

**ODISHA ELECTRICITY REGULATORY COMMISSION  
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR,  
BHUBANESWAR-751021**

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Ref. No.: OERC-Engg-6/14(Vol-IV)/785

Date 09.07.2021

**REQUEST FOR BIDS FOR OPERATION & MAINTENANCE OF THE 25 kWp SOLAR PV**

Odisha Electricity Regulatory Commission (OERC) proposes to engage O&M Contractors/ agencies on the aforementioned subject. The Terms of Contract [also referred to as Request for service (RfS)] including agreement and application are **enclosed**.

Bids are invited for above work from reputed O&M Contractors/ agencies. The bidders are desired to meet the following Eligibility Criteria for application of bids:

- Provide the Self-attested copy of the Certificate of Incorporation / Registration Certificate/ Certificate of Commencement of Business;
- Provide self-attested copy of valid PAN Number & GST Identification Number (GSTIN);
- Positive net worth in each of the last (3) three financial years (CA Certification along with net worth of company for past 3 years to be provided);
- Experience of over 5 years of providing O&M services for rooftop solar in India and should have successfully completing at-least Two (2) engagements providing O&M services for rooftop solar plant. (copies of work orders to be submitted).
- Provide an undertaking that it is presently not banned /delisted/ black listed / debarred either by Central Government / State Government / Union Territory / PSU / Government Department in India, or any entity controlled by them, from participating in any assignment and the bar subsists as on the date of proposal;
- Provide an undertaking that during the last Five (5) years it has neither failed to perform on any agreement nor been expelled from any project or agreement nor have had any agreement terminated for breach of contract by such bidder.
- The Commission at any stage may cancel/modify/relax any terms in the bid without assigning any reasons.
- It may be noted that bids would be evaluated by OERC whose decision is final and binding as regards to Award of Contract.

Bids are to be submitted in an envelope clearly mentioning in bold letters on top of the envelope “**Bid for Operation and maintenance (O&M) of the 25 kWp solar PV project on the rooftop of OERC building project for a period of 5 (Five) years**”. The bids should be addressed to **Secretary, OERC, Plot No. 4, Chunokoli, Shailashree Vihar, Bhubaneswar-751021 so as to reach by 27<sup>th</sup> July 2021**. The bidders are required to submit the supporting documents along with Annexures.

**Encl: As above**

**Sd/-  
SECRETARY**

**RfS for Operation and Maintenance (O&M) of the 25 kWp solar PV project on the rooftop of OERC building for a period of 5 (Five) years**

**Introduction:**

The 25 kWp solar power plant on rooftop of OERC building was commissioned on 10.08.2016. The implementing agency has been assigned O&M for 5 years from the date of commissioning of the project. The contract period is on the verge of completion and it will be terminated on 09.08.2021. In view of this, OERC has decided to invite bids from reputed experienced O&M contractors/ agencies to carry out the operation and maintenance work for subsequent 5 year period. OERC through this RfS, invites quotations for O&M of the 25 kWp project at OERC building for a period of 5 (Five) years starting 10.08.2021. The project has generated about 146 MWh of energy as on 04.06.2021 with an average generation of about 90 kWh per day (including force majeure conditions) since the date of commissioning.

**Scope of Work:**

The scope of work for the bidder include Operation and maintenance activities including cleaning of solar PV modules, System inspection, supervision and control of the PV power plant, coordination of maintenance activities, Operation and monitoring of the solar PV plant. Operation and Maintenance of the 25 kWp Roof top Solar PV system on OERC building is to be carried out for a period of 5 years, during which OERC will monitor the project for effective performance in line with conditions specified elsewhere in the document. The period of operation and maintenance may be extended further on mutual agreement subject to satisfactory performance.

The bidder shall be responsible for:

- a) All operations and maintenance services necessary and advisable to efficiently operate and maintain the plant, including all associated mechanical and electrical equipments.
- b) The Schedule of preventive maintenance for all equipment to be prepared in consultation with OERC. Necessary records of the services\work carried out to be maintained and the same has to be countersigned by the office of OERC.
- c) Maintaining the Plant and up-to-date accurate recording of operating parameters, records and Monthly reports regarding the operation and continuation of the Plant which shall include detail of power output, other operating data, repairs performed and status of equipment, all such records to be maintained for the lifetime of the Solar plant. Upon expiry of term, the contractor shall hand over such records to the Engineer-in-Charge. However, Engineer-in-Charge shall have access to all such records at any time.
- d) Regularly updating and implementing equipment preservation program that meet the specifications of the equipment manufacturers and the recommendations of the manufacturers.
- e) Works other than breakdown, which may require comparatively long stoppage of the Power Plant, shall be carried out preferably during the period when the solar irradiance is least.
- f) Carrying out and attending all kinds of activity as required for smooth & trouble free operation of the plant.
- g) Providing technical & engineering support for resolving operational problems.
- h) Performing the services as required procuring spare parts, or equipment/s overhaul of parts, tools and equipment, required to operate and maintain the Plant in accordance with the recommendations of Original Equipment Manufacturer (OEM).
- i) Operation and maintenance of the Plant, earthing, fire protection and safety equipments connected to the PV system.

j) Arrange spares, consumables, tools & tackles, and testing.

**Commencement of O&M:**

It shall commence the work from the date of execution of the agreement unless OERC has granted extension of time after judiciously considering the merit of the ground urged for the extension.

Failure of the Contractor to comply with the requirements as mentioned in the scope of work shall constitute sufficient grounds for cancellation of award of contract and re-arrange the Work at the risk and cost of the Contractor.

If due to the default of the Bidder/Contractor to execute Contract or execute the Work with proper diligence, the Work will be arranged otherwise by OERC after forfeiting the security deposit of the concerned contractor. If any loss to OERC results due to this, the same will be recovered from the Contractor as if it were arrears of revenue, but should it be a saving of OERC, the original Contractor shall have no claim whatsoever be the difference.

The contractor shall submit the maintenance and operation schedule to OERC and get it approved before starting the work.

The contractor shall keep the area of work clean and shall remove the debris etc. while doing operation and maintenance. Upon completion of maintenance work, the contractor shall remove all scrap, packing materials, rubbish, unused and other materials and keep them in places specified by OERC. In the event of his failure to do so, the same will be done by OERC and the expenses recovered from the contractor.

The Contractor shall not suspend the maintenance work without the written consent of the OERC. In the event of suspension of the work on Contractor's own accord without written permission, the OERC shall have the right to recover all losses to OERC on account of such suspension. If such suspension is necessary for the proper execution of the works or by reason of weather conditions or by some default on the part of the Contractor or necessary for the safety of the works, or necessary for the safety of adjoining property, or safety of the general public, or workmen or those who have to be at the site, or to ensure safety or due to force majeure conditions which is beyond the control, the Contractor shall not be entitled to any extra cost incurred during the period of any suspension of work.

The care and safeguarding of works, site, men, machinery, materials, tools and plants are the responsibility of the Contractor without any extra payment from the OERC. Losses or damage to OERC on account of failure from the Contractor in safeguarding from weather and climatic conditions as mentioned above will be realized from the Contractor. Any event of stoppage on account of climatic conditions shall be brought to the notice of OERC immediately with reasons for such stoppage. No claims for extra work/expenditure necessitated on account of stoppage due to the fault of the Contractor will be entertained.

**Minimum Guaranteed Generation:**

The average daily generation for subsequent years should not fall below 10% of the average generation from August 2020 to July 2021. Therefore the average generation during the O&M period should not fall below 72 kWh. In case of failure in meeting the desired target, in any particular year, yearly billed amount will be released after deducting 10% from the yearly billed amount as penalty.

However, OERC reserves the right to waive such penalty if it can conclude that fall in generation below the agreed value is due to some extraneous conditions beyond the control of the contractor.

**Default by Contractor:**

If the Contractor neglects or fails to proceed with the works with due diligence and expedition or violates any of the provision of the Contract, OERC may give the Contractor a notice identifying deficiencies in performance of the Contract and demanding corrective action within the period of 14 days. After receipt of notice the Contractor shall take immediate action to rectify the mistakes and other deficiencies pointed out by OERC.

**Termination of Contract:**

If the Contractor fails to take satisfactory corrective action within the time frame specified in the notice i.e., 14 days after receipt of the notice, the OERC reserves the right to terminate the contract in whole or in part after issuing 7 days' notice to the Contractor seeking explanation why the Contract should not be terminated at his risk and cost in the event of:

- a. Contractors poor performance and inability to conduct the O&M as stipulated in the contract;
- b. Poor quality of work;
- c. Persistent disregard to the instructions of OERC;
- d. Assignment, transfer, sub-letting of contract without OERC's written permission;
- e. Non fulfillment of any contractual obligations; and
- f. In the opinion of OERC, the contractor is not in a position to execute job as per required schedule.

If the Contractor fails to give a satisfactory reply to the notice within the stipulated time or the reply received is not satisfactory, the OERC shall terminate the contract either in whole or part without further notice and shall arrange to execute the balance works at the risk and cost of the Contractor. The Contractor shall be issued the letter of termination of the contract intimating that the Work will be rearranged at his risk and cost.

**Quality Assurance:**

Good Quality Assurance personnel familiar with PV installation techniques are to be engaged and manufacturer suggested procedures are to be followed during the contract. Make sure that the persons appointed under the O&M contract come with prior experience in handling solar power plants of similar configurations. The contractor will be primarily responsible for ensuring quality of works done under this contract. OERC reserves the right to carry out Quality Audit and Quality surveillance of the systems and procedures of the Contractor's Quality Management and Control Activities. The contractor shall engage suitably skilled workmen of various categories for execution of maintenance work supervised by supervisors / Engineer of appropriate qualification and experience to ensure proper execution of work. They will carry out instructions of OERC during the progress of work. Only quality materials of reputed make /branded companies approved by OERC will be used in the work.

**Supervision:**

The maintenance work shall be carried out under the general direction and control of OERC and its delegated officers and is subject to inspection to ensure strict compliance with the terms of the Contract. The Contractor shall execute the whole and every part of the work in the most substantial manner. If any work found as unsound, imperfect or done with unskilled workmanship or any material or article provided are unsound or quality inferior to that in accordance with the Contract, the Contractor shall forthwith rectify, reconstruct or remove in whole or part at his own charge and cost as noticed by the OERC.

**Liability due to damage:**

The Contractor shall, during the maintenance work, properly cover up and protect the work and plant from injury by exposure to the weather, natural calamities such as wind, rain and by any other cause. He shall take every reasonable, proper, timely and useful precaution against accident or injury to the same from any cause. The Contractor shall remain answerable and liable to accidents or injuries thereto which may arise or be occasioned by the acts or omissions of the Contractor or his supervisory staff or his workmen and all losses and damages to the works or plant arising from such accidents or injuries as aforesaid shall be made good in the most complete and substantial manner by and at the sole cost of the Contractor and to the reasonable satisfaction of OERC. Any claim arising out of this Contract should be submitted before OERC within 30 days from the date of occurrence of the event which leads to such claim. The Contractor is precluded from raising any such claim after the expiry of the above period.

**Taxes, Duties & Recoveries:**

Only GST registered persons should be made eligible to participate. The contractor should quote only the amount excluding GST. The contractor should mandatorily specify the registration status and GST Registration Number along with the copy of GST Registration Certificate. The payment will be made to the contractor for total value of work after completion of each year plus the applicable GST, if applicable, subject to recovery of TDS, other recoveries, etc. GST will be given extra over and above the quoted amount as per actuals. Nothing in the Contract shall relieve the Contractor from his responsibility to pay tax on all profits made by him in respect of the Contract. Bidder should submit an undertaking to the effect that if any dispute on payment of taxes from the concerned tax authorities occurs in future, the bidder shall indemnify OERC from such liabilities and the contractor will be liable for the additions, loss or cost on account of such discrepancies / disputes.

**Insurance:**

The contractor shall arrange insurance to cover all risks in respect of their personnel, materials and equipment belonging to the contractor or its subcontractor during the tenure of the contract. The insurance of the plant for theft, burglary, damage due to fire etc. shall be made by the contractor in consultation with OERC. However, the annual premium amount for such purpose shall be paid by OERC on submission of policy documents alongwith the payment received.

**Monthly generation data statement:**

Monthly Generation data statement for net energy delivered by solar plant or as per the requirement of OERC shall be furnished by the contractor not later than 5<sup>th</sup> day of the following month.

**Handling plant after Term Expiry:**

After the expiry of the contract period, contractor shall hand over the plant to OERC in excellent condition. The Contractor shall demonstrate performance test of all the major & critical equipment to ensure Generation from the Solar Photovoltaic Power Plant. While handing over the plant, contractor shall hand over all technical documents, literature, instruction manuals, lists of spare part & tools & tackles. Contractor shall also hand over all the relevant record/documents.

On completion of O&M period OERC shall issue Handing Over Certificate and the same will be issued within 1 months of the Handing Over in all respects, after verifying from the documents & tests and satisfying that the Operation has been completed in accordance with details set out in the control documents & Prudent Utility Practices.

**Activities to be carried out in every 10 days:**

- Carryout Module cleaning as per the schedule;
- Walking between module rows (random basis) in a day for random checking of modules /cables/Inverters;
- Random inspection of modules/strings for output;
- Check that production has been received from inverters and generation is according to the expected generation values;
- Take necessary corrective actions within the scope of work of the contractor (repairs or replacements) to resolve the problem;
- Verify the correct functioning of inverter;
- Reporting of solar plant performance to be submitted at the end of each month; and
- Coordination with OERC representative for grid related issues.

**Quarterly Activities:**

- Visually check that there is no loose connection in junction box and power cable wiring or not on its corresponding tray/conduit and that earth wiring is correctly secured;
- Visual inspection for broken Modules & Oxidation of frames;
- Inspection of electrical installations (cable, socket connections and cable runs in visible area);
- Visual inspection for alignment, overall structure connections, visual and physical inspection on status of module mounting fasteners and visual inspection of structure foundation;
- Checking of the inside of the Array Junction box for heavy dust deposits, dirt, humidity, and water penetration from outside;
- Checking of electrical connections, fuses and Surge Protection Devices (SPDs);
- Measurement and comparison of string currents;
- Checking of warning and connection labels on the equipments;
- Visual inspection of the inverter, inverter compartment, earthing contacts and maintenance procedure as recommended by the manufacturer;
- Visual inspection for meter cabin condition: lights, cleanliness and leaks, meter and protection board elements, meter operation verification (if necessary, intimating the Distribution Licensee; and
- Check warnings and take necessary corrective and/or preventive measures.

**Annual Activities:**

- Visual inspection of junction boxes: securing to wiring and structures;
- Check earthing and connections and measurement of earth resistance;
- Inspection of ducts/tunnels, protective conduits, checking for possible animal bites; and
- Control room cleaning and supervision.

**General Report Directives:**

- Daily generation data is recorded by the Data Acquisition System and this recorded data is secured over the period of contract and is provided whenever necessary;
- Data obtained in the course of operation is collated and stored in tables. The contractor prepares a monthly report. Said report comprises the evaluation of the yield data as well as a documentation of faults and corrective maintenance measures.
- For each calendar year, the contractor is required to prepare a technical annual report, in which the monthly evaluations of the yield data as well as the documentation of faults and corrective maintenance measures are to be compiled. The annual report is to be submitted to OERC at the end of the 1<sup>st</sup> year.

**Fault Diagnosis:**

If a malfunction is noticed during the data evaluation or if an automatic error message generated by the system is received, then the contractor tries to localize the cause. If an analysis via the remote monitoring is not possible, then the contractor undertakes the analysis on site within 2 working days and submits a detailed error report to OERC. In the event of Major breakdowns, a written communication shall be provided informing the same and the contractor is obliged to carry out prompt processing and coordination of the correction of malfunctions in the solar plant and the infrastructure thereof. The replacement parts must be at least technically and qualitatively equivalent to the parts of the system and must conform to the essential interests (high availability and performance ratio of the plant) of the customer.

**Force Majeure:**

Force Majeure conditions shall include failure due either directly or indirectly to war, mutiny, civil commotion, riot, strike, lockout, fire, flood, tempest, lightning, earthquake or other force, accidents or cause beyond the control.

No party in the contract shall be liable to the other for any loss and damage occurred due to force majeure condition and shall not apply to the obligations of either party to make payment to the other party under the contract due to occurrence of force majeure conditions.

**Selection of Bid:**

The selection of bid will be done as follows:

The bids containing schedule of technical particulars and schedule of prices of the qualified/ eligible bidders will be evaluated as per the relevant clauses provided elsewhere in these conditions. The bidders will be ranked according to the criteria set forth by the OERC for the selection of the best bid. The OERC will finally select the best bid and the bid of the successful bidder will be accepted for execution of work. The OERC reserves the right to reject the bid or disqualify any bidder without assigning any reason.

**Probable Amount of Contract (PAC):**

PAC for the operation and maintenance Charges for 5 years from the taking over of the plant will be Rs.1,80,000/- (Rupees One lakh Eighty Thousand only) which is exclusive of GST. The bid amount should not exceed the PAC excluding GST. The lowest bid, meeting all other eligible conditions, shall be selected for assignment of maintenance work. The successful bidder shall be issued a Letter of Award of contract and the successful bidder shall be known as 'Contractor'. The contract amount will be divided equally over the 5 years period and shall be paid to the Contractor on a yearly-basis. Payment shall be released within 15 days of submission of bill after completion of each year.

**Security Deposit:**

Successful Bidder shall furnish the Security Deposit of 10% of the bid amount (inclusive of taxes) in shape of irrevocable Bank Guarantee within 15 days of Award of Contract. The security deposit amount shall be released after expiry of O&M period of five years subject to successful performance. If during the 5 year O&M period the successful Bidder(s) fails to rectify any fault in the system within 1 week of receiving notification from OERC, OERC may get the fault rectified by any agency of its choice and the Security Deposit shall be encashed to the extent of cost incurred by OERC. If the Minimum Guaranteed Generation of the solar rooftop project falls below the prescribed limit in this RfS, the corresponding amount shall be deducted from the Security Deposit. In case of more than 3 instances of non-compliance to O&M obligation, OERC shall encash the entire Security Deposit.

The Security amount shall be valid for a minimum period of 5 years from the date of Award of Contract. The security amount shall be released after 5 years from the date of commissioning with the compliance of entire obligations in the contract.

**Execution of Agreement:**

On successful selection of the O&M Contractor/ Agency, an Agreement shall be executed before the Award of Contract between the Contractor/ Agency and OERC which would include all the Terms and Conditions as mentioned in this RfS above.

**Governing Law and Jurisdiction:**

The performance related to Operation and Maintenance, validity etc. and whatsoever of the conditions laid in the bid and any terms in the subsequent agreement will be governed by the Law of India. The courts subordinate to the Hon'ble High Court of Odisha situated at Bhubaneswar have the jurisdiction to settle any dispute(s) that may arise out of in connection with the bid/agreement. The parties should irrevocably agree to that jurisdiction.

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**Annexure-I****Particulars of the Bidder**

1	Name of the Contractor/Agency	
2	Registered Office Address	
3	Telephone, Telex, Fax No	
4	E-mail	
5	Web site	
6	Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
7	Year of Incorporation	
8	Bidding company PAN Number	
9	Bidding company TAN Number	
10	Have the bidder/Company ever been debarred By any Govt. Dept. / Undertaking for undertaking any work.	
11	Reference of any document information attached by the Bidder other than specified in the RFS.	
12	Whether the Bidder wishes to form a Project Company for execution of work	Yes/No/May be
13	Bidding company is listed in India	Yes/No
14	Net Worth of Last 3 financial years (to be mentioned separately for each year)	
15	Years of Experience for providing O&M service for rooftop Solar PV	

(Signature of Authorized Signatory)

**With Seal**

**Price Bid**

<b>Plant</b>	<b>Capacity in kWp</b>	<b>Total Cost for O&amp;M for 5 years (A)</b>	<b>Yearly O&amp;M Cost (B) = (A) / 5</b>
OERC Rooftop Solar PV	25		

- All the costs shall be inclusive of all applicable taxes.
- The quoted cost shall be for a 5 Year period from date of issuance of Letter of Award.
- The contract amount will be divided equally over the 5 year period and shall be paid to the Contractor on a yearly-basis within 15 days of submission of bill subject to satisfactory performance.
- OERC shall recover the statutory recoveries, other dues, if any.

**Note:**

Material cost, if any, accrued during the O&M period will be borne by OERC and the Contractor shall take prior approval of OERC before replacing any parts or equipment. The price bid (as above) is exclusive of material cost.

Yours faithfully

Date:..... Signature:..... Place:..... Printed Name.....

Business Address: Designation:.....

Country of Incorporation: (Common Seal).....

(State to be indicated)

**Covering Letter**

(The covering letter should be on the Letter Head of the Bidding Company)

Ref. No.\_\_\_\_Date:\_\_\_\_

From:\_\_\_\_(Insert name and address of Bidding Company)

Tel.#: Fax#:

E-mail address#

To

**Secretary,  
Odisha Electricity Regulatory Commission,  
Plot No. 4, Chunokoli,  
Shailashree Vihar, Bhubaneswar- 751021**

**Sub: Bid for “Operation and maintenance (O&M) of the 25 KWp project on OERC building for a period of 5 (Five) years”**

Dear Sir,

We, the undersigned....[insert name of the ‘Bidder’] having read, examined and understood in detail the RFS Document for Operation and maintenance (O&M) of the 25 KWp project on OERC building for a period of 5 (Five) years in OERC hereby submit our Bid. We confirm that neither we nor any of our Parent Company / Affiliate/ Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid RFS.

We give our unconditional acceptance to the RFS, dated.....and RFS Documents attached thereto, issued by OERC. This shall also be construed as a token of our acceptance to the RFS Document. We shall ensure that we execute such RFS Document as per the provisions of the RFS and all provisions of such RFS Document shall be binding on us.

**Bid Capacity**

We have bid for the 25 KWp rooftop plant at OERC building for a total cost of ..... for O&M for 5 years including taxes. We have submitted our Price Bid strictly as per conditions of this RFS, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format(s).

**Acceptance**

We hereby unconditionally and irrevocably agree and accept that the decision made by OERC in respect of any matter regarding or arising out of the RFS shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process. We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of the work offered by us. We further undertake and agree that all such factors as mentioned in RFS have been fully examined and considered

while submitting the Bid.

We are enclosing herewith the envelopes containing duly signed formats, each one duly sealed separately, in one original as desired by you in the RFS for your consideration.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFS and subsequent communications from OERC. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFS and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid. We confirm that we have not taken any deviation so as to be deemed non-responsive.

Dated the \_\_\_ day of \_ ,20....

Thanking you,  
Yours faithfully,

Name, Designation and Signature of Authorized Person along with the name of the agency and seal.