

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

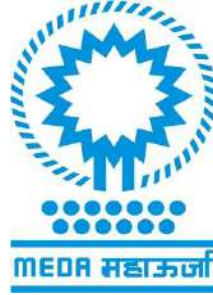
DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 09 KW CAPACITY OFF-GRID SPV POWER PLANT AND 1 NOS. SOLAR HIGHMAST AT PATRAKAR PANDURANG GAIKWAD SARVAJANIK LIBRARY, GOVIND NAGAR, MUMBAI-AGRA ROAD DISTRICT NASHIK IN THE STATE OF MAHARASHTRA.

E-TENDER FOR

DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 09 KW CAPACITY OFF-GRID SPV POWER PLANT AND 1 NOS. SOLAR HIGHMAST AT PATRAKAR PANDURANG GAIKWAD SARVAJANIK LIBRARY, GOVIND NAGAR, MUMBAI-AGRA ROAD DISTRICT NASHIK IN MAHARASHTRA STATE.

Tender Ref. No.

DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010



DIVISIONAL OFFICE

MAHARASHTRA ENERGY DEVELOPMENT AGENCY

(A Government of Maharashtra Institution)

Address: Nashik District Krishi Audyogik Sahakari Sangh Ltd., Near NDCC Bank, Dwarka Circle,
Mumbai Agra Highway, Nashik. 422211

Contact No. 0253-2598685

Email ID: domedanasik@mahaurja.com

Website (for Tender): [https:// mahatenders.gov.in](https://mahatenders.gov.in)

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SECTION-I BID INVITATION

Brief Description of the Bidding Process

- The Divisional General Manager (Divisional Office Nashik), on behalf of MEDA invites eligible bidder to submit a tender in accordance with the provisions of this Tender Document. In this Tender Document, the term "Bidder", which expression shall, unless repugnant to the context, include all parties who have submitted tender in response to this Tender Document within the stipulated time frame for submission.
- The Bidders shall submit the bids in two parts by following e-tendering process described in bidding documents. First part comprises of the technical bid and the second part comprise of the financial bid in accordance with this Tender Document.
- In terms of the Tender Document, a Bidder will be required to deposit, along with its Bid, a bid security as Earnest Money Deposit (EMD).
- MEDA will open the technical bid of the Bidder, by e-tendering process. The financial bid will be opened of those bidders who qualify in technical bid.
- The Bidder's Names, Bid prices and the presence or absence of the requisite and such other details as MEDA, at its discretion, may consider appropriate will be announced at the time of opening.

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TENDER INFORMATION

1.	Tender Reference No.	DGM/MEDA- NSK/PATRAKAR/NASHIK/2021-22/010
2.	Date & Time for on line sale of Tender	From 9 th February, 2022 at 18:30 hours To 16 th February, 2022 at 18:30 hours
3.	Pre-bid Meeting at MEDA, Nashik, Divisional Office	14 th February, 2022 at 11:00 hours
4.	Date & Time for online submission of Tenders	From 9 th February, 2022 at 18:30 hours To 16 th February, 2022 at 18:30 hours
5.	Date & Time of opening of Technical Bid	17 th February, 2022 At 18:30 hours
6.	Estimated Cost	Rs. 11,04,000.00 (inclusive of GST)
7.	Earnest Money Deposit (EMD)	Rs.11,000/- (Rupees Eleven Thousand only.) should be paid online through respective portal only.
8.	Security Deposit:	*3% of contract value by Demand Draft (DD) in favour of MEDA payable at Nasik.

The date & time of opening of Price Bid will be announced later.

9.	Address for communication and Venue for Tender opening	Address: Krishi Audyogik Sahakari Sangh, Nr. NDCC Bank, Dwarka Circle, Nashik - 422211 Contact No. 0253 - 2598685 Email ID: domedanasik@mahaurja.com Website (for Tender): https://mahatenders.gov.in
10.	Tender document fee	Rs. 3,000/- including 18% GST (Non-refundable & Non Transferable)

If any technical difficulties arise while filling up e-tender, please call at 24 x 7 Help Desk Number 0122-4001 002/005 at NIC. It is compulsory to pay tender document fee, EMD through E-payment SBI Net Banking. Eligible bidders can upload the Tenders through maha e-tender portal of GoM: <https://mahatenders.gov.in>

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SECTION-II

INFORMATION AND INSTRUCTION TO BIDDERS

The Divisional General Manager (Divisional Office, Nashik), on behalf of MEDA (the Employer), invites e-tender from eligible bidders for “works” include Design, Manufacture, Supply, Installation, Testing and Commissioning with five years Comprehensive Maintenance of 09 kW capacity Off-Grid SPV Power Plant and 1 Nos. Solar Highmast at Patrakar Pandurang Gaikwad Sarvajanik Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State. (Here in after referred to as the contract of works) and as described in the tender document on 'Turnkey Contracts” under Tender No: DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010.

Sr. No	Name of Proposed Site	Name of Proposed Site	Capacity	Estimated Cost of Project (Rs.)
1	Patrikar Pandurang Gaikwad Sarvajanik Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State	Off-Grid SPV Power Plant	09 kW	11,04,000.00
		Solar Highmast	1 Nos.	

1. SCOPE OF CONTRACT

The Scope of contract is as below:

- Design, Manufacture, Supply, Installation, Testing and commissioning with five years Comprehensive Maintenance of 09 kW capacity Off-Grid SPV Power Plant and 1 Nos. Solar Highmast at Patrakar Pandurang Gaikwad Sarvajanik Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State. “Turnkey” Contract Basis and as described in the Bidding Document.
- Free replacement of defective components of systems within Comprehensive Maintenance Contract period (CMC) of 5 years after commissioning for efficient running of the system.

The Successful bidder should complete this project in given time to get maximum Incentives to the beneficiary. MEDA will not be responsible if no incentives / less incentive is received to the beneficiary due to delay in project.

- Detailed planning for smooth execution of project.

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- Selected Bidder(s) shall be bound by operation and management arrangements and rules, regulations and modalities as prescribed by MNRE and MEDA for effective implementation of the project.
- Time is the essence in completing the Works. The successful Bidder will be required to complete the works within the stipulated time as specified in the tender document. The bidder shall ensure that SPV Power Plant and Solar Mini High Mast should be commissioned within **15 Days** from the date of issue of work order.
- Bids shall be complete and cover all works described in the Schedule of Prices. Any item of works required for complete usable system shall be deemed to be included in bidder's scope irrespective of whether it is specifically mentioned or not in the price schedules.
- Bidder should note that obtaining permissions from statutory bodies wherever required for execution of works, shall be entirely in bidder's scope.
- Bidder should note that during progress of the work he has to submit the progress report of the work along with the photograph of the site to MEDA, Nashik Office.
- Partial bids, or bids which do not cover the entire scope of the project will be treated as incomplete and not responsive to the terms and conditions of bidding and are liable to be summarily rejected.

2. ELIGIBILITY

The bidder shall provide sufficient documentary evidences to satisfy the following conditions, that the bidder:

- I. Shall manufacture/supply the material (SPV Power Plant and Solar Mini High Mast) as per Standards mentioned in tender document. They should provide valid IEC certificate of SPV Module, Controller and Battery and test report from authorized test centre of MNRE, GoI.
- II Shall have experience for supply, Installation and commissioning for cumulative quantity of 25 kW Off-Grid SPV Power Plant Systems and 05 Nos. Solar LED Mini High Masts systems with maintenance /after sale services for at least one year. Demonstration for such installations if required may be allowed during pre-bid meeting (individual time slot will not be allowed for more than 10 Minutes). Satisfactory certificate along with contact details of concern authority at installation (Beneficiary/Client) is to be submitted. Representative of

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MEDA &/Or representative of appointed consultant by MEDA for this assignment will / may visit such installation. Bidders to arrange necessary permissions.

- III. Overall Average Annual Turnover of the Company/Firm/ Corporation in the last three financial years should be at least **Rs. 20,00,000/-** (Twenty Lac only) (This must be the individual Company's turnover and not that of any group of Companies; A summarized sheet of turnover for last three years with average turnover certified by registered CA should be compulsorily.

3. STANDARDS/ CERTIFICATES

- The material/equipment/ components supplied and works executed under this contract shall confirm to the standards mentioned in the technical specifications and where no applicable standard is mentioned, the latest version of Indian Standard Institution or Bureau of Indian Specification shall be applicable.
- The Bidder shall submit all the valid test certificates and reports of the system.

4. INSTRUCTIONS

- Bidder shall upload Information, Experience Certificates, Test Reports and other such relevant document's specified in the list of other important documents on the portal <http://mahatenders.gov.in>.
- The bidder should visit site & carryout the survey along with concern persons of respective village as mentioned in Tender in consultation with MEDA Office, upload the certificate indicating that the survey is carried out by the bidder as per Format-G with Survey reports.
- The technical proposals confirming to eligibility criteria and found satisfactory will be taken up for detailed technical evaluation. A technical evaluation committee shall evaluate the Bids submitted by bidders for detailed scrutiny. During evaluation of the technical bids, MEDA may at its discretion ask the bidders for clarification of their bid.
- Only Technical bids confirming to minimum eligibility criteria and found to be responsive will be taken up for detailed technical evaluation. A technical/tender evaluation committee shall evaluate the Bids submitted by bidders for a detailed scrutiny. During evaluation of Bids, MEDA, may, at its discretion, ask the bidders for clarification of their bid.
- In case bidder does not fulfil the technical bid, the financial bid shall not be opened & he shall be disqualified from further bidding process.

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- Price bids of bidders qualifying above conditions shall be subsequently opened.

The time and date of the opening of the Price bid shall be intimated at tender web site by MEDA.

- The price bid will be opened in presence of the all technically qualified bidders.
- Bids submitted without EMD will be rejected. Bidder would need to upload the required documents through electronic mode only.
- The Bidder shall upload copies of
 - GST registration Certificate.
 - PAN card.
 - Income Tax Returns of previous three assessment years.
- For any Clarification /online support please contact at mail id: domedanasik@mahaurja.com
MEDA reserves the right to reject or accept any or all tenders without assigning any reasons thereof. The work order is not transferable. Subletting is not allowed. MEDA will not entertain any claim at any stage of successful bidder on the plea that the bidder was not having sufficiently acquainted himself to the site condition. Bidders to go through clause No. 4 above for survey of site.

5. COST OF BIDDING

The bidder shall bear all costs associated with the preparation and submission of bid and MEDA will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

6. LANGUAGE OF BID

The Bid uploaded by the Bidder and all correspondence and documents in relations to the bid shall be in English Language. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language duly authenticated and certified by the bidder. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

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7. DOCUMENTS COMPRISING THE BID

The Bid prepared by the Bidder shall be uploaded in 'Two parts Viz. Technical and Financial bids comprising the following components.

Part I

Technical Proposal:

Bidder shall submit relevant certificates to fulfil the eligibility criteria prescribed in the tender document along with following documents/information

- Power of Attorney
- Copy of receipt for tender fee
- Copy of receipt for EMD / Valid exemption certificate issued by competent Govt. authority
Duly stamped and signed tender document (Tender Document)
- Firm registration certificate
- Copy of PAN
- Copy of GST registration
- Power of attorney; for company's authorized person (Refer Format -A)
- Declaration – on Company letterhead (Refer Format -B)
- Banker's details of bidder (Refer Format - C)
- Bidder's Information Sheet (Refer Format -D)
- C. A. Certificate – on CA's letter head (Refer Format - E), along with scanned copy of IT returns for last three financial years, supporting with summary of balance sheet / auditor's report (Avg. 20 Lac)
- List of Projects - Experience for installation and commissioning of Solar Mini High Masts – 05 Nos. / list of projects and total 25 kW capacities SPV Power Plant (Refer Format - F). Along with scanned copies of work / purchase orders received for completed projects.
- Site visit report (Refer Format - G)
- The Bidder is expected to verify all instructions, forms, terms and specifications in the Tender Document. Failure to furnish all information required in the tender document will be at the Bidder's risk and may result in rejection of the bid.

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Part II

Financial bid

Financial Bid shall contain:

- The bidder should quote the price as against total tender estimate as shown in the tender document.
- The price quoted in the bid will be *inclusive of all* duties, insurance and all incidental charges for successful design, supply, installation, commissioning along with comprehensive maintenance for five years of Solar Mini High Mast and SPV Power Plant.
- Prices shall be quoted in Indian Rupees only.
- In no circumstances, escalation in the prices will be entertained.
- Financial Bid uploaded with an adjustable price quotation will be treated as non-responsive and will be rejected.
- Any Bid not in accordance with above clauses of this Section will be rejected.

8. EARNEST MONEY DEPOSIT (EMD), SECURITY DEPOSIT (SD) & FORFEITING OF EMD :

A) EARNEST MONEY DEPOSIT:

The Earnest Money Deposit of **Rs.11,000.00 (Eleven Thousand rupees only)** should be paid online through respective portal. Tender without Earnest Money Deposit will be out rightly rejected. No interest shall be payable on the amount of Earnest Money. EMD shall be returned to unsuccessful Bidders after acceptance of work order by successful Bidder and EMD of successful Bidder shall be returned after submission of security deposit.

Bidders having exemption under MSME shall necessarily submit self attested copy of *valid exemption certificate*; otherwise tender shall be out rightly rejected.

L1 Bidder is to submit original copy(s) of such certificate / registration for review / verification, before issuing the LOA. In absence of original certificate / registration, further tendering procedure shall be stopped with such L1 Bidder, with immediate effect and appropriate strict actions will be taken against such Bidder, including recovery of EMD amount.

B) FORFEITING OF EMD:

The EMD paid or submitted by the Bidder shall be forfeited if:

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1. The Bidder withdraws his tender before finalization of work order.
2. The Bidder does not accept work order.
3. The Bidder violates any of the terms and conditions of the tender.
4. The Bidder fails to deposit requisite Security deposit.
5. The Bidder fails / refuses to execute the contract. In this case, MEDA shall have full right to claim damages thereof in addition to the forfeiture of EMD.
6. If the L1 bidder does not accept the work then MEDA will blacklist the L1 bidder

C) SECURITY DEPOSIT:

1. The Bidder shall furnish security deposit at 3% of the total contract value within 10 days from the date of issue of work order (including Sunday and public holiday) by way of demand draft of nationalized bank in favour of Maharashtra Energy Development Agency payable at Nashik.
2. Failure to comply with the terms of security deposit shall result into cancellation of work order without any further reference to the Bidder and the EMD shall be forfeited.
3. The security deposit shall be liable to be forfeited wholly or partly at the sole discretion of the MEDA, if the Bidder either fails to execute the work of above projects or fails to fulfil the contractual obligations or fails to settle in full his dues to the MEDA.
4. In case of premature termination of the contract, the security deposit will be forfeited and MEDA will be at liberty to recover the losses suffered by it & if additional cost is to be paid, the same shall be recovered from the Bidder.
5. The MEDA is empowered to recover from the security deposit for any sum due and for any other sum that may be fixed by the MEDA as being the amount or loss or losses or damages suffered by it due to delay in performance and / or non-performance and / or partial performance of any of the conditions of the contract and / or non-performance of guarantee obligations.
6. The security deposit shall be released to the Bidder only after contract is completed to the satisfaction of the MEDA.

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9. PRICE VARIATION:

The Project cost shall be *inclusive of all* duties and taxes, insurance etc. The prices quoted by the firm shall be complete in all respect and no price variation/adjustment shall be payable by MEDA.

In event bidder offers price less than 80% of estimated cost indicated in this tender document. Such Bidder fails / refuses to execute the contract. In this case, MEDA shall have full right to claim damages thereof in addition to the forfeiture of EMD. Necessarily, no exemption in tender fee & EMD shall be allowed for such price bid. Such lowest bid without tender fee & EMD shall be ***out rightly rejected during financial evaluation*** though the bidder is technically qualified.

10. JURISDICTION:

In case of any dispute, in the documentation and during implementation, commissioning, completion and CMC period, all the matter will be resolve under Nashik Jurisdiction only.

11. PERIOD OF VALIDITY OF BID

- Bids shall remain valid for 180 days after the date of opening of Technical Bid. A Bid valid for a shorter period shall be rejected by MEDA as non-responsive.
- In exceptional circumstances, MEDA may solicit the Bidder's consent to extend the period of validity. The request and the responses thereto shall be made in writing. The EMD provided shall also be suitably extended. A Bidder granting the request will not be required nor permitted to modify its bid.

12. MODE OF SUBMISSION OF BIDS

- The Bids shall be submitted electronically in the e-tender platform only.
- Bids sent by any other mode like in person, post, Telex or Fax or e-mail will be rejected.
- MEDA may at its discretion require any Bidder to submit the hard copy of any of the document submitted on e-tender platform.

13. DEADLINE FOR SUBMISSION OF BIDS

- Bids must be uploaded by the bidder through e-tender process not later than the time and date specified in the invitation for Bids.

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- The MEDA may, at the discretion, extend this deadline for submission of bids by issuing an addendum, in which case all rights and obligations of MEDA and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

14. CLARIFICATION OF BIDS

During evaluation of Bids, MEDA may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substances of the Bid shall be sought, offered or permitted.

15. PRE-BID MEETING:

Pre bid meeting shall be called at office of Maharashtra Energy Development Agency, Divisional Office Nashik to clarify doubts, if any of the bidders after one week of floating tender on site <https://mahatenders.gov.in> before submission of final tender document.

16. PRELIMINARY EXAMINATION

- The MEDA will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
- Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the lower of the two will prevail. If the Bidder does not accept the correction of errors, its bid will be rejected.
- The Bidder is required to carefully examine the Technical Specification, terms and Conditions of Contract, and other details relating to supplies as given in the Bid Document.
- The Bidder shall be deemed to have examined the bid document including the agreement/contract to have obtained information on all matters whatsoever that might affect to execute the project activity and to have satisfied himself as to the adequacy of his bid. The bidder shall be deemed to have known the scope, nature and magnitude of the supplies and the requirements of material and labour involved etc. and as to all supplies he has to complete in accordance with the Bid document.

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- Bidder is advised to submit the bid on the basis of conditions stipulated in the Bid Document.
- Bidder's standard terms and conditions if any will not be considered. The cancellation / alteration / amendment / modification in Bid documents shall not be accepted by MEDA.
- Bid not submitted as per the instructions to bidders is liable to be rejected. Bid shall confirm in all respects with requirements and conditions referred in this bid document.

17. ACCEPTANCE OR REJECTION OF BIDS

- MEDA reserves the right to accept or reject any bid or all the bids and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability or any obligation to inform the affected bidder or bidders of the grounds for the said action.
- Any Bid with incomplete information is liable for rejection.
- For each category of pre-qualification criteria, the documentary evidence is to be produced duly attested by the authorized representative of the bidder and serially numbered. If the documentary proof is not submitted for any/all criteria the Bid is liable for rejection.
- If any information given by the bidder is found to be false/ fictitious, the Bidder will be debarred for 3 years from participating in any other tenders of Govt., of Maharashtra and will be black listed.

18. CRITERIA FOR BID EVALUATION

- Step 1: Test of Responsiveness

Prior to evaluation of Bids, MEDA shall determine whether each Bid is responsive to the requirements of the tender document. A Bid shall be considered responsive only if all documents as outlined in the tender document for two stage bid process are submitted as per the pre-defined format.

The MEDA reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the MEDA in respect of such Bid.

- Step 2: Bid Evaluation

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Bid evaluation will be carried out considering the information furnished by Bidders as per the Tender documents. Based on technical/ qualifying criteria preferred bidders will be shortlisted

Technical Evaluation

- Only Technical bids conforming to minimum eligibility criteria and found to be responsive will be taken up for detailed technical evaluation. A technical/tender committee shall evaluate the Bids submitted by bidders for a detailed scrutiny.

Financial Evaluation

The price bids of the eligible bidders will then be evaluated in the manner provided below;

- At the outset, the price bids of all the Bidders who are technically qualified in technical evaluation shall be opened in the presence of the Bidders Representatives. Presence of the Bidders Representatives is essential. No claim / further clarification will be entertained, to the Bidder in case the Representative is fails to attend this meeting.
- The bidder's names, the Bid Prices, the total amount of each bid, any discounts, and such other details as the Employer may consider appropriate, will be announced and recorded by MEDA at the opening. The bidder's authorized representatives will be required to sign this record.
- Bidder that has quoted the lowest price (inclusive of all the taxes/duties) shall be declared as the preferred Bidder.
- The work orders shall be issued to the successful bidder who ever qualifies in the complete process as mentioned.

19. AWARD CRITERIA AND AWARD OF CONTRACT

MEDA will award the Contract to the successful Bidder whose Bid has been determined to be substantially responsive and has been determined as the lowest evaluated Bid as per the criteria mentioned above, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

20. CORRUPT OR FRAUDULENT PRACTICES

MEDA requires that Bidders shall observe the highest standard of ethics during the execution of contracts. In pursuance of this policy, MEDA:

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Defines, for the purposes of this provision, the terms set forth as follows:

- “Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
- “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government, and includes collusive practice among Bidders (prior to or after tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition;
 - will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
 - will declare a firm ineligible, 3 years for a period of time, to be awarded a Government financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract.

21. TERMS OF PAYMENT:

- a. 80% of the total cost will be released after supply, installation & successful commissioning of the systems duly certified by Bidder, Officer of MEDA & authorized person of Beneficiary along with submission of Insurance policy documents effective from date of commissioning for CMC period.
- b. 20% of the total cost shall be released on submission of next one month successful performance report in prescribed format which should be duly certified by Officer of MEDA, authorized person of Beneficiary and submission of Performance Bank Guarantee of 3% of total project cost from any Nationalized Bank valid for period of 5 years.

Deduction:-

- i. The TDS at the source will be deducted as per the Govt. rule and regulations.
- ii. MEDA will issue necessary certificates of TDS deduction
- iii. ‘C’ / ‘D’ form will not issued by MEDA.
- iv. Note that if bidder does not provide insurance against Labour and Material MEDA will process insurance at “Director of Insurance” and will deduct 1% of contract value against

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insurance claimed by them and 1% of contract value deduction against “Labour Welfare Cess” from payment towards successful bidder.

22. TIME FRAME:

The time frame for the completion of work is **15 days** from the date of issue of work Order.

23. PENALTY CLAUSE

If the systems are not installed and commissioned within the stipulated period as mentioned in the work order the Bidder shall be required to pay penalty of 1/2% (half percent) of balance amount per week, maximum up to 10% of the total cost of the systems and the amount shall be recovered either from the amount due to the Bidder or from Security Deposit.

If Successful bidder is not able to complete the project in due time the same shall be get done through other contractor and the Successful bidder has to be are all the cost incurred against the balance work left by him forth completion of project.

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SECTION-III

GENERAL CONDITIONS OF CONTRACT (GCC)

1. General Terms and Conditions:

The following are the General Terms and Conditions of Contract for Supply, Installation and commissioning of Off-Grid SPV Power Plant and Solar Mini High Mast, as per the specifications given in the document.

- a. Bidder shall be responsible for any damage occurred, if any, to other installations of the Hostel Buildings during the course of work.
- b. The Bidder should provide appropriate tools and equipment's to the workmen and ensure that those are in proper working condition and the workmen use the appropriate tools and take precaution "PLEASE NOTE THAT ANY ACCIDENT TO THE WORK MEN / PUBLIC / ANIMALS / PROPERTY BOTH MOVABLE AND IM-MOVABLE SHALL BE ENTIRE AND SOLE RESPONSIBILITY OF THE BIDDER AND ANY PROCEEDING ARISING OUT OF THE SAME SHALL BE AT THE BIDDER'S RISK AND COST, MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA) OR ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR ANY SUCH INCIDENT".
- c. Bidder should provide necessary manufacturer's test certificates for materials being used for the work. Bidder should provide facilities and bear the cost for the same. Power curve of all the panels erected by manufacturers shall be provided to the MEDA.
- d. The selected Bidder is bound to work on the guideline provided by MEDA from time to time. Guidelines if issued in future by MEDA, the changes proposed will also be applicable without enhancement in project cost till the completion of 5 years period.
- e. The Bidder shall carry out the work strictly according to the specifications as per given in Section-IV and complete the work within stipulated time.
- f. It is the responsibility of Bidder to submit the reports for systems installed & commissioned and certificates for undertaking the responsibility of maintenance of the systems to MEDA with a copy to user agency. Bidder shall also impart training to the user for regular Operation & Maintenance of the system and certificate in this respect should be submitted.

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- g. Bidders should give Guarantee against any manufacturing defects from the date of commissioning up to CMC period. For any manufacturing defects, supplier shall replace defective parts at free of cost during the CMC period and shall keep the system functional.
- h. MEDA officials will do inspection as and when necessary, during the execution of work and thereafter subsequent to installation and commissioning of the work for the purpose of issuing final completion certificate
- i. In the event of any discrepancy observed in specifications, the specifications given by MEDA will be final. In the event of dispute arising any time, related to this work and document, decision of the Divisional General Manager, MEDA, Nashik or his nominee shall be final.
- j. MEDA at its discretion may visit supplier's factory for testing / inspection at any time during the period of supply and installation of the systems.
- k. MEDA will not pay any interest on any amount, due to the Bidders.
- l. During the inspection, if any deviations in Technical Specifications are observed, MEDA reserves right to test any solar module / system at any authorized test centre of MNRE. Bidder shall provide the facilities for getting the sample tested & the supplier shall bear the cost for the same.
- m. If the supplier fails to complete the work or partially completes it then, MEDA reserve right to cancel the work order and get it done from other supplier and any loss due to this shall be recovered either from any amount due to the supplier or from his Security Deposit.
- n. At the time of inspection of MEDA, manufacturer or supplier has to submit the I.V. curves and test reports of supplied PV modules to respective officer.
- o. The Wiring must be carried out in casing-capping / conduit which are suitable as per site condition
- p. It will be responsibility of the Bidder to ensure the satisfactory performance of the system.
- q. The Bidder shall provide the display board of size 3ft x 3ft that gives detailed information of system along with the contact details of manufacturer. This will help the beneficiary during 5 years CMC period

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- r. The Bidder shall comply with the provision of contract labour (Regulation and Abolition) Act 1970, minimum wages Act 1948, payment of the wages Act 1963 Workmen's Compensation Act 1961, the contract labour (Regulation and Abolition) Act 1979 and all other related Acts and any modification thereof or any law relating thereto and rules made there under from time to time.
- s. If previous performance of any Bidder found unsatisfactory, he will be disqualified.
- t. If any information / confirmation on any point of these tender conditions are required Bidder may contact / write to Divisional General Manager, MEDA, Nashik giving tender reference no. etc.
- u. In the event of dispute during installation & commissioning of the systems related to the work and documents, decision of the Divisional General Manager, MEDA, Nashik shall be final.
- v. The Divisional General Manager, MEDA, Nashik reserves the rights to distribute the work among the Bidders who are eligible and have submitted the offers.
- w. Once the Bidder submit his offer and subsequently if not interested to work, in such case MEDA will forfeit his EMD amount.
- x. At the time of placing work order and during the implementation MEDA can revise the technical terms and conditions if revised by MNRE, which will be binding on the Bidder.
- y. Divisional General Manager, MEDA, Nashik reserves the right to select L2 Bidder i.e. second lowest Bidder to complete the work, if L1 i.e. lowest Bidder fails to fulfil tender conditions or fails to complete the work subject to L2 bidder accept the work at received L1 price.
- z. It is binding on the successful Bidder to submit original certificates, documents required by MEDA.

2. Communications

- Wherever provision is made for the giving or issue of any notice, instruction, consent, approval, certificate or determination by any person, unless otherwise specified such communication shall be in writing and shall not be unreasonably withheld or delayed.

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- Project review coordination meetings between the Employer, Employer's Representative and Contractor shall be conducted on a regular basis or as and when required by the Employer, at locations decided by the Employer, to review the Contractor's progress and plans for completing the remaining Works, to deal with matters affecting the progress of the Works, and to decide on responsibility for actions required to be taken. Decisions taken and instructions issued during the coordination meetings, as recorded in the Minutes, shall have the same force and effect as if they were written communications issued in accordance with the three preceding paragraphs.

3. Manner of Execution

Execution of work shall be carried out in the approved manner as outlined in the technical specifications or where not outlined, in accordance with MNRE/MEDA/BIS/ Indian Standard Specifications, to the reasonable satisfaction of The Employer.

- The Contractor/Agency should successfully complete the project within timeframe set out by the employer and mutually agreed between Contractor/Agency and Employer.
- MEDA shall not be responsible for any loss or damage of any material when installing Solar Mini High Masts.
- Undertake necessary activities during the warranty period as set out in this Contract.
- It is the responsibility of successful bidder to make the insurance of Off-Grid SPV System and Solar Mini High Masts from the date of commissioning for the CMC period by following standard procedure.

4. Application

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the contract.

5. Standards

The goods supplied under this contract shall conform to the Standards mentioned in the Technical specifications as mentioned in tender/ MEDA requirements and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Good's country of origin and such standards shall be the latest issued by the concerned institution.

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6. **Inspection:**

- Bidder shall inform MEDA, Nashik in writing when the work is complete and ready for inspection giving sufficient notice to enable MEDA to depute officials to inspect the same. The work shall not be considered in accordance with the terms of the contract until the competent person from MEDA certifies in writing to that effect.
- Bidder has to strictly follow the specifications given in the work order while carrying out the execution of work. During inspection if it is found that Bidder has deviated from the specifications, Bidder has to do the alteration / modification / reconstructions as per the given specifications at his own cost & risk.

7. **Transportation**

Where the Contractor/Agency is required under the contract to transport the goods to specified locations defined as Project sites, transport to such places including insurance, as shall be specified in the contract, shall be arranged by the Contractor/Agency, and the contract price shall include transportation costs.

8. **Assignment**

The Contractor/Agency shall not assign, in whole or in part to any third party, its obligations to perform under the contract, except with MEDA's prior written consent.

9. **Sub-contracts**

Subcontract is strictly prohibited (Turnkey i.e. E.P.C. as well as C.M.C.).

10. **Termination for Default**

MEDA without prejudice to any other remedy for breach of contract, by written notice of default sent to the Contractor/ Agency, terminate the contract in whole or part:

- If the Contractor/Agency fails to deliver any or all the goods within the period(s) or within any extension thereof granted by the MEDA or
- If the Contractor/ Agency, in the judgment of MEDA has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

In the event MEDA terminates the contract in whole or in part, MEDA may procure, upon such terms and in such manner as it deems. Appropriate goods or services similar to those undelivered and the Contractor/Agency shall be liable to MEDA for any excess costs for such similar goods

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or services. However, the Contractor/Agency shall continue the performance of the contract to the extent not terminated.

11. **Applicable Law**

The contract shall be interpreted in accordance with the laws of the Union of India.

12. **Notices**

Any notice given by one party to the other pursuant to this contract shall be sent to other party in writing or by cable, telex or facsimile and confirmed in writing to the other party's address specified. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

13. **Packing**

- The Bidder shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract.
- The packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures during transit and open storage.
- Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods final destination and the absence of heavy handlings facilities at all points in transit.
- The packing, marking and documentation within and outside the item shall comply strictly with such special requirements as shall be provided for in the contract including additional requirements, if any and in any subsequent instructions ordered by the MEDA.

14. **Spares & tools-tackles:**

The bidder shall provide / supply its own necessary tools-tackles for erection & testing and required for CMC, along with sufficient quantity for consumable items / spares for replacement, if any.

15. **Insurance:**

The bidder shall provide insurance coverage ex-factory until commissioning and acceptance for replacement or repair of any part of the consignment due to damage or loss occurred during CMC.

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16. Warranties and Guarantees:

The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide warranty covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of 05 years from the date of commissioning of project. The successful bidder has to transfer all the Guarantees/Warranties of the different components to the Owner of the project. The responsibility of operation of Warranty and Guarantee clauses and Claims/Settlement of issues arising out of said clauses shall be joint responsibility of the Successful bidder and the owner of the project and MEDA will not be responsible in any way for any claims whatsoever on account of the above.

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SECTION-IV

TECHNICAL SPECIFICATION OF SPV POWER PLANT (09kWp Off-grid):

1. PV MODULES:

a. The PV modules must conform to the latest edition of any of the following / equivalent BIS Standards for PV module design qualification and type approval:

- Crystalline Silicon Terrestrial PV Modules IEC 61215 / IS14286

b. In addition, the modules must conform to IEC 61730 Part 1-requirements for construction & Part 2 - requirements for testing, for safety qualification.

c. Identification and Traceability:

Each PV module must use a RF identification tag (RFID), which must contain the following information:

- (i) Name of the manufacturer of PV Module
- (ii) Name of the Manufacturer of Solar cells
- (iii) Month and year of the manufacture (separately for solar cells and module)
- (iv) Country of origin (separately for solar cells and module)
- (v) I-V curve for the module
- (vi) Peak Wattage, I_m , V_m and FF for the module
- (vii) Unique Serial No and Model No of the module
- (viii) Date and year of obtaining IEC PV module qualification certificate
- (ix) Name of the test lab issuing IEC certificate
- (x) Other relevant information on traceability of solar cells and module as per ISO 9000 series.

It may be noted that from 1st April 2013 onwards; RFID shall be mandatory placed inside the module laminate

2. BATTERY BANK:

- The batteries shall be solar photovoltaic batteries of flooded electrolyte, low maintenance, lead Acid and made of hard rubber container.

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- Storage batteries should conform IEC 61427 / IS 1651 / IS 13369 as per specifications.
- The batteries shall use 2V-12V and battery capacity is to be designed at C/10 rate with end cell cut off voltage of 1.85 V per cell.
- Battery terminal shall be provided with covers.
- Batteries shall be provided with micro porous vent plugs with floats.
- Charging instructions shall be provided along with the batteries.
- Suitable carrying handle shall be provided.
- A suitable battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank. The features and dimensions of the battery rack shall be provided along with the bid document.
- The batteries shall be suitable for recharging by means of solar modules via incremental / open circuit regulators.
- Bidder shall mention the design cycle life of batteries at 80%, 10% and 20% depth of discharge at 27 deg. C.
- The batteries shall be designed for operating in ambient temperature of site in the state of Maharashtra.
- The self discharge of batteries shall be less than 3 % per month at 20 deg. C and less than 6% per month at 30 deg. C
- The charge efficiency shall be more than 90% up to 70% state of charge.
- The topping up frequency shall be 12 – 18 months.
- The batteries shall consist of individual cells, which can be carried separately with ease while transporting.
- Offered batteries shall comply to the following:
 - 10 % of DOD: 7200 cycles
 - 50 % of DOD: 3000 cycles
 - 80 % of DOD: 1200 cycles

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- The Battery Bank shall be designed to provide 1 day autonomy. Bidder to provide battery sizing details along with their offer. The distance between two batteries may be kept 6 inches & vice versa.
- There will be one battery bank comprising of capacity 240V/225 Ah or 120V/450 Ah for 09 kWp SPV Power Plant. The batteries should be of tubular plate lead acid & low maintenance type and shall have long service life. The cells should conform IEC 61427 / IS 1651 / IS 13369 and as per specification given below shall be provided.
- Battery protection panel
- The battery protection panel shall be made of CRCA sheet having two incoming and two outgoing terminals. There shall be 2 Nos. HRC fuses of suitable rating with fuse holder/base etc as required. 2 poles MCB/ MCCB can also be used for isolation purpose instead of fuses, if required.

Container	Polypropylene Co-polymer/hard rubbers with carrying handle.
Cover	Protective cover of polypropylenes against dirt & possible short circuit.
Terminals	Made of lead alloy suitable for bolted connection. The terminals should be greased with petroleum gel.
Electrolyte	Battery grade Sulphuric acid
Self Discharge	Less than 3% per month at 30 degree C
Life expectancy	1500 cycle duty at 27degree C at 80% depth of discharge 3000 cycle duty at 50% discharge.
Voltage	2/12 Volt
Approval	Batteries shall have to be approved by ERTL or CPRI or SEC or any MNRE approved test centres
Service Life	Should perform satisfactory for a minimum period of 5 year under operating conditions as mentioned.

Each battery bank will contain suitable wooden rack, hydrometer, thermometer, cell tester and connecting leads etc.

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3. BALANCE OF SYSTEM (BoS) ITEMS/ COMPONENTS:

Details of Power Conditioning Units:

a. General:

As SPV array produce 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 as per specifications.

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

Power Conditioning Unit (Solar Charge Controller + Inverter)	
Switching device	MOSFET/IGBT
Type	MPPT based PWM charger to charge 240 V battery bank
Input voltage from PV array	240/120V DC for 09 kWp unit. (The voltage variation shall be as per change in array output)
Protections	Short circuit protection Input under voltage / Deep discharge of battery Input surge voltage protection Over current Battery reverse polarity protection Solar array reverse blocking diode (provided in array junction box) DC rated fuse at input and AC rated fuse at output with suitable contactor/solid-state switches for safe start-up & shutdown of system Load surge current

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DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 09 KW CAPACITY OFF-GRID SPV POWER PLANT AND 1 NOS. SOLAR HIGHMAST AT PATRAKAR PANDURANG GAIKWAD SARVAJANIK LIBRARY, GOVIND NAGAR, MUMBAI-AGRA ROAD DISTRICT NASHIK IN THE STATE OF MAHARASHTRA.

	<p>Over temperature</p> <p>Under / Over output voltage</p> <p>Under / Over frequency</p> <p>Automatic / manual isolation at input & output</p> <p>Suitable protection for solid-state switching devices</p>
Dielectric strength	1.1 kV between input/output and ground with EMI protections removed
Cooling	Solar natural and Forced air cooling with temperature sensitive fan operation
Ambient operation (max)	50° C
Relative humidity	95% maximum
Assembly & mounting	As per normal industry practice
Finish	Epoxy powder coating
Cable entry	From rear 200 mm above ground level
Load test at factory	Minimum 6 hours at full load
Features	<p>Stand-alone and hybrid mode of operation.</p> <p>High quality with high efficiency and reliability</p> <p>Microprocessor based intelligent controller</p> <p>Self monitoring capability.</p> <p>Integral design with MPPT solar charge controller and inverter</p> <p>Highly reliable & efficient solid-state switching devices</p> <p>Rated for continuous operation at full load</p> <p>High over-load capability of 200% surge for 10 seconds</p> <p>Inverter output power factor of 0.8 lag</p>

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	Automatic re-start facility after over load triggered shutdown
Efficiency	90% at rated load and normal operating conditions 85% (min) at 25% load and nominal input voltage with UPF load
%THD	Sine-wave output with 3% THD at full load UPF and nominal input voltage
Output voltage	415/230 (+12.5-20%) V AC
Output frequency	50Hz \pm 0.5Hz
%Regulation	5% against input voltage and load variation
Indications	As many as possible with relevance
AC charger input	240 V AC, 50 Hz from AC mains grid
Enclosure	IP 22 (For indoor application)
Weight / Dimension	The details of the inverter will be provided in the specification / user manual
Battery type	Tubular lead acid type

b. Remote Monitoring Facilities:

Provision for Online as well as Offline remote monitoring of the installed power plants must be made in the controllers or the inverters through an integral as well as externally fitted arrangement. It should be possible to ascertain the daily power generated by the SPV power plant, Number of days the plant was under operation and breakdown / repairs.

There should be the provision for auto generated email of monthly energy generation (from SPV power plant) in prescribed format with consultation of MEDA.

c. Maximum Power Point Tracker (MPPT)

Maximum power point tracker shall be integrated into the PCU to maximize energy drawn from the Solar PV array. The MPPT should be microprocessor / micro-controller based to minimize power losses. The details of working mechanism of MPPT shall be mentioned.

The efficiency of the Charge controller (MPPT based with data logger) shall not be less than 94% and shall be suitably designed to meet array capacity.

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MPPT must conform IEC 62093, IEC 60068 as per specifications.

d. Inverter

Inverters shall be of very high quality having high efficiency and shall be completely compatible with the charge controller and distribution panel.

Inverter should conform IEC 61683, IEC 60068 as per specifications.

The inverter shall be designed for continuous, reliable power supply as per specifications.

The inverter shall have high conversion efficiency from 25 percent load to the full rated load.

The efficiency of the inverter shall be more than 90% at full load and more than 88% at partial load (50%-75%). The supplier shall specify the conversion efficiency in the offer.

The inverter shall be designed for extreme temperatures.

The Inverter shall have internal protection arrangement against any sustained fault in the feeder.

The dimension, weight, foundation details etc. of the inverter shall be clearly indicated in the detailed technical specification.

Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.

Supplier shall indicate tripping voltage & start up voltage for the inverters & this should be perfectly matched with the recommendation of battery manufacturers.

The PCU shall be mounted on a suitable reinforced concrete pad inside control room not susceptible to inundation by water. All cable entry to and from the PCU shall be fully sheathed to prevent access of rodents, termites or other insects into the PCU from bottom/top of the PCU in form of a detachable gland plate.

For the Monitoring of Unit generated provision of Ah meters at input side shall be accomplished with Energy meter and voltmeters at suitable place and included in the technical specification clearly.

Provision for the Equalizing Charging of battery periodically shall be made and state clearly in the technical details.

The bidder shall furnish details of proper operation, maintenance and trouble-shooting details to MEDA.

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The bidder shall intimate MEDA prior to dispatch of the inverter for inspection. Shop tests on the inverter shall be conducted in the presence of the authorized representative of MEDA in order to verify the capacity and proper working of all control and protection arrangement.

The inverter will be highly efficient. The inverter should conform IEC 61683 / IEC 60068 and should be based on PWM technology and using IGBT. Inverters would display its own parameters and also the parameters of battery bank connected to the inverter. The inverter's capacity should be minimum 09 KVA for 09 KW SPV power plants. 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:

Nominal Capacity	09 KVA minimum (for 09 kWp capacity)
Input / Voltage	240/120 V DC Nominal (for 09 kWp capacity) The voltage variation shall be as per change in array output.
Regulation	From minimum to maximum voltage 1%
Output frequency	50 Hz +/- 0.5 Hz
Overload Capacity	200% for 30 Second.
Efficiency	80% at 50% of load and More than 92% at full load 0.8 PF
Short Circuit Protection	Circuit Breaker and Electronics protection against sustained fault.
Low Battery Voltage	Automatic Shut Down
Total Harmonic Distortion	Less than 3%
Over Voltage	Automatic Shut Down
AC over Current/Load	Automatic Shut Down
Protection	Over Voltage both at Input & Output Over Current both at Input & Output Over Frequency

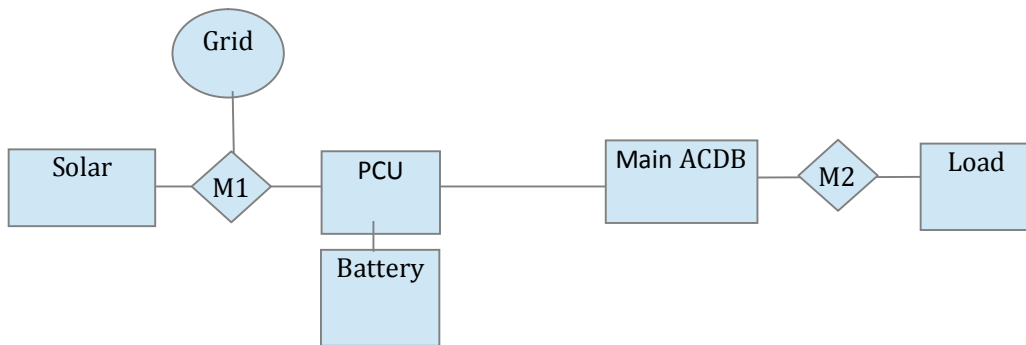
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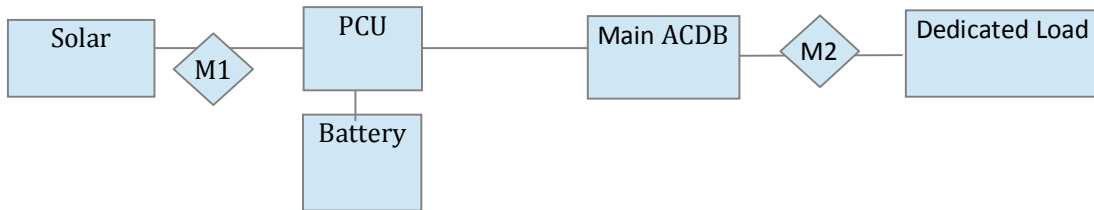
	Surge voltage inducted at output due to external source.
Protection Degree	IP65
Instrumentation & Indication	Input & Output voltage, Input & Output Current, Frequency, Power output, different status of inverter, kind of fault by audio signal.

MAIN FEATURES & OPERATING MODE:

A. Grid Tied Mode



B. Grid Failure



- i. The PCU shall operate on grid Tied mode.
- ii. In case of grid failure: Stored power from batteries shall be used to feed the dedicated load less than 09 kW.
- iii. Grid power shall be the last priority to feed the load. During such time, the PCU shall feed the load directly through grid and shall also charge the batteries.
- iv. Power Electronics must be designed to convert PCU to grid tied inverter with provision to bypass the battery. Demonstration of same should be given on site.

There should be following provision in PCU if:

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Battery Bank is fully charge

AND

Load is lesser than the suggested/dedicated load capacity

Then extra generated Energy should be fed to Grid.

Load Side Monitoring:

(Meter 1 M-1) Dual Source RS 485 complied Energy meter should be provided in Solar AC distribution board to remotely monitor the Solar Energy Supplied to load and or Exported to Grid.

(Meter 2 M-2) Bidirectional Energy Meter so there should be provision to monitor Energy supplied to load from grid in absence of solar Energy

e. Junction Boxes

The junction boxes shall be dust, vermin and waterproof and made of FRP / Thermo Plastic. The terminals shall be connected to copper bus bar arrangement of proper sizes. The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables. Suitable markings shall be provided on the bus bar for easy identification and cable ferrules shall be fitted at the cable termination points for identification. Each main junction box shall be fitted with appropriate rating blocking diode. The junction boxes shall be of reputed make and should be as per IP 65 (for outdoor), IP 21 (for indoor) & as per IEC 62208.

The junction boxes shall have suitable arrangement for the Following:

Combine groups of modules into independent charging sub-arrays that shall be wired to the controller.

Provide arrangement for disconnection for each of the groups.

Provide a test point for each sub-group for quick fault location.

To provide group array isolation.

The rating of the JB's shall be suitable with adequate safety factor to inter connect the Solar PV array.

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f. Charge Controller Unit:

- The Charge Controller shall be dual input type; however the input is fed from a SPV panel only for battery charging. A selector switch shall be provided for choosing between those modes. The charge controller shall be preferably PWM type employing IGBT switching elements.
- Charge controller should conform IEC 62093 / IEC 60068 as per specification.
- The charging sequence from SPV array or external AC source shall be as follows:
 - Salient features of the Charge Controller shall be as follows:
 - Switching elements: IGBT
 - Type of Charger: PWM
 - Input :From PV 09 kWp, 240V/225 Ah or 120V/450 Ah nominal DC from Solar PV array
 - Output Voltage: Suitable for charging 240V/225Ah or 120V/450 Ah nominal battery bank from 09 kWp SPV array.
 - Protections :Short Circuit, Deep Discharge, Input Surge Voltage, Over Current (load), Battery Reverse Polarity, Solar array reverse polarity.
 - Indication :String 'ON', Main 'ON', Charging 'ON', 80% Charged, 100% Charged, Charger Overload, Battery On Trickle.
 - Battery disconnected / Fault Battery Reverse Polarity, Low Solar Power, System Fault and Charger over Temperature and Input Over / Under Voltage (for AC).
 - MIMIC Diagram : To indicate power flow and operation of the charge controller/ battery charger; shall have provision for visual indications of existing power input/output through MIMIC diagram.
 - Bidder may design Power Conditioning Unit (PCU), which consists of a solar charge controller & inverter as per design mentioned above. In addition, it should have a Grid Charger.
 - It provides the facility to charge the battery bank through Solar only. The PCU continuously monitors the state of Battery Voltage, Solar Power output and the loads. Due to sustained

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usage of power, when the Battery Voltage falls below a preset level, the PCU will automatically transfer the load to the grid power.

g. Cables & Wirings:

All cables shall be supplied conforming to IEC 60227/ IS 694 & IEC 60502/ IS 1554. Voltage rating: 1,100V AC, 1,500V DC

For the DC cabling, Solar Cables, XLPE or XLPO insulated and sheathed, UV stabilised single core flexible copper cables shall be used. Multi-core cables shall not be used.

For the AC cabling, PVC or XLPE insulated and PVC sheathed single or multi-core flexible copper cables shall be used. Outdoor AC cables shall have a UV-stabilised outer sheath.

The DC cables from the SPV module array shall run through a UV stabilised PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.

Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.

All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm. The minimum DC cable size shall be 6.0 mm² copper. The minimum AC cable size shall be 4.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires. The following colour coding shall be used for cable wires:

- DC positive: red (the outer PVC sheath can be black with a red line marking)
- DC negative: black
- AC single phase: Phase: red; neutral: black
- AC three phase: Phases: red, yellow, blue; neutral: black
- Earth wires: green

Cables and conduits that have to pass through walls or ceilings shall be taken through a PVC pipe sleeve.

Cable conductors shall be terminated with tinned copper end-ferrules to prevent fraying and breaking of individual wire strands. The termination of the DC and AC cables at the Solar

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Grid Inverter shall be done as per instructions of the manufacturer, which in most cases will include the use of special connectors.

All wiring in the control room shall be carried out with minimum four sq. mm. PVC insulated copper conductor in surface/recessed steel conduct in control room & solar hut. All wiring shall be done with an appropriate size Cu conductor as earth wire. All wirings whether it is indoors or outdoors are to be casing capping system. As and when required flexible pipe may be used.

Buried underground cables shall be armoured. Unarmoured buried underground cables shall be enclosed with suitable conduits. Unless, otherwise, specified, all other interconnecting cables shall be armoured.

Conductor size of cables and wires shall be selected based on efficient design criteria such that the overall electrical energy loss in any section of cable or wire is shall be less than 2% under the designed operating conditions. Conductor size of less than 6 sq. mm shall not be accepted.

Cable/wire connections shall be soldered, crimp-on type or split bolt type. Wire nut connections shall not be used.

All cables shall be adequately supported. Outside of the terminals/panels/enclosures shall be protected by conduits. Cables shall be provided with dry type compression glands wherever they enter junction boxes/panels/enclosures.

The wiring must be carried out in casing capping only.

h. Distribution System:

Single line diagram of the AC Distribution line shall be attached along with general point wiring diagram of sample room with the Technical details.

Details of cable used for the distribution and transmission purpose along with their current carrying capacity and make shall be enclosed.

Supply installation of Energy meter from reputed company. The energy meter shall be tested by State Electricity Board (SEB) and sealed by SEB. Testing certificate shall be submitted.

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i. Earthing and lightning protection:

Earthing is essential for the protection of the equipment & manpower. Two main grounds used in the power equipments are:

- System earth
- Equipment earth

System earth is earth which is used to ground one leg of the circuit. For example in AC circuits the Neutral is earthed while in DC supply +ve is earthed.

In case of equipment earth all the non-current carrying metal parts are bonded together and connected to earth to prevent shock to the man power & also the protection of the equipment in case of any accidental contact.

To prevent the damage due to lightning the one terminal of the lightning protection arrangement is also earthed. The provision for lightning & surge protection of the SPV power source is required to be made.

In case the SPV Array cannot be installed close to the equipment to be powered & a separate earth has been provided for SPV System, it shall be ensured that all the earths are bonded together to prevent the development of potential difference between any two earths.

Earth resistance shall not be more than 1 ohm. It shall be ensured that all the earths are bonded together to make them at the same potential.

The earthing conductor shall be rated for the maximum short circuit current. & shall be 1.56 times the short circuit current. The area of cross-section shall not be less than 1.6 sq mm in any case.

The array structure of the PV modules shall be grounded properly using adequate numbers of earthing pits. All metal casing/ shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

The Earthing for array and distribution system & Power plant equipment shall be made with GI pipe, 4.5 m long 10 mm diameter including accessories and providing masonry enclosures with cast iron cover plate having locking arrangement, watering pipe using charcoal or coke and salt as required as per provisions of IS:3043. Necessary provision shall be made for bolted isolating joints of each Earthing pit for periodic checking of earth resistance.

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Each array structure of the SPV yard shall be grounded properly. The array structures and the lightning conductors are to be connected to earth through 25 mm X 5mm GI strip.

The inverters and battery charger and all equipment inside the control room and battery room to be connected to earth through 25 mm X 5mm tinned copper strip including supplying of material and soldering. As earth bus is provided inside the control room with 25 mm X 5mm tinned copper strip.

In compliance to Rule 61 of Indian Electricity Rules, 2004 (as amended up to date), all non-current carrying metal parts shall be earthed with two separate and distinct earth continuity conductors to an efficient earth electrode.

Lightning: The SPV Power Plant shall be provided with lightning & over voltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc.

Metal oxide variastors shall be provided inside the Array Junction Boxes. In addition, suitable MOV's also shall be provided in the Inverter to protect the inverter from over voltage.

j. Lightning & Over Voltage Protection System:

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

The lightning Conductors shall be made of 25 mm diameter 1000 mm long GI spike as per provisions of IS 3070. Necessary concrete foundation for holding the lightning conductor in position to be made after giving due consideration to maximum wind speed and maintenance requirement at site in future. The lightning conductor shall be earthed through 20 mm X 3 mm thick GI flat earth pits/earth bus made with 25 mm X 5 mm GI flats.

4. MAIN FEATURES & OPERATING MODE

PCU should give preference to the solar power as the first input to load and extra energy produced by solar is used to charge the battery bank. The second preference is given to the battery. In the absence of both solar and battery the power from grid will be fed to the load.

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The PCU always gives preference to the solar power and will use Grid power only when the solar power / battery charger is insufficient to meet the load requirement.

5. MODULE MOUNTING STRUCTURE

Hot dip galvanized iron mounting structures may be used for mounting the modules/panels/arrays. These mounting structures must be suitable to mount the SPV modules/panels/arrays on the roof top, on the ground or on the poles/masts, at an angle of tilt with the horizontal in accordance with the latitude of the place of installation.

The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (wind speed of 150 km/ hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard.

The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759 with thickness of 80 microns as per IS 5905. All fasteners shall be of Stainless steel - SS 304.

The foundation for Module Mounting structures shall be 1:2:4 PCC Construction. There shall be minimum necessary clearance between ground level and bottom edge of SPV modules.

6. ORIENTATION AND TILT OF PV MODULE

Modules alignment should be due south and tilt angle shall be 12 - 16 degrees with horizontal.

7. DC DISTRIBUTION BOARD (DCDB)

A DCDB shall be provided in between PCU and Solar Array. It shall have MCCB of Suitable rating for connection and disconnection of array section. It shall have meters for measuring Array voltage and Array current.

8. OPERATION MANUAL

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar PV Power Plant and detail of Wiring and Connection Diagrams will also be provided with the manual.

9. COMPREHENSIVE MAINTENANCE CONTRACT (CMC)

- The complete Solar PV Power Plant must be guaranteed against any manufacturing/ design/ installation defects for a minimum period of 5 years.

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- PV modules used in Solar PV Power Plant must be guaranteed for their output peak watt capacity, which should not be less than 90% at the end of 12 years and 80% at the end of 25 years.
- During the CMC period, MNRE / MEDA / users will have all the rights to cross check the performance of the Solar PV Power Plant. MEDA may carry out the frequent inspections of the Solar PV Power Plant installed and randomly pick up its components to get them tested at Govt. / MNRE approved any test centre. If during such tests any part is not found as per the specified technical parameters, MEDA will take the necessary action. The decision of MEDA in this regard will be final and binding on the bidder.

10. TEST REPORTS

Valid test certificates from MNRE approved test centres only will be considered valid.

11. OTHER FEATURES

- The supplier must fulfil all the technical & other requirements as per provisions under JNNSM, MNRE, GoI.
- A strip containing the following details should be laminated inside the module to be clearly visible from the front side:
 - a. Name of the Manufacturer or distinctive Logo
 - b. Model or Type No.
 - c. Serial No.
 - d. Year of make.

Sr. No.	Particulars		Specifications
			09 kWp SPV Plant
1	Solar PV Modules		
	a	Capacity	9000 Wp
	b	Make	Any MNRE approved OR IEC 61215 (revised)

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Sr. No.	Particulars		Specifications
			09 kWp SPV Plant
	c	Module	300/325/350 Wp OR Equivalent
	d	No. of SPV Modules	Depends on Module wattage
2	Solar Charge Controller		As per the requirement
3	Module Mounting Structure		As per the available places at site
4	Power Conditioning Unit (As per design specification given in tender which includes charge controller, inverter & Grid charger. The output power should be of 3 phase)		1 No.
	Inverter		minimum 09 kVA
5	Battery No. of batteries depends on Ah of the Battery capacity (2/12 Volt battery must be used)		240V/225Ah or 120V/450 Ah
6	Cabling with casing capping		As required at site
7	Transmission, Distribution & point wiring		As required at site
8	Monitoring, Control & protection device		1 Set
9	Metering at generation side		1 No. (at DC side of Inverter)
10	Metering at consumption side		1 No. (Towards Load)
11	Spares		Set of required fuses, screws, & terminals

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Sr. No.	Particulars	Specifications
		09 kWp SPV Plant
		etc as required.

SOLAR HIGHMAST SPECIFICATION

A standalone High-Mast Street Lighting System is an outdoor lighting unit used for illuminating a street or an open area. The High-Mast Street Lighting System consists of solar photovoltaic (SPV) module, a luminary, storage battery, control electronics, inter-connecting wires/cables, module mounting pole including hardware and battery box. The luminary is based on White Light Emitting Diode (W-LED), a solid state device which emits light when electric current passes through it. The luminary is mounted on the pole at a suitable angle to maximize illumination on the ground. The PV module is placed at the top of the pole at an angle facing south so that it receives solar radiation throughout the day, without any shadow falling on it.

Electricity generated by the PV module charges the battery during the day time which powers the luminary from dusk to dawn. The system lights at dusk and switches off at dawn automatically.

BROAD PERFORMANCE SPECIFICATIONS

PV Module	Only Indigenous Mon-crystalline modules shall be used in the project. For each Solar High Mast SPV module aggregate capacity 400 Wp.
Battery	Li Ferro Phosphate (LiFePo4) batteries of capacity (12 V, 150 Ah) x 2 Nos. for each Solar High Mast With cells in a suitable weather resistant enclosures and sophisticated designed battery management system (appropriate over charging, over heating deep discharge protection) without paralleling battery bank. Battery should be in IP-65/66 enclosure.
Light Source	White Light Emitting Diode (W-LED) flood light 5*20 Watt (LED + Driver) DC operator confirming to IP65 or above with proper dimmer arrangement Using LEDs which emits ultraviolet light will not be permitted.
Light Output	White color (color temperature 5500-6500 K). Lumen efficiency of LED-MIN 140 LUMENS/ Watt the illumination should be uniform without dark bands or abrupt variations and soothing to the eye. Higher light output will be preferred.
Pole (Minimum 80 microns)	6 M Long octagonal raising lowering mast shaft in single section suitable for basic wind speed 50 m /sec (180 Km/Hr) complete with head frame, Luminaries

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 09 KW CAPACITY OFF-GRID SPV POWER PLANT AND 1 NOS. SOLAR HIGHMAST AT PATRAKAR PANDURANG GAIKWAD SARVAJANIK LIBRARY, GOVIND NAGAR, MUMBAI-AGRA ROAD DISTRICT NASHIK IN THE STATE OF MAHARASHTRA.

	carriage suitable to install 5 Nos. Luminaries, solar panels and battery on the top of the mast. There should be provision to install the type tested winch inside the mast for raising and lowering of complete solar lighting system along with compact unit of modules through a mounting structure around the pole including hardware. The Mast must be Hot dip galvanized multi-sided octagonal structure having bottom A/F minimum Dia 130 mm and top A/F Dia 70 mm to 3 mm thick the Solar High Mast should have a design life of 25 years.
Electronics Efficiency	Minimum 85% Total
Autonomy	3 Days or minimum 36 operating hours per permissible discharge.

TECHNICAL DETAILS PV MODULE

- i. Indigenously manufactured PV module should be used.
 - ii. The PV module should have Mono-crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.
 - iii. The power output of the module(s) under STC should be a minimum of 400 Wp at a load voltage* of $16.4 \pm 0.2V$.
 - iv. The open circuit voltage* of the PV modules under STC should be at least 21.0Volts.
 - v. The module efficiency should not be less than 12%.
 - vi. The terminal box on the module should have a provision for opening it for replacing the cable, if required.
 - vii. There should be a Name Plate fixed inside the module which will give:
 - a. Name of the Manufacturer or Distinctive Logo.
 - b. Model Number
 - c. Serial Number
 - d. Year of manufacture
 - viii. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the tedlar sheet of the module.
- *The load voltage and Voc conditions of the PV modules are not applicable for the system having MPPT based charge controller.

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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BATTERY

- i. Lithium battery LiFePo₄.
- ii. The battery will have a minimum rating of 12 V, 150 Ah * 2 Nos.
- iii. Battery should conform to the latest BIS/ International standards.

LIGHT SOURCE

- i. The light source will be a white LED flood type.
- ii. The colour temperature of white LED used in the system should be in the range of 5500oK–6500oK.
- iii. W-LEDs should not emit ultraviolet light.
- iv. The light output from the white LED light source should be constant throughout the duty cycle.
- v. The lamps should be housed in an assembly suitable for outdoor use.
- vi. The temperature of heat sink should not increase more than 20oC above ambient temperature during the dusk to dawn operation.

ELECTRONICS

- i. The total electronic efficiency should be at least 85%.
- ii. Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the year.
- iii. No Load current consumption should be less than 20mA.
- iv. The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- v. The PCB containing the electronics should be capable of solder free installation and replacement.
- vi. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

ELECTRONIC PROTECTIONS

- i. Adequate protection is to be incorporated under “No Load” conditions e.g. when the lamp is removed and the system is switched ON.
- ii. The system should have protection against battery overcharge and deep discharge conditions.
- iii. Fuse should be provided to protect against short circuit conditions.

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- iv. Protection for reverse flow of current through the PV module(s) should be provided.
- v. Electronics should have temperature compensation for proper charging of the battery throughout the year.
- vi. Adequate protection should be provided against battery reverse polarity.
- vii. Load reconnect should be provided at 80% of the battery capacity status.

MECHANICAL COMPONENTS

- i. A corrosion resistant metallic frame structure should be fixed on the pole to hold the SPV module.
- ii. The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that the module can be oriented at the specified tilt angle.
- iii. The pole should be octagonal made of Galvanised Iron (GI) pipe with bottom of 130 mm A/F, Top 70 mm.
- iv. The height of the pole should be 6 metres above the ground level, after grouting and final installation.
- v. The pole should have the provision to hold the luminary.
- vi. The lamp housing should be water proof and should be painted with a corrosion resistant paint.
- vii. A vented, acid proof and corrosion resistant metallic box with a locking arrangement for outdoor use should be provided for housing the battery.

INDICATORS

The system should have two indicators, green and red.

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

Red indicator should indicate the battery "Load Cut Off" condition.

QUALITY AND WARRANTY

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

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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

OPERATION and MAINTENANCE MANUAL

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

- Basic principles of Photovoltaic's.
- A small write-up (with a block diagram) on Solar Mini High Masts - its components, PV module, battery, electronics and luminaries and expected performance.
- Type, Model number, Voltage & capacity of the battery, used in the system.
- The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system.
- About Charging and Significance of indicators.
- Clear instructions about erection of pole and mounting of PV module (s) and lamp housing assembly on the pole.
- Clear instructions on regular maintenance and trouble shooting of the Mini High Masts System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance, in case of non-functionality of solar High Mast System.

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Annexure – A

FORMAT FOR PERFORMANCE BANK GUARANTEE

To:

Divisional General Manager

Krishi Audyogik Sahakari Sangh, Near, NDCC Bank,

Dwarka Point, Nashik. 422211.

WHEREAS *[name and address of Contractor]* (hereinafter called "the Contractor") has undertaken, in pursuance of Work Order No. _____ Tender No. for works DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010 to design, manufacture, supply, installation, testing and commissioning with five years comprehensive maintenance contract of 09 kW capacity Off-Grid SPV Power Plant and 1 Nos. Solar Highmast at Patrakar Pandurang Gaikwad Sarvajanic Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State. (hereinafter referred to as the contract of works) and as described in the Bidding Data in Maharashtra State for works single point responsibility "Turnkey Contracts" basis (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of Guarantee]* _____ *[in words]*, and we undertake to pay you, through our branch office at _____ upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of Guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the date of completion of the defects liability period, with a claim period of further one month.

Yours truly,	
Signature and seal of the Guarantor:	
Name of Bank/Financial Institution:	
Address:	
Date:	

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Format - A

POWER OF ATTORNEY

(On Rs. 100/- stamp paper)

Know all men by these presents, We,, Reg. Address: do hereby irrevocably constitute, nominate, appoint and authorise Mr./Mrs./Ms., Contact No. +91-....., Email.....@..... presently employed with us and holding the position of, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to participate in e-tendering process for e-tender no. DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010 for Design, Manufacture, Supply, Installation, Testing and Commissioning with Five Years Comprehensive Maintenance of Solar LED Mini High Masts of 09 kW capacity Off-Grid SPV Power Plant and 1 Nos. Solar Highmast at Patrakar Pandurang Gaikwad Sarvajanic Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State, including but not limited to signing and submission of all applications, Bids and other documents and writings, participate in Bidders and other conferences and providing information / responses to the Company, representing us in all matters before the Company, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our Bid, and generally dealing with the Company in all matters in connection with or relating to or arising out of our Bid for the said Project and/or upon award thereof to us and/or till the entering into of the Contract Agreement AND, we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

For
(Company Name)

Name of signing authority:
Designation: (Owner / Director / Proprietor / Partner)
Place:
Date:

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 09 KW CAPACITY OFF-GRID SPV POWER PLANT AND 1 NOS. SOLAR HIGHMAST AT PATRAKAR PANDURANG GAIKWAD SARVAJANIK LIBRARY, GOVIND NAGAR, MUMBAI-AGRA ROAD DISTRICT NASHIK IN THE STATE OF MAHARASHTRA.

Format - B

DECLARATION
(On Company's letter head)

To,
General Manager, (Divisional Office Nashik)
Maharashtra Energy Development Agency,
KrishiBhavan, Ground Floor, Near N.D.C.C. Bank, Dwarka Point, New
Mumbai-Agra Road, Nashik – 422 011, Contact No.: 0253-2598685;
Email id - domedanasik@mahaurja.com

Reference: E-tender no. DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010

Respected Sir/Madam,

1. We have carefully read and understood all the terms and conditions of the tender and hereby convey our acceptance to the same.
2. The information / documents furnished along with our offer are true and authentic to the best of my knowledge and belief, We are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of our tender at any stage besides liabilities towards prosecution under appropriate law.
3. We have apprised our self fully about the job to be done during the currency of the period of agreement and also acknowledge bearing consequences to of non-performance or deficiencies in the services on our part.
4. We have no objection, if enquiries are made about the work listed by us.
5. We have not been barred or blacklisted by any Government Agency / Department/ PSU or any such competent Government authority, organization where we have worked. Further, if any of the partners/directors of the organization /firm is blacklisted or having any criminal case against them, our bid shall not be considered. At any later point of time, if this information is found to be false, Divisional Office Nashik, Maharashtra Energy Development Agency, may terminate the assigned contract immediately.
6. We have not been found guilty by a court of law in India for fraud, dishonesty or moral turpitude.
7. We agree that the decision of General Manager, Divisional Office Nashik, Maharashtra Energy Development Agency in selection of Bidders will be final and binding to us.

For
(Company Name)

Name of signing authority / Designation / Place / Date

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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FORMAT - C

DETAILS OF BANKER

Sr. No.	Particulars	
1	Name of Bank	
2	Name of Branch	
3	IFSC Code	
4	Account Name	
5	Account No.	
6	Type of Account	

For

(Company Name)

Place -

Date -

Name of signing authority / Designation

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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FORMAT - D**Bidder's Information Sheet**

Sr. No.	Particulars	
1.	Name of Firm	
2.	Detailed Mailing Address of firm	
3.	Firm Status (PSU/Incorporate / Ltd / Pvt. Ltd/LLP/Partnership/proprietor)	
4.	Contact Person Name, Designation &	
5.	Contact No.	
6..	E-mail Address for correspondence	
7.	Firm Website Address	
8.	Firm Registration No/ ROC	
9.	Establish Year of firm	
10.	PAN No.	
11.	GST No.	
12.	Turnover (in Rs.) 2018-19, 2019-20, 2020-21 (In Lac Rs.)	
13.	Company Profile (<100 words)	
14.	Skilled manpower	
15.	Experience in Solar Mini High Mast and Off-Grid SPV Power Plant (<100 words)	
16.	Experience in other solar projects (<100 words)	
17.	Solar related Product Range	
18.	Experience in guarantee, Maintenance & after sales	

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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Sr. No.	Particulars	
1.	Name of Firm	
	services (years)	
19	Accreditation / Special Achievement, if any by firm / Bidder	
22	List of ISI, ISO, Other cert.	

It is certified that the information provided above is true to the best of my knowledge and belief. If any information found to be concealed, suppressed or incorrect at later date, our tender shall be liable to be rejected and our company may be debarred from executing any business with Govt. of Maharashtra/ MEDA.

Signature of Bidder

Name

Designation

Company

Date:

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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FORMAT - E

Annual Turnover Certificate

This is to certify that, the (Name of firm) registered as /under having registered

Address.....and

asses to income tax with circle..... location..... and holding IT PAN

..... Further, it is certified that, the sales / turnover of the above referred company for the last three years are as under.

Annual Turnover Data for the last 3 Years of FY 2018-19, 2019-20 & 2020-21	
Financial Year	Rs. in Lac
2018-19	
2019-20	
2020-21	
Total	

We have verified the books of accounts, records and other relevant documents. This certificate has been issued on the basis of data / information produced before us and on the request of the client.

For

Seal

(Name of C.A. Firm)

Name of signing authority (C.A.)

Place:

Date:

Note: Bidders to submit scanned copy of IT returns for last three financial years, supporting with summary of balance sheet / auditor's report, along with above certificate.

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FORMAT – F

Experience for supply and Commissioning of Solar Mini High Masts

Sr. No.	Name of Project	No. of Solar Mini High Masts	Capacity of Off-Grid Solar Power Plant System	Date of Commissioning / current status of Project

Signature of Bidder

Name

Designation

Company

Date

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

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FORMAT - G

SITE VISIT REPORT LETTER
(To be submitted on letterhead of bidder)

Date: _____

To,
Divisional General Manager,
Maharashtra Energy Development Agency,
MEDA, Nashik.

Sub : Site Visit Report for Design, Manufacture, Supply, Installation, Testing and Commissioning with Five Years Comprehensive Maintenance of 09 kW capacity Off-Grid SPV Power Plant and 1 Nos. Solar Highmast at Patrakar Pandurang Gaikwad Sarvajanic Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State.

Ref. : MEDA's Tender No. DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010

Sir,

This has reference to above referred tender of Design, Manufacture, Supply, Installation, Testing and Commissioning with Five Years Comprehensive Maintenance of 09 kW capacity Off-Grid SPV Power Plant and 1 Nos. Solar Highmast at Patrakar Pandurang Gaikwad Sarvajanic Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State. I/We declare that we have visited the sites.

I / We made ourselves acquainted with site conditions, approach to site, requirement of land, soil conditions, availability of water, requirement of tender conditions etc.

I / We verified all details required to execute the projects.

I / We have no problems in undertaking the projects and complete them in the given time period.

Thanking you

Yours faithfully,

(Signature of Bidder)

Name of Bidder -----

Designation -----

Seal:

Signature of Library Incharge:.....

Name :.....

MEDA, Nashik.....

Name:

MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA), NASHIK

DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 09 KW CAPACITY OFF-GRID SPV POWER PLANT AND 1 NOS. SOLAR HIGHMAST AT PATRAKAR PANDURANG GAIKWAD SARVAJANIK LIBRARY, GOVIND NAGAR, MUMBAI-AGRA ROAD DISTRICT NASHIK IN THE STATE OF MAHARASHTRA.

FORMAT - H**Check List**

Sr. No.	Part - A	Particulars	Yes/ No	Page No.
1	1 st Cover page	Filled in copy of this Check List indicating page no.		
2	Annexure – I (a) Annexure – I (b)	a) Copy details for Tender document fees b) Copy details for Earnest Money Deposit(EMD)		
3	Annexure - II	Tender document(duly stamped and signed by bidder's authorised person on each page)		
4	Annexure – III	Registration Certificate of Firm.		
5	Annexure – IV	Copy of Registration Certificates for GST & Copy of PAN Card.		
6	Annexure - V	Power of Attorney (on Rs 100/- stamp paper) (Refer Format - A)		
7	Annexure – VII	Declaration (on company letter head) (Refer Format – B)		
8.	Annexure – VIII	Banker's Details (Refer Format - C).		
9	Annexure - IX	Bidder's Information (Refer Format - D).		
10	Annexure - X	C. A. Certificate (on C. A.'s letter head) (Refer Format - E) (submit copy of IT returns for last three financial years, supporting with summary of balance sheet / auditor's report)		
11	Annexure - XI	List of Project (submit self attested copies of both work order and completion certificate issued by end user / client on their official letter head; refer Section II of Tender, Clause no III of 2. for eligibility criteria) (Refer Format - F)		
12	Annexure – XII	Site Visit Report (on company letter head) It is mandatory to upload site visit report duly signed by concern authority at Site (Refer Format - G)		

Note:

- Above information / documents are to be uploaded / annexed as a **SINGLE PDF** in prescribed format (Refer Format A to J) in above **SEQUENCE**.
- **Bid without any of above document is liable for rejection.**
- Upload necessary documents only, so as to restrict Bid with maximum 220 pages; **readable scanned file for resolution not less than 100 dpi.**
- **Submit financial BID, separately.**

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1	Part - B	Separate duly filled soft copy of Excel file "BOQ" for financial bid		
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PART - B

Reference No.: DGM/MEDA-NSK/PATRAKAR/NASHIK/2021-22/010

FINANCIAL BID

Name of the Firm: -----

Solar Mini High Masts

Financial offer for the Design, Supply, Installation, Commissioning, with 05 years warranty with Comprehensive maintenance of Solar LED Mini high Masts as per scope of work, Tech. requirement, Specifications & terms and conditions etc... of Technical Bid, of the tender.

Sr. No.	Place of Installation	Project Description	Unit Rate (Rs)	Total Cost (Rs)
1.	Patrakar Pandurang Gaikwad Sarvajanic Library, Govind Nagar, Mumbai-Agra Road District Nashik in Maharashtra State	09 kW capacity Off-Grid SPV Power Plant		11,04,000.00
2.		1 Nos. Solar High Mast		
Final Total Price in Words				

NOTES:

1. Certified that rates quoted above are as per the requirement, specification, scope, terms & condition mentioned in the e-tender document & its corrigendum (s), if any.
2. The rates are inclusive of all taxes & duties, storage, transportation up to site, insurance etc., and any other job required to properly execute the work.
3. Any techno commercial deviation / price escalation shall not be entertained / allowed.
4. This offer shall remain valid for acceptance for 6 Months from the date of opening of financial bid of e-tender.

(Signature of Bidder)
With seal

To be uploaded in Part B.

Other document / condition / any deviation, terms if enclosed will liable to be rejection of bid.