



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

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

**BID DOCUMENT**

**FOR**

Supply, erection, testing and commissioning including operation & comprehensive warranty maintenance for 5 years of Solar Based Drinking water Kiosks at various solar cities of Uttar Pradesh as per specification given in Scope of Work of Bid Document.



**Bid No: - 02/UPNEDA/Solar Based Drinking water Kiosks /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](http://www.upneda.org.in) E-mail: [ho\\_rps@rediffmail.com](mailto: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      | RO          | Reverse Osmosis  |
| 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       | <b>Bid no:</b>   | 02/UPNEDA/ Solar Based Drinking water Kiosks /2024-25   |
| 2       | <b>Particulars of the work:</b>  | Supply, erection, testing and commissioning including operation & comprehensive warranty maintenance for 5 years of Solar Based Drinking water Kiosks at various solar cities of Uttar Pradesh as per specification given in Scope of Work of Bid Document. |
| 3       | <b>Tentative Quantity (Nos)</b>  | <b>20 Nos</b><br>The above said quantity is dependent on availability of fund.  |
| 4       | <b>Estimated Cost including GST (Rs)</b>   | <b>Rs 3.99 Crores</b>   |
| 5       | <b>Period of Work</b>  | Within 4 months from the date of issuance of Work Order or as specified by UPNEDA   |
| 6       | <b>E-Bid Portal (website):</b>   | etender.up.nic.in   |
| 7       | <b>E-Tender Cost:</b>  | Tender Fee of Rs 11800/- (inclusive of GST) in the form of DD or RTGS/NEFT or any other online mode.  |
| 8       | <b>Earnest money deposit (EMD):</b>  | The bidder should submit EMD in the form of BG of 2 % of Estimated Cost.  |
| 9       | <b>Performance Security</b>  | 5% of Work Order Value  |
| 10      | <b>Availability of tender document on e-tender Portal</b>                            | From: 13.11.2024  |
| 11      | <b>Pre-Bid Meeting</b>   | No  |
| 12      | <b>Bid submission end date &amp; Time</b>  | On: 25.11.2024 upto 6:00 pm   |
| 13      | <b>Online technical Bid Opening date &amp; time</b>                                  | On: 26.11.2024 at 11:30 am  |
| 14      | <b>Financial Bid Opening date &amp; time (Only of technically qualified bidders)</b> | Shall be intimated later  |
| 15      | <b>Consortium/JV Allowed:</b>  | No  |
| 16      | <b>Sub-Contracting Allowed:</b>  | No  |
| 17      | <b>Proposal Language:</b>  | English   |
| 18      | <b>Proposal Currency:</b>  | INR   |
| 19      | <b>Venue of opening of technical &amp; financial Bids</b>                            | UPNEDA Head Office, Vibhuti Khand, Gomti Nagar, Lucknow-226010  |
| 20      | <b>Enquiries/clarifications may be sought by the Bidder from</b>                     | <b>Director,</b><br>Uttar Pradesh New & Renewable Energy Development Agency, Vibhuti Khand, Gomti Nagar, Lucknow<br>Fax: 0522-2720779, 2720829<br>Email: ho_rps@rediffmail.com<br>Website: <a href="http://upneda.org.in">http://upneda.org.in</a>          |
| 21      | <b>Period of validity of rates for acceptance</b>                                    | 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:** Format: Technical Bid
  - n. 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.
  - o. 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.
  - p. Copy of Certificate of Incorporation.
  - q. Copy of the GST number of the firm.
  - r. Copy of Permanent Account Number (PAN) issued by IT department.
  - s. 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.
  - t. Memorandum and Article of Association
  - u. 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) in favour of "Director, UPNEDA", payable at Lucknow. The validity of EMD shall be for a period of 6 months from the Bid Deadline.

1. 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 DD or 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 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](mailto: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.<br><br><b>(System integrators are also allowed to participate in the bid.)</b>   | <b>Duly attested copies of</b><br><b>a. Certificate of Incorporation issued by the Registrar of Companies</b>  |
| 3       | <b>Past Performance:</b> The Bidder should have continuously supplied and installed <b>Solar based Water Kiosk/Solar based RO water Systems for 30% of bid quantity, i.e 06 Nos</b> , in last Five financial years i.e. 2019-20, 2020-21, 2021-2022, 2022-2023 and 2023-2024 to 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 company, | <b>a. Work order copies/ LoA's/Completion Certificates from registered central/state (including local body or autonomous institutions working under it.) / Company</b> |



| Sr. No. | Particulars   | Details   |
|---------|---|---|
|         | 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.  | Valid GSTIN Registration Certificate  |
| 5       | <b>Bidder Turn over Criteria:</b> 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. <b>Rs 1.19 crores</b> . 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. |
| 6       | 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.                                  |

Other Technical Document requirement as per the following: -

| Sr. No. | Particulars  | Details  |
|---------|--|--|
| 1       | Bidder should have valid Test report of complete system/various components <b>(PV module, PCU cum inverter, Battery (LiFePo4) etc)</b> of Solar based Water Kiosk issued from MNRE/NABL accredited test lab. <b>(OEM should have experience of 3 years in manufacturing and supply of the respective items of Bid.)</b><br><b>The test report should be valid and not older than April 2022.</b> | <b>a.</b> Test report of MNRE/NABL accredited lab<br><b>b.</b> Authorization Letter in the name of Bidder issued from OEM. |
| 2.      | <b><u>Notarized Affidavit by the Bidder</u></b><br><br>1. An undertaking that the service centers will be opened in allotted district and list will be submitted before supply   |  |

| Sr. No. | Particulars   | Details   |
|---------|---|---|
|         | <p>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> | <p>A notarized affidavit Should be submitted on non-judicial stamp paper.</p> |
| 3       | <b>TECHNICAL BID- Form M</b>  |   |

**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 capacity/quantity subject to performance, speedy work completion and on availability of fund . The remaining of Bid capacity/quantity shall be awarded among others qualified MSE /Non MSME firms. Allocation will depend on performance. There will be provision on early completion of project with respect to allocation of capacity/quantity.
- e. Minimum 25% of the total order capacity/ 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. UPNEDA reserves the right at the time of awarding the contract to increase or decrease the quantity of works as per terms and conditions.
- l. **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 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 freight 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.
1. prior to expiry of the original time limit, UPNEDA may extend the period of validity for a specified additional period. The request will be made in writing to the Bidder.

## **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 be solely responsible for commencement to completion of the work. It shall be responsible for any loss or damage happens at the work place or during the erection of the plant, not already approved by the UPNEDA, and shall, at its own cost, arrange for repair or compensation.
2. The Contractor/ Bidder shall warranty that the equipment used in installing the plant are new and unused.
3. The Contractor/ Bidder shall provide warranty, of the complete power plant towards any defect in design of the plant, equipment used including spare parts for a period of five (5) years from the date of Commissioning of the plant. The Warranty period shall be 25 Years for the PV modules.
4. Any defect noticed in the power plant during the period of five (5) years from the date of Commissioning of the power plant shall be rectified/replaced by the Contractor/ Bidder on its own motion or on due intimation by the UPNEDA or by the owner of the plant, as the case may be, free of charges.
5. The replacement of the defective component at the cost of Contractor/ Bidder shall be made with similar and/or equivalent make. The replaced component shall not, in any situation, reduce the performance of the plant.
6. The Contractor/ Bidder shall commence the replacement/rectification of the defect within seven (7) days from the date of identification of such defect and shall rectify the defect within mutually agreed time, failure in doing so shall enable the UPNEDA to rectify the defect at the expense of Contractor/ Bidder.
7. The Contractor/ Bidder shall provide warranty certificate along with the Commissioning report to the Beneficiaries/UPNEDA.
8. 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.
9. The contractor/ bidder shall maintain the system under annual maintenance contract with the end user.



10. The contractor/ bidder shall furnish to the Primary Beneficiary at the instruction manuals at the time of submission of commissioning certificate for the plant at each site. The manual so prepared shall include the all diagrams and instructions to operate and maintain the whole plant.
11. Individual copies of the approval of the Electrical Inspectorate or concerned officer of the respective distribution licensee for interconnection of each plant with the distribution system (for the system above 10KW).
12. Hand-Over Agreement: The Contractor/ bidder shall hand-over the respective plant to the UPNEDA after its successful commissioning in excellent condition. Then concerned PO of UPNEDA handover to the end-user of plant. At the time of handing over all the performance tests of the major equipment shall be demonstrated to the user by Contractor and UPNEDA to ensure Generation from the solar photovoltaic power plant. While handing over the plant the Contractor/ bidder shall also hand over all technical documents, literature, instruction manuals, lists of spare part & tools & tackles.

#### **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.

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 bidder 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 bidder 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 or the Consultancy (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 binding 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

- a. Scope of work covers Supply, Installation, Commissioning and five years Comprehensive warranty Maintenance and Operation of Solar Based Drinking water Kiosks at various places as per the technical specification given in this bid.
- b. Operator required for operating each Solar Based Drinking water Kiosks system for 5 years.
- c. Submission of a site survey report with the finalization of the exact location of the Project and the detailed work plan for the purpose of implementation of the Project.
- d. Performance testing of the complete system.
- e. Remote Monitoring System

### TECHNICAL SPECIFICATIONS

The package consists of following systems as follows:-

#### **Solar Based Water Kiosks for Drinking water:**

### TECHNICAL SPECIFICATIONS

- a) Water Kiosk shall be designed considering
  - i. Input water shall be tap water available from municipality.
  - ii. Quality of water dispensed to the end user shall be as per IS 16240:2015 (Reverse Osmosis Based Point of Use Water Treatment System for Drinking Purposes - Specification)
  - iii. Both normal water as well as chilled as per requirement of end user.
  - iv. Temperature of chilled water should be adjustable (in range of 10<sup>0</sup> C to 30°C) as per seasonal requirement.
- b) Water kiosk shall be equipped with a suitable water filtration process to meet BIS 16240 Standard and subsequent amendments.
- c) Raw water storage capacity of 5000 litres and purified water storage capacity of 1000 litres. Both tanks should be stainless steel of minimum 316 grade.
- d) Internal pipeline connection raw water tank, water purification system, purified water tank and water dispensing system shall be of stainless steel of minimum 316 grade.
- e) Water purification and dispensing capacity.
  - i. Water purification capacity of minimum 250 litre/hour
  - ii. Equipped to dispense 1 to 25 litres water in customers' own container.
  - iii. Water dispensing speed should be minimum 10-12 litre/minute
  - iv. Water dispensing shall be 2,000 litre/day
- f) Water kiosk shall be equipped with embedded devices for following purpose:
  - v. Quantitative Monitoring
    - Number of Glasses of water dispensed in a day
    - Number of Bottles of water dispensed in a day
    - Water level in the tank



## vi Water Quality Monitoring

- TDS level of water
  - Temperature of water
  - Hardness
  - pH values of water
- i. Backend Wireless Communication
- GPRS Module for communication with backend web server
  - GPS module for Kiosk Location information
- ii. Data Logger
- Flash Memory bank for logging Sensor / dispensing data
  - Relay Logged info to Server using communication channel
- iii. Multi-Processor Integrated Control System with Interface cables/connectors for integration to provide for the following features:
- GPRS based TCP/IP connectivity with web-based Server system
  - GPS location system
  - Flash based transaction data Logging
  - Relay Unit for controlling water dispensing nozzles as per the location requirements
  - Interface for connecting coin-acceptors
  - Interface for Temperature Monitoring
  - Interface for TDS Monitoring
  - Interface for pH Monitoring
  - Interface for Water Level Monitoring
  - Controller for displaying water purity parameters on LCD/LED display monitor
  - Built in power supply to connect with 12 V/24 V/48 v battery
- iv. Sensors for the purpose of:
- Temperature Monitoring
  - TDS Monitoring
  - pH Monitoring
  - Water Level Monitoring
  - Water Dispensing from One/Three Nozzles through Coin Acceptor
  - Support of 1, 2, 5, 10 rupees coins
  - Sensors support for Monitoring Water Temperature, TDS, PH and Water Level in both tanks
  - Display of Water purity parameters on LCD Display of 14" size
  - Ability to backup data for 48 hours in-case of server/connectivity outage
  - LED display on controller panel box to indicate System Status.
  - Uploading of Transactions and Water parameters data to Server over TCP/IP using GPRS.
  - Fall back to SMS in case GPRS connectivity to server is lost temporarily for reliability purpose
- v. Other Features
- System operation can be enabled/disabled from server
  - Dispense quantities re-configurable from server
  - Operator Log-in, log-out feature
  - System to operate after successful operator login only.

- All water dispensing transactions to be uploaded to server
  - Each dispensing unit shall be independently manageable from the server for coin operation of any value
- g) Disposal of waste water to nearest Sewer drain/ Manhole with proper arrangement with necessary approval.
  - h) Water dispensing system will operate for 16 hours i.e. from 6 AM to 10 PM every day, which may be amended in consultation with competent authority.
  - i) Water Kiosk shall be completely standalone system operated by Solar PV system (with battery backup) with Grid Connection as optional.
  - j) Battery backup shall be sufficient to operate water purification system and dispensing system of water kiosk for minimum 48 hours.

### **Solar photovoltaic (PV) modules:**

- k) The solar PV modules to be used shall be made in India only. The PV modules shall qualify for the latest edition of the IEC PV module qualification test or equivalent BIS standards of crystalline silicon solar cell modules IEC 61215 and IS14286. In addition, the solar PV modules shall conform to the IEC 61730 Part-2 requirements for construction and Part-2 requirements for testing, safety qualification or equivalent IS. The solar PV module shall also conform to the IEC 61701 (salt mist corrosion testing) standards.
- l) The total solar PV array capacity shall not be less than the required capacity and should comprise of solar crystalline PV modules of minimum 300Wp and above wattage each with 72 cells.
- m) Protective devices against surges at the solar PV module shall be provided. Low voltage drop bypass diodes shall also be provided.
- n) Solar PV modules shall be tested and approved by one of the MNRE/ IEC authorized test centers.
- o) The module frame shall be made of corrosion-resistant materials, preferably having anodized aluminum and should have a minimum thickness of 1.5 mm and width 40 mm for sustainability.
  - a) Other general specification for the PV modules and subsystems shall be the following as
    - i. The rated output power of any supplied module shall have a tolerance of +/-3%.
    - ii. The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series-connected modules) shall not vary by more than 2 (two) percent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
    - iii. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for the provision of the bypass diode. The box shall have hinged, weatherproof lid with captive screws and cable gland entry points or may be of a sealed type and IP- 21/20 rated.

- iv. I-V & P-V curves at STC will be provided after installation.
- v. PV modules used in solar power plants 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.
- b) Modules should have an RF identification tag. The following information will be mentioned in the RFID used on each module (This can be inside or outside the laminate but must be able to withstand harsh environmental conditions).
- vi. Name of the manufacturer of the PV module
- vii. Name of the manufacturer of Solar Cells.
- viii. Month & year of the manufacture (separate for solar cells and modules)
- ix. Country of origin (separately for solar cells and module)
- x. I-V curve for the module Wattage,  $I_m$ ,  $V_m$  and FF for the module
- xi. Unique Serial No and Model No of the module
- xii. Date and year of obtaining the IEC PV module qualification certificate.
- xiii. Name of the test lab issuing IEC certificate.
- xiv. Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001.

**Array/Module Mounting Structure:**

- p) Hot dip galvanized MS mounting structures will be used for mounting the modules/ panels/arrays. Each structure will have angle of inclination as per the site conditions to take maximum insolation.
- q) The Mounting structure will be designed to withstand the speed of 200 km/ hour). Suitable fastening arrangement such as grouting and calming will be provided to secure the installation against the specific wind speed.
- r) The mounting structure will be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.
- s) The fasteners will be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.
- t) The total load of the structure (when installed with PV modules) on the terrace will be less than 60 kg/m<sup>2</sup>.
- u) The minimum clearance of the structure from the roof level will be 300 mm.
- v) The legs of the structures will be provided with hot dip GI angles, fixed and grouted in the RCC foundation columns with 1:2:4 cement concrete. The work includes necessary excavation, concreting, back filling, shoring & shuttering etc.

**Array/ Main Junction Boxes (JBs):**

- w) The Junction Boxes (JBs) made of GRP/FRP/ Polycarbonate/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement shall be provided. All wires/cables shall be terminated through Copper cable lugs.

The JB's shall be such that input & output termination can be made through suitable cable glands.

- x) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door/ Screw based cover with EPDM rubber gasket to prevent water entry. Single/ double compression cable glands.
- y) Fuse protection should be provided for each string for +ve cables.
- z) Each Junction Box shall have High-quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- aa) Suitable markings should be provided on the bus bar for easy identification and suitable cable glands with ferrules must be fitted at the cable termination points for identification.
- bb) Array Junction Box should be IP 65(for outdoor)/ IP 54(for indoor) as per IEC 60529 and should be provided with fuses and Isolators of suitable ratings.
- cc) ACDB should have a surge protection device of class 2 as per IEC 60947/60364-5-53, to protect inverters from surges in the AC line.
- dd) AJBs/ MJBs may be kept below the modules. In case of need, this can be installed on the wall or rooftop. ACDB should be put at safe distance from DCDB/ AJBs/ MJBs to avoid Eddy current interference. However, in the case of an integrated product where ACDB and DCDB are already placed together shall be acceptable.

**Battery Bank:**

There will be one battery bank comprising of appropriate capacity for respective SPV Power Plant. The batteries should be LiFePO4 Type and shall have a long service life. The cells should confirm IS 15549/ IEC 61427 and as per specification given below shall be provided.

|                       |   |
|-----------------------|---|
| Battery Bank Capacity | As per design requirement of water kiosks   |
| Container             | Polypropylene Co-polymer/hard rubbers with carrying handle.   |
| Type                  | Lithium ion Battery (LiFePO4)   |
| Self-Discharge        | Less than 3% per month at 30 degrees C  |
| Life expectancy       | 3000 cycle duty at 27 degree C at 90% depth of discharge 5000 cycle duty at 50% discharge.              |
| Approval              | Batteries shall have to be approved by MNRE/NABL/BIS authorized test centers                            |
| Service Life          | Should perform satisfactorily for a minimum period of 10 years under operating conditions as mentioned. |

**Power Conditioning Unit (PCU)**

As SPV array produces direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels before powering equipment designed for nominal mains AC supply. Conversion shall be achieved using

an electronic Inverter and the associated control and protection devices. All these components of the system are termed the “Power Conditioning Unit” OR simply PCU. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to maximize Solar PV array energy input into the System. PCU should conform IEC 61683, IEC 60068, IEC 62116 as per specifications.

PCU refers to a combination of the charge controller, inverter and AC charger and shall be supplied as an integrated unit or separate units.

**a) Inverter:**

The inverter will be highly efficient. The inverter should conform IEC 61683 / IS 61683, IS 16169 / IEC 62116, IEC 60068 and should be based on MPPT design. Inverters would display its own parameters. Beyond the maximum load, the inverters will trip. The inverters should be designed to be completely compatible with the charge controllers and distribution panels and are of integrated design. Salient features of the Inverters shall be as follows: The PCU should be designed to be completely compatible with the SPV array voltage.

- i. A central inverter with MPPT shall be used with the power plant for maximum efficiency and shall be efficient based on PWM with IGBT/ reliable power-based design.
- ii. The sine wave output of the inverter shall be 230V, Single phase, 50 HZ AC 415 V, 3 phase, 50 Hz AC.
- iii. The peak inverter efficiency inclusive of built-in isolation transformer shall exceed 85% at full load
- iv. There should be provision to export excess PV power to the grid in case the load consumption is less than the actual generation. This is a futuristic feature and provision should be there to enable or disable this export feature.
- v. Inverter shall provide display of PV array DC voltage & current, Inverter Voltage & Current, Grid voltage & Current and required parameters when a fault occurs. Remote monitoring of inverter parameters should be possible.
- vi. Operating temperature range shall be 0 to 55 deg C
- vii. Maximum Power Point Tracker (MPPT) shall be integrated into the power conditioner unit to maximize energy drawn from the Solar PV array.
- viii. The charge controller/ MPPT units should qualify for IEC standards.
- ix. Online microprocessor-based Data Acquisition Systems and Remote Monitoring facility for 365 Days with data Recovery from a remote location should equip.

|                          |   |
|--------------------------|---|
| Inverter Capacity        | 1-Phase, 230 V or 3 Phase, 415 V                                    |
| Output frequency         | 50 Hz +/- 0.5 Hz  |
| Overload Capacity        | 150% for 10 Second  |
| Efficiency               | 80% at 50% of load and More than 90% at full load 0.8 PF            |
| Short Circuit Protection | Circuit Breaker and Electronics protection against sustained fault. |

|                              |   |
|------------------------------|---|
| Total Harmonic Distortion    | Less than 3%  |
| Over Voltage                 | Automatic Shut Down   |
| AC over Current/Load         | Automatic Shut Down   |
| Protection                   | <ul style="list-style-type: none"> <li>• Over Voltage both at Input &amp; Output</li> <li>• Over Current both at Input &amp; Output</li> <li>• Over Frequency</li> </ul> Surge voltage inducted at the output due to external source. |
| Protection Degree            | IP20/IP21   |
| Instrumentation & Indication | Input & Output voltage, Input & Output Current, Frequency, Power output, different status of inverter, kind of fault by the audio signal.   |

**b) DC Distribution Board:**

- i. Dust & vermin proof Enclosures of Polycarbonate/GRP/FRP/Powder coated Aluminium/ Cast Aluminium Alloy & should have IP 65(for outdoor)/54(for indoor) compliant to IEC 60529.
- ii. The bus bars are made of copper of the desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.
- iii. Suitable cable entry points with cable glands and ferrules should be provided.
- iv. DC SPD of type 2 compliant to IEC 60497 with fuse should be provided.
- v. Design ambient temperature should be 0-60 deg C.

**c) AC Distribution Panel board:**

- i. AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter and should have necessary over current & surge protection.
- ii. All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- iii. All the Panels should be metal clad, totally enclosed, rigid, floor/wall mounted, air-insulated, cubical type suitable for operation on three-phase / single phase, 415 or 230 volts, 50 Hz.
- iv. Suitable cable entry points with cable glands and ferrules should be provided.
- v. DC SPD of type 2 compliant to IEC 60497 with fuse should be provided.
- vi. Design ambient temperature should be 0-60 deg C.
- vii. The panels should be designed for the minimum expected ambient temperature of 45 degrees Celsius, 80 percent humidity and dusty weather.
- viii. All indoor panels should have the protection of IP20 or better. All outdoor panels will have the protection of IP21 or better.
- ix. Should conform to Indian Electricity Act & rules (till the last amendment)

All the 415 V or 230 V devices/ equipment like bus support insulators, circuit breakers, SPDs, VTs, etc. mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

|                               |          |
|-------------------------------|----------|
| Variation in Supply Voltage   | +/- 10%  |
| Variation in Supply frequency | +/- 3 Hz |

**Protection:**

The SPV power plant should be provided with Lightning and over-voltage protection, connected with proper earth pits. The main aim of overvoltage protection is to reduce the overvoltage to a tolerable level before it reaches the PV or other sub-system components. The source of overvoltage can be lightning or other atmospheric disturbance.

**e) Lightning**

- i. The lightning Conductors shall be made of a minimum 25 mm diameter and minimum 3,000 mm long GI spike as per provisions of IS 2309-1969. A necessary concrete foundation for holding the lightning conductor in position should be made after giving due consideration to maximum wind speed and maintenance requirements at the site in the future. The lightning conductor should be earthed through 20 mm X 3 mm thick GI flat earth pits/earth bus with proper Insulation. Height of Lightning Conductors from Array Structure should be minimum 4 metres.
- ii. Most areas of the State being prone to lightning, Type-II SPDs shall be included as a mandatory requirement.
- iii. Similarly Type I+II SPD should also be provided on the grid side in ACDB or PCU to protect the PCU from damage

**f) Earthing**

- i. Earthing should confirm to IS 3043.
- ii. Earth Continuity wire/conductor should be 3-8 SWG. The thickness of the Conductor should be more than half of the thickest wire used in electric wiring. The total resistance of the continuity conductor should be less than 1 ohms.
- iii. Earthing lead can be of GI/Copper Strip. For each Earth Electrode 2 Leads must be provided.
- iv. Earth Electrode can be of GI Pipe/Plate. Pipe Electrode should be of 40 mm diameter, 4.75 m length (for rocky soil)/2.75 m (for ordinary soil). Plate Electrode should be of 60 cm\*60 cm at a depth of 3 m. The thickness of the plate should be 3.18 mm (copper)/6.35 mm (GI). Moistened land should be preferred for Earthing.
- v. Charcoal along with Salt and Lime mixture/ Bentonite in a granular form mixed with water/ Marconite/ Chemical Earthing (Bentonite based/ Graphite based with Aluminium Silicates & Metal Powder) should be provided. The mixture should be inserted into the pipe or put around the plate. The Electrode system should be covered with a cast iron cover plate with a locking arrangement. (Marconite is recommended due to its Very Low resistivity)
- vi. No. of Earthing points to be used:

- vii. One Earthing for all the Structural Conducting Parts
    - One Earthing for Inverter with ACDB, Array JB & Main JB.
    - One Earthing for Lightning Arrester.
  - viii. Each array structure of the SPV yard will be grounded properly. The array structures and the lightning conductors are to be connected to earth through a 25 mm X 5mm GI strip.
  - ix. The inverters and all equipment inside the control room shall be connected to earth through 25 mm X 5mm tinned copper/GI strip including supplying of material and soldering. Earth bus should be provided inside the control room with 25 mm X 5mm tinned copper/GI strip.
  - x. In compliance with Rule 61 of Indian Electricity Rules, 2004 (as amended up to date), all non-current carrying metal parts should be earthed with two separate and distinct earth continuity wires.
- g) Surge Protection Devices (SPD):
- i. Surge protection devices should be provided on both the DC side and the AC side of the solar PV system. It should have a protection voltage of 2.5 kV & Nominal Discharge current of 5 kA (8/20)  $\mu$  sec.
  - ii. The DC surge protection devices (SPDs) should be installed in the DC distribution box adjacent to the solar inverter.
  - iii. The AC SPDs shall be installed in the AC distribution box adjacent to the solar inverter.
  - iv. The SPD's earthing terminal should be connected to earth through the above mentioned dedicated earthing system.

### **Cables & Wirings**

- a) The Cable & Wires should comply with IEC60227 or IS694 & IEC60502 or IS1554 BSEL50618 (for DC cables for PV systems).
- b) All copper flexible cables should comply with IS651
- c) Color code should be followed for overall wiring i.e., red for positive, black for negative, green for the earth.
- d) All cables should run in suitable PVC Conduits. No cable should be directly exposed to sunlight.
- e) Cable Sizes should be as per the Current and Voltage ratings.

### **Display Board:**

A display board of size 3 ft x 3 ft that gives a detailed circuit diagram of the system with its description should be provided.

### **Danger Plates**

The Bidder has to provide at least 8 Danger Notice Plates of 200 mm X 150 mm made of mild steel sheet, minimum 2 mm thick and vitreous enameled white on both sides and with



inscription in signal red color on the front side as required. The inscription shall be in English and the local language. Out of eight, four danger notice shall have to be provided at PV Power plant & Four-danger notice at Control Room & Battery room.

**Remote Monitoring System:**

The Solar PV Power plant must be provided with a remote monitoring system embedded in the Generation Meter. The RMS must be capable of providing ONLINE Generation data (daily, monthly, yearly & total). The features of the RMS along with operational details must be submitted along with the Bid.

These systems should work using GSM/GPRS data communication service (GSM/GPRS service shall be provided by the Vendor for 5 years including data charges) or SMS (Short Message Service). They must provide data on power generation every 15 minutes indicating all spikes, dips, etc.

Important features:

- f) Cloud-based Communication
- g) Dashboard display either on PC, Laptop, Tab, smartphone
- h) Internal communication protocols.

\*Monthly Report has to be submitted to UPNEDA

**Drawings & Manuals:**

Two copies of Engineering, electrical drawings, Installation and O&M manuals are to be supplied. Bidders shall provide complete technical datasheets for each equipment giving details of the specifications along with make/makes in their bid along with the basic design of water purification system, solar power plant and battery system along with protection equipment.

**Management Concept**

- a. Ownership of Kiosk belongs to the beneficiary organization.
- b. Each kiosk has a life of 10-15 years if maintained properly.
- c. Kiosk management and supervision of operators will be the responsibility of successful Bidder for 5 years. One operator require for each kiosk.
- d. All kiosks shall be metered.
- e. Water charges at nominal rate of Rs 1/Litre.
- e. The kiosks should be located on locations allocated by the organization.

**Sandards and Limits**

Following specifications shall be applicable for the activities related to meters and grid interconnection.

**Standards and Limits**

| PARAMETER          | REFERENCE  | REQUIREMENT |
|--------------------|--|-------------|
| Service conditions | Relevant regulation/order by Uttar Pradesh Electricity Regulatory Commission | Compliance  |

|                               |  |  |
|-------------------------------|--|--|
| <b>Overall Grid Standards</b> | Central Electricity Authority (Grid Standard) regulations 2010   | Compliance   |
| <b>Equipment</b>              | BIS / IEEE / IEC   | Compliance   |
| <b>Meters</b>                 | Central Electricity Authority (Installation and Operation of Meters) Regulation 2013 & relevant regulations by Uttar Pradesh Electricity Regulatory Commission | Compliance   |
| <b>Safety and Supply</b>      | Central Electricity Authority (Measures of Safety and Electricity Supply) Regulation 2010  | Compliance   |
| <b>Harmonic Current</b>       | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013   | Harmonic current injections from a generating station shall not exceed the limits specified in IEEE 519  |
| <b>Synchronization</b>        | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013   | Photovoltaic system must be equipped with a grid frequency synchronization device. Every time the generating station is synchronized to the electricity system. It shall not cause voltage fluctuation greater than +/- 5% at point of connection. |
| <b>Voltage</b>                | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013   | The voltage-operating window should minimize nuisance tripping and should be under operating range of 80% to 110% of the nominal connected voltage. Beyond a clearing time of 2 second, the photovoltaic system must isolate itself from the grid. |
| <b>Flicker</b>                | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013   | Operation of Photovoltaic system should not cause voltage flicker in excess of the limits stated in IEC 61000 standards or other equivalent Indian standards, if any.  |
| <b>Frequency</b>              | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013   | When the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5 Hz on lower side), There should be over and under frequency trip functions with a clearing time of 0.2 seconds                    |

|                                    |   |  |
|------------------------------------|---|--|
| <b>DC injection</b>                | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources). Regulations 2013 | Photovoltaic system should not inject DC power more than 0.5% of full rated output at the interconnection point under any operating conditions               |
| <b>Power Factor</b>                | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources). Regulations 2013 | While the output of the inverter is greater than 50%, a lagging power factor of greater than 0.9 should operate.   |
| <b>Islanding and Disconnection</b> | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources). Regulations 2013 | The photovoltaic system in the event of fault, voltage or frequency variations must island / disconnect itself within IEC standard on stipulated period      |
| <b>Overload and Overheat</b>       | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources). Regulations 2013 | The inverter should have the facility to automatically switch off in case of overload or overheating and should restart when normal conditions are restored. |
| <b>Paralleling Device</b>          | IEEE 519 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources). Regulations 2013 | Paralleling device of photovoltaic system shall be capable of withstanding 220% of the normal voltage at the interconnection point.                          |

**Notes for Bidder:**

1. The installation should not be protruding outside the building and there should not be overhang type structure on any terrace.
2. Location and area for inverter and other interconnection equipment should be located in suitable and secure place and this should be approved by the respective Beneficiary.
3. Installation diagram and wiring from array to proposed location of inverter and interconnection should be clearly presented by the Bidder before work starts to UPNEDA.

**QUALITY CERTIFICATION, STANDARDS**

| <b>Solar PV Modules/Panels</b>    |  |
|-----------------------------------|--|
| IEC 61215/IS 14286                | Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules |
| IEC 61701                         | Salt Mist Corrosion Testing of Photovoltaic (PV) Modules   |
| IEC 61853-Part 1/IS 16170: Part 1 | Photovoltaic (PV) module performance testing and energy rating:- Irradiance and                      |

|   |   |
|---|---|
|   | temperature performance measurements and power rating.  |
| IEC 62716                                     | Photovoltaic (PV) modules Ammonia (NH3) Corrosion Testing, (As per site condition like dairies, toilets)  |
| IEC 61730-1,2                                 | Photovoltaic (PV) module Safety Qualification-<br>Part 1: Requirements for Construction<br>Part 2:- Requirements for Testing  |
| <b>Solar PV Inverters</b>                     |   |
| IEC 62109-1, IEC 62109-2                      | Safety of power converters for use in photovoltaic power systems<br>Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems<br>Part 2: Particular requirements for inverters.<br><br>Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting) |
| IEC/IS 61683                                  | Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%,25%, 50%, 75% & 90-100% Loading Conditions)  |
| IEC 62116/ UL 1741/ IEEE 1547 (as applicable) | Utility-interconnected Photovoltaic Inverters –<br>Test Procedure of Islanding Prevention Measures  |
| IEC 60255-27                                  | Measuring relays and protection equipment<br>Part 27: Product safety requirements   |
| IEC 60068-2 / IEC 62093 (as applicable)       | Environmental Testing of PV System – Power Conditioners and Inverters   |
| <b>Fuses</b>                                  |   |
| IS/IEC 60947 (Part 1, 2 & 3), EN 50521        | General safety requirements for connectors, switches, circuit breakers (AC/DC):<br>Low-voltage Switchgear and Control   |

## WARRANTY AND MAINTENANCE

1. The Warranty in respect of the Equipment shall be as follows:

### Solar based Drinking Water Kiosks

- **Solar photovoltaic modules:** Performance Warranty with guaranteed ninety percent (90%) production at the end of 10<sup>th</sup> year of operation and 80% (eighty percent) at the end of the 25<sup>th</sup> year of operation from the date of Commissioning

of the Project. Product Warranty for a period of ten (10) years from the date of Commissioning of the Project.

- **Inverter:** Product Warranty period of five (5) years from the date of Commissioning of the Project.
- **Module mounting structures:** Product Warranty period of five (5) years from the date of Commissioning of the Project.
- **Balance of system:** Product Warranty period of five (5) years from the date of Commissioning of the Project.

As a testimony, the Successful Bidder must submit the Warranty certificate and service agreement with the OEM/ suppliers prior to achieving Commissioning of the Project. Any defect noticed during the Warranty period should be rectified/ replaced by the Successful Bidder either through OEM/ suppliers or by itself, free of cost, upon due intimation by UPNEDA.

In case any OEM/ supplier provides a Warranty period more than five (5) years from the date of Commissioning of the Project, then the Successful Bidder shall provide the same to UPNEDA even if the Warranty period exceeds the O&M Period.

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 service center of the firm in the concerned district/Division.
4. 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.
5. 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 7 days.
6. Normal and preventive maintenance of the systems will also be the duties of the deputed personnel during quarterly maintenance visits.
7. 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.

## 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/ Solar Based Drinking water Kiosks /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 Solar Based Drinking water Kiosks 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 DD or 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 N:** Format: Technical Bid
- n. 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.
- o. 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.
- p. Copy of Certificate of Incorporation.
- q. Copy of the GST number of the firm.
- r. Copy of Permanent Account Number (PAN) issued by IT department.
- s. 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.
- t. Memorandum and Article of Association
- u. 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

| <b>Key Information</b> |  |  |
|------------------------|--|--|
| <b>1</b>               | Name of Bidder   |  |
| <b>2</b>               | Postal Address   |  |
| <b>3</b>               | Mobile no.   |  |
| <b>4</b>               | Telephone, Telex, Fax No   |  |
| <b>5</b>               | E-mail   |  |
| <b>6</b>               | Web site   |  |
| <b>7</b>               | Name, designation and Mobile Phone No. of the representative of the Bidder to whom all references shall be made    |  |
| <b>8</b>               | Name and address of the Indian/foreign Collaboration if any  |  |
| <b>9</b>               | Have anything/extra other than price of items (as mentioned in price Schedule) been written in the price schedule. |  |
| <b>10</b>              | Have the Bidder to pay arrears of income tax. If yes up to what amount?  |  |
| <b>11</b>              | Have the Bidder ever been debarred By any Govt. Deptt./ Undertaking for undertaking any work?                      |  |
| <b>12</b>              | Details of offer (please mention number of pages and number of Drawings in the hard copy)                          |  |
| <b>13</b>              | 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       | <b>Tender Fee &amp; Earnest Money</b> | Tender Fee of Rs 11800/- (inclusive of GST) in the form of DD or RTGS/NEFT or any other online mode.<br><br>The bidder should submit EMD in the form of BG of 2 % of Estimated Cost.  | Bank Guarantee  | As Annexure-1  |
| 2       | <b>Company Eligibility</b>            | 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.<br><br><b>(System integrators are also allowed to participate in the bid.)</b> | Certificate of Incorporation issued by the Registrar of Companies and   | Relevant certification proof showing the establishment of firm in respective category.                               |
| 3       | <b>Test Report</b>                    | Bidder should have valid Test report of complete system/various components <b>(PV module, PCU cum inverter, Battery (LiFePo4) etc) of Solar based Water Kiosk</b> issued from MNRE/NABL accredited test lab.<br><b>(OEM should have experience of 3 years in manufacturing and supply of the respective items of Bid.)</b><br><br>Authorization Letter in the name of Bidder issued from OEM.                       | Test report of MNRE/NABL accredited lab-----<br><br>-----<br><br>Manufacturer Authorization Certificate of Main components (i.e. PV Module, Battery & Hybrid Inverter) of Hybrid Solar Power Plant. | <ul style="list-style-type: none"> <li>• Test report no:</li> <li>• Issuing date:</li> <li>• Name of Lab:</li> </ul> |
| 4       | <b>GSTIN</b>                          | A copy of valid GSTIN registration certificate  | Valid GSTIN Registration Certificate  | Issuing date:  |
| 5       | <b>Financial Turnover</b>             | Bidders should have Overall Average Annual Turnover (ATO) in the best performing three year of last five  | Duly authorized copy of audited annual report/Balance Sheet   | M/s _____  |

| Sr. No. | Eligibility Criteria        | Particulars   | Documents to be submitted  | Particulars in brief of the Documents to be submitted by the Bidder.   |
|---------|-----------------------------|---|--|--|
|         |                             | <p>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. <b>Rs 1.19 crores</b>. 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).</p>  | <p>for last five years is to be submitted by respondent along with CA certificate.</p>   | <p>2019-2020:.....<br/>2020-2021:.....<br/>2021-2022:.....<br/>2022-2023:.....<br/>2023-2024:.....<br/><br/>Average turnover Rs.....</p> |
| 6       | <b>Technical Experience</b> | <p><b>Past Performance:</b> The Bidder should have continuously supplied and installed Solar based Water Kiosk/Solar based RO water Systems for 30% of bid quantity, i.e 06 Nos, in last Five financial years i.e. 2019-20, 2020-21, 2021-2022, 2022-2023 and 2023-2024 to 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 company, bidder must provide the certificate of incorporation of respective company.)</p> | <p>Work order copies/ LoA's/Completion Certificates from registered central/state (including local body or autonomous institutions working under it.) / Company.</p> | <p>As per Annexure-5</p>   |
| 7       | <b>Net worth</b>            | <p>The bidder's Net worth as on the last day of preceding financial year must be positive.</p>  | <p>Duly authorized copy of audited annual report is to be submitted along with a practicing CA's certificate.</p>  |  |

| Sr. No. | Eligibility Criteria                     | Particulars   | Documents to be submitted  | Particulars in brief of the Documents to be submitted by the Bidder. |
|---------|--|---|--|--|
| 8       | <b>Notarized Affidavit by the Bidder</b> | <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.      | <b>Technical Bid</b>                     | 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 DD or 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 Bid for **“Supply, erection, testing and commissioning including operation & comprehensive warranty maintenance for 5 years of Solar Based Drinking water Kiosks at various solar cities 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       | <p>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.</p> <p><b>(System integrators are also allowed to participate in the bid.)</b></p>   |                                 |                                     |
| 2       | <p>Bidder should have valid Test report of complete system/various components <b>(PV module, PCU cum inverter, Battery (LiFePo4) etc)</b> of Solar based Water Kiosk issued from MNRE/NABL accredited test lab.</p> <p><b>(OEM should have experience of 3 years in manufacturing and supply of the respective items of Bid.)</b></p> <p>Authorization Letter in the name of Bidder issued from OEM.</p>   |                                 |                                     |
| 3       | <p><b>Past Performance:</b> The Bidder should have continuously supplied and installed Solar based Water Kiosk/Solar based RO water Systems for 30% of bid quantity, i.e 06 Nos, in last Five financial years i.e. 2019-20, 2020-21, 2021-2022, 2022-2023 and 2023-2024 to 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 company, bidder must provide the certificate of incorporation of respective company.)</p>   |                                 |                                     |
| 4       | <p>The Bidder should have valid GSTIN registration certificate. A copy of which should be enclosed.</p>  |                                 |                                     |
| 5       | <p><b>Bidder Turn over Criteria:</b> 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. <b>Rs 1.19 crores</b>. 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.</p> <p>(A summarized sheet of average turnover certified by registered CA should be submitted along with audited Balance Sheet).</p> |                                 |                                     |
| 6       | <p>The bidder's Net worth as on the last day of preceding financial year must be positive.</p>   |                                 |                                     |

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

### **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)**

| <b>S. No</b> | <b>Work Order No</b> | <b>Order Date</b> | <b>Value of Work</b> | <b>Deptt/Agency/ Beneficiary for which work carried out</b> | <b>Description of Project</b> | <b>Supply/Completion Period (with from/ to dates)</b> | <b>Ref. No. &amp; Date of Material Receipt</b> | <b>Certificates/ PO/Work Completion Certificates.</b> |
|--------------|----------------------|-------------------|----------------------|---|-------------------------------|---|--|---|
| 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 executers, 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 system has been supplied, installed, commissioned and handed over to the beneficiary as per following details:-

This Commissioning Report is prepared for the Bidder [insert name of Bidder]  
for the Project developed at [insert name of place]

The Project details of Solar based Drinking Water Kiosk are given below:

| Sl. No. | Items                                     | Details  |
|---------|---|----------|
| 1.      | Name of the Project                       |          |
| 2.      | Address                                   |          |
| 3.      | Capacity of the Project                   |          |
| 4.      | Generation Meter installed                | (Yes/No) |
| 5.      | O&M manual                                | (Yes/No) |
| 6.      | Dos & Don'ts in the form of a booklet     | (Yes/No) |
| 7.      | Proof of conducting the training programs | (Yes/No) |

Tests performed during Commissioning:

| Sl. No.                | Test   | Result |
|------------------------|--|--------|
| <b>Solar PV System</b> |  |        |
| 1.                     | Load Test                                    |        |
| 2.                     | IV Curve                                     |        |
| 3.                     | Earthing Test                                |        |
| 4.                     | Main Junction Boxes (Current & Voltage)      |        |
| 5.                     | Array Junction Boxes (Current & Voltage)     |        |
| 6.                     | Continuity Test                              |        |
| 7.                     | Stress Test                                  |        |
| 8.                     | Visual Inspection                            |        |
| <b>Water kiosk</b>     |  |        |
| 9.                     | Water purification capacity (in liter/hours) |        |
| 10.                    | Water filling capacity (in liter/min)        |        |
| 11.                    | Water dispensing range                       |        |

Hourly Generation Meter Reading on the date of Commissioning:

| Sl. No. | Time | Main                | Check (if applicable) | Units (kWh) Recorded in Main Meter |
|---------|------|---------------------|-----------------------|------------------------------------|
| 1       |      | IMR:<br>FMR:<br>MC: |                       | Units = (FMR-IMR) *<br>MC          |

\*IMR: Initial Meter Reading FMR: Final Meter Reading MC: Meter Constant

The above plant was commissioned as per applicable guidelines and the tests performed suggest that the performance of the above plant is satisfactory.

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: Technical Bid: To be submitted with Technical bid**

|          | <b>Description</b>  | <b>To be furnished by the Contractor/Bidder</b> |
|----------|---|---|
| <b>A</b> | <b>Solar PV Module</b>                                    |   |
|          | 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>B</b> | <b>Solar Power Conditioning Unit</b>                      |   |
|          | Manufacturer :  |   |
|          | Type String type/central                                  |   |
|          | Operating voltage (DC)                                    |   |
|          | Operating voltage AC (pure sine wave)                     |   |
|          | Details of Indicators provided                            |   |
| <b>C</b> | Water Kiosk Data sheet ( Bidder should attach Data sheet) |   |

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