



**Uttar Pradesh New & Renewable Energy Development
Agency (UPNEDA)**

(Deptt. of Additional Sources of Energy, Govt. of U.P.)

BID DOCUMENT

FOR

Supply, installation, testing and commissioning of 18 watt **LED based Solar Street Lighting System with RMS** including 5 years comprehensive warranty, Operation and maintenance for various districts /sites of Uttar Pradesh as per specification given in Scope of Work of Bid Document.



Bid No: - 01/UPNEDA/ 18 watt Solar Street Lighting System /2024-25

Issued by

**Uttar Pradesh New & Renewable Energy Development Agency
(UPNEDA)**

(Deptt. of Additional Sources of Energy, Govt. of U.P.)

VibhutiKhand, Gomti Nagar, Lucknow, U.P. - 226010

Website: www.upneda.org.in E-mail : ho_rps@rediffmail.com

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1 Abbreviation

Sr. No	Particulars	Definition
1	UPNEDA	Uttar Pradesh New & Renewable Energy Development Agency
2	Govt. of UP	Government of Uttar Pradesh
3	GoI	Government of India
4	LED	Light-emitting Diode
5	DD	Demand Draft
6	EMD	Earnest Money Deposit
7	BG	Bank Guarantee
8	RTGS	Real Time Gross Settlement
9	NEFT	National Electronic Fund Transfer
10	PV	Photovoltaic
11	GST	Goods & Services Tax
12	GSTIN	GST Identification Number
13	MNRE	Ministry of New and Renewable Energy
14	NABL	National Accreditation Board for Testing & Collaboration Limited
15	CA	Chartered Accountant
16	LoA	Letter of Award
17	LoI	Letter of Intent
18	BOQ	Bill of Quantity
19	MSME	Micro, Small & Medium Enterprises
20	RESIMS	Renewable Energy Solar Installation Monitoring Software
21	AMC	Annual Maintenance Contract
22	BIS	Bureau of Indian Standards
23	STC	Standard Test Conditions
24	IEC	International Electrotechnical Commission
25	MPPT	Maximum Power Point Tracking
26	PWM	Pulse Width Modulation
27	GSM	Global System for Mobile Communication
28	GPRS	General Packet Radio Service
29	SMS	Short Message Service
30	SPV	Special Purpose Vehicle
31	UID	Unique ID
32	IVRS	Interactive Voice Response System
33	RCC	Reinforced Cement Concrete
34	DC	Direct Current

2 Disclaimer

1. The information contained in this Bid document (hereafter referred to as “Bid” or subsequently provided to Bidder(s), whether verbally or in documentary or any other form, by or on behalf of the UPNEDA or any of its subsidiary or employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this Bid and such other terms and conditions subject to which such information is provided.
2. This Bid is not an agreement and is neither an offer nor invitation by the UPNEDA to the prospective Bidder or any other person. The purpose of this Bid is to provide interested parties with information that may be useful to them in the formulation of their application for qualification and thus selection pursuant to this Bid. This Bid may not be appropriate for all persons, and it is not possible for the UPNEDA, its employees or advisors to consider the objectives, financial situation and particular needs of each party who reads or uses this Bid. The assumptions, assessments, statements and information contained in this Bid may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this Bid and obtain independent advice from appropriate sources.
3. Information provided in this Bid to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. UPNEDA accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.
4. UPNEDA, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this Bid or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the Bid and any assessment, assumption, statement or information contained therein or deemed to form part of this Bid or arising in any way with selection of Bidder for participation in the Bidding Process.
5. UPNEDA also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this Bid.
6. UPNEDA may, in its absolute discretion but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this Bid. The issue of this Bid does not imply that the UPNEDA is bound to select and shortlist Bidders and the UPNEDA reserves the right to reject all or any of the Bidders or Bids without assigning any reasons whatsoever.
7. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations

which may be required by the UPNEDA or any other costs incurred in connection with or relating to its Bidder. All such costs and expenses will remain with the Bidder and the UPNEDA shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

3 Bid Details

Sr. No.	Particulars	Details
1	Bid no:	01/UPNEDA/18 watt Solar Street Lighting System /2024-25
2	Particulars of the work:	Supply, installation, testing and commissioning of 18 watt LED based Solar Street Lighting System with RMS including 5 years comprehensive warranty, Operation and maintenance for various districts /sites of Uttar Pradesh as per specification given in Scope of Work of Bid Document.
3	Tentative Quantity (Nos)	60000 Nos The above said quantity is dependent on availability of fund.
4	Estimated Cost including GST (Rs)	Rs 125.79 Crores
5	Period of Work	Within 4 months from the date of issuance of Work Order or as specified by UPNEDA
6	E-Bid Portal (website):	etender.up.nic.in
7	E-Tender Cost:	Tender Fee of Rs 11800/- (inclusive of GST) in the form of DD or RTGS/NEFT or any other online mode.
8	Earnest money deposit (EMD):	The bidder should submit EMD in the form of BG of 2 % of Estimated Cost.
9	Performance Security	5% of Work Order Value
10	Availability of tender document on e-tender Portal	From: 20.11.2024
11	Pre-Bid Meeting	On: 26.11.2024 at 12:30 pm
12	Bid submission end date & Time	On: 14.12.2024 upto 6:00 pm
13	Online technical Bid Opening date & time	On:16.12.2024 at 11:30 am
14	Financial Bid Opening date & time (Only of technically qualified bidders)	Shall be intimated later
15	Consortium/JV Allowed:	No
16	Sub-Contracting Allowed:	No
17	Proposal Language:	English
18	Proposal Currency:	INR
19	Venue of opening of technical & financial Bids	UPNEDA Head Office, Vibhuti Khand, Gomti Nagar, Lucknow-226010
20	Enquiries/clarifications may be sought by the Bidder from	Director, Uttar Pradesh New & Renewable Energy Development Agency, Vibhuti Khand, Gomti Nagar, Lucknow Fax: 0522-2720779, 2720829 Email: ho_rps@rediffmail.com Website: http://upneda.org.in
21	Period of validity of rates for acceptance	3 months from opening of financial bid

Note:

- a. Bidders are advised to study the tender Document carefully. Submission of Bid against this tender shall be deemed to have been done after careful study and examination of the procedures, terms and conditions of the tender Document with full understanding of its implications.

- b. Director, UPNEDA reserves the right to extend the date of opening of Financial Bid in unavoidable circumstances.
- c. All the required documents including Price Schedule/BOQ should be uploaded by the Bidder electronically in the PDF/XLS format. The required electronic documents for each document label of Technical (Qualification details, Bid Form and Technical Specification details) schedules/packets can be clubbed together to make single different files for each label. All the enclosures should be scanned and uploaded with bid.

(Signature of Bidder)

With Seal

4 Brief Description of the Proposal & its Submission

The Bid proposal shall be made in TWO PARTS i.e., PART-I and PART-II. PART-I shall contain the 'Technical Bid' and PART-II shall contain the 'Price Bid', which shall be prepared in the manner described below:

4.1 Part I: Technical Bid (Online Submission Only)

1. The following documents (forms) duly filled in and signed by the Bidder shall be submitted as PART-I of the Bid Proposal:
 - a. **Form A:** Covering Letter
 - b. **Form B:** General Particulars of the Bidder
 - c. **Form C:** Checklist
 - d. **Proof D:** Proof of payment or demand draft for cost of payment of the tender document.
 - e. **Form E:** Earnest Money Deposit to be submitted as BG from any nationalized or scheduled bank in the specified format
 - f. **Form F:** Bidder documentary evidence in support of the Pre-Bid Eligibility Criteria
 - g. **Form G:** Schedule of Experience (Supply & Installation)
 - h. **Form H:** Declaration on Notarized Affidavit that the information provided by the Bidder is true to the best of its knowledge, specifically pertaining to the experience furnished & conflict check
 - i. **Form I:** Format of Performance Bank Guarantee (PBG)
 - j. **Form J:** Format for bid security declaration
 - k. **Form K:** Format for power of attorney
 - l. **Form L:** Format for Joint Commissioning and Handing over certificate /Warrantee Card.
 - m. **Form M:** Certificate of UPNEDA Project Officer
 - n. **Form N:** Format: Technical Bid
 - o. The Bid document issued by UPNEDA, amendments / corrigendum / interpretations/ addendum/clarifications etc. for the work, if any, duly signed by the Bidder as a token of unconditional acceptance.
 - p. Audited Profit and Loss Account and Balance sheet along with CA certificate (Turnover and net worth) for the last three financial years are to be enclosed.
 - q. Copy of Certificate of Incorporation.
 - r. Copy of the GST number of the firm.
 - s. Copy of Permanent Account Number (PAN) issued by IT department.
 - t. Information regarding ex-employees of UPNEDA or its subsidiary companies working in the bidder organization if any. The bidder can use its own format regarding the same.
 - u. Memorandum and Article of Association
 - v. Any other information, the Bidder desires to furnish in connection with this Bid.

4.2 Part II: Price Bid (Online Mode Submission only)

1. The Bidder shall indicate prices on the appropriate financial bid schedule on e-tender Portal online only. The price quoted should include all taxes **including GST**.
2. Prices shall be quoted in Indian Rupees (INR) only.

4.3 Language of Bid & Measure

The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the Bidder and UPNEDA shall be written in the English provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purpose of interpretation units of measurement shall be MKS system.

4.4 Proposal Submission

- a. STEP I: Tender Fee and Bid Security (Earnest Money):
 - i. Prospective Bidders interested to participate in the bidding process are required to submit their Project proposals in response to this Bid document along with Tender Fee. Tender fee INR 11,800/- inclusive of GST, The tender Fee is to be furnished through Demand Draft (DD) drawn in favour of "Director UPNEDA", payable at Lucknow. A bidder will be eligible to participate in the bidding process only on submission of entire financial amounts as per the Bid. In case the Bidder chooses to submit the amounts pertaining to Tender Fee through NEFT/RTGS (electronic transfer), the Bidder shall submit the transaction receipt instead of the corresponding DD, as part of the offline bid submission.

The bank details of UPNEDA have been mentioned below. Bids submitted without Tender Fee, may be liable for rejection by UPNEDA

Name & Address of Account Holder	Uttar Pradesh and Renewable Energy Development Agency
Bank Name	Central Bank of India
Email	Bmluck3964@centralbank.co.in
Account No	2185286335
IFSC Code	CBIN0283946
MICR Code	226016035

- ii. The bidder should submit EMD in the form of BG of 2 % of Estimated Cost. The Bidder shall furnish Interest free EMD in the form of Bank Guarantee (BG) drawn in favour of "Director, UPNEDA", payable at Lucknow. The validity of EMD shall be for a period of 6 months from the Bid Deadline.

MSEs having unit in state of Uttar Pradesh are exempted from submission of Bid Security/EMD, however required to submit a "Bid Security Declaration" Letter on non-Judicial stamp of appropriate value as per prescribed format (Form-J). **Form E: Earnest Money Deposit to be submitted as BG from any nationalized or scheduled bank in**

the specified format. On furnishing the performance security and execution of contract agreement by successful bidders, UPNEDA will notify the unsuccessful bidders and their earnest money deposit will be refunded thereafter.

The Bid Bond/EMD shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to the Solar Street Lighting System under following circumstances:

- a. Hundred percent (100%) of Bid Bond/EMD amount of the proposed capacity, if Bidder withdraws/revokes or cancels or unilaterally varies their bid in any manner during the period of Bid Validity specified in the document.
 - b. Hundred percent (100%) of Bid Bond/EMD amount of the proposed capacity, if the Empanelled Vendor fails to unconditionally accept the Letter of Intent (LOI)/LOA/Work Order, whoever is issued first, within 15 days from the date of its issue.
 - c. Hundred percent (100%) of Bid Bond/EMD amount of the proposed capacity, if the Empanelled Vendor fails to furnish the "Performance Bank Guarantee" within 30 days of issuance of Letter of Intent (LoI)/LOA/Work order, whichever is issued first.
 - d. Any bid not secured with the Notarized bid security declaration as stipulated in bid will be liable for action before opening of financial bid.
 - e. Actions against bidder(s) indulging in corrupt /fraudulent/ collusive/ coercive practice. If it is observed during bidding process/ bids evaluation stage that a bidder has indulged in corrupt/fraudulent /collusive/coercive practice, the bid of such Bidder (s) shall be rejected and its Earnest Money Deposit (EMD) shall be forfeited.
 - f. EMD of a tenderer will be forfeited, if the tenderer withdraws or amends his tender or impairs or derogates from the tender in any respect after expiry of the deadline for the receipt of tender but within the period of validity of his tender. Further, if the successful tenderer fails to furnish the required performance security within the specified period, his EMD will be forfeited.
-
- b. STEP II: All the documents mentioned above along with Technical format duly filled in should be submitted in e-form only as "Part-I – Technical Bid".
 - c. STEP III: "PART-II - Price Bid" shall also be submitted in e-form only in prescribed format duly filled in.

4.5 Format and Signing of Bid:

1. The bid must contain the name, residence and places of business of the persons making the Bid and must be signed and sealed by the Bidder with his usual signature. The name and designations of all persons signing should be typed or printed below the signature.
2. Bid by corporation/ company must be signed with the legal name of the corporation/ company/firm by the 'President', Managing director or by the 'Secretary' or other designation or a person duly authorized.
3. The original copy of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person duly authorized to bid and bidder to the contract. 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 and submitted at the time of signing of agreement/contract.

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.

4.6 Deadline for Submission of Bids:

Bids must be uploaded by the Bidder in the date; time on e-tender Portal as specified in the Bid notice/ Bid documents.

4.7 UPNEDA's Right to Reject Tender:

1. UPNEDA reserves the right to reject any or all tenders received at any stage without assigning any reason thereof and the Tenderer shall not be entitled to any costs, charges or expenses in this regard.
 - a. In case Tender/bid is not received within the stipulated time and date as indicated above.
 - b. If the Tender/bid is not accompanied with the requisite tender fee, earnest money deposit, requisite documents and schedules.
 - c. If proposal is not a firm proposal.
 - d. If Tender/bid is not on the prescribed lines, form and pattern described in the tender document.
 - e. If each page of the proposal (technical) is not duly signed and stamped by the authorized signatory
 - f. If a material misrepresentation is made or discovered.
 - g. In case of non-furnishing of any requisite document with the bid, UPNEDA may issue queries for submission of such required document. If the bidder still fails to submit the required document, the bid will be considered as non-responsive, and bid may be summarily rejected.
 - h. If it is found that the rate quoted by the Bidder is unusually high or unusually low unless UPNEDA is convinced about the reasonableness of the rate on analysis of such rate.
 - i. If canvassing is found in connection with tenders and/or with uncalled for remarks.
 - j. If the offer is accompanied with any modification(s) and/or special condition(s).
 - k. If the proposal is found with erasing action or overwriting unless the corrections and/or alterations are not accompanied with initials and attestations of the authorized person(s).

4.8 Bid Validity Period

1. Validity of the offer should be 3 months from the date of opening of the financial bid of the e-tenders.
2. In exceptional circumstances, the UPNEDA will solicit the Bidder's consent to an extension of the period of validity. The request and the response there of, shall be

made in writing. The contract performance security provided under Form I shall also be suitably extended.

4.9 Opening of Bids

The procedure of opening of the e-tender shall be as under:

1. First part (PART-A) uploaded having Bid specification and super scribed as "Technical bid" shall be opened at the time and date mentioned in the Bid notice by UPNEDA's representatives in the presence of Bidders, who choose to be present.
2. Second part (PART-B) containing Financial Bid shall be opened (after establishing technical suitability of the offer) as per schedule. Second part of only those Bidders shall be opened whose first part (PART-A) shall be found commercially clear and technically suitable.

4.10 Clarification of Bids & Pre-Bid Conference

1. A prospective Bidder requiring any clarification of the Bid Documents shall submit their request in writing to UPNEDA by Email at the UPNEDA's mailing address indicated in the Invitation for Bid. The request must reach on or before ore bid meeting if any. The UPNEDA will upload the changes/modifications/amendment based on clarification request if any on the e- tender portal.
2. All are requested to remain updated with the e-tender Portal. No separate reply/ intimation will be given elsewhere. Verbal clarifications and information's given by the UPNEDA or its employees or its representatives shall not be in any way entertained.
3. **Enquiries/clarifications may be sought by the Bidder from:**
Director,
Uttar Pradesh New & Renewable Energy Development Agency, Vibhuti Khand,
Gomti Nagar, Lucknow
Fax: 0522-2720779, 2720829
Email: ho_rps@rediffmail.com
Website: <http://upneda.org.in>

4.11 Amendment to Bid Documents

At any time prior to the submission of the Bid the UPNEDA may for any reason, whether at its own initiative or in response to a clarification requested by the Bidder, modify the e-tender documents by amendments. Such document shall be made available on e-tender Portal. No separate reply/ intimation will be given elsewhere.

Therefore, all concerned are required to remain updated with the e-tender Portal.

4.12 Local Conditions

It shall be imperative on each bidder to fully inform him of all local conditions and factors, which may have any effect on the execution of the works covered under these documents and specifications. UPNEDA shall not entertain any request for clarifications from the Bidder, regarding such local conditions.

5 Pre-Bid Eligibility Criteria

Minimum Eligibility Conditions:

1. The Bidder must submit Tender Fee of Rs 11800/- (inclusive of GST) in the form of DD or RTGS. (Non Refundable)
2. The bidder must submit EMD in the form of BG of 2 % of Estimated Cost. MSEs having unit in state of Uttar Pradesh are exempted from submission of Bid Security/EMD, however required to must submit a "Bid Security Declaration" Letter on non-Judicial stamp of appropriate value as per prescribed format (Form-J).

The Bidder must meet the minimum eligibility conditions mentioned above to participate in the Bid. Upon fulfilling these conditions, the Bidder will be considered for further evaluation

In this tender, single bidder is only allowed for participation. Any bid not found to be in conformance with any of the pre-qualifying conditions may be summarily rejected and not be considered for further evaluation.

The bidder who meet the requisite qualifying requirements stipulated herein under and the bidder shall provide satisfactory evidence that qualifies under the following:

Sr. No.	Particulars	Details
1	The bidder should be a firm registered/incorporated under Companies Act, 1956 or Companies Act, 2013/ and further amendment (s), or a registered partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2002)/ Proprietorship. (System integrators are also allowed to participate in the bid.)	Duly attested copies of: a. Certificate of Incorporation issued by the Registrar of Companies
2	Past Performance: The bidder must be engaged in the above said business in last Five years i.e. 2019-2020, 2020-2021, 2021-22, 2022-2023 and 2023-2024. However, Work experience regarding supply and installation of minimum 30% of bid quantity i.e. 18000.nos. of LED based Solar Street Light /Solar LED High Mast Lighting Projects/Solar Heritage High Mast/Smart Solar Street Light or all in collectively from any Central/State Govt. Organization (including local body or autonomous institutions working under it.)/Company. (If Bidder provides work experience regarding supply, installation and commissioning from private company, GPS location or Geo tagging	a. Work order copies/ LoA's/Completion Certificates from registered central/state (including local body or autonomous institutions working under it.) / Company

Sr. No.	Particulars	Details
	details of the installed systems is required duly certified by the concerned Govt. Department/Organisation, also bidder must provide the certificate of incorporation of respective company.)	
3	Bidder Turn over Criteria: Bidders should have Overall Average Annual Turnover (ATO) in the best performing three year of last five financial year i.e, 2019-2020, 2020-2021, 2021- 2022, 2022-2023 and 2023-2024 must be at least 30% of the tender cost i.e. Rs 37.74 crores . Out of above mentioned five years, best performing three years will be considered for evaluation of Average Annual Turnover. (For FY 2023-24, provisional Balance sheet applicable if not audited.) This must be the individual Company's turnover. (A summarized sheet of average turnover certified by registered CA should be submitted along with audited Balance Sheet).	Duly authorized copy of audited annual report/Balance Sheet for last five years is to be submitted by respondent along with CA certificate.
4	The bidder's Net worth as on the last day of preceding financial year must be positive.	Duly authorized copy of CA's certified Networth Certificate.
5	The Bidder should have valid GSTIN registration certificate. A copy of which should be enclosed.	Valid GSTIN Registration Certificate

Other Technical Document requirement as per the following: -

Sr. No.	Particulars	Details
1	Bidder should have valid Test Certificate for the tendered Solar Street Lighting System (complete system) / Main components (i.e PV Module, Battery & LED Lighting Unit) of Solar Street lighting system issued from MNRE authorized testing center or NABL accredited test lab. The test report should be valid and not older than April 2022.	a. Test report of MNRE/NABL accredited lab b. Authorization Letter in the name of Bidder issued from OEM.

Sr. No.	Particulars	Details
2.	<p><u>Notarized Affidavit by the Bidder</u></p> <p>1. An undertaking that the service centers will be opened in allotted district and list will be submitted before supply and installation for verification</p> <p>2. Bidder should not have been Debarred/blacklisted by any of the State/Central Government or organizations of the State/Central Government</p> <p>3. Bidder should not have any dues of income tax and GST of the State/ Central Government.</p> <p>4. All the information and documents submitted in the Bid are correct</p> <p>5. General and specific/Technical terms of contract are acceptable to Bidder in to without any deviation.</p>	A notarized affidavit Should be submitted on non-judicial stamp paper.
3	TECHNICAL BID- Form N	

Note: In response to above all points the document is to be submitted.

6 Technical Evaluation Criteria

The UPNEDA will carry out a detailed evaluation of the bids previously determined to be substantially responsive in order to determine whether the technical aspects are in accordance with the requirements set forth in the bidding documents. In order to reach such a determination, the UPNEDA will examine and compare the technical aspects of the bids on the basis of the information supplied by the bidders, taking into account the following factors:

- i. Overall completeness and compliance with the technical specifications as stipulated in this bid. The bid that does not meet minimum acceptable standards of completeness, consistency and detail will be rejected for non-responsiveness.
- ii. Achievement of specified performance criteria by the facilities as per scope of work.
- iii. Type, quantity and long-term availability warranty and maintenance services.
- iv. Any other relevant factors, if any, listed in the tender document, or that the UPNEDA deems necessary or prudent to take into consideration.

6.1 Clarification of Bid

- i. To assist in the examination, evaluation and comparison of bids the UPNEDA may at its discretion ask the bidder for a clarification of its bid. The request for clarification and the response will be through E-mail (ho_rps@rediffmail.com) within stipulated time period, Response through other mode other than above e-mail in stipulated time will not be entertained.
- ii. UPNEDA reserves the right to interpret the Bid submitted by the Bidder in accordance with the provisions of this document and make its own judgment regarding the interpretation of the same. In this regard UPNEDA shall have no liability towards any Bidder and no Bidder shall have any recourse to UPNEDA with respect to the selection process. UPNEDA shall evaluate the Bids using the evaluation process specified in this document or as amended, at its sole discretion. UPNEDA's decision in this regard shall be final and binding on the Bidders.

7 Evaluation of Bids

The Procedure for Finalization of BID would be as follows:

7.1 Finalization of BID:

- a. First the Technical bids shall be opened and evaluated.
- b. Then the price bid of technically qualified bidders shall be opened

7.2 Finalization of Empanelment:

- a. First the Technical Bids shall be opened and evaluated. Then the price bid of technically qualified parties shall be opened.
- b. The lowest rate (i.e. L-1) received (and in turn approved by the competent authority) would be the "Approved Rate".
- c. Approved lowest rate would be offered to other lowest bidders subject to their rate fall within 25 % of L1.
- d. L1 may be awarded 50% of total bid quantity subject to performance, speedy work completion and on availability of fund . The remaining of Bid quantity shall be awarded among others qualified MSE /Non MSE firms. Allocation will depend on performance. There will be provision on early completion of project with respect to allocation of quantity.
- e. Minimum 25% of the total order quantity may be awarded amongst the micro and small industries qualified firm/firms at the lowest approved rate subject to their consent at to work on lowest rate and their capacity subject to availability of fund. If no MSE bidder will be qualified in the bid then 25% MSE target quantity shall be awarded to other than MSE bidders as per Bid.
- f. Director, Uttar Pradesh New and Renewable Energy Development Agency, (UPNEDA) reserves the right to allocate additional capacity to the Firms based on the performance and speedy work execution.
- g. UPNEDA will assign districts/division to the short-listed contractor/ bidders /suppliers as and when districts are ready to take supplies. Normally one district /division will have only one contractor/ bidder, so that he can open a service station.
- h. Training of the users and entrepreneurs/ operators will be arranged by the contractor/ bidder.
- i. If required UPNEDA reserves the right to negotiate with (lowest) L-1 bidder before finalization of the tender.
- j. UPNEDA reserves the right to accept any bid and to reject any or all bids.
- k. NOTIFICATION OF EMPANELMENT:
List of successful Bidder(s) for contract shall be displayed on UPNEDA's website and shall be intimated in writing to the contractor.

8 Bid: General Conditions of the contract

8.1 Definitions

1. "UPNEDA" shall mean The Director of UPNEDA or his representative and shall also include its successors in interest and assignees. The "Contractor" shall mean (successful bidder) i.e. the person whose Bid has been accepted by UPNEDA and shall include his legal representatives and successors in interest.
2. The contract/agreement will be based on rate contract for 12 month. The work must be completed within 4 months from the date of issuance of work order on turnkey basis.
3. That on the request of the contractor/ bidder and also in the interest of the organization the "UPNEDA" is authorized to extend the validity of the agreement, subject to that the request of the contractor/ bidder is received before the expiry of the agreement period. Maximum period of extension shall be 6 months on the same terms and conditions as contained in this agreement.
4. The agreement shall be deemed to be extended till the date of completion of last work order including 5 years comprehensive O&M subject to the completion period as provided in the above sub clause 2 of clause 8.1.
5. In the interest of the work and the programme, agreement executed between the contractor/bidder and the "UPNEDA" may be extended to a mutually agreed period, if the need so arises. It shall be sole responsibility of the contractor/ bidder to get verified the quality & quantity of the supplied material at the site of delivery.
6. Director, Uttar Pradesh New and Renewable Energy Development Agency, (UPNEDA) reserves the right to increase or decrease the quantity of Bid to any extent. The decision of Director will be final and binding.

8.2 Liquidated Damages

1. If the contractor/bidder fails to perform the services/work within the time periods specified in the contract (In case of delay for any reason other than due to Force Majeure conditions or any extension thereof granted to him by UPNEDA) the "UPNEDA" shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damage, a sum equivalent to 0.5% of the contract price for each week (For the purposes of calculation of delay, part of week shall be treated as a week) of delay until actual performance up to a maximum deduction of 5% of the contract price. Once the maximum is reached, the "UPNEDA" may assess the progress of work and take decision where the work order is to be cancelled, forfeit the performance security and debar/blacklist the firm **along with its Officers (Director/ Partner/Proprietor as the case may be)by way of mentioning the Aadhar/DIN number as the case may be in the Black list or to continue with time extension with further penalty .In case the liability of the firm is still not recovered the remaining amount would be liable to recovered from the movable /immovable assets of the firm.** The

contractor /bidder in “UPNEDA” may consider termination of the contract. In the case of violation of contract, UPNEDA may confiscate pending payment/ dues of the contractor/bidder assigning specific reasons and shall also have the power to debar/blacklist the contractor/ bidder **along with its Officers (Director/ Partner/ Proprietor as the case may be)** in similar circumstances. UPNEDA may also invoke performance /security.”

2. The contractor/ bidder 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. “UPNEDA” shall have no liability in this regard.

8.3 Force Majeure

1. Notwithstanding the provisions of clauses contained in this deed; the contractor/ bidder 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.
2. For purpose of this clause, "Force majeure" means an event beyond the control of the contractor/ bidder and not involving the contractor/ bidder's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of Government either its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes.
3. However, If a force majeure situation arises, the contractor/ bidder shall immediately notify the “UPNEDA” in writing. The decision of the competent authority of UPNEDA in above conditions shall be final.

8.4 Settlement of Disputes and Provisions for Arbitration

1. The High court of Judicature at Allahabad and Courts subordinate thereto, at Lucknow, shall alone have jurisdictions to the exclusion of all other courts.
2. UPNEDA shall have at all reasonable time access to the works being carried out by the contractor/ bidder under the contract. All the work shall be carried out by the contractor/bidder to the satisfaction of “UPNEDA”.
3. If any question, dispute or difference what so ever shall arises between “UPNEDA” and the contractor/ bidder, in the connection with the 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 of the Uttar Pradesh or a person nominated by him not below the rank of Secretary. This reference shall be governed by the Indian Arbitration and Conciliation Act 1996, 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 “UPNEDA” or the arbitrator directs otherwise.

8.5 Confidentiality

1. The successful Bidder shall maintain strict confidentiality of all documents, record notes of discussion, drawings, designs and other technical information supplied to them by UPNEDA or prepared by them in respect of the works under this contract and shall not pass on any information to any other agencies/organizations without the written permission of the UPNEDA.
2. After completion of works, the successful Bidder should return all relevant documents to UPNEDA.

8.6 Subletting or Transfer of Contract

The contractor/ bidder shall not, without the consent in writing of “UPNEDA”, transfer, assign or sublet the work under the contract or any substantial part thereof to any other party.

contractor any part of the same to any party without the previous written consent of the other party.

8.7 Taxes Duties and Insurance:

1. The price quoted should include all taxes including GST, duties and Insurance expenditure etc. whatsoever. Supplier/contractor/bidder shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government income tax & GST or any other tax State or Central Government norms will be payable by the contractor/ bidder whatsoever. If any new tax/duty is levied during the contract period, the same will be borne by the contractor exclusively. CGST, SGST and TDS will be deducted from the payment of the contractor/ bidder as per the prevalent laws and rules of Government of India and Government of the Uttar Pradesh in this regard.

8.8 Inspections and Tests:

1. The following inspection procedures and tests are required by the “UPNEDA” in the presence of “UPNEDA”'s representative if so desired by “UPNEDA”.
2. The “UPNEDA” 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 “UPNEDA” required.

8.9 Inspection at Works:

1. The “UPNEDA”, his duly authorized representative shall have at all reasonable times access to the contractor/bidders premises or works and shall have the power at all reasonable time to inspect and examine the materials and workmanship of the works during its manufacture.
2. The contractor/ bidder shall give the “UPNEDA”, 7 day's written notice of any material being ready for testing. It shall be mandatory that such notice should reach “UPNEDA” within 30 days of placement of work order. Such tests shall be on the contractor/ bidder's accounts/expenses except for the expenses of the inspector. “UPNEDA” reserves the fullrights, to waive off inspection of material.

3. The contractor/ bidder are required to get the entire lot of the ordered material inspected at one time, before the supply of the materials. In case the contractor/ bidder fails to get the entire lot inspected at one time, the total expenses of the further inspection will be borne by the supplier/contractor/ bidder.
4. UPNEDA will bear the inspector cost at only one manufacturing plant. If a component is produced in more than one location, then the cost of positioning the inspection in the second and subsequent plants would be borne by the successful Bidder at their cost.
5. The inspection by “UPNEDA” and issue of dispatch instruction there on shall in no way limit the liabilities and responsibilities of the contractor/ bidder in respect of the agreed quality assurance programme forming a part of the contract.

8.10 Warranty:

1. The contractor/ bidder shall warranty 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. Nothing in clause 10 above shall in any way release the contractor/ bidder from any guarantee or other obligations under this contract.
2. Performance of Equipment: In addition to the warranty as already provided, the contractor/ bidder shall guarantee satisfactory performance of the equipment and shall be responsible for the period or up to the date specified in bid hereof after the equipment has been accepted by the “UPNEDA” to the extent for any defects that may develop such defects shall be removed at his own cost when called upon to do so by the “UPNEDA”
3. The Warranty period shall be 25 Years for the PV modules and 5 years for complete system including battery from the date of commissioning and handing over of the system. The contractor/ bidder shall rectify defects developed in the system within Warranty period promptly. In case the defects are not rectified within a week of the receipt of the complaint by the contractor/ bidder “UPNEDA” shall have full liberty to restore the system in working condition. The expenditure so incurred by “UPNEDA” shall be deducted from the contractor/ bidder pending claims, security/performance guarantee deposit or in other law full manner.
4. Since the maintenance of the system may also be taken up by the contractor/ bidder after expiry of 05 years of warranty period if the end user/” UPNEDA” so desires, the contractor/ bidder shall take up annual maintenance of the installed system.

8.11 Patent Right and Royalties:

1. The Contractor/ bidder shall indemnify the “UPNEDA” against all third-party claims of Infringement of patent, royalty's trademark or industrial design rights arising from use to the goods or any part thereof.

8.12 Packing & Forwarding:

1. Contractor/ bidders, 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/bidder shall be held responsible for all damage due to improper packing.
2. The contractor/ bidder shall inform the "UPNEDA" of the date of each shipment from his works, and the expected date of arrival at the site for the information of the "UPNEDA" project offices at least 7 days in advance.

8.13 Demurrage WHARF AGE ETC:

1. All demurrage, wharf age and other expenses incurred due to delayed clearance of the material or any other reason shall be to the account of the contractor/ bidder

8.14 Insurance:

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

8.15 Transportation:

1. The contractor/ bidder is required under the contract to deliver the goods to the site. Transportation, storage, safety and security of the supplied material, issuance of road permit etc. shall be the sole responsibility of the contractor/bidder.

8.16 Applicable Law:

1. The contractor/ bidder shall be interpreted in accordance with the laws of the purchaser' country i.e. India. The station of "UPNEDA" Headquarter shall have exclusive jurisdiction in all matters arising under this contract.

8.17 Notice:

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

8.18 Timeline, Payment Terms

1. The work completion time for all the above work is 4 (four) month from the date of issuance of work order.
2. The payments shall be made as per the following terms and conditions:
 - a. 85% of the ordered value after the supply, installation and commissioning of the system along with the Joint Commissioning & handing over certificate, indicating bill of material and successful commissioning duly countersigned by the designated officer and end user.

- b. The balance 15% payment shall be billed as AMC charges on annual basis kept as security deposit and to be released @ 3% at the end of each year for 5 years, on satisfactory performance and timely submission of quarterly performance report. The Bidder must upload quarterly inspection report on RESIMS within 10 days of expiry of each quarter otherwise AMC of respective quarter elapsed.
- c. In case of any ambiguity in interpretation of any of the provisions of the tender, the decision of “UPNEDA” shall be final.
- d. The Firm must collect AMC charges in the first quarter after the completion of each respective year. If not claimed by the firm within three months after expiry of respective year, the firm will be not eligible to claim same amount.

Note:

1. *The payments shall only be processed after uploading of the work details, bill details and photos etc on the UPNEDA, RESIMS website.*
2. *Uploading of Quarterly inspection report online on RESIMS website is mandatory for CMC Payment.*

8.19 Others:

1. I-V curve of the each module technical details such as Voc, Isc, FF, cell efficiency and Pmax etc. shall be supplied along-with each consignment and copy should be handed over to Beneficiaries/UPNEDA.
2. The Contractor/ bidder in consultation with concerned Project Officer of “UPNEDA” will conduct training programme for users, focusing on main features, operation and maintenance of the systems.
3. The Contractor/ bidder shall continue to provide spare parts after the expiry of warranty period at the users cost. If the contractor/ bidder fail to continue to supply spare parts and services to users “UPNEDA” shall take appropriate action against the Contractor/ bidder.
4. After successful supply/commissioning of the system and training, the system will be handed over to the Beneficiaries /person designated by the UPNEDA.
5. It shall be the sole responsibility of the contractor/ bidder to get verified the quality & quantity of the supplied material at the site of delivery.
6. The UPNEDA has the right to pick any sample in working condition from field, for random testing of any of the component of the system or complete system from MNRE authorized test center or own. The expenditure on the tests (for maximum 2 systems) will be borne by the supplier. If more system(s) are taken for testing, the cost of testing shall be borne by the UPNEDA.
7. Notice statement and other communication send by “UPNEDA” through registered post or fax or Email to the contractor/ bidder at his specified addresses shall be deemed to have been delivered to the contractor/ bidder.

8. Any work which is not covered under this contract but is essentially required for the completion of job (To the satisfaction of UPNEDA) shall be carried out by the contractor as extra item or which payment shall be made separately at the rates decided by UPNEDA.
9. The work shall be carried out by the contractor/ bidder as per design and drawings approved by “UPNEDA”, wherever, necessary, the contractor/ bidder shall submit relevant designs and drawings for approval of “UPNEDA”, well in advance. Work carried out without “UPNEDA”'s approval shall not be accepted and the “UPNEDA” shall have right to get it removed and to recover the cost so incurred from the contractor/ bidder.
10. The contractor/ bidder shall provide one copy with each system instruction manual/ routine maintenance manual both in English and Hindi language. The following minimum details must be provided with manual:
 - About the complete photovoltaic system including PV modules, battery and electronics
 - Do's and Don'ts
 - Clear instructions on regular maintenance and troubleshooting of the system
 - Name & address of the contact person in case of non-functioning of the system.
 - About LED lighting
11. The contractor/ bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of “UPNEDA”. The contractor shall distribute and fix a calendar at site, showing instructions, Do's, Don'ts with each unit. (The format of calendar should be approved by UPNEDA).
12. The Bidder shall enclose a declaration along with the Bid if any of the UPNEDA employees or his / her relatives, which term includes wife / husband, parents, grandparents, children, grand-children, brothers, uncles, aunts, cousins and their corresponding in-laws is/are partner(s) with them.
13. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this Bid, UPNEDA shall reject a proposal without being liable in any manner whatsoever to the applicant, if it determines that the applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “**Prohibited practices**”) in the selection process. In such an event, the UPNEDA shall, without prejudice to its any other rights or remedies, forfeit and appropriate the performance security, if available, as mutually agreed genuine pre-estimated compensation and damages payable to UPNEDA for, inter alia, time, cost and effort of UPNEDA, in regard to the work, including consideration and evaluation of such applicant's proposal.

14. Without prejudice to the rights of UPNEDA under the rights and remedies which UPNEDA may have under the LoA (Letter of Award) or the agreement, if an applicant or consultant, as the case may be, is found by UPNEDA to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LoA or the execution of the agreement, such applicant or consultant shall not be eligible to participate in any Bid or TENDER issued by UPNEDA during a period of 2 (two) years from the date of such finding for the applicant or consultant(as the case may be) has been engaged by UPNEDA.
15. For the purposes of this Clause, the following terms shall have the meaning here in after respectively assigned to them:
- a. **“Corrupt practice”** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the UPNEDA who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the UPNEDA, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the UPNEDA in relation to any matter concerning the Project;
 - b. **“Fraudulent practice”** means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
 - c. **“Coercive practice”** means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process;
 - d. **“Undesirable practice”** means (i) establishing contact with any person connected with or employed or engaged by the UPNEDA with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
 - e. **“Restrictive practice”** means forming a cartel or arriving at any understanding, or arrangement among applicants with the objective of restricting or manipulating full and fair competition in the Selection Process.

16. Conflict of Interest- A Bidder shall not have a conflict of interest that may affect the Selection Process (the “**Conflict of Interest**”). Any Applicant found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall forfeit and appropriate the Performance Security, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, the time, cost and effort of the Authority including consideration of such Bidder’s Proposal, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise.

9 Contracting Arrangements

9.1 Signing of the Contract Agreement

1. Before execution of the work, a contract agreement for execution of the work shall be signed by the Bidder with UPNEDA within 7 days of communication from UPNEDA. In case agreement is not executed within the stipulated time, then bidder will be suspended for participating in the tendering process, for a period of one (01) year from bid due date of above referred tender.
2. A formal agreement for a period of 01 (one) year shall be entered into between UPNEDA and the contractor/ bidder for the proper fulfillment of the contract. The expenses of completing and stamping of the agreement shall be paid by the successful bidder.
3. Issue of Letter of Empanelment
After execution of the Agreement and Performance Security Deposit, the name of successful bidder(s) will be displayed in website of UPNEDA and a letter of empanelment will be sent to the qualified tenderer. Additional Work Order will be allocated on the performance & speedy work completion.

9.2 Performance Security

1. Performance Bank Guarantee (PBG) will have to be deposited by the successful Bidder in following manner:
 - a. The successful Bidders, who execute the agreement with UPNEDA for the work, shall have to furnish a security amount equivalent to 5% of total value of the work order in the form of Bank Guarantee valid for a period of 18 months from the date of work order. The bank guarantee may be issued by a nationalized bank or scheduled bank of RBI. Bank Guarantee shall be in favour of "Director, UPNEDA". The aforesaid Bank Guarantee shall be furnished prior to the execution of agreement. The performance Bank Guarantee shall be released after completion of installation and commissioning of all systems mentioned in the particular work order. The format of BG is attached with Bid as **Form I: Format of Performance Bank Guarantee (PBG)**.
 - b. The selected bidder shall have to extend the validity period of the Bank Guarantee beyond the initial date in case, the actual date of completion of the work is delayed due to any reason.
 - c. No Bank charges or interest shall be payable against the Bank Guarantees;

9.3 Termination of Contract

1. **Termination for insolvency:** "UPNEDA" may at any time terminate the contract by giving written notice to the contractor/bidder without compensation to the contractor/ bidder, 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 "UPNEDA".
2. **Termination for Convenience:** The "UPNEDA", may by written notice sent to the contractor/ bidder, terminate the contract, in whole or in part at any time for its

convenience. The notice of termination shall specify that termination is for the purchaser's convenience in the interest of "UPNEDA".

3. "UPNEDA" may at any time by notice in writing to the contractor/ bidder either stops the work all together or reduces or cut it down. If the work is stopped all together, the contractor/bidder 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 "UPNEDA", whose decision shall be final and bidding on the contractor/ bidder. If the work is cut down the contractor/ bidder 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 Scope of Work and Technical Specifications

The scope of work includes design, supply, installation, commissioning of Solar Street Lighting Systems (LED based) including 05 years comprehensive warranty and maintenance in various villages/ hamlets, institutions, individuals etc. at various districts of Uttar Pradesh as directed by UPNEDA at sites identified by UPNEDA as per the terms and conditions in this document and following specifications.

The scope of work also include mandatory opening of Service Center in their name in concerned district through which servicing and maintenance should be provided as stipulated quarterly in a year and within 72 hours.

GENERAL TECHNICAL SPECIFICATION:

A Solar Street Light (LED based) consist of white LED luminary of maximum **18 Watt** (LED + Driver) as per configuration along with solar PV modules and Li-Fe-PO₄ battery of given capacity, necessary control electronics-inter connecting wires / cables, module mounting structures etc. to operate the load for dusk to dawn. The broad performance specifications of a White Light Emitting Diode (W-LED) light source based solar street lighting system are given below.

BROAD PERFORMANCE PARAMETERS

PV Module	Only indigenous modules shall be used in the project. SPV module of 36 cells 110 Wp, Voltage at Maximum Power (Vmpp) 18.0 V \pm 0.3%. Module Voc should be minimum of 22 V. Module efficiency should be > 14.8 %
Battery	Lithium Ferro Phosphate (LifePO ₄ / LFP) 12.8 Volt, 45 Ah, at STC
Light Source	<ul style="list-style-type: none">• White Light Emitting Diode (W-LED) 18 Watt(LED +Driver)• Using LEDs which emits ultraviolet light will not be permitted
Light Out put	White colour (colour temperature 5500-6500 K). The Lumen efficacy of LED- minimum 135 lumens/Watt and the lumens output (luminous flux) of luminaries should be \geq 2250 lumen. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.
Mounting of light, Controller and Battery pack	Approx., 4.5 meter above the ground, mounted at pole below the module mounting structure.
Average duty cycle	Dusk to dawn

Make of Items must be as per the BIS/ MNRE Technical specification and equivalent make offered by the Bidders in the Bid. The Bidders may change the make of items with the permission of competent authority of UPNEDA as and when required on valid circumstantial conditions. The bidder shall provide Test Certificate of the proposed make of items issued from MNRE authorized testing center or NABL accredited test lab.

MINIMUM TECHNICAL REQUIREMENTS / STANDARDS

1. DUTY CYCLE

- i. The LED solar street lighting system should be designed to operate for dusk to dawn

2. SPV MODULES:

- i. Only indigenous modules of IEC Tested shall only be used in the project. Crystalline high power/efficiency 36 cells should be used in the solar photovoltaic module. The power output of the module shall not be less than 110 W_p at 18.0 V + 0.3%, Module efficiency should be > 14.8 % at STC.
- ii. The open circuit voltage of the PV modules under STC should be at least 22 Volts.
- iii. PV module must be warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- iv. The terminal box on the module shall be designed for long life out door operation in harsh environment should have a provision for opening for replacing the cable, if required.
- v. The offered module shall be in accordance with the requirements of MNRE standards and tested as per:
 - a) As per IEC 61215 / IS 14286 for Crystalline Silicon Terrestrial Photovoltaic (PV module - Design Qualification and Type Approval
 - b) As per IEC 61730 Part 1- requirements for construction & Part 2 – requirements for testing, for safety qualification.
- vi. Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided and if required, blocking diode(s) may also be provided.
- vi. IDENTIFICATION AND TRACEABILITY
Each PV module must use a identification tag which must contain the following information:
 - (i) Name of the manufacturer with logo
 - (ii) Month and year of the manufacture
 - (iii) Unique Serial No
 - (iv) Model No of the module with voltage and rated wattage
 - (viii) Made in India
- vii. The Modules and Cells should be manufactured in India and should be complied with the prevailing MNRE Approved List of Models and Manufacturers of Solar Photovoltaic Modules and subsequent amendments and clarifications issued, shall be

applicable for this Bid. The Successful Bidder must procure Solar PV Modules from MNRE ALMM List as per the UPNEDA office order no 144 dated 08.04.2024.

The Bidder has to quote separate rates for Solar Street Lighting System considering both DCR and Non DCR panels as per BOQ.

2. Lithium-Ferro-Phosphate (Li-Fe-Po4) Battery:

The Battery pack as per IS /IEC 62133-2012. The minimum cell capacity should be 3.2volt, 5 AH.

The Lithium iron phosphate battery needs a very good “Battery Management System” BMS to ensure the proper charging and discharging of each cell of battery with proper protection of battery when temperature is reaching beyond battery permissible limits. This battery also needs constant current and constants voltage charging methodology related to upper voltage limit of battery. BMS primary focus are therefore on the safety and the protection of the battery,to Minimize the risk of sudden failure and to maximize the life cycle of the battery.

- a. Capacity of the battery shall not be less than 12.8 V (nominal), 45 Ah atSTC, 576 Watt Hour.
- b. The battery cycle life should be 2000 cycle at 95% discharge.
- c. BMS (Battery Management System) should be part of battery pack and battery pack enclosure should be as per standard. The battery pack should be integrated with the system in such way that it is theft proof and not removable from system. It should be installed with combination of module structure/luminaries. The height of battery pack will be approximate, 4.5 meters above the ground. The system must withstand wind velocity of 150 km/hr. The battery pack should be capable of high rate of heat dissipations. The battery box should be acid proof and corrosion resistant, hot dip galvanized metallic box(IP 66) with anti-theft locking arrangement.
- d. The battery should operate between temperature range of 0 degree C to 55 degree C

The other feature of the battery should be:

Sr. No.	Description	Specifications
1	Battery Configuration	12.8V, 45AH; Li-fe-PO4
2	Working Temperature Range (both for charging & discharging)	0-60 deg C
3	Storage Temperature Range	@ 0-25 Deg- 6 months
4	Cycle Life (Full charge to full discharge @ 25 deg C before capacity of battery falls below 75%)	more than 2000 Cycles

5	Battery Warranty	5 years
6	Capacity of Individual Cells (Minimum)	3.2V cell of 5 AH
7	Type of Cell	Prismatic/Cylindrical
8	Nominal Capacity	12.8 volt - 45AH
9	Nominal Voltage	12.8V
10	Operating Voltage Range	11.2 V - 14.6V
11	Total Energy	576 WHr
12	Rated Charging current	20 Amps
13	Maximum Charging current	20 Amps
14	Maximum Discharging Current	10 Amps
15	Discharge Cut off Voltage	>11.2V
16	Over Charge Cut off Voltage	15.5V+/- 0.2V
17	Charging Time	Around 5 - 5.5 Hours

3. ELECTRONICS/CHARGE CONTROLLER :

- i. MPPT Charge controller to maximize energy drawn from the solar PV array. The MPPT Charger should be microcontroller based. The charge controller should have:

Solar Charge Controller

Sr No.	Description	Specification
1	Charge controller Type	MPPT type -Maximum Power point Tracking
2	Charge controller Rating @ Related Voltage	10 Amps
3	Module Rating	110 Wp @ 18.0 V + 0.3%,
		36 Cell configuration
		Voc> 22 Volts
4	Load current Max @rated Voltage	2 Amps
5	Ideal current consumption (self-consumption)	< 20 mAmps
6	Minimum Efficiency	>90%
7	Battery Voltage Setting	Charging 14.4v ± 0.2 Volts
		Battery Low Volt disconnect >10.5 Volts
		Load Reconnects 12.8V± 0.2Volts
		Low Battery Cut off 11.2 V± 2%
8	LED indication with LCD display	GREEN LED for charging under Process and red for battery low
9	Protection	Over Charge / Deep Discharge
		Solar & Battery reverse protection
		Reverse current from battery at night

- Electronics should operate at 12.8V and the efficiency of DC-DC converter should be at least 90 %.
- Full Protection against polarity reversal of PV array and battery, Over Voltage, Short Circuit, Deep Discharge, Input Surge Voltage, open circuit, accidental short circuit and night time leakage of current from battery to Module.

Inbuilt remote monitoring facility should be available in MPPT Charge Controller and it should record following System Parameters at a fixed time interval for system health analysis (time interval should be changeable from 15 minutes to 4 hours and will be intimated at the time of award of work as per the requirement).

The detail regarding Remote Monitoring Systems are given below:-

1. Battery Parameters:

- a. Battery Voltage (BV).
- b. Battery Current (BI).
- c. Battery Power (BP)

2. Solar PV Parameters:

- a. Solar PV Voltage (SV)
- b. Solar PV Current (SI)
- c. Solar PV Power (SP)

3. Load Parameters

- a. Load Voltage (LV).
- b. Load Current (LI).
- c. Load Power (LP).
- d. Load ON/OFF condition

4. System shut down due to fault (event fault should be recorded)

5. Site coordinates (Latitude and Longitude)

The remote monitoring can be done using any available communication mode like GSM/GPRS/SMS. The cost for the same should be borne by the successful bidder.

LIGHT SOURCE:

- i. The light source will be of white LED type the color temperature of white LEDs used in the system should be in the range of 5500-degree K – 6500-degree K. Use of LEDs which emits ultraviolet light will not be permitted. The temperature of heat sink should be not increase more than 20 degree centigrade above ambient temperature during the dusk to dawn operation.
- ii. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred. The light output

from the white LED light source should be almost constant.

- iii. The lamps, DC-DC driver should be housed in aluminum die-casted casing suitable for outdoor use and shall comply with IP 66.
- iv. The temperature of heat sink should not increase more than 30 degree C above ambient temperature even after 48 hrs of continuous operation. This condition should be complied for the dusk to dawn operation of the lamps while battery operating at any voltage between the load disconnect and charge regulation set point.
 - ii. High power LED of minimum 1 (one) watt each capacity capable to withstand maximum 1 amp driving current having optical lens angle greater than 120 degree shall be used.
 - iii. LED Chip should be compliance to IES: LM-80 .
 - iv. The LED efficacy should be >135 lumen per watt and the lumens output (luminous flux) of luminaries should be >2250 lumen.
 - v. The lumen depreciation of LED shall not be more than 30% even after 50,000 burning hours.
 - vi. Power consumption of the LED Luminaries / Lighting unit shall not be more than 18W (including LED and Driver power loss).
 - xi. The luminarie should have Suitable UV Stabilized polycarbonate Diffuser.
 - xii. Luminaries, reflectors and LED's should be engineered in such a way to give the specified lumens output distributed uniformly as per point xv.
 - xiii. The Luminarie should be designed, manufactured and tested as per LM-79-08 or latest standard by the MNRE/NABAL accredited lab.
 - xiv. The PCB used in luminaries should replaceable card type.
 - xv. The efficiency of the streetlights is maximized using a sensor and an intelligent controller which are programmed to regulate the light output depending on movement detection or time schedule.

Movement detection: The streetlight usually operates at 100% intensity and dims to 50% when no movement is detected.

Or

Time schedule model: The streetlight usually operates on 100% intensity for first 5 hours and for rest of the time at 50% intensity.

The above features are necessarily required. However, these are optional feature which may be enabled on site-to-site requirement.
- xvi. **Lux for single light level:**

Minimum 35 Lux when measured at a point 4 meters below the light. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.

For Multiple Light levels:

The luminaire should have two levels of light to take care of different lighting needs during the night. Minimum 35 Lux when measured at a point 4 meters below the light (at "High" illumination level). The illumination should be uniform without dark bands or abrupt variations. Minimum 18 Lux at lower illumination level (Higher light output will be preferred).

The luminaire should be tested for all type tests as per IS 10322 Part 5 Sect 3 or IEC 60598-2-3 standards following performance parameters like:

- 1) Total luminous flux: >2430 lm
- 2) Luminous Efficacy (efficacy (i.e system efficacy) > 135lm/w
- 3) Colour Temperature: Between 5500K to 6500K
- 4) CRI \geq 70
- 5) Luminous intensity distribution should follow batwing patterns in polar curves.

xvi. Other Parameters:

- 6) Total luminous flux: >2250 lm
- 7) Luminous Efficacy (efficacy (i.e system efficacy) > 125lm/w
- 8) Colour Temperature: Between 5500K to 6500K
- 9) CRI \geq 70
- 10) Luminous intensity distribution should follow batwing patterns in polar curves.

- LED DC current regulation – better than 3 %
- Input V – 12.8 V DC
- Driver Type- DC-DC (as per IEC 62384)
- Lighting quality- Free from glare, flickering and UV
- Ambient temp 0 to– upto 55 deg
- Total electronics efficiency \geq 90 %

xvii. The connecting wires used inside the luminaries, shall be low smoke halogen free, fire retardant e-beam cable.

xviii. Auto resettable reverse polarity protection shall be provided.

xix. The make, model number, country of origin and technical characteristics of white LEDs used in the lighting system must be furnished.

xx. Electronics

- Electronics should operate at 12.8V and the efficiency of DC-DC converter should be > 90%.
- Fuses should be provided to protect against short circuit conditions.
- A blocking diode should be provided as part of the electronics, to prevent reverse flow of current through the PV module, in case such a diode is not provided with the PV module.

- Full protection against open circuit, accidental short circuit and reverse polarity should be provided.
- Charge controller shall have automatic dusk-dawn circuit based on spv module as sensor for switching on/off the street light without manual intervention.
- The self-consumption of the charge controller shall not be more than 20 mA at rated voltage and rated current.
- Adequate protection shall also be incorporated under no-load conditions (i.e. when the system is ON & the load (LED Lamp is removed)
- The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.
- All capacitors shall be rated for max. temp of 105° C.
- Resistances shall preferably be made of metal film of adequate rating.
- Devices shall have adequate thermal margin at amb. temp. of 55° C
- Fiber glass epoxy of grade FR 4 or superior shall be used for PCB boards.

Technical Requirement/Standards

4. MECHANICAL HARDWARE

- (i) A metallic frame structure (hot dip galvanized with 35*35*5 mm angle) to be fixed on the pole to hold the SPV module(s). The frame structure should be fixed at 30 degree from horizontal facing true south.
- (ii) The pole should be hot dip galvanized pipe as per IS 1161 & IS 4736 i.e. Class B. with 76 mm outer diameter and minimum 3 mm thickness of 6-meter length. The pole should have the provision to hold the weather proof lamp housing individually as per case. SPV panel shall be mounted on pole. The mounting structure shall be fixed in the center of GI tubular pole made flat at fixing end, square angle adjusting plate of 115 mm size 5 mm thick shall be provided. So that SPV panel can be fixed at inclination of 30 degree from horizontal.
 - (a) The metallic arm for holding the light assembly should be set at a suitable angle to maximize uniform illumination of desired level over the specified area (4-meter-wide road). The arm length of luminary holder from pole should be 0.6 meter for its easy approachability for repairing and replacement.
 - (b) Two 10 mm steal bar of 300 mm length should be inserted at the interval of 25 mm from bottom of the pole

iii) ELECTRIC CABLE

The electric cable used shall be twin core PVC insulated water and UV resistance copper cable of minimum size 1.5 mm. Cable shall meet IS 1554 / 694 Part 1:1988

& shall be of 650 V/ 1.1 kV

5. OTHER FEATURES

A toll free number (i.e. 1800 180 0005) of IVRS of UPNEDA and 14 digit UID number of minimum thickness 5mm and height of letter should be at least 25mm (issued/provided by UPNEDA) is to be embossed / punch/ nut-bolted strip on pole between 1-1.5 meter above from ground level by contractor/ bidder, which in case of non-working/ operational problems etc of system will be dialed by the beneficiary etc to lodge a complaint in respect of system problems. The suitable sign board of 500 mm x 300 mm size powder coated MS Sheet assigned by UPNEDA should be installed on pole under different schemes as per the requirement. The IVRS will divert the complaint to Contractor/ bidder through e-mail, SMS etc. The contractor/ bidder will have to rectify the same to make/ restore the system to working position within 72 hours in the warrantee period of 5 years, failing which the system may be get rectified on contractor/ bidder cost and the cost will be recovered by contractor/ bidders pending claims what so ever and appropriate action as per noncompliance etc of agreement will be considered / taken.

6. INSTALLATION OF SYSTEM:

The system should be properly installed at site. The SPV module mounting structure along with pole should be properly grouted depending upon the location and requirement of the site. The grouting should be such that it must withstand the maximum wind speed /storm. The pole should be grouted with CC mixture of 1:2:4 of dia 300 mm having depth of 1000 mm and 200 mm above ground level with 200 mm dia. The successful Bidder provides the foundation drawing. Adequate space should be provided behind the PV module/array for allowing unobstructed air flow for passive cooling. Cables of appropriate size should be used to keep electrical losses to a bare minimum. All wiring should be in a proper conduit or capping case. Wire should not be hanging loose. Any minor items which are not specifically included in the scope of supply but required for proper installation and efficient operation of the SPV systems, is to be provided by the manufacturer as per standards.

7. AUTHORIZED TESTING LABORATORIES/ CENTERS

1. Test certificates of complete solar street lighting system as per specifications laid down in this tender should be from MNRE/NABL Accredited test Lab should be submitted. The test lab must have facilities for SPV module performance, Lithium Battery capacity, electronics and lumens testing.

8. WARRANTY

The mechanical structures, electrical works including charge controllers/ maximum power point tracker units/DC circuit drivers/Luminaire, storage

batteries, etc. and overall workmanship of the SPV lighting systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years. The SPV module should be warranted for 25 years.

9. TRACEABILITY OF THE PRODUCT TO BE SUPPLIED

In order to prevent the misuse of the product such as unauthorized sale or diversion to the open market, the following incorporation shall be made in the product.

- a) Engraving (or) Screen printing of UPNEDA at a suitable place on the main components viz., SPV Panel, LED Lighting Units to be used in the installation of the solar street lighting systems.
- b) The system unique ID number as provided by UPNEDA shall be permanently embossed / punch or a metallic strip nut-bolted / riveted to or directly embossed/punch on pole of the system. The UID number painting or marking will not be allowed.
- c) Sign board as prescribed by UPNEDA should be fixed on pole.

WARRANTY AND MAINTENANCE

1. The PV modules will be warranted for a minimum period of 25 years from the date of supply. (Output wattage should not be less than 90% at the end of 10 years and 80% at the end of 25 years).
2. The mechanical structures, electrical components including evacuation infrastructure and overall workmanship of the solar plant system must be warranted for a minimum of 5 years from the date of commissioning and handing over of the system.
3. The Comprehensive Maintenance (within warranty period) may be executed by the firm themselves or through the authorized dealer/ service center of the firm in the concerned district/Division.
4. UPNEDA is imparting training to ITI/Diploma holders under “Suryamitra Skill Development Program”. The successful contractor(s) should engage them in their service centers to provide necessary repairs and maintenance service including installation of the systems during the time of execution. Necessary maintenance spares for five years trouble free operation shall also be supplied at service centres.
5. The contractor/ bidder 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 7 days of issue of any such complaint by the purchaser.
6. The service personnel of the Successful Bidder will make routine quarterly maintenance visits. The maintenance shall include thorough testing & replacement of any damaged parts Apart from the any complaint registered/ service calls received / faults notified in the report generated

by the IVRS should be attended to and the system should be repaired/ restored/ replaced within 72 hrs

7. The deputed personnel shall be in a position to check and test all the components regularly and upload in on UPNEDA System Dash-Board.
8. Normal and preventive maintenance of the systems will also be the duties of the deputed personnel during quarterly maintenance visits.
9. During operation and maintenance period of the systems, if there is any loss or damage of any component due to miss management/miss handling or due to any other reasons pertaining to the deputed personnel, what-so-ever, the supplier shall be responsible for immediate replacement/rectification. The damaged component may be repaired or replaced by new component.
10. The successful bidder must appoint Surya Sakhi wherever available (“Surya Sakhi” who will be members of Self-Help Groups under the Deendayal Antyoday Yojna National Rural Livelihood Mission) for the operation and maintenance (O&M) of the projects. 2.5% of the Project Cost will be provided to Surya Sakhi for 5 years O&M by the successful bidders. The bidders are responsible for appointing the Solar Sakhi and establishing an agreement for the operation and maintenance of the solar street projects for a period of 5 years.
11. The successful bidders must appoint one staff member at HO, UPNEDA, Lucknow for a dedicated call center of street light projects to ensure daily functioning of street lights.

11 Forms – Part I: Technical

11.1 Form A: Covering Letter

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

.....
.....

To:
The Director,
Uttar Pradesh New and Renewable Energy
Development Agency (UPNEDA)
Vibhuti Khand, Gomti Nagar,
Lucknow- 226010, U. P.

Subject: - Offer in response to Bid No: 01/UPNEDA/ 18 watt Solar Street Lighting System /2024-25

Sir,

We hereby submit our offer in full compliance with terms & conditions of the above Bid without any deviations.

We confirm that, we have the capability to supply, install and carryout 5 years Comprehensive warranty & maintenance of 18 watt Solar Street Lighting System at various districts of Uttar Pradesh.

We are fully agreed with Terms & Conditions, Technical Specifications, and Warranty with 5 years of comprehensive maintenance and Payments Conditions etc laid down in this bid document.

In line with the requirement of the Bid Documents, we have uploaded the following documents to the Bid Form:

- a. **Form A:** Covering Letter
- b. **Form B:** General Particulars of the Bidder
- c. **Form C:** Checklist
- d. **Proof D:** Proof of payment or demand draft for cost of payment of the tender document.
- e. **Form E:** Earnest Money Deposit to be submitted as BG from any nationalized or scheduled bank in the specified format
- f. **Form F:** Bidder documentary evidence in support of the Pre-Bid Eligibility Criteria
- g. **Form G:** Schedule of Experience (Supply & Installation)
- h. **Form H:** Declaration on Notarized Affidavit that the information provided by the Bidder is true to the best of its knowledge, specifically pertaining to the experience furnished & conflict check

- i. **Form I:** Format of Performance Bank Guarantee (PBG)
- j. **Form J:** Format for bid security declaration
- k. **Form K:** Format for power of attorney
- l. **Form L:** Format for Joint Commissioning and Handing over certificate /Warrantee Card.
- m. **Form M:** Certificate of UPNEDA Project Officer
- n. **Form N:** Format: Technical Bid
- o. The Bid document issued by UPNEDA, amendments / corrigendum / interpretations/ addendum/clarifications etc. for the work, if any, duly signed by the Bidder as a token of unconditional acceptance.
- p. Audited Profit and Loss Account and Balance sheet along with CA certificate (Turnover and net worth) for the last three financial years are to be enclosed.
- q. Copy of Certificate of Incorporation.
- r. Copy of the GST number of the firm.
- s. Copy of Permanent Account Number (PAN) issued by IT department.
- t. Information regarding ex-employees of UPNEDA or its subsidiary companies working in the bidder organization if any. The bidder can use its own format regarding the same.
- u. Memorandum and Article of Association
- v. Any other information, the Bidder desires to furnish in connection with this Bid.

Until a formal / legally binding Contract is prepared and executed between us, this bid, together with your written acceptance thereof in the form of your Notifications of Award shall constitute a Bid Contract between us for all legal purpose.

We understand that you are not bound to accept the lowest or any bid that you may receive or might have received.

We, hereby, declare that the persons or firms interested in this proposal are named herein and that no person or firm other than mentioned herein have any interest in this proposal or in the Contract to be entered into, if the award is made on us. This proposal is made without any connection with any other person, firm or party likewise submitting a proposal of their own, and without any collusion or fraud.

Thanking You.

Regards,

Signature of the Authorized Representative:

Full Name of the Authorized Representative & Address of the Firm

Date with Seal:

11.2 Form B: General Particulars of the Bidder

Key Information		
1	Name of Bidder	
2	Postal Address	
3	Mobile no.	
4	Telephone, Telex, Fax No	
5	E-mail	
6	Web site	
7	Name, designation and Mobile Phone No. of the representative of the Bidder to whom all references shall be made	
8	Name and address of the Indian/foreign Collaboration if any	
9	Have anything/extra other than price of items (as mentioned in price Schedule) been written in the price schedule.	
10	Have the Bidder to pay arrears of income tax. If yes up to what amount?	
11	Have the Bidder ever been debarred By any Govt. Deptt./ Undertaking for undertaking any work?	
12	Details of offer (please mention number of pages and number of Drawings in the hard copy)	
13	Reference of any other information attached by the tenderer (please Mention no. of pages & no. of drawings)	

Signature of the Authorized Representative:

Full Name of the Authorized Representative & Address of the Firm

Date with Seal:

11.3 Form C: Checklist

Sr. No.	Eligibility Criteria	Particulars	Documents to be submitted	Particulars in brief of the Documents to be submitted by the Bidder.
1	Tender Fee & Earnest Money	Tender Fee of Rs 11800/- (inclusive of GST) in the form of DD or RTGS/NEFT or any other online mode. The bidder should submit EMD in the form of BG of 2 % of Estimated Cost.	Bank Guarantee	As Annexure-1
2	Company Eligibility	The bidder should be a firm registered/incorporated under Companies Act, 1956 or Companies Act, 2013/ and further amendment (s), or a registered partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2002)/ Proprietorship. (System integrators are also allowed to participate in the bid.)	Certificate of Incorporation issued by the Registrar of Companies and	Relevant certification proof showing the establishment of firm in respective category.
3	Test Report	Bidder should have valid Test Certificate for the tendered Solar Street Lighting System (complete system) / Main components (i.e PV Module, Battery & LED Lighting Unit) of Solar Street lighting system issued from MNRE authorized testing center or NABL accredited test lab. The test report should be valid and not older than April 2022. Authorization Letter in the name of Bidder issued from OEM.	Test report of MNRE/NABL accredited lab----- ----- Manufacturer Authorization Certificate of Main components (i.e. PV Module, Battery & LED Lighting Unit) of solar High Mast Lighting system.	<ul style="list-style-type: none"> • Test report no: • Issuing date: • Name of Lab:
4	GSTIN	A copy of valid GSTIN registration certificate	Valid GSTIN Registration Certificate	Issuing date:

Sr. No.	Eligibility Criteria	Particulars	Documents to be submitted	Particulars in brief of the Documents to be submitted by the Bidder.
5	Financial Turnover	Bidders should have Overall Average Annual Turnover (ATO) in the best performing three year of last five financial year i.e, 2019-2020, 2020-2021, 2021- 2022, 2022-2023 and 2023-2024 must be at least 30% of the tender cost i.e. Rs 37.74 crores . Out of above mentioned five years, best performing three years will be considered for evaluation of Average Annual Turnover. (For FY 2023-24, provisional Balance sheet applicable if not audited.) This must be the individual Company's turnover. (A summarized sheet of average turnover certified by registered CA should be submitted along with audited Balance Sheet).	Duly authorized copy of audited annual report/Balance Sheet for last five years is to be submitted by respondent along with CA certificate.	M/s _____ 2019-2020:..... 2020-2021:..... 2021-2022:..... 2022-2023:..... 2023-2024:..... Average turnover Rs.....
6	Technical Experience	Past Performance: The bidder must be engaged in the above said business in last Five years i.e. 2019-2020, 2020-2021, 2021-22, 2022-2023 and 2023-2024. However, Work experience regarding supply and installation of minimum 30% of bid quantity i.e. 18000.nos. of LED based Solar Street Light /Solar LED High Mast Lighting Projects/Solar Heritage High Mast/Smart Solar Street Light or all in collectively from any Central/State Govt. Organization (including local body or autonomous institutions working under it.)/Company. (If Bidder provides work experience regarding supply, installation and commissioning from private company, GPS location or Geo tagging details of the installed systems is required duly certified by the concerned Govt. Department/Organisation, also bidder must provide the certificate of incorporation of respective company.)	Work order copies/ LoA's/Completion Certificates from registered central/state (including local body or autonomous institutions working under it.) / Company.	As per Annexure-5
7	Net worth	The bidder's Net worth as on the last day of preceding financial year must be positive.	Duly authorized copy of audited annual report is to be submitted along with a practicing CA's certificate.	

Sr. No.	Eligibility Criteria	Particulars	Documents to be submitted	Particulars in brief of the Documents to be submitted by the Bidder.
8	Notarized Affidavit by the Bidder	<p>1. An undertaking that the service centers will be opened in allotted district and list will be submitted before supply and installation for verification</p> <p>2. Bidder should not have been Debarred/blacklisted by any of the State/Central Government or organizations of the State/Central Government. (A notarized affidavit Should be submitted on non-judicial stamp paper)</p> <p>3. Bidder should not have any dues of income tax and GST of the State/ Central Government. (A notarized affidavit Should be submitted on non-judicial stamp paper)</p> <p>4. All the information and documents submitted in the Bid are correct</p> <p>5. General and specific/Technical terms of contract are acceptable to Bidder in to without any deviation.</p>	A notarized affidavit Should be submitted on non-judicial stamp paper.	
9.	Technical Bid	TECHNICAL BID		

Note:

- *Bids received without supporting documents for the various requirements mentioned in the Bid document may be rejected.*
- *No extra paper Other than required as above should be submitted in Bid.*

**Signature of the Authorized Representative:
Full Name of the Authorized Representative & Address of the Firm**

Date with Seal:

11.4 Form D: Proof of payment or demand draft for cost of payment of the tender document.

Signature of the Authorized Representative:

Full Name of the Authorized Representative & Address of the Firm

Date with Seal:

11.5 Form E: Earnest Money Deposit to be submitted as BG from any nationalized or scheduled bank in the specified format

[Duly Notarized on Rs. 100/- Stamp Paper]

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

In consideration of the (Insert name of the Bidder) submitting the Bid inter alia for Response to RfS for **“Supply, installation, testing and commissioning of 18 watt LED based Solar Street Lighting System with RMS including 5 years comprehensive warranty, Operation and maintenance for various districts /sites of Uttar Pradesh as per specification given in Scope of Work of Bid Document”** for meeting the requirements of UPNEDA in response to the Bid dated[Insert date of Bid] issued by UPNEDA, (hereinafter referred to as UPNEDA) and such UPNEDA / Procurer(s) agreeing to consider the Bid of [Insert the name of the Bidder] as per the terms of the Bid, the(Insert name and address of the bank issuing the EMD, and address of the head office) (here in after referred to as “Guarantor Bank”) hereby agrees unequivocally, irrevocably and unconditionally to pay to UPNEDA or its authorized representative at Uttar Pradesh New & Renewable Energy Development Agency, VibhutiKhand, Gomti Nagar, Lucknow forthwith on demand in writing from UPNEDA or any representative authorized by it in this behalf an amount not exceeding Rupees (Rs.....) only [Insert amount not less than as calculated as per Clause of Earnest Money Deposit of Bid] on behalf of M/s.[Insert name of the Bidder].

This guarantee shall be valid and binding on the Guarantor Bank up to and including (Insert date of validity of EMD in accordance with Section 3 Clause 3.7 Earnest Money Deposit of this RfS) and shall not be terminable by notice or any change in the constitution of the Guarantor Bank or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between concerned parties.

Our liability under this Guarantee is restricted to Rupees (Rs.....) only. Our Guarantee shall remain in force until [Date to be inserted as per validity mentioned in Clause of Earnest Money Deposit] UPNEDA / Procurer(s) or its authorized representative shall be entitled to invoke this Guarantee until [Insert Date validity mentioned in Section 3 Clause 3.7 Earnest Money Deposit,].

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand from UPNEDA / Procurer(s) or its authorized representative, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to UPNEDA / Procurer(s) or its authorized representative.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection, disputes, or disparities raised by the Bidder or any other person. The Guarantor Bank shall not require UPNEDA / Procurer(s) or its authorized representative to justify the invocation of this BANK GUARANTEE, nor

shall the Guarantor Bank have any recourse against UPNEDA / Procurer(s) or its authorized representative in respect of any payment made hereunder.
This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Lucknow shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring, liquidation, winding up, dissolution or any other change in the constitution of the Guarantor Bank. This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly, UPNEDA / Procurer(s) or its authorized representative shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder to enforce any security held by UPNEDA / Procurer(s) or its authorized representative or to exercise, levy or enforce any distress, diligence or other process against the Bidder.

The Guarantor Bank hereby agrees and acknowledges that UPNEDA / Procurer(s) shall have a right to invoke this Bank Guarantee either in part or in full, as it may deem fit. Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs (Rs..... only) and it shall remain in force until [Date to be inserted on the basis of Clause of Earnest Money Deposit of Bid],

We are liable to pay the guaranteed amount or any part thereof under this BANK GUARANTEE only if UPNEDA / Procurer(s) or its authorized representative serves upon us a written claim or demand.

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this day of at

Witness:

Signature Name:

1.

Signature Name and address.

Designation with Bank Stamp

2.

Signature Name and address

Attorney as per power of attorney No.

For: [Insert Name of the Bank]

Banker's Stamp and Full Address:

Dated this day of 20.....

11.6 Form F: Bidder documentary evidence in support of the Pre-Bid Eligibility Criteria

Sr. No.	Particulars	Details Furnished by the Bidder	Documentary Evidence Provided (Y/N)
1	The bidder should be a firm registered/incorporated under Companies Act, 1956 or Companies Act, 2013/ and further amendment (s), or a registered partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2002)/ Proprietorship. (System integrators are also allowed to participate in the bid.)		
2	Bidder should have valid Test Certificate for the tendered 18 watt Solar Street Lighting System (complete system) / Main components (i.e PV Module, Battery & LED Lighting Unit) of Solar Street lighting system issued from MNRE authorized testing center or NABL accredited test lab		
3	Past Performance: The bidder must be engaged in the above said business in last Five years i.e. 2019-2020, 2020-2021, 2021-22, 2022-2023 and 2023-2024. However, Work experience regarding supply and installation of minimum 30% of bid quantity i.e. 18000.nos. of LED based Solar Street Light /Solar LED High Mast Lighting Projects/Solar Heritage High Mast/Smart Solar Street Light or all in collectively from any Central/State Govt. Organization (including local body or autonomous institutions working under it.)/Company. (If Bidder provides work experience regarding supply, installation and commissioning from private company, GPS location or Geo tagging details of the installed systems is required duly certified by the concerned Govt. Department/Organisation, also bidder must provide the certificate of incorporation of respective company.)		
4	The Bidder should have valid GSTIN registration certificate. A copy of which should be enclosed.		
5	Bidder Turn over Criteria: Bidders should have Overall Average Annual Turnover (ATO) in the best performing three year of last five financial year i.e, 2019-2020, 2020-2021, 2021- 2022, 2022-2023 and 2023-2024 must be at least 30% of the tender cost i.e. Rs 37.74 crores . Out of above mentioned five years, best performing three years will be considered for evaluation of Average Annual Turnover. (For FY 2023-24, provisional Balance sheet applicable if not audited.) This must be the individual Company's turnover. (A summarized sheet of average turnover certified by registered CA should be submitted along with audited Balance Sheet).		
6	The bidder's Net worth as on the last day of preceding financial year must be positive.		

Signature of the Authorized Representative:

Full Name of the Authorized Representative & Address of the Firm

Date with Seal

11.7 Form G: Schedule of Experience (Supply & Installation)

(Please attach certificates in support from the concerned nodal agency /Govt. Organization/ MNRE authorized Agency /Project owner for work executed in case of private owner the joint commissioning report along with officer of Nodal agency/govt organization)

S. No	Work Order No	Order Date	Value of Work	Deptt/Agency/Beneficiary for which work carried out	Description of Project	Supply/Completion Period (with from/ to dates)	Quantity (Nos)	Ref. No. & Date of Material Receipt	Certificate s/PO/Work Completion Certificate s.
1									
2									
3									

Signature of the Authorized Representative:

Full Name of the Authorized Representative & Address of the Firm

Date with Seal:

11.8 Form H: Declaration on Notarized Affidavit that the information provided by the Bidder is true to the best of its knowledge, specifically pertaining to the experience furnished & conflict check

(To be submitted by the Bidder along with the Bid)

(To be executed on non-judicial stamp paper of suitable value)

We _____ (hereinafter referred to as the Bidder) being desirous of Bid 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. The Bidder is fully aware of all the requirements of the Bid document and agrees with all provisions of the Bid document.
2. The Bidder is capable of executing and completing the work as required in the Bid.
3. The Bidder accepts all risks and responsibilities directly or indirectly connected with the performance of the Bid.
4. The Bidder has no collusion with other Bidders, any employee of UPNEDA or with any other person or firm in the preparation of the bid.
5. The Bidder has not been influenced by any statement or promises of UPNEDA or any of its employees, but only by the Bid document.
6. The Bidder is financially solvent and sound to execute the work.
7. The Bidder is sufficiently experienced and competent to perform the contract to the satisfaction of UPNEDA.
8. The information and the statements submitted with the Bid are true.
9. The Bidder is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10. The Bidder has not been debarred from any type of work by UPNEDA and or Government undertaking/ Department.
11. This offer shall remain valid for acceptance for 3 Months from the date of opening of financial part of Bid.
12. The Bidder gives the assurance to execute the e-tendered work as per specifications terms and conditions.

Signature of the Authorized Representative:

Full Name of the Authorized Representative & Address of the Firm

Date with Seal:

Witness Signature-----

Name & Address of the witness-----

11.9 Form I: Format of Performance Bank Guarantee (PBG)

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

In consideration of the ----- [Insert name of the Bidder] (hereinafter referred to as selected Successful Bidder (SB)) submitting the response to Tender document inter alia for selection of the Project for the capacity of Nos in response to the Bid No _____ dated..... issued by UPNEDA and UPNEDA considering such response to the Tender document of[insert the name of the Successful Bidder] (which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and issuing Letter of allocation No ----- to----- (insert the name of the Successful Bidder(SB)) as per terms of Tender document and the same having been accepted by the selected SB or a Project Company, M/s ----- {a Special Purpose Vehicle (SPV) formed for this purpose}, if applicable]. As per the terms of the Bid document, the _____ [insert name & address of bank] hereby agrees unequivocally, irrevocably and unconditionally to pay to UPNEDA at _____ [Insert Name of the Place from the address of the UPNEDA] forthwith on demand in writing from UPNEDA or any Officer authorized by it in this behalf, any amount upto and not exceeding Rupees----- [Total Value] only, on behalf of M/s _____ [Insert name of the selected Successful Bidder(SB)/ Project Company]

This guarantee shall be valid and binding on this Bank up to and including.....[insert date of validity in accordance with Bid document].and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to Rs. _____ (Rs. _____ only).

Our Guarantee shall remain in force until.....UPNEDA shall be entitled to invoke this Guarantee till

The Guarantor Bank hereby agrees and acknowledges that UPNEDA shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by UPNEDA, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to UPNEDA. The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by -----[Insert name of the Successful Bidder(SB)/ Project Company as applicable] and/or any other person. The Guarantor Bank shall not require UPNEDA to justify the invocation of this BANK

GUARANTEE, nor shall the Guarantor Bank have any recourse against UPNEDA in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Lucknow shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly UPNEDA shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Successful Bidder(SB) / Project Company , to make any claim against or any demand on the Successful Bidder(SB)/ Project Company or to give any notice to the Successful Bidder(SB)/ Project Company or to enforce any security held by UPNEDA or to exercise, levy or enforce any distress, diligence or other process against the Successful Bidder(SB)/ Project Company.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. _____ (Rs. _____ only) and it shall remain in force until We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if UPNEDA serves upon us a written claim or demand.

Signature _____
Name _____
Power of Attorney No. _____
Email ID _____
For ____ [Insert Name of the Bank]__
Banker's Stamp and Full Address.
Dated this ____ day of ____, 20__

Witness:

1.

Signature

Name and Address

Notes: The Stamp Paper should be in the name of the Executing Bank and of appropriate value.

11.10 Form J: Format for Bid Security Declaration

(To be stamped on non – judicial stamp paper as per the stamp act of the state where the document is made)

Ref: _____

Date: _____

Subject: Declaration of bid security requirement.

We, _____(insert name of the Bidder) hereby provide this undertaking to UPNEDA, in respect to our response to Bid vide Bid No._____dated_____. We undertake that we will abide by the provisions of the Bid for the activities pertaining to submission of response to

Tender, during the bid validity period. We undertake not to withdraw or modify our bid during the bid validity period, in line with provisions of the Tender.

Incase we withdraw or modify our response to the Bid during the bid validity period, or violate other provisions of the Tender which make the bid non responsive, we, _____(insert name of the bidder) including our Parent, Ultimate Parent, and our Affiliates shall be suspended/debarred from participating in upcoming tenders issued by any department of Uttar Pradesh Government for a period of 5 years from the date of default as notified by UPNEDA.

(Name and Signature of the Authorized Signatory)

11.11 Form K: Format for Power of Attorney

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Power of Attorney to be provided by the Bidding Company in favour of its representative as evidence of authorized signatory’s authority.

Know all men by these presents, We (name and address of the registered office of the Bidding Company as applicable) do hereby constitute, appoint and authorize Mr./Ms. (name & residential address) who is presently employed with us and holding the position of..... as our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for implementation of system in response to the BID DOCUMENT. No..... dated issued by UPNEDA, Lucknow including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the UPNEDA may require us to submit. The aforesaid Attorney is further authorized for making representations to the UPNEDA, Lucknow and providing information / responses to UPNEDA, Lucknow representing us in all matters before UPNEDA, Lucknow and generally dealing with UPNEDA, Lucknow in all matters in connection with this Bid till the completion of the bidding process as per the terms of the above mentioned BID DOCUMENT.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the BID DOCUMENT.

Signed by the within named

..... **(Insert the name of the executants company)**

through the hand of Mr.duly authorized by the Board(vide Board resolution No____) to issue such Power of Attorney

Dated this day of

Accepted

Signature of Attorney

(Name, designation and address of the Attorney)

Attested.....

(Signature of the executant)

(Name, designation and address of the executant)

.....

Signature and stamp of Notary of the place of execution

Common seal of has been affixed in my/our presence Pursuant to Board of Director's Resolution dated.....(Board of Director's Resolution is also enclosed)

WITNESS

**i)
(Signature)**

Name.....

Designation

**ii)
(Signature)**

Name.....

Designation

Notes: The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

**11.12 Form L: JOINT COMMISSIONING AND HANDING OVER CERTIFICATE
/WARRANTEE CARD**

**Uttar Pradesh New and Renewable Energy Development Agency
(UPNEDA)**

JOINT COMMISSIONING AND HANDING OVER CERTIFICATE /WARRANTEE CARD:

(To be submitted in 3 copies)

It is hereby certified that following SOLAR PV LIGHTING SYSTEM with following details has been supplied, installed and commissioned at site:-

- (a) Name of District:**
- (b) Name of Firm:**
- (c) Name of System/Plant:**
- (d) Work Order no. and Date:**

Sl.	Items	Details
1	Name of system:	
	(Solar Street Lighting System)	
2	Agreement number & Date:	
3	Capacity of System:	
4	Name of Firm with full address:	
	Contact person name and mobile no -Mandatory	
5	Name of Beneficiary with full address:	
	District:	
	Pin code:	
	Contact person with mobile number- Mandatory	
6	Exact location on installation Latitude and longitude exactly	
	One photo of system showing longitude and latitude in photo	
7	Date of installation:	
8	Warrantee expire on:	
9	Remote Monitoring System (Username & Password)	
10	Surya Sakhi Details	
11	Name & Address of the local service Centre:	
	Contact person name with mobile no - Mandatory	
	Email address:	

Sl.	Items	Details
DETAILS OF INSTALLATION OF SOLAR MODULES		
10	a) SPV Modules (Multi / Poly Crystalline)	a)
	b) Sr. No of module: (Use separate sheet in case of more module)	b) From ----- to -----
	c) Make of module:	c)
	d) Model No:	d)
	e) Each Module wattage -----and number of module-----	e)
	f) Total wattage of module installed:	f)
DETAILS OF INSTALLATION OF BATTERY		
11	a) Details of Battery	a)
	b) Type of Battery (Lithium)	b)
	c) Sr. no of Battery : (Use separate sheet in case of more Battery)	c) From ----- to -----
	d) Make of Battery :	d)
	e) Model No:	e)
	f) Battery Voltage at the time of installation :	f)
	g) Type of Cell (in case of Lithium, Cylindrical/Prismatic) :	g)
	h) Year of Manufacturing :	h)
INSTALLATION / FIXING OF LUMINAIRE		
	a) Name of Manufacturer	a)
12	b) Casing of Luminaire:	b)
	c) Sr. no of Luminaire Installed : (Use separate sheet in case of more)	c) From ----- to -----
	d) Model No :	d)
	e) Height of installed Luminaire (in case of Solar Street Light and Solar High Mast)	e)
	f) Number of LED in Luminaire	f)
	g) Wattage of Luminaire/ Batten	g)
	h) The Luminaire should have Suitable UV Stabilized Polycarbonate Diffuser:	h) Yes or No

Sl.	Items	Details
INSTALLATION OF POLE / MOUNTING STRUCTURE AND OTHER HARDWARE		
17	a) Specify the Name of Manufacture of POLE / STRUCTURE / HARDWARE	
	b) Length and Size of installed Pole (in case of Solar Street Light and Solar High Mast)	length in meter.----- and dia in mm -----
	c) Grouting of Pole (300 x 300 x 1000 mm below the ground) and (200 x 200 mm above the ground) in case of Solar Street Light.	Yes or No
	d) RCC Foundation with iron rings of Pole (600 x 600 x 1250 mm deep) and (500 mm above the ground level) in case of Solar High Mast Lighting Systems.	Yes or No
	e) Installed foundation bolts 4 / 6 / 8 nos. size (1200 mm x 20 mm dia)	Yes or No
	f) Fixing of Module and LED light as per agreement	Yes or No
	g) Fixing of Battery bank at suitable height of pole (in case of Solar Street Light and Solar High Mast)	Yes or No
	h) UID no. is Properly embossed / Punched on the system / Pole	Yes or No
	i) Toll Free no Properly embossed / Punched on the system / Pole	Yes or No
	j) Sign board installed at pole properly	Yes or No
	o) All the cable should be multi strand copper conductor properly insulated and sheathed. The maximum voltage drop should not exceed 1%.	Yes or No
	q) Lightning protections is provided	Yes or No
	s) Training for operation & maintenance of the system	Yes or No
	t) Technical literature, operation & maintenance manual with in English/Hindi	Yes or No
	w) Take photograph of system along with beneficiaries	Enclose
	x) Others pl add separate if required	Separate sheet added/not added

Note: Pl write NA in front of column which is not applicable.

Certified that the system is installed as per technical specifications laid down in the above agreement, if any shortcoming is found in future, will be replaced/rectify immediately.

(Signature)Name of Beneficiary

Authorized Signatory of Firm

Name:

Designation:

Mobile No

11.13 Form M: CERTIFICATE OF UPNEDA PROJECT OFFICER

1. Checked and verified the above details.
2. The plant/ system has been installed & commissioned in good condition as per technical specification of the agreement and PDI report.
3. The System is working Satisfactorily since its installation -----
4. The out put of System is checked found satisfactorily as per agreement. (The energy generation report for power plant should be enclosed)
5. The Instruction Manual, Guarantee Card and maintenance pass book has been provided to beneficiaries.
6. The Supplier has provided basic training to the beneficiaries for day to day care & maintenance of the system/ plant.
7. The name, complete address, contact person and contact number along with e-mail address of the supplier and local service center has been provided to the beneficiaries.

Place

Date:

(Signature)

Name:

Sr./Project Officer/In charge

UPNEDA, Seal

11.14 Form N: Technical Bid: To be submitted with Technical bid

Sr. No	Description	To be furnished by the Contractor/Bidder
A	Solar PV Module	
	Type of Module:	
	Manufacturer of cell	
	Manufacturer of Module	
	Max power at STC Pmax (W)	
	Voltage at Max power Vmp(V)	
	Current at Max power Imp(A)	
	Open circuit voltage Voc (V)	
	Short circuit current Isc (A)	
	Module efficiency	
	Cell efficiency	
	Fill factor	
B	Battery (Li-Fe-Po4)	
	Make of battery pack	
	Make of cell	
	Capacity of Battery	
	Capacity of each cell of battery	
	No of cell	
	Design Cycle Life of battery	
C	Electronics	
	Make	
	Charger Type	
	Operating voltage	
	Temperature compensated set points	
	Details of Indicators provided	
	Details of Protections provided :	
	i. Battery over charge set value	
	ii. Deep discharge set value	
	iii. Short circuit	
	iv. Open circuit	
	v.Reverse polarity	
	vi. Others	
D	LED Lighting Unit	
1	Make of Luminarie	
2	Power consumption of LED lighting unit	
3	No of LEDs	
4	Wattage of each LED	
5	Driver Consumption	
6	Make and origin of LED	
7	Lumens output	
8	LED DC Current Regulation	
9	Input Voltage	
10	Beam Angle	
11	CRI	
12	LED Efficacy	
13	Luminarie Efficiency	
14	Other features (IP----)	
15	Average lux at work table.	
E	Module Mounting frame vertically on Pole	
1	Material used	

Sr. No	Description	To be furnished by the Contractor/Bidder
2	Whether Protection against corrosion provided	
F	Battery housing om integrated pole	
1	Material	
2	Dimension	
3	Whether Protection against corrosion Provide	
4	locking arrangement	
G	Connecting cables/wire	
1	Materials and size	
2	Details of Switches (Nos.)	
3	Any other Details	

Note: - Makes /Manufactures name should only be mention in the format (equivalent/ other MNRE approved etc such thing are not acceptable)