Jammu & Kashmir Energy Development Agency
(Department of Science & Technology, UT of J&K)

Request for Selection (RFS) of bidders

for

Supply, Installation and Commissioning including Warranty,

Comprehensive Maintenance Contract (CMC) for Five (05) years

of

Grid Connected Solar Rooftop Photovoltaic

Power PlantsOn

Government Buildings in the UT of Jammu & Kashmir

C No.: JKDA-SLR0RTS/6/2024/8517 Dated:12.06.2024

Issued by

Chief Executive Officer (CEO)
Jammu & Kashmir Energy Development Agency (JAKEDA)
(Dept. of Science & Technology, Govt. of J&K)
Tawanai Ghar, SDA Colony, Bemina, J&K-190018
38A/B Gandhi Nagar, Jammu, J&K-180005
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Jammu & Kashmir Energy Development Agency (JAKEDA)
(Dept. of Science & Technology, Govt. of J&K)
Tawanai Ghar, SDA Colony, Bemina, J&K-190018
38A/B Gandhi Nagar, Jammu, J&K-180005

C No.: JKDA-SLR0RTS/6/2024/8517 Dated: 12.06.2024

Jammu & Kashmir Energy Development Agency (hereinafter called "JAKEDA"), invites e- bids from the eligible bidders to participate in the RfS of bidders for Supply, Installation and Commissioning including Warranty, Comprehensive Maintenance Contract for 5 years of Grid Connected Rooftop Solar PV power plants on Government Buildings in the UT of Jammu & Kashmir.

For the implementation of above-mentioned work, Bidders should submit their bid proposal along with all supporting documents complete in all aspects on or before **03.07 .2024 up to 5:00PM** in the prescribed format on JK e-Tendering Portal.

Bidder shall submit hardcopy of bid proposal along with non-refundable document/processing fee and EMD complete in all respect as per the Bid Information sheet before on **03.07.2024**. Techno-Commercial bids will be opened on **04.07.2024** at office of **CEO, JAKEDA, 38A/B Gandhi Nagar, JAMMU, J&K-180004/Tawanai Ghar.SDA Colony,Bemina,Srinagar**. Bid proposals received without or lesser than the prescribed document/processing fee and EMD will not be considered. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.

Bid documents which include Eligibility Criteria, Technical Specifications, various conditions of contract, formats, etc. can be downloaded from www.jktenders.gov.in website. Any amendment(s)/corrigendum/clarifications with respect to this Bid shall be uploaded on www.jktenders.gov.in website only. The Bidder should regularly follow up for any Amendment/Corrigendum/Clarification on the above website.

Sd/-
CEO, JAKEDA

DISCLAIMER

1. Though adequate care has been taken while preparing the tender document, the bidder(s) shall satisfy themselves that the document is complete in all respect. Intimation regarding any discrepancy shall be given to the office of Employer immediately. If no intimation is received from any bidder within 7 (Seven) days from the date of issuance of Tender documents, it shall be considered that the document is complete in all respect and has been received/ acknowledged by the bidder(s)
2. JAKEDA reserves the right to modify, amend or supplement this document.
3. While this tender document has been prepared in good faith, neither JAKEDA northeir employees or advisors make any representation or warranty, express or implied,or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this document, even if any loss or damage is caused by any act or omission on their part.
4.

Place: Srinagar
Date: 12.06.2024

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The brief details of the tender are as under:

Table 1.A Tender Details

(A)	NAME OF WORK	Request for Selection (RFS) of bidders for Supply, Installation and Commissioning including Warranty, Comprehensive Maintenance Contract (CMC) for Five (05) years of Grid Connected Rooftop Solar Photovoltaic Power Plants on identified Government Buildings in the UT of Jammu & Kashmir. **(Including all the remote areas of the UT of Jammu & Kashmir)**
(B)	Tentative Capacity	70 MW ***(Capacity may increase or decrease by 25% depending on thedemand and availability of funds)***
(C)	TENDER NO. & DATE	C No.: JKDA-SLR0RTS/6/2024/8517 Dated: 12.06.2024
(D)	COST OF BIDDING DOCUMENT Ac No :**0110040500000058** Bank Name : J&K Bank Ltd Branch :Moving Secretariat, Sgr/Jmu IFSC Code :**JAKA0MOVING** MICR Code :**180051012**	**(Rs 50,000/- including GST) Rupees Fifty T h o u s a n d only**. The payment for Tender Fee will be made using online payment. Proof of transaction UTR/UPI/ Transaction number/Reference number should be attached with the bid. Bidders can download the tender document from JK e-tendering website (www.jktenders.gov.in) and submit thecost of the bid document/processing fee of requisite value as applicable along with hard copy of the tender document. Bid application without the cost of bid Document / processing fee would be rejected.
(E)	EARNEST MONEY DEPOSIT (EMD)	Bidders who wish to qualify for the RfS shall submit EMD of Rs.50.00 Lakh for firms registered outside UT of J&K and Rs 20.00 Lakh for firms registered/incorporated in UT of J&K, in the form of CDR/FDR/BG pledged to the Chief Executive Officer, J&K Energy Development Agency. This shall remain valid for 12 months from thedate of submission of bids
(F)	AVAILABILITY OF TENDER DOCUMENT ON WEBSITE(S)	From 12.06.24 to 03.07.24 upto 5:00 PM on following website: www.jktenders.gov.in
(G)	DUE DATE, TIMEFOR SUBMISSION OF BID RELATED QUERIES	Date: 24.06.24 upto 11:00am
(H)	PRE-BID MEETING	26.06.2024 at 11:30am (Physical /Virtual) (Link for virtual meeting shall be shared separately through JAKEDA website)
(I)	VALIDITY OF OFFER	18 Months from the date of finalization of tender, extendable further for (06) months.
(J)	CONTACT DETAILS OF TENDER DEALING OFFICER	Office of CEO JAKEDA Phone No : 0191-2546492(J) 0194-3500433(S) E-mail: ceojakeda2@gmail.com

In case of the days specified above happens to be a holiday in JAKEDA, the next workingday shall be implied.

1. Bids must be submitted strictly in accordance with the instructions stated in the bidding document. This Notice is an integral and inseparable part of the bidding document.
2. The Tender Document calls for offers on single point from eligible bidders in total compliance of the Tender Document.
3. Any revision, clarification, corrigendum, time extension, etc. to this Tender Document will be hosted on the above-mentioned website(s) only. Bidders are requested to visit the website regularly to keep themselves updated.
4. JAKEDA reserves the right to reject any or all the bids received at its discretion without assigning any reason whatsoever.

For & on behalf of
JAKEDA
(Authorized Signatory)

Name :_____
Designation : _____
E-mail ID : _____
Contact No. : _____

1 DEFINITIONS & ABBREVIATIONS

In this "Bid / RFS Document" the following words and expression will have the meaning as herein defined where the context so admits:

- Throughout the Request for Selection document, the terms 'Bid', 'Tender',Request for Selection", "RfS" & "Offer" and their derivatives [Bidder/Tenderer, Bid/Tender/Offer etc.] are synonymous.
- The expression "Vendor / Contractor / EPC Contractor/Solar EPC Contractor / Bidder" shall mean the Agency selected by JAKEDA for the execution of the Solar PV Power Plant work and this shall include their legal heirs, successors and permitted assignees.
- "B.I.S" shall mean specifications of Bureau of Indian Standards(BIS);
- "Bid" shall mean the Techno Commercial and Price Bid submitted by the Bidder along with all documents/credentials/attachment's annexure etc., in response to thisRFS, in accordance with the terms and conditions hereof.
- "Bidder/Bidding Company" shall mean Bidding Company submitting the Bid. Any reference to the Bidder includes Bidding Company / including its successors, executors and permitted assigns as the context may require;
- "Bid Deadline" shall mean the last date and time for submission of Bid in response to this RFS as specified in Bid information Sheet;
- "Bid Capacity" shall means capacity offered by the bidder in his Bid under invitation.
- "JERC" Joint Electricity Regulatory Commission.
- "CEA" shall mean Central Electricity Authority.
- "Chartered Accountant" shall mean a person practicing in India or a firm whereof allthe partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949;
- "Commissioning" means Successful operation of the Project / Works by theContractor, for the purpose of carrying out Performance Test(s) as defined in RFS.
- "Company" shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;
- "Capacity Utilization Factor" (CUF) shall mean the ratio of actual energy generated by SPV project over the year to the equivalent energy output at its rated capacity over the yearly period.
- CUF = actual annual energy generated from the plant in kWh / (installed plant capacity in kW * 365 * 24).
- "Eligibility Criteria" shall mean the Eligibility Criteria as set forth in Clause 4 of this RFS;
- "Financially Evaluated Entity" shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria.
- "IEC" shall mean specifications of International Electro-technical Commission;
- "kWp" shall mean kilo-Watt Peak;
- "kWh" shall mean kilo-Watt-hour;

- "MNRE" shall mean Ministry of New and Renewable Energy, Government of India;
- "O&M"/"CMC" shall mean Comprehensive Operation & Maintenance of Rooftop Solar PV system for 5 years;
- "Project Cost / Project Price" shall mean the price offered by the Bidder for the Scope of work as per RFS document for the state.
- "Project capacity" means Capacity in kWp offered by the Bidder consisting of single or multiple roof tops. The project capacity specified is on "DC" output Side only.
- "Performance Ratio" (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured
- "Project Company" shall mean Company incorporated by the bidder as per Indian Laws in accordance with Clause no 4.
- "Qualified Bidder" shall mean the Bidder(s) who, after evaluation of their Techno Commercial Bid as per Clause no. 4 stand qualified for opening and evaluation of their Price Bid
- "RFS" shall mean Request for Selection (RFS)/Bid document/Tender document
- "Statutory Auditor" shall mean the auditor of a Company appointed under the provisions of the Companies Act, 1956 or under the provisions of any other applicable governing law;
- "Successful Bidder(s) /Contractor/Project Developers(s)" shall mean the Bidder(s) selected by JAKEDA pursuant to this RfS for Implementation of Grid Connected Roof Top Solar PV System as per the terms of this documents, and to whom an Allocation Letter has been issued;
- "SNA" shall mean State Nodal Agency i.e. Jammu and Kashmir Energy Development Agency
- "Tendered Capacity" shall mean the Total aggregate capacity in MW proposed to be allocated by JAKEDA to the Successful Bidder through this bidding process as per terms and conditions specified therein;
- "Wp" shall mean Watt Peak.
- 1MWp for the purpose of conversion in kWp shall be considered as 1000kWp.
- DISCOM shall mean Jammu Power Distribution Corporation Limited (JPDCL) for Jammu division and Kashmir Power Distribution Corporation Limited (KPDCL) for Kashmir division.

  "LOA" shall mean the letter issued by Jammu and Kashmir Energy DevelopmentAgency (JAKEDA) to the selected Bidder for Award of Work.

2 Bid Details & Capacity Category

Type, & Size of Solar PV Plants

Only Grid-connected Rooftop Solar PV Power Plants shall be installed under this RfS.

Capacity of power plants.

S.No	Category
1	2kW
2	3kW
3	>3kW upto 10kW
4	> 10kW to 100 kW
5	> 100kW to 500 kW

Project Capacities shall be considered on the basis of individual building capacities and not on the aggregate capacity of host institution.

Bid Capacity (MW)

The tentative project capacity in terms of MW is envisaged as 70MW aggregate of all the Government Buildings in the UT of Jammu & Kashmir. However, the same may increase or decrease by 25% depends on availability of funds received by the Agency from different sources.

3 ELIGIBILITY CRITERIA:

General

The bidder should either be a body incorporated in India, under the Companies Act, 1956 or Companies Act, 2013 including any amendment there to and engaged either in manufacturing and or as a system integrator in the business of Solar Power, OR under the Limited Liability Partnership Act 2008, proprietorship, Partnership Firm, and engaged in the business of Solar Power /Solar Plant System Integrators. A certified copy of the registration certificate of the Bidder for any of the above and the requisite tax payee number TIN & GST etc. from competent government authority with whom the bidder is registered shall be enclosed with the tender.

Technical Criteria

The bidder must have experience of having successfully completed works for Supply, Installation and Commissioning of Grid Connected/ Off Grid Solar Photovoltaic Power Plants during the period 1st

April, 2019 till the last date of preceding month of Tender Finalization through Government Organizations/Government Agencies/ SNAs/ PSUs of State or Central Government or under MNRE sponsored programmes, certified by the SNA/Government competent authority.

The bidder should have

Experience of having successfully commissioned a Cumulative capacity of **15MW** Solar Power Plants.

OR

Experience of having successfully commissioned an aggregate capacity of **7.5MW** in the range of 1kW-500kW capacity, with scope of work as Solarization of Rooftop On-Grid/Hybrid and Agriculture Solar Pumps.

For vendors registered /incorporated in the UT of J&K, the cumulative capacity of experience shall be minimum 2.5MW with scope of work as Solarization of Rooftop On-Grid/Hybrid and Agriculture Solar Pumps.

Financial Criteria

The bidder must have an Average Annual Financial Turnover of Rs.15 Crores duringthe last 3 financial years, ending 31st March 2024. (2021-22,2022-23,2023-24) However vendors registered /incorporated in the UT of J&K, must have an Average Annual Financial Turnover of Rs.4.0 Crores during the last3 financial years, ending 31st March 2023. .(2021-22,2022-23,2023-24).

Supporting Documents to be submitted

A certified copy of the registration certificate and the requisite tax payee number TIN & GST.

In support of technical criteria

a) Copy of Contract(s) / Work order(s) with copy of relevant pages of the scope of work with documentary evidence of works executed.
b) Copy of completion/ commissioning certificate(s)/ proof of completion/commissioning of the said work(s) along with documentation establishing completion of work by the bidder with reference to work order(s) / contract(s). The bidders must submit the completion certificate issued by end user / Owner only after completion of work / supply in all respect.

In support of Financial Criteria

a) The Bidder shall provide a copy each of audited annual report to ascertain their turnover. Provisional report shall only be entertained for the assessment year 2023-24
b) The detailed financial criteria of the bidder should be given on a separate page authenticated by the Chartered Accountant as per **(Annexure III).**

4 BID SUBMISSION

The bid shall be submitted in two Cover:

Offer 1: Techno-commercial Offer (Online as well as Offline Mode)

The bid should be super scribed Techno-commercial bid for
C No. JKDA-SLR0RTS/6/2024/8517 Dated: 12.06.2024
and shall contain: -

a) A certified copy of the registration certificate of the Bidder for any of the above and the requisite tax payee number TIN& GST.
b) Earnest money Deposit
c) Proof of work experience
a) Financial turnover of the company certified by CA.
b) Cover Letter (As per Annexure I)
c) Information about the Bidder (As per Annexure IV)
d) The bidder shall furnish the check list as per Annexure IX
e) Authority Letter for Signing Bid Document (As per Annexure VII)
f) No Deviation Certificate (As per Annexure VIII)

Offer 2: Price Bid (Online)

The format for price schedule can be found Annexure V: Format for Submitting the Price Schedule. **The price shall only be submitted via online mode.**

Price bid of only those bidders shall be opened who successfully qualify in the techno-commercial stage.

Price Schedule Categories

Grid Connected Solar Power Plants			
S. No.	**Category**	**SPV Capacity (kW)**	**Quoted Rate per kWp (in Rs.) (Inclusive of all Taxes)**
1	Category "A"	2kW	*Rates to be quoted category wise through online e-tendering portal only*
2	Category "B"	3kW	
3	Category "C"	>3kW upto 10kW	
4	Category "D"	> 10kW to 100 kW	
5	Category "E"	> 100kW to 500 kW	

5 BID OPENING AND EVALUATION

JAKEDA shall open the online bids received up to last date & time of submission of bidat the time, date and place specified in the NIT. In the event of the specified datefor the submission of bids being declared a holiday, the Bids shall be opened at the specified time and location on the next working day.

Initially, the „Techno-Commercial Bid" shall be opened consisting of online and offline submissions. The bidders whose bid(s) meets the qualifying criteria and are found to be techno commercially acceptable shall be considered for further evaluation. Bid(s) not fulfilling the techno-commercial requirement of the tender shall be considerednon-responsive and rejected and the Price Bid of such bidder shall not be opened.

The Price bid(s) of the prospective bidders, who fulfils the techno-commercial requirement of the bid(s), shall be evaluated further.

Examination of Bids and Determination of Responsiveness

During the detailed evaluation of "Techno-commercial Bids", the JAKEDA will determine whether each Bid:

a) meets the qualifying criteria;
b) is accompanied by the required securities; and
c) is substantially responsive to the requirements of the bidding documents. JAKEDA's determination of responsiveness of bids shall be based on the contents of the bid itself without recourse to extrinsic evidence. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to priced schedule of quantity and price.

A substantially responsive "Bid" is one which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. The bid that does not meet minimum acceptable standards of completeness, consistency and details will be rejected for non-responsiveness.

If a "Bid" is not substantially responsive, it will be rejected by JAKEDA, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

The Agency may waive off any minor informality/non-conformity/irregularity in a bid that does not constitute material deviation and that does not prejudice or affect the relative ranking of any bidder as a result of evaluation.

Evaluation Methodology

i. The bidder whose rates are found lowest in Category 'A" would be declared as L1 for Category "A" and similarly for Category 'B', Category 'C', Category 'D', and Category 'E' the L1 rates would be determined separately.

ii. In each category the L1 rates would be offered to L2, L3, L4, L5, L6, L7, L8, L9 and L10 and maximum of ten (10) vendors in each category would be empaneled at L1 rates for execution of the project, However, in case any vendor among first ten in any category does not accept the L1 rate, then the same would be offered to L11 and so on.

6 ALLOCATION OF WORK

i. L-1 in each category shall be considered for 25% of work order capacities in that category subject to the condition that the firm executes the project as per the timeline of the NIT.

ii. Since the allotment of sites is made from time to time during the validity period of the project and in the interest of ensuring timely and efficient project implementation, CEO JAKEDA reserves the right to issue work order based on the performance of the vendors. This means that vendors who demonstrate superior performance by adhering to project timelines, will be given priority.

iii. The district wise work order would be allotted to the firms at the discretion of JAKEDA for speedy and timely completion of the project.

7 EARNEST MONEY DEPOSIT

Bidders who wish to qualify for this tender shall submit EMD equal to Rs. 50.00 lakh for bidders registered outside UT of Jammu & Kashmir and 20Lakh for bidders registered /incorporated in UT of Jammu & Kashmir, in the form of CDR/FDR/BG pledged to the Chief Executive Officer, J&K Energy Development Agency. This shall remain valid for 12 months from the date of submission of bids.

For Bank Guarantee format, refer 33.6 Annexure VI: Proforma of "Bank Guarantee" forEarnest Money.

Bids submitted with reduced Earnest Money Deposit by the firms shall be rejected without entering in to further correspondence in this regard and no reference will also be made.

The EMD of the unsuccessful bidders shall be returned soon after the finalization of award of contract. EMD(s) of Successful bidder shall be released after submission of Security Deposit.

The EMD shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to JAKEDA under following circumstances:

Hundred percent (100%) of Earnest Money amount, if a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner.

8 VALIDITY OF OFFER:

The validity of the offer shall be 18 Months. The offer shall be unconditionally valid for a period of 18 months from the date of finalization of Tender and further extendable to 06 months . The rates approved as per theNIT would be valid for further purchase of GCRT systems during the validity period, in case additional funds are provided by the UT Govt . to the Agency.

9 PROJECT INSPECTION

The project shall be monitored by JAKEDA and the projects shall be inspected for quality at any time during commissioning or after the completion of the project either by officer(s) from JAKEDA or any agency/experts authorized by JAKEDA. JAKEDA may also nominate a technical person(s)/agency(ies) /body(s) for inspection, third party verification, monitoring of system installed to oversee the implementation as per required standards and also to visit the manufactures facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required. The cost of Inspection shall be borne by the Bidder only.

Pre-dispatch Inspection

The material shall be dispatched only after Pre-dispatch inspection by Third Party Inspection /Monitoring Agency (TPIA) through designated agencies accredited by Quality Council of India (QCI)/NABL/MNRE Approved labs.

The bidder may choose to furnish multiple inspection reports for small lots as per the work orders or a single inspection report for the full allotted quantity as per the BOQ.

Material Inspection by JAKEDA or its representative.

Shall be conducted when key project components including solar panels, solar inverters and module mounting structure are delivered at site.

Final Inspection Post-Commissioning:

The post installation inspection shall be conducted by JAKEDA official/JAKEDA authorized person before release of II Milestone of payment.

10 SCOPE OF WORK AND GUIDELINES

The work is to be carried out as per the Terms and conditions of the contract which includes survey of the site for its feasibility considering the shadow free space, sanctioned load of the beneficiary by the DISCOM, Supply of grid connected solar photovoltaic system with all accessories, equipment and protection devises and including bi-directional meter (wherever required), installation, testing, commissioning and maintenance services for 5 years, with free replacement warranty on spare parts against manufacturing defects for five years. The technical specifications for the various components and broad scope of work guidelines are as follows:

a) The work covers Supply, Installation, Commissioning and Comprehensive Maintenance (CMC) for FIVE years, including supply, installation, and commissioning of bidirectional meter (if smart meter not installed) as per concerned DISCOM norms.

b) Supply, Civil work (wherever required), erection, testing and commissioning ofSPV grid connected Power Plant as per schedule.

c) The test reports of key components such as Solar PV Modules, Solar Inverters, MMS (HDG & STAAD), Electrical Junction Boxes, Bidirectional Meter must be submitted by the bidder to JAKEDA before supply of material.

d) Vendors are required to get the material inspected from JAKEDA official/JAKEDA authorized personnel before commencement of the work at site.

e) Facilitation of Installation and Commissioning of Net Meter/Smart Meter shall be in the scope of respective JAKEDA shall facilitate the process wherever specifically requested by the bidder.

Installation of Remote Monitoring hardware (Gsm/Sim based) / facility with necessary dongle and the Application Programming Interface (API) shall be provided by vendor to JAKAEDA which must be compatible with JAKEDA dashboard. The cost of the data pack and internet connectivity shall be the responsibility of the beneficiary. The Bidder shall provide rights to JAKEDA to access the performance data of the inverter by sharing the user id and the Password of RMS portal, as and when required, for monitor the performance any time.

f) The Bidder shall mandatorily provide Application Programming Interface (API) of the datalogger installed with inverter to fetch the data on JAKEDA platform/dashboard.

g) Successful Bidders must setup office registered in UT of J&K.

Comprehensive Maintenance Contract

After Sales Service

a) Establishing "After Sales Office/Service Centres" in Jammu & Kashmir regions to cater to the maintenance needs of beneficiary institutions

b) The Office/Service centre shall have adequately trained staff available at service stations for repair and maintenance of Solar PV Systems. It shall be the responsibility of successful bidder to give required service as and when required to the beneficiary.

c) The Vendor shall arrange to provide to each beneficiary, an instruction manual. The Vendor shall also arrange to instruct each beneficiary about routine maintenance procedure.

d) Quarterly generation log to be submitted to JAKEDA

e) Remote Monitoring Integration.(GSM/Sim based)

f) The Bidder shall mandatorily provide Application Programming Interface (API) of the datalogger installed with inverter to fetch the data on JAKEDA platform/dashboard.

Scope of Comprehensive Maintenance Contract (CMC)

a) The Bidder shall be resposnsible for all the required activities for successful operation and maintenance of the Roof top Solar PV system for a period of five (5) years from the date of installation and commissioning of Net-meter.
b) During this period, the Bidder shall be responsible for supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of defective modules, inverters, PCU"s etc and maintaining log sheets for operation detail, and qualified engineer for supervision of CMC work, complaint logging & its attending.
c) Bidder is required to conduct mandatory visits to the project site for preventive maintenance. The report of quarterly maintenance duly signed by bidder and nodal person at project site shall be maintained and submitted to JAKEDA periodically.
d) CMC of Solar Power Plant shall be compliant with grid requirements to achieve committed energy generation.
e) Periodic checks of the Modules, PCUs and BoS shall be carried out as a part of routine preventive and break down maintenance, while as the cleaning of modules shall be the responsibility of the beneficiary (host Institution).
f) Immediate replacement of defective Modules, Invertors/PCUs and other equipment as and when required.
g) Supply of all spares, consumables and fixtures as required. Such stock shall be maintained for all associated equipment and materials as per manufacturer/ suppliers' recommendations.
h) All the equipment testing instrument required for Testing, Commissioning and CMC for the healthy operation of the Plant shall be maintained by the Bidder..
i) If negligence / mal-operation on part of the Bidder"s operator results in failure of equipment, such equipment should be repaired/replaced by the Bidder free of cost.
j) For any issues related to operation & maintenance, a contact number shall be made available to the rooftop owner/ plant owner. Bidder must initiate action to resolve the issue within 48 hours. If not attended within such stipulated time, a complaint may be raised to JAKEDA. Repetition of such instances for more than 3 times may lead to penalty as decided by JAKEDA. This will be applicable till 5 years of CMC period.
k) If any jobs covered in CMC Scope as per RFS are not carried out by the Bidder during the CMC period, the Engineer-In-Charge shall take appropriate action as deemed fit. JAKEDA reserves the right to make surprise checks/ inspection visits atits own or through authorized representative to verify the CMC activities being carried out by the Bidder. Failure to adhere to above guidelines will result in penal action including debarring from participation in next tender

11 WORK COMPLETION TIMELINE

1	Issue of Work Order	**T**
2	Submission of Design Documents along with Material Details	**T+10**
3	Supply of Material at the site as per approved Bill of Material	**T+60**
4	Commissioning Of the Plant	**T+180**

12 PENALTY FOR DELAY IN COMMISSIONING

The vendor has to complete work as per the schedule mentioned in *clause 12 Work Completion Timeline*

In case of delay in commissioning of any project site, JAKEDA reserves to impose penalty to a maximum of 2%, depending upon delay timelines

This excludes delay in the completion of the work due to unforeseen reasons beyond the control and without fault and negligence of the vendor including (but not restricted to) act of God or public anomie action of Government in its sovereign capacity, floods, epidemics, strikes, lockouts, fires and accidents. In the event of any of the aforesaid contingencies JAKEDA may be promptly kept informed by the vendor by e-mail / followed by confirmation in writing with documentary proof within fifteen days of commencement and cessation of Force Majeure circumstances. Under such circumstances reasonable extension of time shall be granted by JAKEDA. Application for such extension must be made by the vendor as per agreement.

13 SPECIAL INSTRUCTIONS:

1. Bids not submitted as per terms and conditions of the tender document are liable to be rejected without correspondence
2. JAKEDA reserves the right to accept or reject the request for extension in the last date of receipt of bids.
3. JAKEDA reserves the right to increase or decrease the allocated capacity at the time of placement of LOA for which the quoted rates shall be valid.
4. All legal proceeding in connection with the order/bid will be subject to the jurisdiction of local courts at UT of Jammu and Kashmir alone.
5. In case of any doubt, dispute or differences arising out of the contract, the same shall be referred to the Arbitrator for arbitration to be appointed under J&K Arbitration & Conciliation Act, 1997 whose decision shall be final.
6. JAKEDA shall not be bound to accept the lowest or any bid and reserves to itself the right of accepting the whole or a portion of any of the bid, as it may deem fit, without assigning any reason thereof.
7. Any form of canvassing by the bidder to influence the consideration of their bid shall render the bid liable to summary rejection
8. The conditions laid herein with system details and supplementary conditions of the contract, in addition to those stipulated in foregoing clauses, which along with schedules and proforma, shall be deemed to form part of detailed specification for equipment. The bidders are advised to study and familiarize themselves with the terms and conditions of the bid.
9. All materials shall be of the MNRE, GoI approved quality, new and unused and be capable of satisfactory operation when exposed to the local atmospheric conditions.
10. The bidder is required to submit a statement of facts in details as to their previous experience in performing a similar or comparable work and business and technical organization, financial resources and manufacturing facilities available and to be usedin performing the contract.
11. If at any time any of the documents/information submitted by the bidder is found to be incorrect, false or untruthful, the bid and/or the resultant order may be summarily rejected/cancelled at the risk of the bidder.
12. All bids will be received in duly sealed cover within the due date and time. Bids received after the due date and time is liable for outright rejection.
13. JAKEDA reserves the right to postpone the date of receipt and opening of the bids or cancel any or all the bids without assigning reasons and without bearing any liability thereof.
14. Bid documents are not transferable.
15. Force Majeure clause shall apply.
16. No other conditions except those mentioned above shall be acceptable.

14 CLARIFICATIONS

JAKEDA will not enter into any correspondence with the Bidders, except to furnish clarifications on RFS Documents, if necessary. The Bidders may seek clarifications or suggest amendments to RFS in writing, through a letter or by fax (and also soft copy byemail) to reach JAKEDA at Tawanai Ghar ,SDA Colony,Bemina, J&K 190018, as per deadline mentioned in Bid information sheet.

JAKEDA is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

15 INCOME TAX

Without prejudice to the obligation of the supplier under law, any Tax/duty including Income Tax, which JAKEDA may be required to deduct by law/ statute, shall be deducted at source and shall be paid to the Tax authorities on account of the supplier. JAKEDA shall providethe Supplier a certificate for such deduction of Tax.

16 PRICE

The total price & rates of Grid Connected Solar Power Plant and five years warranty & comprehensive maintenance contract of complete set including SPV module, control electronics, mechanical components, net-meter etc. including all the applicable taxes, should be quoted as per the format given in BOQ file.

The price shall be for the total scope as defined in this document for supply of items in full & good condition at FOR Site to various consignees across the UT of J&K, including transit insurance. The Price also includes all charges towards packing & forwarding, inspection, insurance, freight charges all central/ state/ local taxes & duties etc. as applicable for the supplies.

The price & unit rates includes and covers the cost of all royalty & fees for all articles & processes, protected by letters, patent or otherwise incorporated in or used in connection with the work, also all royalties, rents and other payments in connection with obtaining all the materials for the work and the Bidder shall indemnify and keep indemnified JAKEDA, which indemnity, the Bidder hereby gives against all actions, proceedings, claims, damages, costs and expenses arising from the incorporation in or use of work of any such articles, processes or supplies. All applicable charges fortaking statutory clearances, wherever necessary, are included in the contract price.

The rates approved by the Contract Committee would also be applicable for the projects for which the Agency gets funds from different departments for execution of the projects on their behalf and also for those which JAKEDA would have to install on Priority basis for which separate funds are allocated. However, the same would not be binding on JAKEDA.

17 PLACE OF MANUFACTURE AND INSPECTION

The CEO, JAKEDA or Representative(s) nominated by him will have full power and authority to inspect the Manufacture/ Work at any time wherever in progress either on the Site or at the Contractor's premises/workshops wherever situated, premises/ workshops of any person, firm or corporation where Work in connection with the Contract may be in hand or where materials are being or are to be supplied, and the Contractor shall afford every facility and assistance to carry out such inspection.

Whenever the Agency feels it necessary a few devices of the systems shall be drawn at random for testing at the MNRE approved test labs for which the charges are to be borne by the supplier.

The charges on account of inspection shall be borne by the supplier.

18 WARRANTY

The Rooftop SPV Power Plants shall be warranted for 5 years from the date of commissioning. The mechanical structures, electrical works including power conditioners /inverters/ charge controllers/maximum power point tracker units/distribution boards/digital meters/switchgear, storage batteries and overall workmanship of the SPV power plants/systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years. Materials found damaged during transit or during erection shall be replenished by the supplier immediately without waiting for settlement of their claim with their Insurance Company.

The bidders can also provide additional information about the system and condition of guarantee as necessary.

The agreement will be valid for five years from the date of installation & commissioning of the supplies.

The maintenance service provider shall ensure proper functioning of the system as a whole. All preventive/routine maintenance and breakdown/corrective maintenance required for ensuring maximum uptime shall have to be provided by the Bidder.

Warranty card shall be provided

19 CANCELLATION OF ORDER

JAKEDA will be at liberty to terminate in part or full the awarded contract withoutprejudicing its rights and affecting the obligations of the Contractor by giving seven (07) days‟ notice in writing in the following events :

a. If the Bidder is found defaulter for delayed supply or failure to deliver satisfactory performance or supply of substandard materials pursuant to tender conditions.

b. If the Bidder/Vendor fails to comply with the provision (s) of the contract including the responsibilities to provide necessary support and facilitation to the service centres in installation of the system and subsequently fulfil the 5 years free of cost replacement warranty as per the provisions mentioned in this bid document.

20 AGREEMENT

The successful bidders shall be required to execute an agreement on a valid stamped paper for strict compliance of the terms and conditions of the contract, vis-à-vis the NIT and supply order within a period of **30 days after the placement of LOI/LOA**

The Bidder shall have to execute an agreement with JAKEDA as per the terms and conditions of the NIT.

The Bidder shall bear all the legal expenses incurred on the execution of the agreements.

21 DELIVERY

Delivery and Installation & Commissioning of the equipment should be as per the timeline mentioned in clause no. 13 Notice Inviting Tender Work Completion Timeline

22 PAYMENT SCHEDULE

The following payment schedule shall be adhered to: -

Milestone 1

Payment to the extent of 70% shall be released on the supply of complete equipment at the site as per the BOQ, subject to production of valid test certificates of the equipment from MNRE/NABL accredited test centers, Pre dispatch Third Party Inspection Reports and inspection of material by JAKEDA authorized personnel.

Milestone 2

Payment to the extent of 15% shall be released after the successful Installation, Commissioning, including successful Installation of Net Meter/Smart by the DISCOM , functioning of the Grid Connected Solar Power Plant and furnishingof Joint Commissioning Report duly signed by JAKEDA official, and the installing Firm.

Milestone 3

Payment to the extent of 15% shall be released @3% annually over a period of 05years of CMC, subject to the condition of submission of quarterly functionality and Energy generation readings of each site to JAKEDA.

23 TECHNICAL SPECIFICATIONS FOR GRID CONNECTED SPV SYSTEMS

The proposed projects shall be commissioned as per the technical specifications given below.

Definition:

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) / Inverter consisting of Maximum Power Point Tracker (MPPT), and Controls & Protections, interconnect cables, bi-directional energy meter and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the

grid power during daytime. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should confirm to the BIS, IEC, or international specifications, wherever such specifications are available and applicable.

Solar PV system shall consist of following equipment/components.

a) Solar PV modules consisting of required number of **Mono PERC/ Mono Perc Halfcut/Mono PERC BifacialPV modules**.
b) Mounting structures.
c) Junction Boxes.
d) Earthing and lightening protections.
e) IR/UV protected PVC Cables, pipes, cable trays and accessories.
f) Fire Protection System. (Solar Plants of above 10KW capacity)
g) Bi-directional Energy Meter.(If applicable)

Solar Photovoltaic Modules

The PV modules and Solar Cell used should be made in India. Necessary documents in this regard must be provided to JAKEDA. Violation of norms of Domestic Content Requirement (DCR) Solar PV projects will lead to penalties and actions as mentioned in office memorandum of MNRE GoI vide letter no. 283/2018-GRID SOLAR dated 20th February, 2018 as under:

a) Filing of criminal case under IPC 420 and related Sec.
b) Blacklisting of developers for period of 10 years
c) Forfeiting of relevant bank guarantee(s)
d) Disciplinary case against the Officers of concerned CPSU/ State Govt/SNA.
e) Any other action, in addition to those above

The cells and modules used in the project under this tender shall be sourced only from the models and manufacturers included in the latest list (solar pv modules) of ALMM order. The updated list of manufacturers released by MNRE on from time to time shall also be applicable.

SPV Modules and Solar Cells must be used for this Scheme shall be domestically manufactured as per MNRE‟s requirement. The Empanelled Agencies shall require to submit the Self declaration, regarding the Modules and Solar cells used under the Scheme are “Madein India”, from the concerned manufacturer of Solar Modules, supplied for this scheme, before commissioning of the System.

The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215 and IS14286, IEC 61853-Part I, IS 16170-Part I for Photovoltaic (PV) module performance testing and energy rating, Irradiance and temperature performance measurements, and power rating, In addition, the modules must conform to IEC61730 Part-2- requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.

a) For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701

b) The total solar PV array capacity should not be less than allocated capacity (kWp)and should comprise of solar crystalline modules of minimum 500 Wp. Module capacity less than 500 watts shall not be accepted

c) High-performance Mono PERC/ Mono PERC Bifacial PV modules enlisted in the recently updated ALMM list shall only be used.

d) Protective devices against surges (SPD) at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.

e) PV modules must be tested and approved by one of the IEC/BIS authorized test centers.

f) The module frame shall be made of corrosion resistant materials, preferablyhaving anodized aluminum.

g) The bidder shall carefully design & accommodate requisite numbers of themodules to achieve the rated power in his bid.

h) The PV Module efficiency should be higher than 19%.

i) Other general requirement for the PV modules and sub systems shall be the following:

   i. The rated power of solar PV module shall have maximum tolerance up to +3%. No negative tolerance in the rated capacity of solar PV module is allowed.9

   ii. The peak-power point voltage and the peak-power point current of any supplied module string (series connected modules) shall not vary by + 2% from the respective arithmetic means for all modules and/or for all module strings, as the case may be.

   iii. I-V curves at STC shall have to be provided by bidder.

   iv. Minimum certified PV module efficiency shall be 19.5% for crystalline. The temperature co-efficient power of the PV module shall not be less than - 0.50% / °C.

   v. All PV modules should carry a performance warranty of >90% during the first 10 years, and >80% during the next 15 years. Further, module shall have performance warranty of >97% during the first year of installation. Degradation of module should not be more than 1 % per annum.

   vi. The PV modules shall be equipped with IP67 or higher protection level junction box with a minimum of 3 (three) numbers of bypass diodes of appropriate rating and appropriately sized output power cable of symmetric length with MC4 or equivalent solar connectors.

Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each module (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).

a) Name of the manufacturer of the PV module
b) Name of the manufacturer of Solar Cells.
c) Month & year of the manufacture (separate for solar cells and modules)
d) Country of origin (separately for solar cells and module)
e) I-V curve for the module Wattage, Im, Vm and FF for the module
f) Unique Serial No and Model No of the module
g) Date and year of obtaining IEC PV module qualification certificate.
h) Name of the test lab issuing IEC certificate.
i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

Warranties:

a) Material Warranty:
   i. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of commissioning.
   ii. Defects and/or failures due to manufacturing
   iii. Defects and/or failures due to quality of materials
   iv. Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer shall repair or replace the solar module(s), at the Owners sole option.

Module Mounting Structure:

a) Supply, installation, erection and acceptance of module mounting structure (MMS)with all necessary accessories, auxiliaries and spare part shall be in the scope of the Vendor as per the requirement of site.
b) Hot dip galvanized MS mounting structures shall be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum insolation. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements. MMS shall be made of hot dip Galvanized steel per ASTM A123. HDGI zinc coating shall be as per IS 4759. Necessary testing provision for MMS tobe made available by Bidder at site. All bolts, nuts, panel mounting clamps fasteners shall be of stainless steel of grade SS 304 and must sustain the adverse climatic conditions.
c) The Mounting structure shall be so designed to withstand the speed of 150 km/hr for the wind zone of the location where a PV system is to be installed in Jammu and Kashmir. It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed.
d) JAKEDA reserves the right to ask for a STAAD report of the module mounting structure on case to case basis. The cost of preparation of STAAD report has to be borne by the vendor. In case the structure doesn‟t pass in the STAAD report, necessary reinforcements must be done to meet the requirement.
e) The mounting structure steel shall be as per latest IS 2062: 2011 and hot dip galvanization of the mounting structure shall be in compliance of latest IS 4759 or Cold Rolled Pre galvanized structure material is also allowed as per **IS 277:2003.**
f) The Rectangular/ square/ circular hollow pipe/ C-sections used for the structure should have a minimum thickness of 2.0 mm.
g) Mounting Arrangement: -

i. **Mounting arrangement for RCC-flat roofs: -** The Structure should be made by in-situ installation with concrete blocks made of PCC (1:2:3). The minimum sizeof concrete blocks in 500 mm X 500 mm.

- In case structure is anchored to the roof, vendor must ensure that it is anchored directly to the roof slab. In case it is found that the structure is anchored to upper layer of coba, then the vendor must re-do the job to ensure anchoring directly tothe roof slab. The waterproofing must be done to ensure that there is no leakage.In case leakage is found, the vendor shall have to repair it at no additional cost to JAKEDA
- If the host institution insists on non-penetrating structure, then the ballast type structure may be opted. The vendor must submit STAAD report and calculation of ballast size to prove that it can bear the wind load of the local area.

ii. **Mounting arrangement for metal sheet roofs: -** The structure should have sufficient stability and wind & snow withstanding capacity with ensuring that the roof remains water proof. It must be ensured that sections used are corrosion resistant. The waterproofing must be done ensure that there is no leakage. In case leakage is found, the vendor shall have to repair it at no additional cost to JAKEDA

iii. **Mounting arrangement for ground installations: -** The structure should be made by on-situ installation with pile of minimum depth 1.2 meters made of PCC (1:2:3) and the leg starts from the bottom the pit; assuring enough ground clearance to prevent damage of the module through water, animals and other environmental factors. Minimum 1000 mm Ground Clearance have to be maintained.

b) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts.

c) The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.

d) Regarding civil structures the vendor need to take care of the load bearing capacity of the roof and need to arrange suitable structures based on the quality of roof.

e) The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m2.

f) The minimum clearance of the structure from the roof level should be sufficient enough as per the shadow analysis.

g) The module mounting structure shall be made of GI medium class pipe (as per IS 1239 and Zinc coating as per IS 4736) / GI channel/ GI Square section. The grouting of the structure shall be done with PCC 1:2:3, which shall withstand the wind speed of 150 km/hr.

h) The vendor shall be fully responsible for any damages to SPV System caused due to high wind velocity within guarantee period as per technical specification. The parameters of prevailing wind speed, floor conditions, load, and upward lift should be taken in to consideration while preparing the design.

i) PV array structure shall be designed and positioned such that the PV modules are completely shadow-free solar during generation hours

Junction Boxes (JBs)

a) The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Powder Coated aluminum /cast aluminum alloy with full dust, water & vermin proof

arrangement. All wires/cables must be terminated through cable lugs. The JBs shall be such that input & output termination can be made through suitable cable glands. **Suitable markings shall be** provided on the busbars for easy identification and cable ferrules will be fitted at the cable termination points for identification.

b) Copper bus bars/terminal blocks housed in the junction box with suitabletermination threads Conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single /double compression cable glands.
c) For array junction box/ PV combiner box, Empanelled Vendor may also provide polyamide glands and MC4 Connectors. The rating of the junction box shall be suitable with adequate safety factor to interconnect the Solar PV array
d) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
e) Junction boxes shall be mounted on the MMS such that they are easily accessible and are protected from direct sunlight and harsh weather.

DC Distribution Box (DCDB):

a) DC Distribution Box (DCDB) to receive the DC output from the PV array field.
b) DC DBs shall be dust & vermin proof conform having IP 65 protection.
c) The bus bars are made of EC grade copper of required size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.
d) DCDB must contain suitable Surge Protection Device (SPD)

AC Distribution Box (ACDB):

a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
b) All switches and the circuit breakers, connectors should conform to IEC60947:2019, part I, II and III/ IS60947 part I, II and III.
c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
d) All the Panel‟s shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase,415 or 230 volts, 50 Hz
e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
g) Should conform to Indian Electricity Act and CEA safety regulations (till last amendment).
h) All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions.
    i. Variation in supply voltage : +/- 10 %
    ii. Variation in supply frequency : +/- 3 Hz
i) The inverter output shall have the necessary rated AC surge arrestors and MCB/ MCCB. MCB shall be used for currents up to 63 Amperes, and MCCB shall be

used for currents greater than 63 Amperes. RCCB shall be used by the Vendor if required for successful operation of the PV system

PCU/Array Size Ratio:

The recommended the solar PV array capacity in kWp shall be in a range of 100%-110% of invertor capacity. i.e. if the Invertor Capacity is 5 KW, then the Solar PV array capacity should be from 5 kWp to 5.5 kWp. For payment calculation lower of following two shall be considered.

i. Solar PV array capacity in KWp
ii. Invertor Capacity in KW

PCU/Inverter: -

Marking:

All the Inverters should contain the following clear and indelible Marking Label & Warning Label as per IS16221 Part II, clause 5. The equipment shall, as a minimum, be permanently marked with:

a) The name or trade mark of the manufacturer or supplier;
b) A model number, name or other means to identify the equipment,
c) A serial number, code or other marking allowing identification of manufacturinglocation and the manufacturing batch or date within a three-month time period.
d) Input voltage, type of voltage (AC or DC), frequency, and maximum continuouscurrent for each input.
e) Output voltage, type of voltage (AC or DC), frequency, maximum continuous current, and for AC. outputs, either the power or power factor for each output
f) The Ingress Protection (IP) rating
g) As per IS 16221

Marking shall be located adjacent to each fuse or fuse holder, or on the fuse holder, or in another location provided that it is obvious to which fuse the marking applies, giving the fuse current rating and voltage rating for fuses that may be changed at the installed site.

Particulars	**Details**
Switching devices	IGBT/MOSFET
Control	Micro processor /DSP
Nominal AC output voltage	For 3-phase/ 1phase :- 415V / 240 V
Output frequency	50 Hz
Grid Frequency Synchronization range	+ 3 Hz or more
Ambient temperature considered	-20° C to + 50° C
Humidity	95 % Non-condensing
	IP-65(Minimum).
Grid Frequency Tolerance range	+ 3 or more
No-load losses	Less than 1% of rated power

Inverter Efficiency(minimum)	**(Above 10 kW)** Peak Efficiency At least 97%, measure asper IEC 61683 Euro Efficiency At least 96%, measure asper IEC 61683
	(Below 10 kW) Peak Efficiency At least 96%, measure asper IEC 61683 Euro Efficiency At least 95%, measure asper IEC 61683
THD	`<3%
PF	>0.9
Communication interface	RS 485 with Modbus
Display type	LCD for data display. LCD / LED forstatus display
Protections	Over voltage (both input and output) Over Current (both input and Output) Over/Under grid frequency Over temperature Short circuit Lightening Surge voltage induced at output due to external source Anti-islanding
Recommended Alert/Indications	Inverter ONGrid ON Inverter Under / Over Voltage Inverter Overload Inverter Over Temperature
Recommended LCD Display on Inverter	Output power (W) Daily Energy (Wh) cumulative energy (Wh)DC voltage (V) DC current (A) AC voltage (V) AC frequency (Hz)AC current (A) Cumulative hours of operation (h).

a) The inverter shall have an RS-485 interface and support communication of its operational parameters and logs over Modbus protocol. The register mapping/memory mapping of the inverter data shall be made available by the Empanelled Agency fromthe inverter supplier to the JAKEDA.
b) The inverter shall be 1-Phase or 3-Phase based upon the electricity connection of beneficiary. If the connection is 1-Phase then the inverter shall be 1-Phase and similarly for 3 Phase connections the inverter shall be 3 Phase only.

c) The output of power factor of PCU/ inverter is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustain fault in feeder line and against the lightning on feeder.
d) Built-in meter and data logger to monitor plant performance through external computer shall be provided.
e) The power conditioning units / inverters should comply with applicableIEC/equivalent BIS standard for efficiency measurements and environmental tests asper standard codes IEC 61683/IS 61683 and IEC 60068-2(1,2,14,30) /Equivalent BIS Std.
f) The charge controller (if any) / MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS std. The junction boxes/enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 529 Specifications.
g) The PCU/ inverters should be tested from the MNRE approved test centres /NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses. Valid type test report shall be submitted by the empanelled agency before commissioning of the SPV System.
h) All inverters shall be IEC 61000 compliant for electromagnetic compatibility, harmonics, Surge, etc.

i) Maximum Power Point Tracker (MPPT) shall be integrated in the PCU/inverter to maximize energy drawn from the array.
j) The PCU/ Invertor shall have overloading capacity of minimum 10%

Integration of PV Power with Grid:

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shallbe disconnected from the grid. Once the grid comes into service PV system shall again be synchronized with grid supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid power connection need to be provided, as per regulation.

Data Acquisition System / Plant Monitoring

a) Data Acquisition System shall be provided for each of the solar PV plant.
b) Remote Monitoring and data acquisition through Remote Monitoring System software at the owner location with latest software/hardware configuration and service

connectivity for online / real time data monitoring/control complete to be supplied and operation and maintenance/control to be ensured. In case functional WIFI is not available the vendor shall have to provide GSm/Sim based facility over an CMC period of five years .(if possible provide both the facilities.)

c) The bidder shall mandatorily provide Application Programming Interface (API) of the data logger installed with inverter to fetch the data on JAKEDA platform/dashboard.
d) Solar Irradiance: An integrating Pyranometer / Solar cell- b a s e d irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.
e) Temperature: Temperature probes for recording the Solar panel temperature and ambient temperature to be provided complete with readouts integrated with the data logging. These two sensors are mandatory for plants of capacity above 100 kW.
f) Wind Speed sensors are also mandatory for plants of capacity above 100 kW
g) Installation agency shall ensure that Inverter should have provision of remote monitoring of inverter data through sim card/Wifi . Required website/mobile app platform, where the user (Consumer) can access the data, should be provided/explained to consumer while installationby Empanelled Agency. Additionally, if inverter has the facility of in-built wifi module, that should also be explained to the beneficiary. Recurring cost of sim card / Wifi/ shall be borne by beneficiary. All the inverter data should be made available to JAKEDA for monitoring by giving web access. current carrying cable from lightning arrestor to the earth pit should have sufficient current carrying capacity according to IEC 62305.According to standard, the minimum requirement for a lightning protection system designed for class of LPS III is a copper conductor witha cross section of 16 mm2 or equivalent. Separate pipe for running earth wires of Lightning Arrestor shall be used

Surge Protection

Internal surge protection shall consist of three MOV type surge-arrestors connected from +veand –ve terminals to earth (via Y arrangement).

Earthing Protection

a) Each array structure of the PV yard should be grounded/ earthed properly as perIS:3043-1987. In addition, the lighting arrester/masts should also be earthed inside the array field.
b) Earth resistance should be as low as possible so as to meet the safety and protection requirements.
c) All the earthings required as per the technical specifications should be maintenance free earthings.
d) Each array structure of the PV yard, LT power system, earthing grid for switchyard, all electrical equipment, inverter, all junction boxes, etc. shall be grounded properly as per IS 3043-1987. All metal casing/ shielding of the plant shall be thoroughly grounded in accordance with CEA Safety Regulation 2010.
e) Each string/ array and MMS of the plant shall be grounded properly. The array structures are to be connected to earth pits as per IS standards.
f) Necessary provision shall be made for bolted isolating joints of each earthing pit for periodic checking of earth resistance.
g) The complete earthing system shall be mechanically and electrically connected to provide independent return to earth.
h) Earthing bus bar shall be terminated at both ends of the switchgear to suit the connections to outside earthing conductor. All components and the module are required to be earthed individually and are to be looped and connected to the earthing grid.
i) Separate three earth pits shall be provided for individual three earthings viz.: DC side earthing, AC side Earthing and Lightning arrestor earthing. The earthing shall be donein accordance with latest Standards and shall be completed in all respects as per the

requirement of sites..

j) Earthing system shall consist of earth grids and electrodes buried in soil in the premises, embedded in concrete inside the buildings/rooms to which all the electrical equipment, metallic structures are connected to have earth continuity for safety reasons.
k) The earthing shall be maintenance free type earthing and shall be done through at least 2 meter copper bonded Electrodes.
l) For AC Side earthing, copper wire or strip of suitable size must be used and itselectrode should be copper/copper bonded rod with 250 micron thickness of copper.
m) For LA earthing, according to standard, the minimum requirement for a lightning protection system designed for class of LPS III is a copper conductor with a cross section of 16 mm2 or equivalent. Its electrode should be copper/copper bonded rod with 250 micron thickness of copper.
n) For earthing of DC side, either GI Strip, Copper Strip/Wire of appropriate size as per relevant standard may be used.

Grid Islanding

a) In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off immediately. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands." Powered islands present a risk to workers who may expect thearea to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with Anti islanding features. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.
b) A manual disconnects 4 / 2 pole isolation switch (RCCB may also be used) beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance.

Cables

a) Cables of required size and length as per site requirement to be used in the systemshall have the following characteristics:
b) Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
c) Temp. Range: –10°C to +80°C.
d) Voltage rating 660/1000V
e) Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
f) Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
g) **Cable Routing/ Marking:** All cable/wires are to be routed in a UV protected PVC pipe/ GI cable tray and suitably tagged and marked with proper manner by goodquality ferule or by other means so that the cable easily identified.
h) The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e., 25 years.
i) The ratings given are approximate. All the cables required for the plant are to be provided by the bidder. Any change in cabling sizes if desired by the bidder after shall not be entertained.
j) Multi Strand, annealed high conductivity copper conductor PVC type „A" pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured cable for underground laying. All cable trays including covers tobe provided. All cables conform to latest edition of IEC/equivalent BIS Standards as specified below: BoS item / component Standard Description Standard Number

Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V, UV resistant for outdoor installation IS /IEC 69947. Aluminium cable may be used on the AC-side of the PV system.

k) The size of each type of DC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 1%. xii. The size of each type of AC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2 %.

Connectivity

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the J&K‟s electricity regulations for Grid connectivity and norms of DISCOM and amended from time to time.

Drawings & Manuals

a) Engineering, electrical drawings and Installation and CMC manuals are to be provided to JAKEDA. Bidder shall upload scanned copies of complete technical datasheets for each equipment giving details of the specifications along with make/makes along with basic design of the power plant and power evacuation, synchronization along with protection equipment on the Web portal of Solar Roof top.
b) ISI marked (wherever applicable) and reputed makes equipment be used.

Display Board/Sticker

The Bidder has to display a board/Sticker at the project site mentioning the following:

a. Project /Site Name. as Grid Connected Solar Power Plant at _____
b. Solar Power Plant Capacity. _____
c. Date of Commissioning. _____
d. Implementing Agency._____
e. Vendor Name: _____
f. Contacts details of Operation & Maintenance Team._____

Solar PV System On The Rooftop/ Ground

The Solar PV system on the rooftop/ ground of the premises will be installed for PV capacity permitted by JAKEDA as per regulation.

Safety Measures

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA Safety Regulation 2010 etc.

Documentation

Operation & Maintenance manual / user manual shall be supplied along with the each power plant. The manual shall include complete system details such as array lay out, schematic of the system, inverter details, working principle etc. Step by step maintenance and troubleshooting procedures shall be given in the manuals and provided to the beneficiary.

Shadow Analysis:

The shadow analysis report or undertaking that the plant shall be installed in shadow free area shall be provided by vendor to JAKEDA.

Performance Ratio

The Performance Ratio of Grid Connected Systems shall be more than 75% (at STC) throughout the five-year maintenance period, and necessary efforts shall be made to achieve itby the bidder.

Quality Certification, Standards and Testing For Grid-Connected Rooftop SolarPV Systems/Power Plants

Quality certification and standards for grid-connected rooftop solar PV systems are essential for the successful mass-scale implementation of this technology. It is also imperative to put in place an efficient and rigorous monitoring mechanism, adherence to these standards. Hence, all components of grid-connected rooftop solar PV system/ plant must conform to the relevant standards and certifications given below:

Solar PV Modules/Panels	
IEC 61215 and IS 14286	Design Qualification and Type Approval for Crystalline SiliconTerrestrial Photovoltaic (PV) Modules
IEC 61701:2011	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- 1:2011 IS 16170-1:2016	Photovoltaic (PV) module performance testing and energy rating Irradiance and temperature performance measurements, and power rating
IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH3) Corrosion Testing (As per the site condition like dairies, toilets)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, Part 2: Requirements for Testing
IEC 62782	Photovoltaic (PV) modules - Cyclic (dynamic) mechanical load testing
Solar PV Inverters	
IEC 62109 & IS : 16221	Safety of power converters for use in photovoltaic power systems Part 1: General requirements, and Safety of power convertersfor use in photovoltaic power systems Part 2: Particular requirements for inverters. Safety compliance(Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IS/IEC 61683 latest(as applicable)	Photovoltaic Systems – Power conditioners: Procedure forMeasuring Efficiency (10%, 25%, 50%, 75% & 90-100% LoadingConditions)

IS :16169 :2016/ IEC 62116:2008	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding Prevention Measures
IEC 60068-2 / IEC 62093 (as applicable)	Environmental Testing of PV System – Power Conditioners and Inverters
Fuses	
IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit Breakers (AC/DC): 1)Low-voltage Switchgear and Control-gear, Part 1: General rules 2)Low-Voltage Switchgear and Control-gear, Part 2: Circuit Breakers 3) Low-voltage switchgear and Control-gear, Part 3: Switches, disconnectors switch-disconnectors and fuse-combination units EN 50521: Connectors for photovoltaic system-Safety requirements and tests
IEC 60269-6:2010	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems
Solar PV Roof Mounting Structure	
IS 2062/IS 4759	Material for the structure mounting
Surge Arrestors	
BFC 17-102:2011	Lightening Protection Standard
IEC 60364-5-53/ IS 15086-5 (SPD) IEC 61643-11:2011	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
Cables	
IEC 60227/IS 694, IEC 60502/IS 1554 (Part 1 & 2)/ IEC69947 (as applicable)	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems (BT(DE/NOT)258), mainly for DC Cables
Earthing/Lightning	

IEC 62561 Series (Chemical earthing) (as applicable)	IEC 62561-1 Lightning protection system components (LPSC) - Part 1: Requirements for connection components IEC 62561-2
	Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes IEC 62561-7 Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds
Junction Boxes	
IEC 60529	Junction boxes and solar panel terminal boxes shall be of the thermoplastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
Energy Meter	Bi-directional Energy Meters shall be provided by DISCOMs

Test Certificates and Reports

Test Certificates / Reports from IECQ / NABL accredited laboratory for relevant IEC / equivalent BIS standard for quoted components shall be furnished. Type Test Certificates shall be provided for the solar modules and the solar grid inverters to provide evidence of compliance with specified relevant standards. Customer reserves the right to ask for additional test certificates or (random) tests to establish compliance with the specified relevant standards.

24 APPLICABLE LAW

The Contract shall be interpreted in accordance with the laws of the UT of Jammu & Kashmir

25 CORRESPONDENCE

Bidder requiring any clarification on bid documents may contact in writing or by E Mail.

Chief Executive Officer,
Jammu & Kashmir Energy Development Agency
TAWANAI GHAR, SDA COLONY, BEMINA, J&K-190018/
38 A/B Gandhi Nagar, JAMMU, J&K-180004)
ceojakeda2@gmail.com

Verbal Clarifications and information given by the JAKEDA or its employees or its Representatives shall not be in any way entertained.

26 ANNEXURES

Annexure-I

Forwarding Letter

The Chief Executive Officer
Jammu & Kashmir Energy Development Agency (JAKEDA)
Tawanai ghar ,SDA Colony,Bemina-190018

NIT No. : JKDA-SLR0RTS/6/2024/8517 Dated:-12.06.2024

Sub: Offer in Response to Notice Inviting Bid No NIT No. : for Supply, Installation and Commissioning including Warranty, Comprehensive Maintenance Contract (CMC) for Five (05) years of Grid Connected Rooftop Solar Photovoltaic Power Plants on Government Buildings in the UT of Jammu & Kashmir .

Sir,

With reference to the above we are submitting this offer after having fully read and understood the nature of the work and having carefully noted all the specifications, terms & conditions laid down in the bid document.

We also confirm that:

1. We are an Indian company/firm.
2. We have never been debarred from executing similar type of work by any Central/State/Public Sector Undertaking/Department/Nodal Agency
3. We shall execute the offer/work order as per specifications, terms & conditions of the Bid Documents on award of work.
4. Our offer shall remain valid for placing of purchase orders up to eighteen months (18 months) from the due date of finalization of tender by JAKEDA
5. If at any time, any of the declarations submitted by us is found to be false, our offer or order is liable to rejection.
6. On award of contract the maintenance of these systems shall be carried by us and we also confirm to provide necessary support and facilitation in the shape of spares, training and replacement wherever required.

Yours faithfully,

(Signature of Authorized Signatory)
Name :
Designation :
Company Seal :

Annexure II

Bidder's Experience

Details of Orders Executed by the Bidder of having successfully completed works of Supply, Installation and Commissioning of Grid Connected Solar Photovoltaic Power Plants during 1st April, 2019 till the last date of preceding month of Tender Finalization through Government Organizations/Government Agencies/ SNAs/ PSUs of State or Central Government or under MNRE sponsored programmes certified by SNA/Government Competent Authority This shall be supported with the certification for date of installation and commissioning from the concerned authority.

S.No	Capacity of SPP installed	Name of the Purchaser	Supply order No / date	Date of installation & commissioning	Location of installed SPP

Yours faithfully,
(Signature of Authorized Signatory)
Name :
Designation :
Company seal :

Note:

a) Copy of Contract(s) / Work order(s)/ agreement(s) with copy of relevant pages of the scope of work with documentary evidence of work executed
b) Copy of completion/ commissioning certificate(s)/ proof of completion/commissioning of the said work(s) along with documentation establishing completion of work by the bidder with reference to work order(s) / contract(s) / agreement(s). The bidders must submit the completion certificate issued by end user / owner only after completion of work / supply in all respect.
c) Separate sheet may be used for giving detailed information in seriatim duly signed. This bid proforma must be submitted duly signed in case separate sheet is submitted.
d) Bidder must produce proof of satisfactory completion against the indicated work/supply orders from the beneficiary organizations.

Annexure III

Format for Submission of financial turnover

ON THE LETTER HEAD OF CHARTERED ACCOUNTANT
****

The Chief Executive Officer
Jammu & Kashmir Energy Development Agency (JAKEDA)
38A/B-Gandhi Nagar, Jammu-180004

Sub: Summary of Financial Statement of Turnover

Ref: Request for Selection for Supply, Installation and Commissioning including Warranty, Comprehensive Maintenance Contract (CMC) for Five (05) years of Grid Connected Solar Photovoltaic Power Plants in Jammu &Kashmir (UT).

Dear Sir,

This is to certify that.....[Insert name of Bidder] (The "Bidder") having its Registered Office at.....[Insert Registered Address of the Bidder] with PAN No. ..... [Insert PAN No. of the Bidder] is in the business of..... [Insert briefly the nature of the business], has recorded the following turnovers:

Financial Year	Turnover (in INR)	Audited Statement Attached
2021-22		Yes/No
2022-23		Yes/No
2023-24		Yes/No

All figures indicated herein are arrived from the Audit Reports of the Bidder duly submitted to the Income Tax Department.

[Official Seal of Chartered Accountant] Sincerely yours,
Date: .....
Place: [Insert Name of the Chartered Accountant]
[Insert address and contact information of the Chartered Accountant]

Annexure IV

Information about the Bidding Firm

(On letterhead of bidder)

S.No	Particulars		
1	Name of the Bidder		
2	Address of Bidder		
3	Telephone No		
4	Fax No.		
5	E-mail Address		
6	Registered Office		
7	Factory Campus (if applicable)		
8	Name & Designation of Authorized Signatory for Correspondence		
9	Nature of Firm (Proprietorship / Partnership/ Pvt. Ltd./ Public Ltd. Co./ Public Sector)		
10	Permanent Account Number (PAN/TAN)		
11	Firm‟s Registration Number/ ROC		
12	EPF Registration No. (if applicable)		
13	Sales Tax/Value Added Tax Registration Number/TIN/GST		
14	Telephone/ Fax no of the Bank from where EMD is prepared		
15	International Certification Awarded (if any)		
16	**T urnover in respect of thecompany/bidder.**	**Year**	***(in Rupees)***
		2021-22	
		2022-23	
		2023-24	
17	Particulars of Earnest Money		
18	Whether bidder is a registered manufacturer of Solar Cell/Modules or Solar Inverters.		
19	Place where Materials will be Manufactured		
20	Details of any existing service network in J&K (Name & address of service centre, year of opening)		
21	Other details and remarks, if any		

Yours faithfully,

(Signature of Authorized Signatory)
Name :
Designation :
Company seal :

Separate sheet may be used for giving detailed information in seriatim duly signed

Annexure V:

Format for Submitting the Price Schedule

(To be strictly submitted online only)

Ref: Request for Selection of bidders for Supply, Installation and Commissioning including Warranty, Comprehensive Maintenance Contract (CMC) for Five (05) years of Grid Connected Rooftop Solar Photovoltaic Power Plants on various Government/Buildings in the UT of Jammu & Kashmir . **(Including all the remote areas of the UT of Jammu & Kashmir**)

Grid Connected Solar Power Plants		
Category	**SPV Capacity (kW)**	**Quoted Rate per kWp (in Rs.) (Inclusive of all Taxes)**
Category "A"	2kW	*Rates to be quoted category wise through online e-tendering portal only (Rate shall be per Kw not aggregate)*
Category "B"	3kW	
Category "C"	>3kW upto 10kW	
Category "D"	> 10kW to 100 kW	
Category "E"	> 100kW to 500 kW	

Above quoted price for Solar Power Plants is complete in all respect as per Technical Specifications inclusive of all Central/State/Local taxes* & duties, packing, forwarding, transit insurance, loading & unloading, transportation &other charges etc. FOR all destination in Jammu and Kashmir and inclusive of installation, commissioning, includingfive years operation,maintenance and other Terms & conditions of NIT

Seal & Signature of Company

*Note: Bidders are advised to refer the latest GST rates revised on 1st October, 2021 or any amendment thereof.

Annexure VI:

Proforma of 'Bank Guarantee' for 'Earnest Money

PROFORMA OF "BANK GUARANTEE"
FOR "EARNEST MONEY
(To be stamped in accordance with the Stamp Act)

To,	**Bank Guarantee No.**
JAKEDA	**Date of BG**
_____	**BG Valid up to**
	Claim period up to (There should be three months gap between expiry date of BG & Claim period)
	Stamp Sl. No./e-Stamp Certificate No.

Dear Sir(s),

In accordance with Letter Inviting Tender under your reference tender no. _____M/s._____having their Registered / Head Office at _____(hereinafter called the Bidder), wish to participate in the said Request for Selection(RfS) for Supply, Installation and Commissioning including Warranty, Comprehensive Maintenance Contract (CMC) for Five (05) years of Grid Connected Solar Photovoltaic Power Plants Government Buildings in the UT of Jammu & Kashmir.

As an irrevocable Bank Guarantee against Earnest Money for the amount of _____is required to be submitted by the Bidder as a condition precedent for participation in the said tender which amount is liable to be forfeited on the happening of any contingencies mentioned in the Tender Document.

We, the _____ Bank at _____having our Head Office _____ (Local Address) guarantee and undertake to pay immediately on demand without any recourse to the tenderers by JAKEDA., the amount_____without any reservation, protest, demur and recourse. Any such demand made by JAKEDA, shall be conclusive and binding on us irrespective of any dispute or difference raised by the Tenderer.

This guarantee shall be irrevocable and shall remain valid up to_____[this date should be three (3) months beyond the validity of the bid].If any further extension of this guarantee is

required, the same shall be extended to such required period on receiving instructions from M/s. _____whose behalf this guarantee is issued.

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this _____day of_____20__at_____.

Notwithstanding anything contained herein:

a) The Bank‟s liability under this Guarantee shall not exceed (currency in figures) . . . . . (currency in words only) . . . . .

b) This Guarantee shall remain in force upto_____(this expiry date of BG should be two months beyond the validity of bid) and any extension(s) thereof; and

c) The Bank shall be released and discharged from all liability under this Guarantee unless a written claim or demand is issued to the Bank on or before the midnight of …….(indicate date of expiry of claim period which includes minimum three months from the expiry of this Bank Guarantee) and if extended, the date of expiry of the last extension of this Guarantee. If a claim has been received by us within the said date, all the rights of JAKEDA under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

WITNESS:

(SIGNATURE)
(NAME)

(SIGNATURE)
(NAME)
Designation with Bank Stamp

(OFFICIAL ADDRESS)

Attorney as per
Power of Attorney No. _____
Date: _____

INSTRUCTIONS FOR FURNISHING "BID SECURITY / EARNEST MONEY" BY "BANK GUARANTEE"

1. The Bank Guarantee by Bidders will be given on non-judicial stamp paper as per "Stamp Duty" applicable. The non-judicial stamp paper should be in the name ofthe issuing Bank. In case of foreign Bank, the said Bank's Guarantee to be issued by its correspondent Bank in India on requisite non-judicial stamp paper
2. The expiry date should be arrived at in accordance with tender condition
3. A letter from the issuing Bank of the requisite Bank Guarantee confirming that said Bank Guarantee / all future communication relating to the Bank Guarantee shall be forwarded to the Employer at its address.
4. Bidders must indicate the full postal address of the Bank along with the Bank's E-mail / Phone from where the Earnest Money Bond has been issued.

Annexure VII:

Authority Letter for Signing Bid Documents

The Chief Executive Officer
Jammu & Kashmir Energy Development Agency (JAKEDA)
38A/B Gandhi Nagar, Jammu-180004/
Tawanai Ghar ,SDA Colony,Bemina-190018

NIT No. : JKDA-SLR0RTS/6/2024/8517 Dated:-12.06.2024

Sub : Authority Letter for Signing Bid Document.

I hereby authorize ……
(Name & Designation) to sign the Bid Document.

He is also authorized to provide clarifications/confirmations, if any, and such clarifications/ confirmations shall be binding on the company. The specimen signature of ..... is attested below.
……..

(Specimen Signature)
Name : .....
Designation ..……
Company Seal :

(Signature of Authorized Signatory)
Name : .....
Designation : …….....

Yours faithfully,

(Signature of Authorized Signatory)
Name :
Designation :

Note :
1. To be submitted by bidders on official letter head of the company.
2. Authorization can be for more than one person

Annexure VIII:

No Deviation Certificate

The Chief Executive Officer
Jammu & Kashmir Energy Development Agency (JAKEDA)
38A/B, Gandhi Nagar, Jammu-180004
Tawanai Ghar ,SDA Colony,Bemina-190018

NIT No. : JKDA-SLR0RTS/6/2024/8517 Dated:-12.06.2024

Sir,

We understand that any deviation/exception in any form from our bid against the above mentioned reference number may result in rejection of our bid. We, therefore, certify that we have not taken any exceptions/deviations anywhere in the bid and we agree that if any deviation is mentioned or noticed, our bid may be rejected.

Yours faithfully,

(Signature of Authorized Signatory)

Name :
Designation :
Company seal :

Note : This "No Deviation Certificate" should be written on the letter head of the bidder indicating BID No. duly signed and stamped with date by a person competent and having the power of attorney to bind the bidder.

Note: The cost of bid document in the shape of Demand Draft favouring Chief Executive Officer, JAKEDA shall be uploaded along with the bid and provided in a separate envelope at the time of depositing of hard copy of techno-commercial bid.

Annexure IX:

Check List

(TO BE COMPLETED / FILLED IN DULY SIGNED BY THE BIDDER AND UPLOAD WITH THE OFFER)

1.	Document Fee (Rs) Proof of transaction UTR/UPI/ Transaction number/Reference number with Date	
2.	Amount of Earnest Money (Rs.)	
3.	CDR/FDR/BG(with No. & Date and name of the bank)	
4.	Cover Letter (Annexure I)	Yes/No
5.	Information about the Bidder (Annexure IV)	Yes/No
6.	Turnover as desired (Annexure-III)	Yes/No
7.	No Deviation Certificate (Annexure VIII)	Yes/No
8.	Proof of work experience (Annexure II) List and photocopies giving status of past orders received and accomplished enclosed	Yes/No
9.	Whether the proposed material fully correspondsto the NIT specifications Certificate of utilizing all the material conforming to latest MNRE specifications and IEC/BIS standard.	Yes/No
10	Confirmation that the prices quoted are inclusive of all central/ state/local taxes, duties etc. as applicable and also freight, insurance, storage, carriage etc. FOR sites and free Replacement Warranty for 5 years and are quoted in Indian currency alone.	Yes/No
11	Test certificate issued by MNRE/IEC/BIS/IS etc.	Yes/No
12	Authority Letter for Signing Bid Document (Annexure – VII)	Yes/No

Signature of the bidder

APPENDIX- 1

(Format for Guarantee Card)

FORMAT FOR GUARANTEE CARD TO BE SUPPLIED WITH EACH SOLAR PV SYSTEM

1	Name & Address of the Vendor	
2	Name & Address of BENEFICIARY CONSUMER NO	
3	Date of Commissioning of the system	
4	Details of PV Module (s) supplied in the System Make Model Serial No(s) Wattage of the PV Module (s) under STC Guarantee valid up to	
5	Details of PCU/Electronics & other BOS items: System Make Model Serial No(s) Guarantee valid up to	
6	Designation & Address of the person to be Contacted for claiming Guarantee obligations	
7	Local Service Centre Address: Mobile no e-mail id :-	

The grid tied solar system is warranted for its performance for a period of five years and the Empanelled Agency/Supplier (undersigned) undertakes to replace the components which do not perform as per specifications, due to manufacturing defect, at no cost to the beneficiaryas per EOI Conditions.

(Signature) (SEAL)
Name & Designation, Name & Address of the Agency
Date: Place

(During the guarantee period **JAKEDA** reserves the right to cross check the performance ofthe systems with the minimum performance levels specified in the tender Document specifications).