisfactory completion of work, the contractor shall have to submit a Bank Guarantee (B.G.) for an amount equivalent to 10% of contract value (excluding CMC amount) for release of final bill.

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 thereof shall be made in writing.

3.7.3 The validity of the contract performance guarantee (Refer Part 7 page no.58) shall be for 36 months after completion of the work. The responsibility of the extension of the same lies with the bidder. No written communication will be made to the bidder in this regard.

3.8 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.
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 query required to be replied by fax 2 days

4.1.3 Query by letter to be replied by letter 7 days

4.1.4 The Bidder should submit the Technical and Price Bid in separate envelope.

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-14/2013-14/19 dated: 28/10/2014. 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 both Techno-commercial and Price 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, Annex Building, 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, Bijulee Bhawan.
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 Envelope 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 In case it is not possible to open the envelope on the day fixed due to unavoidable circumstances then the opening of the envelop 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. The work may be divided among L₁, L₂ and L₃ bidder subject to the condition that the L₂ and L₃ bidder accept the L₁ rate.

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 90 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 (refer page no.62). The bidder has to sign the agreement by submitting Performance Guarantee amount as mentioned in 3.6.1 & 3.6.2 as applicable within the 7 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 total cost of “Standalone LED based solar wind hybrid street lighting system including installation & commissioning and CMC of the complete system comprising of all components as mentioned in the bidding schedule” as offered by the bidder in his Financial Bid.

(Signature of Bidder with seal)
SECTION - 7: FORMAT OF HANDING OVER CERTIFICATE OF STANDALONE LED BASED SOLAR WIND HYBRID STREET LIGHTING SYSTEM (In quadruplicate)

(HANDING OVER, INSTALLATION AND COMMISSIONING CERTIFICATE)

Certified that ____ (Nos.) standalone LED based solar wind hybrid 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>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solar PV Module</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Module Sl. No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Cell (Mono/Polycrystalline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating of each module (Watt)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Nos. of Module Installed (Nos.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year of Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Module Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voc</td>
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</tr>
<tr>
<td>Fill Factor</td>
<td></td>
<td></td>
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<tr>
<td><strong>Wind Turbine</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sl. No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating (Watt &amp; V)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type: (horizontal/vertical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sl. No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating of each battery (Voltage and AH Capacity @C/10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total nos. of batteries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Light source</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sl. No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wattage:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Controller of solar wind hybrid street light</strong></td>
<td>Make &amp; Sl. NO</td>
<td></td>
</tr>
<tr>
<td><strong>Cable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### (A) 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 / Rooftop</td>
<td>Ground/Rooftop</td>
</tr>
<tr>
<td>2</td>
<td>Verified that civil work for Pole Foundation carried out as per recommendation.</td>
<td>YES/NO</td>
</tr>
<tr>
<td>3</td>
<td>Verified the Height of Pole</td>
<td>____ Meters.</td>
</tr>
<tr>
<td>4</td>
<td>Verified that the Modules are fixed properly in the structures.</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 Wind turbine is installed as per standard practices</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Verified that the controller of solar wind hybrid 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>
<tr>
<td>10</td>
<td>Verified that all cables are crimped, terminated &amp; routed properly.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Operation &amp; Maintenance Training is provided to the end user.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>User Manual has been provided to the end user.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Date of Installation of the system:</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Photograph of the installed system along with representative of the beneficiary &amp; Bidder</td>
<td></td>
</tr>
</tbody>
</table>

### (B) Commissioning Report:

<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 status</th>
<th>Wind Turbine status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>3</td>
<td></td>
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<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>
(C) M/s______________________________ has installed, commissioned and handed over the Standalone LED based solar wind hybrid street lighting systems (___ Nos.). 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.

(D) Users Remarks, if any

______________________________________________________________

____________________________

Handed Over by: Taken Over by User:

For M/s.________________

(Authorized Signatory)
Name: __________________
Seal

Signature with Seal
Full Name & Designation

(Counter signed by APDCL Officer)
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.
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 90 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.

4 **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 what so ever shall arises 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, his 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 & wind turbine** 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 Standalone LED based solar wind hybrid street lighting systems:

(a) About the complete photovoltaic system including PV modules, wind turbine, battery and electronics

(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 ROYALTIES**

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 project 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. Tax components should be shown separately in the Price bid. 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 $P_{max}$ @ 16.4 V 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. 70
29. **PAYMENTS:**

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

29.1 80% of the contract value (excluding CMC amount) against completed work including supply, installation & commissioning of the system along with bill, challans in triplicate, MRHOV duly countersigned by authorized officer, handling over certificate, bill of material (BOM), warranty card & installation & commissioning certificate will be paid in a maximum of 3 progressive bills.

29.2 The balance 20% of the contract value (excluding CMC amount) shall be released against submission of bank guarantee for an amount equal to 10% of contract value (excluding CMC amount). The Bank Guarantee Shall valid for a period of 60 months from the date of commissioning of the last system/set.

29.3 The payment for 5 years CMC shall be released in 5 (five) annual 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) 1st Year: 10% of the total amount of CMC  
(B) 2nd Year: 15% of the total amount of CMC  
(C) 3rd Year: 20% of the total amount of CMC  
(D) 4th Year: 25% of the total amount of CMC  
(E) 5th Year: 30% of the total amount of CMC

(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 wind hybrid street lighting systems including 5 years warranty cum mandatory CMC at different locations of Assam on turnkey basis.

**Scope of works for Standalone LED based solar wind hybrid street lighting system 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, Wind turbine, 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 Wind Hybrid Street 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 installment 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 Wind Hybrid Street Light:______________
Installed & Commissioned by: _____________________________
Date of Installation: _____________________________
Name of the Implementing Agency: Assam Power Distribution Company Limited, O/o the CGM (PP&D), Annex Building, Paltanbazar, Guwahati-1
Address of the service center: _______________________
Name of Contact Person: _____________________________
Contact Number: _____________________________

2.0 GENERAL TECHNICAL SPECIFICATIONS:

2.1 The system details of standalone LED based solar wind hybrid street lighting systems are as given below:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Parameter</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PV Module</td>
<td>150 Wp</td>
</tr>
<tr>
<td>2</td>
<td>Wind Turbine</td>
<td>400 W; 12/24 V</td>
</tr>
<tr>
<td>3</td>
<td>Battery</td>
<td>Tubular GEL/VRLA 24V-100 AH @C/10</td>
</tr>
<tr>
<td>4</td>
<td>Light Source</td>
<td>White Light emitting diode</td>
</tr>
<tr>
<td>5</td>
<td>Luminaries</td>
<td>24V; 45 W (Nominal)</td>
</tr>
<tr>
<td>6</td>
<td>Electronic efficiency</td>
<td>Minimum 85% total</td>
</tr>
<tr>
<td>7</td>
<td>Duty cycle</td>
<td>Dusk to dawn</td>
</tr>
<tr>
<td>8</td>
<td>Autonomy</td>
<td>2 days</td>
</tr>
<tr>
<td>9</td>
<td>Pole height</td>
<td>Minimum 12 meters</td>
</tr>
</tbody>
</table>

3.0 DETAILED SPECIFICATIONS OF COMPONENT:

3.1. SOLAR PV MODULES:

- Solar array capacity shall be 150 Wp (refer clause no.2.1, Page No. 40)
- The PV module (s) shall contain mono/ multi crystalline silicon
- In case of crystalline silicon solar cell module it is required to have certificate for the supplied PV module as per IEC 61215 specifications
- Modules must qualify to IEC 61730 Part I and II for safety qualification testing
- Certificate for module qualification from IEC or equivalent to be submitted as part of the bid offer
The power output of the PV module must be reported under standard test conditions (STC) at loading voltage of 16.4 Volts. I-V curve of the modules should be submitted at the time of system supply. The specified module wattage should be at the applicable load voltage.

The efficiency of the PV modules should be minimum 13% and fill factor should be more than 70%.

(I-V curve of each PV module with should be submitted)

The terminal box on the module should have a provision for “Opening” for replacing the cable, if required

Each PV module must use a RF identification tag. (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions.)

The following information must be mentioned in the RFID used on each module

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

3.2 Module Mounting Structure:

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

3.2.2 The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that the module can be oriented at the specified tilt angle.

3.3 WIND TURBINE:

3.3.1 Technical Specifications of the Wind Turbine are as follows:

<table>
<thead>
<tr>
<th>Make</th>
<th>Reputed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country of origin</td>
<td>India / Aboard</td>
</tr>
<tr>
<td>Rated output</td>
<td>400 Watt at 28mph (12.5 m/s)</td>
</tr>
<tr>
<td>Rotor Diameter</td>
<td>1.2 m</td>
</tr>
<tr>
<td>Start up wind speed</td>
<td>8.04 mph (3.6 m/s)</td>
</tr>
<tr>
<td>Voltage</td>
<td>12,24VDC</td>
</tr>
<tr>
<td>Turbine Controller</td>
<td>Microprocessor – based smart internal regulator with Peak Power Tracking</td>
</tr>
<tr>
<td>Body</td>
<td>Cast Aluminum</td>
</tr>
<tr>
<td>Blades</td>
<td>Carbon fiber composite (3 Nos.)</td>
</tr>
<tr>
<td>Over Speed Protection</td>
<td>Electronic Torque Control</td>
</tr>
<tr>
<td>Survival Wind Speed</td>
<td>112 mph (50 m/s)</td>
</tr>
</tbody>
</table>
3.3.2 The system must have a certificate of testing conforming to **IEC 61400-2 & IEC 61400-12** from an NABL or IECQ accredited Laboratory.

3.3.3 The system must have a **CE certificate** for safety conforming to - **EN - 60204 - 1, EN - 1050, EN – 12100**

3.3.4 The bidder must have an **ISO 9001:2008 certificate** regarding the quality management for wind turbine and hybrid system manufacturing, supply and project integration.

### 3.4 BATTERY:

3.4.1 VRLA Gel Type.
3.4.2 The battery will have a minimum rating of 24V, 100 Ah at C/10 discharge rate.
3.4.3 75 % of the rated capacity of the battery should be between fully charged and load cut off conditions.
3.4.4 Battery should conform to the latest BIS/ International standards

### 3.5 LIGHT SOURCE:

3.5.1 The light source will be of white LED type.
3.5.2 The luminous performance of individual LED used should not less than 100 lumen / watt. The colour temperature of white LEDs used in the system should be in the range of 5500 K – 6500 K. LEDs should not emit ultraviolet light.
3.5.3 The lamp should be housed in an assembly suitable for outdoor use, with a reflector on its back.
3.5.4 The light output from the white LED light source should be constant throughout the duty cycle.
3.6 SPECIFICATION OF THE LUMINARIES:

3.6.1 The technical specifications of the Luminaries are as follows:

<table>
<thead>
<tr>
<th>Make</th>
<th>Reputed</th>
</tr>
</thead>
<tbody>
<tr>
<td>System wattage (LED + driver)</td>
<td>45 W (Nominal)</td>
</tr>
<tr>
<td>Luminous efficacy (lumen/W)</td>
<td>80 lumens/Watt</td>
</tr>
<tr>
<td>LED efficacy (lumen/W)</td>
<td>130 lumens/Watt</td>
</tr>
<tr>
<td>Light Output</td>
<td>&gt;3400 lumens</td>
</tr>
<tr>
<td>LED Life</td>
<td>&gt;50,000 hours</td>
</tr>
<tr>
<td>Driver type</td>
<td>Constant current DC – DC</td>
</tr>
<tr>
<td>Driver efficiency</td>
<td>92%</td>
</tr>
<tr>
<td>Driver life</td>
<td>100,000 cycles</td>
</tr>
<tr>
<td>Dimming facility</td>
<td>100% for first 6 hours, 40% dim for next 6 Hours</td>
</tr>
<tr>
<td>Housing</td>
<td>IP 65</td>
</tr>
</tbody>
</table>

3.6.2 The system must have a certificate of testing conforming to IEC 61347-2-13 for LED driver safety.

3.6.3 The system must have a certificate of testing conforming to IEC 62384 for LED driver performance.

3.6.4 The system must have a certificate of testing conforming to IEC 60598 for particulars requirements for Luminaries for road and street lighting.

3.6.5 The system must have a certificate of testing conforming to LM 79 & LM 80 report from an NABL or IECQ accredited Laboratory.

3.7 CONTROLLER OF SOLAR WIND HYBRID STREET LIGHT:

3.7.1 The total electronic efficiency should be a least 85%.

3.7.2 The system should adopt MPPT technology for PV charging control mode.

3.7.3 The system should adopt PWM charging mode for wind turbine charging.

3.7.4 Wind power, solar power generates input separately, can be single input or hybrid input.

3.7.5 The controller should adopt multiple feedback close loop control according to features of wind power and solar power generating.

3.7.6 The system should adopt limited current constant voltage mode charging, protect battery lifespan, and with temperature compensate function.
3.7.7 Automatically control lighting source ON/OFF

3.7.8 Automatically adjust lighting power according to energy remain in the battery

3.7.9 Electronics should operate at 24 V and should have temperature compensation for proper charging of the battery throughout the year

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

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

3.7.12 Display Parameters: Wind power, wind voltage, wind current, wind turbine speed, PV power, PV voltage, PV current, battery voltage, battery power, charge current, over voltage, under voltage, over load, short circuit, night mode, DC output mode etc.


3.7.14 Display Mode: LCD

3.8 ELECTRONIC PROTECTIONS:

3.8.1 Adequate protection is to be incorporated under “No Load” conditions e.g. when the lamp is removed and the system is switched ON.

3.8.2 The system should have protection against battery overcharge and deep discharge conditions.

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

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

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

3.8.6 Adequate protection should be provided against battery reverse polarity.

3.8.7 Adequate protection should be provided against solar panel and battery converse connect protection, battery voltage over – low cut off protection, input/output over – voltage protection, input/output over current protection, wind turbine brake protection
3.9 MECHANICAL COMPONENT

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

3.9.2 The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that the module can be oriented at the specified tilt angle.

3.9.3 The metallic arm for holding the light assembly should be extended at least 1.5 meters from the pole and set at a suitable angle to maximize uniform illumination of desired level the specific area.

3.9.4 The lamp housing should be conforming to IP 65 and should be painted with a corrosion resistant paint.

3.9.5 Wind speed resistance should be 170 km/hr.

3.9.6 The pole should be made of Galvanized Iron (GI) pipe.

3.9.7 The height of the pole should be 12 meters above the ground level, after grouting and final installation. Necessary certification in support of dimension, height, thickness, materials etc shall be furnished so as to be able to stand in any adverse situation as per relevant standard.

3.9.8 The pole should have the provision to hold the luminaire, solar panel & wind turbine.

3.9.9 A vented, acid proof and corrosion resistant metallic box with a locking arrangement for outdoor use should be provided for housing the battery.

3.10 CIVIL WORK:

3.10.1 Pole should be properly concreted with M16 or M20 grade.

3.10.2 Pole foundation to be laid with minimum 0.5 meter inside the ground.

3.11 AUTHORIZED TESTING LABORATORIES/ CENTERS:

Bidders are required to submit test certificates / report of current validity for Solar Photovoltaic Modules, Batteries, Wind turbine, electronics, controller & Accessories from IEC accredited authorized testing laboratory of MNRE approved test centers (not more than one year old). The Test Certificates / Reports for SPV Module, Wind Turbine, LED, Luminaire, Controller of solar wind Hybrid Street light & Battery should be in compliance with the latest MNRE specifications / as per relevant IEC standard.
3.12 QUALITY AND WARRANTY

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

3.12.2 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.

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

3.13 OPERATION and MAINTENANCE MANUAL

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Standalone Solar Wind Hybrid Street Lighting System. The following minimum details must be provided in the Manual:

- Basic principles of Photovoltaic & Wind Turbine.
- A small write-up (with a block diagram) on Solar Wind Hybrid Street Lighting System - its components, PV module, Wind turbine, battery, electronics and luminaire and expected performance.
- Type, Model number, Voltage & capacity of the solar panel, wind turbine & 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.
- About Charging and Significance of indicators.
- Clear instructions about erection of pole and mounting of PV module(s), Wind turbine and lamp housing assembly on the pole.
- Clear instructions on regular maintenance and trouble shooting of the Solar Wind Hybrid Street Lighting System.
- DO’s and DONT's.
- Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar Wind hybrid street lighting system.

(Signature of Bidder with seal)
PART-5

WARRANTY AND COMPREHENSIVE MAINTENANCE CONTRACT
PART – 5

NIT NO: APDCL/CGM (PP&D)/NRE-14/2013-14/19 dated: 28/10/2014

WARRANTY (INCLUDING COMPREHENSIVE MAINTENANCE CONTRACT) OF 5 YEARS FOR Standalone LED based Solar Wind Hybrid Street Lighting System:

- The PV modules will be warranted for a minimum period of 25 years from the date of installation of the system. (Output wattage should not be less than 90% at the end of 10 years and 80% at the end of 25 years).
- The street lighting system (including the battery) will be warranted for a period of five years from the date of installation & commissioning.

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

1. Quarterly checking up keeping and replacement of the any component or sub-components of LED based solar wind hybrid street lighting system for proper operation of the system.
2. Repairing /replacement of all defective components and sub-components (including battery) of the system as per the requirement to ensure proper operation of the system.
3. The scope of work includes repairing/replacement of parts(s)/system to make the system functional within warranty period whenever a complaint is lodged by the user. The contractor shall attend the same within a reasonable period of time and in any case of breakdown shall be corrected within a period not exceeding 3 days.
4. It is mandatory for the contractor to submit a quarterly performance/maintenance report for each system to the concerned project officer APDCL
5. In case of any damage or breakage of the component due to negligence or fault of beneficiary or thief etc, the same shall be replaced at users cost.
6. The safety and security of the system shall be sole responsibility of the user.
7. 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.**
8. Necessary maintenance spares for five years trouble free operation shall also be supplied with the system.
9. 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 EACH LED BASED SOLAR WIND HYBRID STREET LIGHTING SYSTEM

**WARRANTY CARD:**
(For each standalone LED based solar wind hybrid street lighting system)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solar PV Module</strong></td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td>Module Sl. No.</td>
</tr>
<tr>
<td></td>
<td>Type of Cell (Mono/Polycrystalline)</td>
</tr>
<tr>
<td></td>
<td>Rating of each module (Watt)</td>
</tr>
<tr>
<td></td>
<td>Total Nos. of Module Installed (Nos.)</td>
</tr>
<tr>
<td></td>
<td>Year of Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Module Efficiency</td>
</tr>
<tr>
<td></td>
<td>Voc &amp; Vmp of module</td>
</tr>
<tr>
<td></td>
<td>Isc &amp; Imp of module</td>
</tr>
<tr>
<td></td>
<td>Fill Factor of module</td>
</tr>
<tr>
<td></td>
<td>Date of installation of the system:</td>
</tr>
<tr>
<td></td>
<td>Warranty Valid Up to:</td>
</tr>
<tr>
<td><strong>Wind Turbine</strong></td>
<td>Make:</td>
</tr>
<tr>
<td></td>
<td>Sl.No</td>
</tr>
<tr>
<td></td>
<td>Rating: (W &amp; Volt)</td>
</tr>
<tr>
<td></td>
<td>Year of Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Date of Installation of the system</td>
</tr>
<tr>
<td></td>
<td>Warranty Valid up to:</td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td>Model</td>
</tr>
<tr>
<td></td>
<td>Sl. No.</td>
</tr>
<tr>
<td></td>
<td>Type:</td>
</tr>
<tr>
<td></td>
<td>Rating of each battery (Voltage and AH Capacity @C/10)</td>
</tr>
<tr>
<td></td>
<td>Total nos. of batteries installed</td>
</tr>
<tr>
<td></td>
<td>Warranty valid up to</td>
</tr>
<tr>
<td><strong>Battery Box</strong></td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td>Material</td>
</tr>
<tr>
<td><strong>Controller of Solar Wind Hybrid Street Light</strong></td>
<td>Make &amp; Sl. NO</td>
</tr>
<tr>
<td></td>
<td>Rating:</td>
</tr>
<tr>
<td></td>
<td>Warranty Valid Upto:</td>
</tr>
<tr>
<td><strong>Cable</strong></td>
<td>Make</td>
</tr>
<tr>
<td></td>
<td>Type</td>
</tr>
<tr>
<td></td>
<td>Rating</td>
</tr>
<tr>
<td></td>
<td>Warranty Valid Upto:</td>
</tr>
</tbody>
</table>
### Mounting Pole

<table>
<thead>
<tr>
<th>Make:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Material:</td>
<td></td>
</tr>
<tr>
<td>Height:</td>
<td></td>
</tr>
<tr>
<td>Warranty Valid Upto</td>
<td></td>
</tr>
</tbody>
</table>

### Light Source:

<table>
<thead>
<tr>
<th>Make:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sl. No:</td>
<td></td>
</tr>
<tr>
<td>Type:</td>
<td></td>
</tr>
<tr>
<td>Wattage:</td>
<td></td>
</tr>
<tr>
<td>Warranty valid up to:</td>
<td></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).
PART-6
TECHNICAL BID
Design, Supply, Installation, Testing, and Commissioning with 5 years warranty cum Mandatory Comprehensive Maintenance Contract (CMC) of Standalone LED based Solar wind hybrid 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><strong>Make:</strong> (Attach details)</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 each module (W)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total nos. of Module required</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</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Wind Turbine</strong></td>
<td><strong>Make:</strong> (Attach details)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(horizontal / vertical)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Rating</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Voltage</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Rotor diameter (m)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Start up wind speed (m/s)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Turbine Controller</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Body</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Blades material</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Over speed protection</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Survival Wind Speed (m/s)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Enclosed certificate as per relevant IEC standard</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Battery Capacity</strong></td>
<td><strong>Make</strong></td>
<td>(Attach Details):</td>
</tr>
<tr>
<td></td>
<td><strong>Type:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Rating/cell (Voltage &amp; AH capacity @C/10)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Nos. of Batteries</strong></td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>Details</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td></td>
</tr>
</tbody>
</table>
| Battery Box | Make:  
Material:  
Enclosed certificate of testing conforming latest BIS/International standards |
| Mounting Pole | Make & Material:  
(Attach details)  
Height of the Pole |
| Controller of solar wind hybrid street lighting system | Make & Model:  
(Attach details)  
Type:  
Rating:  
Enclosed certificate of testing conforming latest IEC standards |
| LED Light source | Make & Model:  
(Attach details)  
Sl. NO:  
Wattage (Watt):  
Luminous efficacy (Lumen/Watt):  
LED efficacy (lumen /W)  
Light output (> lumens)  
LED life (> hours)  
Enclosed certificate of testing conforming latest IEC standards |
| Cables | Make:  
(Attach Details)  
Rating:  |

- The above shows the design parameters & is the minimum which needs to quote by the bidder for the standalone LED based Solar Wind Hybrid 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- 7

BANK GUARANTEE FORMAT
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 _______ 2010_____________. at_______________

WITNESS

__________________________  ____________________________
(Signature)                  (Signature)

__________________________  ____________________________
(Name)                      (Name)

__________________________  ____________________________
(Official Address)           (Designation with Bank Stamp)

Attorney as per Power
Of Attorney No. ________
Date ___ / ___ /14
FORM OF BANK GUARANTEE
For submission of Performance Guarantee
(In non-judicial stamp paper of Rupees twenty)

Bank Guarantee No:-__________ Date:__________

The (Name of the RBI Licensed Bank, Branch and Address) hereby agrees unequivocally and unconditionally to pay/release within 48 (forty eight) hours, on demand in writing from the Chief General Manager (PP&D), Assam Power Distribution Company Limited, Paltanbazar, Guwahati-1, of any amount up to and not exceeding Rs.__________(Rupees__________________) only to the “Assam Power Distribution Company Limited”. This bank guarantee is a special requirement of a “Contract”, which the Chief General Manager (PP&D), APDCL has awarded to M/s____________________________vide work order No_____________ Dtd.________ for a value of Rs.__________________________

(Rupees___________________) only for execution of altogether ______ nos. of Standalone LED based Solar Wind Hybrid Street Lighting Systems at selected locations in the State of Assam.

This agreement shall be valid and binding on this Bank up to and including Rs._______ (Rupees_____________________) only and shall not be terminable by notice or any change in the constitution of the Bank or the Firm(s) or Contractor(s) or by any person whatsoever and liability hereunder shall not be binding on us if any extension of time or variations/alternations are made to the above mentioned work order, without our knowledge or consent, by or between the parties.

Our liability under the Guarantee is restricted to Rs.______________________________

(Rupees______________________) only. Our Guarantee shall remain in force and valid till_____________ unless a suit or action to enforce a claim under the Guarantee is filed against us within 12 (twelve) months from the date of issue of this Guarantee and all your rights under the said Guarantee shall be forfeited and shall be relieved and discharged from all liabilities thereon.

Date:                Signature & Full Name
Place:             Authorized Signatory of the bank with seal
Format for submitting Bank Guarantee in Lieu of Earnest Money

NIT No: _______________________________ Dated: _____________________
(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.__________________________” 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 assigns 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 ‘2014, 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, Commissioning of altogether ______ Nos. of Standalone LED based solar wind hybrid street lighting systems in the State of Assam with 5 (five) years warranty cum Mandatory Comprehensive Maintenance Contract (CMC) and provide 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. ____________ dtd. ____________.

(C) The APDCL and the contractor shall jointly be termed as “Parties”

(D) 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 “Design, Supply, Installation, Commissioning of ______ nos. of Standalone LED based Solar Wind Hybrid Street Lighting Systems at selected locations with 5 (five) years warranty cum Mandatory Comprehensive Maintenance Contract (CMC) 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 herein, set out verbatim and/or is hitherto annexed, shall be binding on the parties.

a. General Conditions of contract.

b. Contractor’s Compliance Certificate to the various sections of the Bids

C. Negotiation record, if any

D. Copy of Letter of Intent and acceptance.

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.

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
(In Separate Envelop)
**Price Schedule for the Design, Supply, Installation & Commissioning of Standalone LED based Solar Wind Hybrid Street lighting system with 5 years warranty cum mandatory CMC:**

Regarding NIT No: APDCL/CGM (PP&D)/NRE-14/2013-14/19 dated: 28/10/2014

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>System Description</th>
<th>Unit Rate (Rs.)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Design, Supply, Installation, Testing &amp; Commissioning of <strong>Standalone LED based Solar Wind Hybrid Street Lighting System</strong> with 5 years warranty cum mandatory CMC at different locations of Assam (<strong>Breakup to be furnished as per Form –I, II, III</strong>)</td>
<td>Design &amp; Supply of Material</td>
<td>Installation &amp; Commissioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In figure</td>
<td>In Word</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

(1) Breakup of Supply, Installation & Commissioning & CMC rates to be furnished as per Form – I, II & III.
(2) Installation and Commissioning rates as well as CMC rates shall be inclusive of all taxes etc.
(3) No concessional ‘C’ form will be issued by the Department. The contractor has to arrange accordingly.

**Signature of the bidder with seal**
### Form – I

**Price Breakup of Design & Supply of Standalone LED based Solar Wind Hybrid Street Lighting System with 5 years warranty cum mandatory CMC**

<table>
<thead>
<tr>
<th>Unit Rate (Rs.) (per stand alone LED based solar wind hybrid street light)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Design &amp; Supply of materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design &amp; Supply Cost</td>
</tr>
<tr>
<td>1</td>
<td>Design and Supply of standalone LED based Solar Wind Hybrid Street Lighting System.</td>
</tr>
</tbody>
</table>

Signature of the bidder with seal
## Price Breakup of Installation & Commissioning of Standalone LED based Solar Wind Hybrid Street Lighting System with 5 years Warranty cum Mandatory CMC.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Installation &amp; Commissioning of the System</th>
<th>Installation &amp; Commissioning of the system</th>
<th>Applicable Taxes (Rs. &amp; %)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Installation, Testing &amp; Commissioning of Standalone LED based Solar Wind Hybrid Street Lighting System.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of the bidder with seal
### Breakup of CMC rate of Standalone LED based Solar Wind Hybrid Street Lighting System with 5 years warranty cum mandatory CMC

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>5 years CMC of the complete System</th>
<th>Unit Rate (Rs.) (per stand alone LED based solar wind hybrid street light)</th>
<th>CMC for 5 years</th>
<th>Applicable Taxes (Rs. &amp; %)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 years warranty cum mandatory cum CMC of standalone LED based Solar Wind hybrid Street Lighting System.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.: NIT No. APDCL/CGM (PP&D)/NRE-14/2013-14/19 dated: 28/10/2014

Sir,

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Designation_ ___________________________________________________________________________
Seal ____________________________
Date: DD/MM/YY

Designation __________________________
Seal ____________________________
Date: DD/MM/YY
ASSAM POWER DISTRIBUTION COMPANY LIMITED
MATERIAL RECEIPT & HANDING OVER VOUCHER (MRHOV)
New & Renewable Energy Cell, APDCL, Guwahati-1

Name of the Scheme: ........................................................................................................................................
Name of the Project: .........................................................................................................................................
Name & Address of the Contractor: ..................................................................................................................
Work Order No: ...............................................................................................................................................

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description of Materials</th>
<th>Unit</th>
<th>Quantity</th>
<th>Taken into register</th>
<th>Value as per LOA</th>
<th>Mode of Dispatch viz: name of the carrier &amp; PR/GR/LR No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The complete one set of Standalone LED based solar wind hybrid street lighting system consists of:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Solar PV Module: 150 Watt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wind Turbine: 400 W; 12,24 VDC</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Controller of Solar Wind Hybrid street light</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• LED Street Light : 24V; 45 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Metallic frame structure for holding the solar module</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Metallic arm for holding the light assembly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mounting pole of height 12 meters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Battery Bank : 24V; 100 Ah</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Battery Box</td>
<td></td>
<td></td>
<td></td>
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<td>• Cables &amp; accessories</td>
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</table>

Received from the Turnkey Contractor/supplier
By authorized APDCL official
Handed over & received by
the turnkey contractor
Entry Made in Stock Ledger
Checked and countersigned by
CEO, Electrical Circle

Sig:         Sig:         Sig:         Sig:
Name:        Name:        Name:        Name:
Designation: Designation: Designation: Designation:
Date:        Date:        Date:        Date:

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.
Layout diagram of Standalone LED based street lighting system