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Office of the Executive Engineer, Electricity Department,
220/66/11 KV Magarwada, Power House, Patlara Kachigam Road,
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No. ED/EE/T-33/2022-23/ **7289**


Dated:- **2/03/2023**

e-Tender Notice No. 20 of the year 2022-23

The Executive Engineer, Electricity Department, Daman invite e-tenders on behalf of the President of India, From Reputed & Experience Electrical Contractors/Reputed Agency having experience of similar type work / supply of items in Government utilities /Board /Government Undertaking/ Distribution Company for Tender ID No. 1) 2023_DAMAN_2680_1

All Tender Documents can be downloaded from Daman and Diu web site <https://ddtenders.gov.in>

Last Date of Submission : 09/03/2023 on 12:00 PM


Executive Engineer (Elec),
Daman.

Tender Documents for
Supply, Installation, Testing and Commissioning
of 1000 KW Solar Central Inverter at 6 MW Solar
Plant, Fudam, Diu as per tender Specification.



Electricity Department of Daman & Diu,
220/66/11 KV Magarwada,
Power House, Patlara Kachigam Road,
Patlara- Moti Daman – 396215

(March 2023)

Disclaimer

These tender documents are not an agreement or offer by the Electricity Department of Daman & Diu (ED-DD) to the prospective Bidders or any other party. The purpose of these tender documents is to provide interested parties with information to assist the formulation of their Bid. The tender documents are based on material and information available in public domain and specific surveyed carried out by the ED-DD for the purpose of the assignment.

The tender documents, along with the Formats, are not transferable. The tender documents and the information contained therein, has to be used only by the person to whom it is issued through e-tendering platform. It shall not be copied or distributed by the recipient to third parties. In the event that the recipient does not continue with its involvement in the bidding process in accordance with these tender documents, these tender documents must be kept confidential.

While the tender documents have been prepared in good faith, neither the ED-DD nor its employees or advisors/consultants make any representation or warranty express or implied as to the accuracy, reliability or completeness of the information contained in the tender documents.

Neither the ED-DD, its employees nor its advisors / consultants will have any liability to any Bidder or any other person under the law of contract, tort, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in the tender documents, any matter deemed to form part of the tender documents, the information supplied by or on behalf of ED-DD or its employees, any advisors/consultants or otherwise arising in any way from the selection process.

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1. Introduction and Background

Daman and Diu are Union Territories embedded within the State of Gujarat on the west coast of India. The administration of the Union Territory is head by the Administrator. Electricity Department of Daman & Diu (herein after referred as ED-DD) is a part of the administration of Union Territory of Daman & Diu. The ED-DD is head by the Secretary (Power). ED-DD is mainly engaged in the procurement, transmission of electricity to various categories of consumers. The ED-DD does not own or operate any generating stations with exception to few rooftop and ground mounted solar PV generations. Hence, based on allocation, power is drawn from the central sector power stations. The ED-DD is engaged in the work of construction, operation and maintenance of power transmission which caters to power demand of various categories of consumers

ED-DD wishes to invite bids for selection of **‘Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu as per tender Specification.**

”

2. Information and Instruction to Bidders

2.1 Issue of Tender

2.1.1 Interested parties may download the tender documents from ED-DD’s e-tender portal <https://ddtenders.gov.in> (internet explorer only). Bidders are requested to visit the portal and follow the instructions for registering, downloading tender documents and submitting bids online contained therein. The detailed instructions for registering, obtaining digital certificate for signing bids, bid submission etc. may be found on the portal. Bidders can submit the Bid only on submission of non-refundable application / processing fee of ₹ 1500/- (Rupees One Thousand Five Hundred only) along with the Bid in the form of a demand draft from a scheduled commercial or nationalized bank, drawn in favour of ELECTRICITY DEPARTMENT, DAMAN & DIU. payable at Daman.

2.2 Clarifications and Amendments

2.2.1 Bidders requiring any clarification on the tender may notify the Authority in writing or by fax and email to the address provided in Clause 2.6 . The Bidder should send the queries on or before the date mentioned in the Schedule of Bidding Process specified in Clause 2.6. The Authority shall endeavor to respond to the queries within 5 (Five) days prior to the Bid Due Date. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in Clauses of these tender documents shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification. The responses to the queries will be published in E-Procurement Website as well the Authority’s Website <http://www.dded.gov.in/> without identifying the source of queries.

- 2.2.2 The Authority may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders through E-Procurement Website as well the Authority's Website <http://www.dded.gov.in/>. All clarifications and interpretations issued by the Authority shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by Authority or its employees or representatives or consultants shall not in any way or manner be binding on the Authority.
- 2.2.3 At any time prior to opening of the financial bid, the ED-DD either at his own initiative or in response to clarifications requested by a prospective bidder, may modify tender documents by issuing an amendment(s). Such amendment(s) shall be uploaded on the e-tendering website.
- 2.2.4 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the ED-DD may, at its discretion, extend the deadline for the submission of the Bids

2.3 Preparation and Submission of Bid

- 2.3.1 The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information required as per the bid document must be furnished and the formats contained herein should be duly filled in. Failure to provide the information as required may render the bid technically unacceptable.
- 2.3.2 The Bidder in quoting his rate shall for all purpose, whatsoever, be deemed to have himself independently obtained all relevant and necessary information for the purpose of preparing his tender. The correctness or completeness of the details, given in the tender documents is not guaranteed. The Bidder is required to satisfy him in all respect, before the submission of offer.
- 2.3.3 The Bidder shall be deemed to have examined the tender document, to have obtained his own information in all matters whatsoever that might affect the carrying out of the works at the scheduled rates and to have satisfied himself to the sufficiency of his tender. Any error in description or quantity or omission in the Contract Document shall not vitiate the contract or release the Contractor from executing the work comprised in the contract according to drawings and specifications at the scheduled rates. He is deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures and as to what all works he has to complete in accordance with the contract documents irrespective of any defect, omissions or errors that may be found in the contract documents.
- 2.3.4 The Contractor shall be deemed to have visited site and surroundings, to have satisfied himself to the working conditions at the site, availability of water, electric power, labour etc., transportation facilities, probable sites for labour accommodation and store go-downs etc. and all other factors involved in the execution of works.
- 2.3.5 With the survey carried out by the intended bidder, he needs to submit detailed project proposal including work schedule/ PERT chart along with the implementation schedule. The proposal should also include Bill of Material (BOM) proposed by the bidder. The description of scope in the tender documents is indicative and not necessarily

exhaustive. Bidder may include additional equipment/ requirements in “Other Items”. No additional compensation/fee shall be provided for items, activities and additional work which are not mentioned in the price bid that may have to be undertaken for successful completion of the Project.

- 2.3.6 The bidders shall submit their bids strictly based on the specification, terms and conditions contained in the bid document and subsequent revisions/ amendments. Bids not submitted as per the requirements are likely to be rejected.
- 2.3.7 Bidder should submit price bid as per the ddtenders price bid format. Price Proposal should clearly indicate the price to be charged without any qualifications whatsoever and should include all taxes and duties whatsoever to be paid pre- or post-delivery or to be deducted by the ED-DD at source. Bidder has to submit copy of PAN card and GST registration, EPF Certificate and other relevant documents.
- 2.3.8 The bidders shall submit their eligibility / qualification details, Technical bid, Financial bid, documentary evidences, etc. in the formats prescribed in tender documents.
- 2.3.9 One (1) hard copies of the “Technical Bid” shall be prepared and submitted in English with indelible black (or blue) ink on white paper on consecutive numbered pages. Also, one (1) Scanned Copy of the original document must be submitted on CD and upload on e-tendering platform.
- 2.3.10 Each page shall be duly signed by authorized signatory and/or statutory auditors/ Company Secretary (wherever applicable) with company seal affixed on each page. Any part of the bids which is not specifically signed by the authorized signatory and not affixed with the company seal, shall not be considered for the purpose of evaluation. All necessary documents shall also be uploaded on e-tendering platform. Further, in case of any discrepancy between the hard and soft copy versions, the hard copy version will only be considered for evaluation, subject to the bid meeting all other requirements.
- 2.3.11 All the Performa, Annexure(s) and/or attachment(s) must be on company’s official letter. Any change in wording will lead to rejection of the bid application.
- 2.3.12 The offer shall contain no erasures or overwriting except as necessary to correct errors made by bidder. Such corrections, if any, shall be in signed by the authorized signatory.

All documents for stated work shall be submitted in sealed envelope and words Proposal for Appointment of System Integrator for Scheme **‘Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu as per tender Specification.’**

- 2.3.13 Name and full address of the selected bidder shall be put on the left hand bottom corner of envelope.
- 2.3.14 The EMD and tender fee should be submitted in separate envelopes marked as **“Earnest Money Deposit”** and **“Tender Fees”** respectively.

- 2.3.15 “Financial Bid” shall include “Price Bid” and must be submitted only in e-tendering platform only.
- 2.3.16 If it is a public holiday on the last date for submission of the Bid, the submission and the receipt of the Bid shall be on the next working day at the place of submission of Bid.
- 2.3.17 The bid must be complete in all aspects. All the terms and conditions of bid including technical specifications should be carefully studied for the sake of submitting complete and comprehensive quotation. Failure to comply with any of the terms and conditions or instructions of the offer with insufficient particulars which is likely to render fair comparison of bids as a whole impossible may lead to rejection even if otherwise it is a competitive offer/bid.
- 2.3.18 The last date of receipt of the proposal is as indicated in Clause 2.6 or as declared by the ED-DD by issuing corrigendum/ amendment. The bidder shall ensure timely submission of the bid at the address as mentioned in Clause 2.6 The bids received by hand/ post/ courier after due date of receipt of the bids shall not be entertained even if the bid has been posted/dispatched before the due date of receipt.
- 2.3.19 The bid should be unconditionally valid for a period of six (6) months/ 180 calendar days from the date of opening of financial bids. The rates approved as per the tender documents shall be valid for entire contract period for purchase of additional equipments (if required). Any bidder revising the offer within the validity period, without prejudice to other remedies available with ED-DD, is likely to be black-listed.
- 2.3.20 Power of Attorney as per **FORMAT-III** with the seal of the company for the person signing the bid document and the person attending the bid opening meeting, should be furnished along with the bid.
- 2.3.21 A person signing the bid document or any document forming part of the bid document shall be deemed to warrant that he/ she has the authority to bind such offer / document and if on enquiry it appears that the person signing has no authority to do so, the ED-DD may without prejudice to other civil and criminal remedies, cancel the bid / contract and hold the bidder company liable for all costs and damages.
- 2.3.22 Costs involved in preparation of the proposal and of negotiating the contract, including visits to the ED-DD premises, are not reimbursable.

2.4 Earnest Money Deposit

- 2.4.1 The bids shall be accompanied with EMD of ₹ 1,26,000/- (Rupees One Lack Twenty Six Thousand only) for through a Bank Guarantee/ FD, in favour of **ELECTRICITY DEPARTMENT, DAMAN & DIU**. The BG shall be in the **FORMAT-IV**.
- 2.4.2 The EMD shall be forfeited in case of the following events:
- If Proposal is withdrawn during the validity period or any extension agreed by the bidder thereof.
 - If the Proposal is varied or modified in a manner not acceptable to the bidder after opening of Proposal during the validity period or any extension thereof.

- If the bidder tries to influence the evaluation process.
 - If the bidder fails to execute the project work in stipulated time frame.
- 2.4.3 The EMD shall be valid for a period of thirty (30) days beyond the validity of the Bid. The EMD, without interest, will be returned to the unsuccessful bidders within one (1) month after awarding the contract to the Successful bidder by issuing work order / letter of intent. In case of successful proposal, it will be treated as a part of the performance security.
- 2.4.4 The successful bidder shall have to deposit 10 (ten) % of the contract amount of the project towards Performance Guarantee cum security deposit. Such Performance Guarantee shall be deposited within fourteen (14) days of placing of the Letter of Intent. The Performance Guarantee shall be returned to the Successful Bidder within 1 (one) month after successful completion of the contract period.

2.5 Format and Signing of the Bid

- 2.5.1 The bid and all uploaded documents must be digitally signed using “Class 3” digital certificate [e-commerce application (Certificate with personal verification and Organization name)] as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.
- 2.5.2 The authenticity of above digital signature shall be verified through authorized CA after bid opening. If the digital signature used for signing is not of “Class -3” with Organizations name, the bid will be rejected.
- 2.5.3 Bidder is responsible for ensuring the validity of digital signature and its proper usage by their employee.
- 2.5.4 The bid including all uploaded documents shall be digitally signed by duly authorized representative of the bidding company.
- 2.5.5 Hard copy of the bids shall be signed by competent authority as per power of attorney.

2.6 Bid Information

2.6.1	Name of the assignment	Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu as per tender Specification.
2.6.2	Issuing Authority	ELECTRICITY DEPARTMENT, DAMAN & DIU. (ED-DD), U.T. of Dadra & Nagar Haveli and Daman & Diu.
2.6.3	Cost of tender document	₹ 1500/- (Rupees One Thousand Five Hundred only) through a crossed bank demand draft from a scheduled commercial/ nationalised bank, in favour of ELECTRICITY DEPARTMENT, DAMAN & DIU payable at Daman, to be submitted along with response to tender.
2.6.4	Bid security / earnest money deposit (EMD)	₹ 1,26,000/- (Rupees One Lack Twenty Six Thousand only) through a FD/ Bank Guarantee (BG), in favour of ELECTRICITY DEPARTMENT, DAMAN & DIU from a nationalized/scheduled commercial bank to be submitted along with bid documents.
2.6.5	Publishing Date	02.03.2023, 18:00 hrs onwards
2.6.6	Bid Submission Closing Date in ddtenders.gov.in.	09.03.2023, 12:00 hrs
2.6.7	Bid Submission Closing Date in hard copy format.	09.03.2023, 12:00 hrs
2.6.8	Bid Opening Date	10.03.2023,12:00 hrs
2.6.9	Date & time of opening of Price bids (tentative)	14.03.2023, 11:00 hrs
2.6.10	Bid validity period	Up to Six (6) Calendar months/ 180 calendar days from the date of opening of Bid financial bid
2.6.11	Address for communication / Bid submission	Office of the Executive Engineer, Electricity Department, 220/66/11 KV Magarwada, Power House, Patlara Kachigam Road, Patlara- Moti Daman - 396215 Phone No.0260 – 2408800. Contact No. 9925475864.

2.7 Eligibility Criteria

2.7.1 Eligibility conditions

- i) The bidder is an Accredited Channel Partner of MNRE / Empanelled manufacturers / Original Equipment Manufacturers (Manufacturers means manufacturer of Solar Central Inverter) having valid test report of Solar Central Inverter (not more than one year old) from any of the NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers. Joint Venture is not allowed to Bid.
- ii) The Bidder should have experience in Supply, Installation, Testing and Commissioning of Solar Central Inverter during last 3 years with following order values,
Bidder should have completed three (3) similar works each of value not less than 40% of the estimated cost of the tender

Or

Two (2) similar works each of value not less than 60% of the estimated cost of the tender

Or

One (1) similar work of value not less than 80% of the estimated cost of the tender. The copy of relevant Work orders, Purchase order, work completion certificates, other related documents shall be provided.

- iii) The work produced by the bidder in (ii) shall be at least one year old. The bidder shall produce experience certificate from Govt. utility / board/Government undertaking/Distribution Company to support the same.
- iv) The bidder banned or blacklisted by any other Government / private / public company in last three (3) years shall not be eligible to submit the bids. The bidder has to submit affidavit that the bidder is not being blacklisted by any utility / government agency in last three (3) years.
- v) Bidder should be an electrical contractor approved by appropriate licensing authority. Relevant documentation to submitted along with bid.
- vi) The bidder should submit the Turn over certificate (Excluding the auditor's report) of the individual firm duly signed by a C.A. The average Turn Over for the last three year of the firm should not be less than Rs. 50.00 Lacks.
- vii) The bidder shall submit,

1. Test certificate / report for the components can be from any of the NABL/IEC Accredited Testing Laboratories or MNRE approved test centers. The Test Certificates / Reports should be in compliance with the latest MNRE specifications or as per relevant IEC standard.
2. PAN NO.
3. Income Tax Return certificate for last three years.
4. Tenderer should have valid registration under
 - a) GST
 - b) E.P.F.
 - d) Workmen's Compensation Policy.
 - 6) Details of Tool & equipments available.
 - 7) List of Details of skilled persons, Technical staff with experience and

3. Bid Opening and Evaluation

3.1 Opening of Bids

- 3.1.1 Sealed bid, completed in all respects as instructed in Clause 2.6 shall be accepted by the ED-DD. Bids submitted by hand, but not uploaded on e-tendering platform, by due date and time, will not be considered for evaluation.
- 3.1.2 Intending bidder shall have to deposit application processing fees and earnest money in along with the "Technical Bid" without which bids shall not be considered.
- 3.1.3 Technical bids shall be opened on the date as mentioned in Clause 2.6, in the presence of the representative(s) of the bidders, who may be present at the time of opening of the bid, if they so desire.
- 3.1.4 The ED-DD reserves the right to postpone the date of receipt and opening of the bids or cancel the bid without bearing any liability, whatsoever, consequent upon such decision.

3.2 Technical Evaluation

- 3.2.1 The ED-DD will examine the bids to determine whether they are complete, whether the bid format confirms to the tender requirements, whether required EMD and tender document fees have been furnished, whether the documents have been properly signed and stamped, whether the bids are in order and whether the bid meets the specified Qualification Criteria.
- 3.2.2 To facilitate evaluation of Bids, the Authority may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Bid. However, that would not entitle the Bidder to change or cause any change in the substance of the tender submitted or price quoted. The clarifications so provided shall become a part of the bid.
- 3.2.3 Any information contained in the Bid shall not in any way be construed as binding on the Authority, its agents, successors, consultants or assigns, but shall be binding against the Bidder if the Project is subsequently awarded to it under the Bidding Process on the basis of such information.

- 3.2.4 The Authority reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any Bid without assigning any reasons.
- 3.2.5 Only those bidders' who qualify technically and adhere to the ED-DD's technical requirements shall be considered for financial evaluation.
- 3.2.6 In case of no response / unsatisfactory response by the bidder to any of the requirements with regard to the contents of the Technical Bid, the bidder shall not be assigned any marks for the same.
- 3.2.7 Technical bid of the bidders' shall be opened and evaluated for acceptability of Techno-functional requirements, deviations and technical suitability. Bidders shall respond to the requirements as explained below for their evaluation with regard to experience and qualification. Also, Bidders shall refer and respond to all technical requirements as mentioned in the tender document.
- 3.2.8 The ED-DD shall not be bound to accept the lowest or any bid and reserves to itself the right of accepting the whole or portion of any of the bid, as it may deem fit, without assigning any reason thereof.
- 3.2.9 The ED-DD reserves the right to order additional quantity or reduce the quantity of the material advertised, at the time of placement of order, for which the quoted rates shall be valid.

3.3 Financial Evaluation

- 3.3.1 Bids of only technically qualified shall be opened as per the scheduled opening date or any other date notified by ED-DD.
- 3.3.2 Financial Bids of the Qualified Bidders shall be opened in presence of the representatives of such Qualified Bidders, who wish to be present, as per the timelines indicated, or such other date as may be intimated by ED-DD to the Qualified Bidders. Expertise, project proposal, design criterial, creativity etc. shall be taken into account while bid evaluation. Financial Bids will be evaluated on the basis of cumulative cost of Supply, Installation, Testing and Commissioning of Solar Central Inverter quoted by the bidder. The lowest cost bidder shall be declared L1.
- 3.3.3 The ED-DD shall not be bound to accept the lowest or any bid and reserves to itself the right of accepting the whole or portion of any of the bid, as it may deem fit, without assigning any reason thereof.

4. Scope of Work and Technical Specifications

4.1 Project Details

ED-DD proposes to implement Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu.

4.2 Scope of Work

The Electricity Department of Daman & Diu is proposing Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu with 05 years warrantee as per tender Specification – 01 Nos.

PREFERENCE WILL BE GIVEN TO ABB MAKE

4.3 Detailed Scope of Work

- 4.3.1 The scope of work shall include “Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter – 01 Nos in existing control room and connecting in system at 6 MW Solar Plant, Fudam, Diu with 05 years warrantee as per tender specification. It shall be responsibility of the Bidder to ensure that all the works as per scope of the specification are completed in totality for safe and efficient working of the system.
- 4.3.2 Supply of the complete systems, including all necessary components, subcomponents,
- 4.3.3 spares, and tools etc. as per technical specifications given elsewhere in this document. Erection and commissioning of the supplied systems on the specified site.
- 4.3.4 Any other work urgently required as per site conditions.
- 4.3.5 Any additional works not covered above, but necessary for the functioning of the system and required as per specification incorporated. The works of minor nature, which are not mentioned, shall be incorporated by the bidder.
- 4.3.6 Regarding actual work to be carried out at the site bidder needs to execute the work in consultation with the office of ED-DD.
- 4.3.7 The scope of works shall also include comprehensive insurance, storage and transportation, necessary civil works for installation of complete system etc.
- 4.3.8 The equipment offered shall conform in all respects to high standards of engineering, design and workmanship and be capable of performing in commercial operation up to Bidder’s guarantee in a manner acceptable to the purchaser, who will interpret the meaning of drawings, specification and shall have the power to reject any work or materials, which is his judgment are not in full accordance therewith.
- 4.3.9 It shall be responsibility of the Bidder to obtain all necessary clearances from the competent authorities. All the necessary co-ordination with regard to Sub-Contracted items shall be carried out by the Bidder. The purchase/Engineer will communicate only with the Bidder for all matter pertaining to this contract.
- 4.3.10 The total price for this contract shall be on lump sum all-inclusive Basis and shall cover all items and service necessary for successful completion of the contract. Even if all components of a system included in this specification are not explicitly identified and /or listed herein, these shall be supplied under this contract to ensure completion

of the system and facilitate proper operation and easy maintenance of Solar Central Inverter .

4.3.11 All the fittings and accessories that might not have been mentioned specifically in the Specification but are necessary for the Solar Central Inverter , shall be deemed to be included in the specification and shall be supplied and furnished by the Contractor without any extra charge.

4.3.12 After completion of said works, SLD of the executed works should be submitted in duplicate copy.

4.4 Technical Requirements for 1000 KW Solar Central Inverter

4.4.1 1000 KW SOLAR CENTRAL INVERTER (PCU)

This section covers the activities related to design, manufacturing, testing at works, supply, insurance, transportation and delivery at project site, storage, erection, testing, commissioning of Solar Inverters as detailed hereunder.

- Inverter is required as replacement of existing inverter installed at project site.
- Solar Central Inverter of minimum capacity 1000 kW having high quality, high efficiency and reliable operation. Total inverter capacity of the plant shall be in accordance with the PV array capacity.
- The rated power/name plate capacity of the inverters shall be the AC output of the inverter at 50⁰ C.

All the material & workmanship shall be of reputed make as have proven successful in their respective uses in similar services & under similar condition.

The solar inverter/power conditioning unit shall be suitable for interfacing with SCADA system and all necessary transducers shall be included under the scope of supply.

4.4.2 STANDARDS

The equipment and materials covered by this specification shall conform to the latest edition of following Indian Standards or equivalent IEC standards except where specified otherwise in this specification:

1	IEC: 61683	Photovoltaic systems – Power Conditioners – Procedure for measuring efficiency
3	IEC 60068	Environmental Testing
4	IEC 62116 / IEEE 1547/UL 1741/ equivalent IS standard	Photovoltaic (PV) systems - Characteristics of the utility interface
5	IEC 61727 Relevant CEA/ CERC regulation and grid code (amended up to date)	Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures
6	IEC 61000 series	EMC, harmonics, etc.
7	IEC 62109 (1&2), EN 50178 or equivalent	Electrical safety
8	Recommended practice for PV – Utility interconnections	IEEE standard 929 – 2000 or equivalent
9	IEEE 519	Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
10	IEC 62093	Balance-of-system components for photovoltaic systems Design qualification natural environments
11	CEA Technical Standards for Connectivity to the Grid Regulations 2007 with 2013 Amendment	

4.4.3 TECHNICAL REQUIREMENTS

Solar Inverters shall have certificate and approval from VDE, IEC, UNE, RD, EDF, BDEVV etc. The inverters should have CE conformity according to LVD (Low Voltage Directive) and EMC (Electro Magnetic Compatibility) Directive for safety purpose.

Type test certificate issuing authorities should be any NABL/IEC Accredited Testing Laboratories or MNRE approved test centres.

Equipment meeting with other authoritative standards which ensure an equal or better quality is also acceptable. Where the equipment conforms to any other authoritative standard, the salient points of difference between the standard adopted and IS/IEC shall be clearly brought out by the contractor.

- The inverter should be 3-phase static solid state type power conditioning unit.
- Make: (Preference will be given to ABB Make)
- Inverter/PCU shall be centralized grid tied in nature; Maximum Power Point Tracker (MPPT) shall be integrated in the power conditioner unit to maximize energy drawn from the Solar PV array. The MPPT should be microprocessor based to minimize power losses. The details of working mechanism of MP PT to be submitted with the detailed design report. The MPPT unit shall confirm to IEC 62093 for design qualification.
- The minimum euro efficiency of the PCU as per IEC 61683 shall be 98%. The bidder shall specify the conversion efficiency at following load conditions i.e. 25%, 50%, 75% and 100% during detail engineering, which shall be confirmed by type test reports.
- Degree of protection of the Inverters shall conform at least IP-21 for indoor operation and outdoor type shall conform IP-54 or higher.
- Nuts & bolts and the PCU enclosure shall have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
- Only those PCUs/ Inverters which are commissioned for the design capacity till date in India shall be considered for this project with individual Inverter capacity not less than 1000 kW.

Contractor has to provide sufficient information to the satisfaction of the plant owner before placing the final order for PCUs/Inverters. Service centre of the PCU manufacturer must be in India. All PCUs shall consist of associated control, protection and data logging devices and remote monitoring hardware and compatible with software used for SMB level monitoring.

- The dimension, weight, foundation details etc. of the PCU shall be clearly indicated in the technical specification to be submitted with the detailed design report.
- The PCU shall be capable of complete automatic operation, including wake-up, synchronization & shut down independently & automatically. Inverters / PCU shall operate in sleeping mode when there will no power connected.
- The Inverter shall have internal protection arrangement against any sustained fault in output line and lightning in the grid. AC protection boxes shall be provided at the inverter output which shall include over current, under voltage protection etc.
- Both AC & DC lines shall have suitable fuses & surge arrestors and contactors to allow safe start up and shut down of the system.
- The inverter output shall always follow the grid in terms of voltage and frequency. This shall be achieved by sensing the grid voltage and phase and feeding this information to the feedback loop of the inverter. Thus control variable then controls the output voltage and frequency of the inverter, so that
- inverter is always synchronized with the grid. The inverter shall be self commutated with Pulse width modulation (PWM) technology.
- The PCU shall be able to withstand an unbalanced load conforming to related IEC standard (+/- 5% voltage). The PCU shall include appropriate self-protective and self-diagnostic features to protect itself and the PV array from damage in the event of PCU component failure or from parameters — beyond the PCU's safe operating range due to internal or external causes. The self-protective features shall not allow signals from the PCU front panel to cause the PCU to be operated in a manner which may be unsafe or damaging. Faults due to malfunctioning within the PCU, including commutation feature, shall be cleared by the PCU protective devices and not by the existing site utility grid service circuit breaker.
- Operation outside the limits of power quality as described in the technical data sheet should cause the power conditioner to disconnect the grid. Additional parameters requiring automatic

disconnection are over voltage, over current, earth fault, short circuit and reverse power.

- The inverter itself shall consist of one circuit breaker for isolation from the circuit during any fault or maintenance purpose.
- All three phases shall be supervised with respect to rise/fall in programmable threshold values of frequency.
- The PCU shall be capable of controlling power factor dynamically.
- The inverters shall operate satisfactorily within the operating ambient temperature range of -15°C to $+60^{\circ}\text{C}$. The contractor shall assure that the inverter shall not de-rate upto $+50^{\circ}\text{C}$ ambient temperature.
- To take care of PID (Potential Induced Degradation), the inverter shall have active negative grounding kit. [Only PID free Solar PV modules shall be used for the proposed plant and necessary test certificates shall be submitted.]
- The PCU shall have the following main features for convenience of operation:
 - Auto 'Wake up': The system shall automatically "wake up" in the morning and begin to export power provided there is sufficient solar energy and the grid voltage and frequency is in range.
 - Stand — By Mode: The control system shall continuously monitor the output of the solar power Plant until pre-set value is exceeded & that value to be indicated.
 - Sleep Mode: Automatic sleep mode shall be provided so that unnecessary losses are minimized at night. The power conditioner must also automatically reenter standby mode when threshold of standby mode reached.
 - Basic System Operation (Full Auto Mode): The control system shall continuously monitor the output of the solar power Plant until pre-set value is exceeded & that value to be indicated.
 - Following protections shall be provided with the inverter.
 - ❖ Over voltage both at input & output
 - ❖ Over current both at input & output
 - ❖ Over/under grid frequency
 - ❖ Synchronization loss
 - ❖ Anti-islanding Protection (IEEE 1547/UL 1741/ equivalent BIS standard)
 - ❖ Heat sink over temperature
 - ❖ Short circuit
 - ❖ Protection against lightening
 - ❖ Protection against unbalance phase voltage
 - ❖ Power regulation in the event of thermal overloading

- Protection for each solid-state electronic device
- Surge arrestors to protect against Surge voltage induced at output due to external source
- Direct earth fault protection and body earthing
- Set point pre-selection for VAR control
- Insulation monitoring of the PV array with sequential fault location
- Any other protections required

- Inverters should have user friendly LED/LCD or touch display for programming and view on line parameters such as:

- Inverter per phase Voltage, current, kW, kVA, frequency and power factor
- Grid Voltage, frequency and power factor

DC voltage and current

Inverter Import export kWh summation

Solar kWh summation

Inverter ON/OFF 0 Grid ON/OFF

Inverter under voltage/over voltage

Inverter over load

Inverter over temperature

Any other if required

4.4.4 SPECIFICATION

Sl. No.	Operating Parameter	Desired specification
1	Input (DC)	
	PV array connectivity capacity	As per design of the Manufacturer
	MPPT Voltage range	600 to 850 V
	Number of MP PT Channel	As per design of the manufacturer.
2	Output (AC)	
	Nominal AC Power output	1000 kW (minimum)
	Number of Grid Phase	3
	Adjustable AC voltage range	+ /- 10%
	Frequency range	50 Hz
	AC wave form	Sine wave
	THD	Less than 3% at 100% load
	Switching	H.F. transformer/transformer less
3	General Electrical data	
	European Efficiency	98 % (minimum)
	No load loss	< 1% of rated power

	Maximum loss in sleep mode	< 0.05% of rated power
4	Protection	
	DC Side	As mentioned in the Technical Requirement
	AC side	As mentioned in the Technical Requirement
	Isolation Switch	PV array Isolation switch (DC)
	Ground fault detection device (RCD)	To be provided
5	Display	
	Display type	LED/LCD or touch display
	Display parameter	
	DC	As mentioned in the Technical Requirement
	On grid connected mode	As mentioned in the Technical Requirement
		Suitable port must be provided in the
		inverter for

9	Interface (Communication protocol)	i. On site upgrade of Software ii. On site dumping data from the memory iii. Plant based remote monitoring system
10	Storage of Data	At least for 1 year. Separate data logger may be provided to meet the criteria.
11	Monitoring	Matched with the monitoring and data logging system (SCADA)
12	Mechanical Data	
	Protection Class	As mentioned in the Technical Requirement
	DC Switch	Integrated
	Operating ambient temperature	-15 ⁰ C to +60 ⁰ C
	Relative Humidity	15 to 95 %
	Noise Emission	Less than 80 dB (A) @ 1 meter
	Cooling	Forced cooling

Joint inspections and testing will be done by ED-DD and the authorized representatives of the contractor at the manufacturer's workshop on regular basis for quality assurance and testing. Acceptance Tests as per relevant Standard shall be carried out at the module manufacturer's workshop.

Following tests shall be carried out on certain number of Inverters from a lot (decided by ED-DD) as acceptance tests of Solar Inverters:

- Visual Inspection

- Performance Test and measurement of AC & DC parameters ➤ DC reverse polarity protection

- Islanding Protection

- Over Voltage & Under Voltage withstand

- Over Frequency & Under Frequency withstand

- Night consumption

Prior to the delivery of the product, the contractor shall submit but not limited to the following documents:

- Warrantee
- Instructions for installation and operation, manual
- Safety precautions
- Test reports for routine tests and acceptance tests etc.

5. Other Terms and Conditions

- 5.1.1 The Contract Price shall be paid in the manner specified strictly as per CPWD guidelines. No invoice for extra work/change order on account of change order will be submitted by the Supplier unless the said extra work /change order has been authorized/approved by the ED-DD in writing.
- 5.1.2 The developer's request for payment shall be made to the ED-DD in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, accompanied by the documents submitted as per Tender documents.
- 5.1.3 If any excess payment has been made by the ED-DD due to difference in quoted price in proposal and Supplier's invoice, the ED-DD may without prejudice to its rights recover such amounts by other means after notifying the Supplier or deduct such excess payment from any payment subsequently falling due to the Supplier.
- 5.1.4 All payments are subjected to any deductions which the ED-DD may be authorized to make as per governing laws.
- 5.1.5 All payment will be made in Indian Rupees (₹) only.

5.2 Time Schedule and Compensation for Delay

- 5.2.1 The selected bidder shall complete the project work within one (1) months from the project commencement date.
- 5.2.2 Bidder shall submit a detailed project proposal including work schedule/ PERT chart along with the implementation schedule. Bidders shall drill down these activities into sub/sub-sub activity in the chart. The chart shall also detail out time and resource effort required to execute each activity. The detailed bar charts for all the work activity shall however, be discussed and agreed to by the successful Bidder with the ED-DD before start of the execution of work.
- 5.2.3 If the contractor shall desire an extension of the time for completion of the work on the ground of his having been unavoidable hindered in its execution or on any other grounds, he shall apply in writing to the ED-DD 07 (Seven) days advance of such unavoidable hindered. The ED-DD shall evaluate the stated reasons and may or may not approve the time extension.
- 5.2.4 The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date of written order to commence the work is given to the contractor. If the contractor does not commence the work within the period specified in the work order, he shall stand liable for forfeiture of the amount of Earnest Money. Besides, appropriate action may be taken by the Engineer in Charge/competent authority to debar him from taking part in future tenders for a specific period or black list him. The work shall throughout the stipulated period of the contract, be proceeded with all due diligence, time being deemed to be the essence of the contract, on the part of the contractor.

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- 5.2.5 For any unjustified delay in commissioning caused by the bidder, he shall be liable to pay to the ED-DD
- 5.2.6 When a Bidder is unable to complete the work within the specified or extended period, the ED-DD shall be entitled to award the work to other agencies without notice to the Bidder on his (i.e., Bidders) cost and risk, the goods or any part thereof which the bidder has failed to complete or if not available, the best and nearest available substitute thereof or to cancel the contract of such work and Bidder shall be liable for any loss or damage which the agency may sustain by reasons of such failure on the part of the Bidder. But the bidder shall not be entitled to any gain on such work got done against defaults. The recovery of such loss or damages shall be made from any sum due to the Bidder under this with the ED-DD. If recovery is not possible from the bill and the Bidder fails to pay the loss or damages within one month, the recovery shall be made under arbitration or any other law for the time being in force.

5.3 Delivery, Packing, Storage and Insurance

- 5.3.1 Obligation of delivering required material at the site shall be responsibility of the Selected Bidder.
- 5.3.2 In case of failure to deliver in full the required supplies on order, the ED-DD shall have the right to make risk purchase at the cost of supplier or/and cancel the contract and claim reasonable compensation / damages. The contract of the supply shall be repudiated if the supplies are not made within the prescribed period and the satisfaction of the purchasing officer.
- 5.3.3 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination should and conform to the relevant ISS for transportation direct to destination. All crates shall be marked with proper signs indicating up and down sides of the packing and also unpacking instructions considered necessary by the suppliers. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit. The ED-DD shall not be responsible in any manner for any loss or damage caused to the Goods during Transit. The quoted price shall be deemed to include the cost of packing.
- 5.3.4 Material received at site should be stored in premises and contractor shall be responsible for safety of material stored which shall be adequately insured. Insurance charges shall be borne by the Contractor.
- 5.3.5 The Goods supplied under the Contract shall be fully insured by the Supplier against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery.

5.4 Right to Accept / Reject The Bid

- 5.4.1 ED-DD reserves the right to reject any or all bids or to accept any bid in full or part, at its sole discretion, without assigning any reasons whatsoever thereof. The decision of ED-DD shall be final and binding on the bidders in this regard.
- 5.4.2 Such acceptance / rejection of any or all bids or will not make ED-DD liable to any claim or action of whatever nature, including but not limited to, a claim for reimbursement of costs incurred by any such bidder in preparation of the bid.

5.5 Cancellation of Order

- 5.5.1 The ED-DD will be at liberty to terminate in part or full the awarded contract without prejudicing its rights and affecting the obligations of the contractor by giving 30 (thirty) days' notice in writing in the following events:
- If the bidder is found defaulter for delayed supply or failure to deliver satisfactory performance or supply of substandard materials pursuant to tender conditions;
 - If the bidder/vender is involved in any action of moral turpitude.

5.6 Force Majeure

- 5.6.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 5.6.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier.
- 5.6.3 If a Force Majeure situation arises, the Supplier shall promptly and no later than seven days from the first occurrence thereof, notify the ED-DD in writing of such condition and the cause thereof. Unless otherwise directed by the ED-DD in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 5.6.4 The decision of the ED-DD with regard to the occurrence, continuation, period or extent of Force Majeure shall be final and binding on the Supplier.
- 5.6.5 Force majeure events may include, but not be limited to ,
- (i) Act of war, invasion, blockade, embargo, revolution, riot, insurrection, civil commotion, act of terrorism or sabotage.
 - (ii) Strikes, lockouts or other generalized labor action occurring throughout the industry.
 - (iii) Radioactive contamination or ionizing radiation or chemical contamination.
 - (iv) Flood, cyclone, lightning, earthquake, drought, storm, fire or any other extreme effect of the natural elements.

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- (v) Epidemic or plague, affecting the work.
 - (vi) Air crash or shipwreck,
 - (vii) An act of God,
 - (viii) Act of Government.
 - (ix) Change in Law etc.

5.7 Conflict of Interest

5.7.1 The ED-DD requires that the selected bidder provide professional, objective, and impartial advice and at all times hold the ED-DD's interests paramount, strictly avoid conflicts with other Assignment/jobs or their own corporate interests and act without any consideration for future work. Without limitation on the generality of the foregoing, the selected bidder, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth.

5.7.2 Conflicting Activities:

- a) A firm that has been engaged by the ED-DD to provide goods, works or Assignment/job other than consulting Assignment/job for a project, and any of its affiliates, shall be disqualified from providing consulting Assignment/job related to those goods, works or Assignment/job.
- b) Conversely, a firm hired to provide consulting Assignment/job for the preparation or implementation of a project, and any of its affiliates, shall be disqualified from subsequently providing goods or works or Assignment/job other than consulting Assignment/job resulting from or directly related to the firm's consulting Assignment/job for such preparation or implementation. For the purpose of this paragraph, Assignment/job other than consulting Assignment/job is defined as those leading to a measurable physical output.
- c) A Consultant (including its Personnel and Sub-Consultants) or any of its affiliates shall not be hired for any Assignment/job that, by its nature, may be in conflict with another Assignment/job of the Consultant to be executed for the same or for another ED-DD.
- d) A selected bidder (including its Personnel and Sub-bidders) that has a business or family relationship with a member of the ED-DD's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the Assignment/job, (ii) the selection process for such Assignment/job, or (iii) supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the ED-DD throughout the selection process and the execution of the Contract.
- e) The selected bidder will have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their ED-DD or that may reasonably be perceived as having this effect. Any such disclosure shall be made as per the Standard forms of technical proposal

provided herewith. If the SI fails to disclose said situations and if the ED-DD comes to know about any such situation at any time, it may lead to the disqualification of the Consultant during bidding process or the termination of its Contract during execution of assignment.

5.8 Corrupt Practices

5.8.1 ED-DD requires bidders to observe the highest standard of ethics during the procurement and execution of such contracts. The following definitions apply:

- “Corrupt Practice” means the offering, giving, receiving or soliciting, directly or indirectly of anything of value to influence the action of any party in the procurement process or the execution of the contract.
- “Fraudulent Practice” means a misrepresentation or omission of facts in order to influence a procurement process or execution of contract.
- “Collusive Practice” means a scheme or arrangement between two or more bidders, with or without the knowledge of the ED-DD, designed to influence the action of any party in a procurement process or execution of the contract.
- “Coercive Practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.

5.8.2 ED-DD will reject a proposal for the award of Contract if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract.

5.8.3 The ED-DD will cancel the portion of the fund allocated to a contract for goods, works or services if it at any time determines that corrupt or fraudulent practices were engaged in by representatives of the ED-DD or a beneficiary of the fund, during the procurement or the execution of that contract, without the ED-DD having taken timely and appropriate remedial action satisfactory to the ED-DD.

5.9 Taxes and Duties

5.9.1 The prices quoted by the supplier shall be inclusive of all duties/GST taxes/levies. Although, bid submitted by the bidder should mention taxes & duties separately as well as cumulatively. Responsibility for including all applicable taxes/duties/levies in the proposal lies with the bidder. In case tax component is modified (duly notified by Government) at the time of invoice, the new tax component shall be applicable at the time of raising the invoice. The ED-DD shall not be responsible for any error/omission on the part of the bidder. No separate claim on this behalf will be entertained by the ED-DDs. Payment of taxes/duties/levies shall not be made separately.

5.9.2 For goods supplied from outside the ED-DD’s country, the Supplier shall be entirely responsible for all taxes, duties, stamp duties, license fees, and other such levies imposed outside the ED-DD’s country. For goods supplied from within the ED-DD’s country, the Supplier shall be entirely responsible for all taxes, duties, entry tax,

license fees, other levies etc., incurred until delivery of the Goods and Related service to the ED-DD.

5.10 Confidentiality

5.10.1 Information relating to the examination, evaluation, comparison and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any attempt by a Bidder to influence the ED-DD in the examination, evaluation, comparison, and post qualification of the Bids or Contract award decisions may result in the rejection of its Bid.

5.11 Inspections and Tests

5.11.1 The Supplier shall at its own expense and at no cost to the ED-DD carry out all such tests and/or inspections of to ensure that the Goods and Related Services are complying with the functional parameters, codes and standards specified in the Tender Documents, to the satisfaction of the ED-DD.

5.11.2 The inspections and tests may be conducted on the premises of the ED-DD. In case test facility is available only at Supplier premises, the same shall be carried out at the Supplier end in presence of the representative of the ED-DD.

5.11.3 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the ED-DD.

5.11.4 The ED-DD may require the Supplier to carry out any test and/or inspection to verify that the characteristics and performance of the Goods or Related Services comply with the technical specifications, codes and standards under the Contract.

5.11.5 The Supplier shall provide the ED-DD with a report of the results of any such test and/or inspection.

5.11.6 The ED-DD may reject any Goods / Related Services or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods/ Related Services or parts thereof or make alterations necessary to meet the specifications at no cost to the ED-DD, and shall repeat the test and/or inspection, at no cost to the ED-DD, upon giving a notice.

5.11.7 The Supplier agrees that neither the execution of a test and/or inspection of the Goods / Related Services or any part thereof, nor the attendance by the ED-DD or its representative, nor the issue of any report, shall release the Supplier from any warranties or other obligations under the Contract.

5.12 Indemnity

5.12.1 The Supplier hereby agrees to indemnify the ED-DD, its staff and consultants, for all conditions and situations mentioned in this clause, in a form and manner acceptable to the ED-DD. The supplier agrees to (“ED-DD Indemnified Persons”) from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:

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- a) any negligence or wrongful act or omission by the Supplier or its agents or employees or any third party associated with Supplier in connection with or incidental to this Contract; or
 - b) any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied Goods and Related Services or any part thereof.

5.12.2 The Supplier shall also indemnify the ED-DD against any privilege, claim or assertion made by third party with respect to right or interest in, ownership, mortgage or disposal of any asset, property, movable or immovable as mentioned in any Intellectual Property Rights, licenses and permits

5.12.3 Without limiting the generality of the provisions of this clauses mentioned previously, the Supplier shall fully indemnify, hold harmless and defend the ED-DD Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the ED-DD Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any Goods, Related Services, information, design or process supplied or used by the Supplier in performing the Supplier's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Supplier shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Goods or Related Services, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Supplier shall promptly make every reasonable effort to secure for the ED-DD a license, at no cost to the ED-DD, authorizing continued use of the infringing work. If the Supplier is unable to secure such license within a reasonable time, the Supplier shall, at its own expense, and without impairing the specifications and standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

5.13 Limitation of Liability

5.13.1 Except in cases of gross negligence or wilful misconduct:

- Neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the ED-DD; and
- The aggregate liability of the Supplier to the ED-DD, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the Contract Price. Provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Supplier to indemnify the ED-DD with respect to patent infringement.

5.14 Governing Law

5.14.1 The Contract shall be governed by and interpreted in accordance with the laws of the India. In case of any dispute or arbitration, decision of the administrator of U.T. of Dadra & Nagar Haveli and Daman & Diu shall be final and binding.

5.15 Termination

5.15.1 Termination for Default

The ED-DD may, without prejudice to any other remedy for breach of Contract, by Notice of default sent to the Supplier, terminate the Contract in whole or in part:

- i) if the Supplier fails to deliver any or all of the Goods or Related Services within the period specified in the Contract, or within any extension thereof granted by the ED-DD; or
- ii) if the Supplier, in the judgment of the ED-DD has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract; or
- iii) any representation made by the bidder in the proposal is found to be false or misleading; or
- iv) If the Supplier commits any breach of the Contract and fails to remedy or rectify the same within the period of two weeks (or such longer period as the ED-DD in its absolute discretion decide) provided in a notice in this behalf from the ED-DD.

5.16 Disclaimer

5.16.1 ED-DD reserves the right to share, with any consultant of its choosing, any resultant Proposals in order to secure expert opinion.

5.16.2 ED-DD reserves the right to accept any proposal deemed to be in the best interest of the ED-DD.

5.17 Adherence to Safety Procedures, Rules, Regulations and Restriction

5.17.1 Supplier shall comply with the provision of all laws including labor laws, rules, regulations and notifications issued there under from time to time. All safety and labour laws enforced by statutory agencies and by ED-DD shall be applicable in the performance of this Contract and Supplier's Team shall abide by these laws.

5.17.2 Access to the Sites and ED-DD's locations shall be strictly restricted. No access to any person except the essential personnel belonging to the Supplier who are genuinely required for execution of work or for carrying out management/maintenance who have been explicitly authorized by the ED-DD shall be allowed entry to the Sites and some ED-DD's locations. Even if allowed, access shall be restricted to the pertaining equipment of the ED-DD only. The Supplier shall maintain a log of all activities carried out by each of its personnel.

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- 5.17.3 The Supplier shall take all measures necessary or proper to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. Supplier's Team shall adhere to all security requirement/regulations of the ED-DD during the execution of the work. ED-DD's employee also shall comply with safety procedures/policy.
- 5.17.4 The Supplier shall report as soon as possible any evidence, which may indicate or is likely to lead to an abnormal or dangerous situation and shall take all necessary emergency control steps to avoid such abnormal situations.
- 5.17.5 The ED-DD will be indemnified for all the situations mentioned in this clause in the similar way as defined in the tender documents.

5.18 General Terms and Conditions

- 5.18.1 The conditions hereinafter deals with system details and supplementary conditions of the contract in addition to those stipulated in foregoing clauses which along with schedules, formats and annexures, 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.
- 5.18.2 If at any time any of the document / 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.
- 5.18.3 No claim shall be raised against the ED-DD either in respect of interest or depreciation in value for the amount of security deposit and / or earnest money. In the case of bank deposits the ED-DD shall not be responsible for any loss on account of failure of the bank.
- 5.18.4 No price escalation on account of any statutory increase in or fresh imposition of customs duty, excise duty, sales tax or duty levied in respect of the systems authorized to be installed, shall be applicable.
- 5.18.5 The Bidders are required to study carefully the conditions of the tender document, the enclosed specifications and the relevant provision of the relevant IEC/ IEEE / BIS specifications, wherever necessary. The ED-DD shall not be liable for any wrong/ incomplete / insufficient information which shall be the responsibility of the bidder to carry out his own studies including site visit before submitting the proposal. Technical particulars of the material offered must comply with the enclosed specifications and the relevant provisions of the BS/IS as far as possible.
- 5.18.6 The selected bidder shall sign these conditions on each page at the end, in token of acceptance of all the terms and it would be attached with the proposal along with the declaration. He should also sign at the bottom of each of the pages of his tender.
- 5.18.7 If a Bidder imposes conditions, which are in addition to/or in contravention with the conditions mentioned herein, his tender is liable to be summarily rejected, In any case

none of such conditions will be deemed to have been accepted unless specifically mentioned in the letter of authorization issued by ED-DD.

5.18.8 If any dispute arises out of the contract with regard to the interpretation / meaning and the breach of the terms of the contract, the matter shall be referred to by the parties to the ED-DD whose decision shall be final and binding.

5.18.9 The bidder whose bid is not accepted shall not be entitled to claim any costs, charges, expenses of and incidental to, incurred by him through or in connection with his submission of bid, even though the ED-DD may elect to withdraw the notice inviting bid.

5.19 General Instructions

5.19.1 Bidders are required to furnish proposal, information and related documents as called for in this tender Document in English Language. Any printed literature furnished by the selected bidder may be in another language, provided that this literature is accompanied by an English translation, in which case, for the purpose of interpretation of the document, the English version will govern. The bid completed in any language other than English shall be summarily rejected.

5.20 Rate Schedule for Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu as per tender Specification.

Sr No.	Description	Qty	Unit	Rate Inclusive of All Taxes	Amount
1	Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu as per tender Specification.	01	Nos.		

6. Formats

FORMAT-I

<On the Letter Head of the Bidding Company>

Date:.....

To
Executive Engineer
Electricity Department,
220/66/11 KV Magarwada,
Power House, Patlara Kachigam Road,
Patlara- Moti Daman – 396215
Phone No.0260 – 2408800

Sub: Response to Tender *<insert tender title>*.

Dear Sir,

1. We/I, the undersigned*<insert name of the bidder>* have carefully gone through the Tender Documents and satisfied ourselves/myself and hereby confirm that our/my offer strictly conforms to the requirements of the Tender Documents and all the terms and conditions detailed out in the Tender Documents are acceptable to us. As a token of acceptance we have enclosed copy of the Tender Documents with each page signed by the Authorized Signatory and affixed with company seal.

Further, we confirm that upon issuance of Letter of Award by Electricity Department, Daman & Diu. (ED-DD), this Undertaking for Acceptance of the General terms and Conditions of Tender Documents shall be enforceable by Law.

2. We have enclosed Tender Fees of ₹..... *<Insert Amount>*, in the form of Demand Draft*<Insert DD number>* dated.....*<Insert date of DD >* issued from *<Insert name of bank >*.
3. We have enclosed EMD of ₹..... *<Insert Amount>*, in the form of bank guarantee no.....*<Insert bank guarantee number>* dated.....*<Insert date of bank guarantee>* as per Format-IV from *<Insert name of bank providing bank guarantee>* and valid up to.....*<insert validity date>*as per this Tender.
4. We hereby unconditionally and irrevocably agree and accept that the decision made by the ED-DD in respect of any matter regarding or arising out of the Tender shall be binding on us. We hereby expressly waive any and all claims in respect of this process.

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5. We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this response to in the event of our selection as Successful Bidder.
 6. We are enclosing herewith our response to the Tender with formats duly signed as desired by you in the Tender Documents for your consideration.
 7. It is confirmed that our response to the Tender is consistent with all the requirements of submission as stated in the Tender Documents and subsequent communications from the ED-DD.
 8. The information submitted in our response to the Tender is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response to the Tender.
 9. We confirm that all the terms and conditions of our Bid are valid upto six (6) Calendar months/ 180 calendar days from the date of opening of the financial bid.

For and on behalf of Bidding Company

(Signature of Authorized Signatory)

Name:

Date:

Designation:

Place:

Company Seal:

BIDDER’S COMPOSITION AND OWNERSHIP STRUCTURE

<On letter head of the company>

1. Corporate Details:

a. Company’s Name, Address, Nationality and Director’s details:

Name :

Registered / Principal Address :

Website Address :

Corporate Identification Number :

Country of Origin :

Address for Correspondence :

b. Year of Incorporation :

c. Company's Business Activities :

d. Name of the authorized representative :

e. Telephone Number :

f. Email Address :

g. Telefax Number :

h. Please provide the following documents:

-
- (i) Copy of the Memorandum and Articles of Association and certificate of incorporation or other equivalent organizational document (as applicable), including their amendments, certified by the company secretary of the Bidding Company.

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

For and on behalf of Bidding Company

(Signature of Authorized Signatory)

Name:

Date:

Designation:

Place:

Company Seal:

POWER OF ATTORNEY

<On non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution>

Know all men by these presents, We*<name and address of the registered office of the Bidding Company >*do hereby constitute, appoint and authorize Mr./Ms.....*<name, age and residential address>* who is presently employed with us and holding the position of*<insert designation>* as our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for *<Enter Title of the Tender>* for the requirements of Electricity Department, Daman & Diu. (ED-DD), U.T. of Dadra & Nagar Haveli and Daman & Diu in the country of India in response to the Tender dated..... *<insert date>*issued by Executive Engineer, ED-DD including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the ED-DD may require us to submit. The aforesaid Attorney is further authorized for making representations to the ED-DD, and providing information / responses to the ED-DD, representing us in all matters before the ED-DD, and generally dealing with the ED-DD in all matters in connection with our Bid till the completion of the bidding process as per the terms of the Tender.

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

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

Signed by the within named

.....*<Insert the name of the executant company>*

through the hand of

Mr.

duly authorized by the Board to issue such Power of Attorney

Dated this day of

Accepted

.....

Signature of Attorney

(Name, designation and address of the Attorney)

Attested

.....

(Signature of the executant)

(Name, designation and address of the executant)

.....

Signature and stamp of Notary of the place of execution

Common seal of has been affixed in my/our presence pursuant to Board of Director's Resolution dated.....

WITNESS

1.

(Signature)

Name

Designation.....

2.

(Signature)

Name

Designation.....

Notes:

- (1) The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.
- (2) The person authorized under this Power of Attorney, in the case of the Bidding Company being a public company, or a private company which is a subsidiary of a public company, in terms of the Companies Act, 1956, with a paid up share capital of more than Rupees five (5) crores, should be the Managing Director/ whole time director/manager appointed under section 269 of the Companies Act, 1956. In all other cases the person authorized should be a director duly authorized by a board resolution as per Format-X duly passed by the company.
- (3) In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.
- (4) Also, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

FORMAT OF THE UNCONDITIONAL AND IRREVOCABLE BANK GUARANTEE / PERFORMANCE SECURITY

<To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution. Foreign entities submitting Bids are required to follow the applicable law in their country.>

To
Executive Engineer
Electricity Department,
220/66/11 KV Magarwada,
Power House, Patlara Kachigam Road,
Patlara- Moti Daman – 396215
Phone No.0260 – 2408800

In consideration of the *<Insert name of the Bidder>* inter alia for *<Enter Tender Title>* for the requirements of Electricity Department, Daman & Diu. (ED-DD), U.T. of Dadra & Nagar Haveli and Daman & Diu, having its registered office at 220/66/11 KV Magarwada, Power House, Patlara Kachigam Road, Patlara, Moti Daman-396215 in U.T. of Dadra & Nagar Haveli and Daman & Diu in response to the Tender ID..... *<insert tender ID>* dated *<insert date>* issued by ED-DD, agreeing to consider the Bid of *<Insert the name of the bidder>* as per the terms of the tender, the *<Insert name and address of the bank issuing the Bank Guarantee, and address of the head office>* (here in after referred to as “Guarantor Bank”) hereby agrees unequivocally, irrevocably and unconditionally to pay to the ED-DD or its authorized representative at Daman & Diu forthwith on demand in writing from the ED-DD or any representative authorized by it in this behalf an amount not exceeding ₹ (Rupees only *<amount in words>*) on behalf of M/s. *<Insert name of the bidder>*.

1. We.....*<insert name of the guarantor bank>* hereby undertake that this guarantee shall be valid and binding on the Guarantor Bank up to and including *<Insert date of validity of Bid Bond in accordance with Tender Documents>* and shall not be terminable by notice or any change in the constitution of the Guarantor Bank or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made,

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- given, or agreed with or without our knowledge or consent, by or between concerned parties.
2. Our liability under this Guarantee is restricted to ₹ (Rupees only *<amount in words>*). Our Guarantee shall remain in force until *<Date to be inserted>* or its authorized representative shall be entitled to invoke this Guarantee until *<Insert Date, which is 30 days after the date in the preceding sentence>*.
 3. The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand from the ED-DD or its authorized representative, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to the ED-DD or its authorized representative.
 4. We *<Insert Name of the Guarantor Bank>* do hereby undertake to pay amounts payable under this Guarantee without any demur merely on demand by ED-DD or its authorized representative stating that the amount claimed is due by way of laws or damage caused to or would be caused to or suffered by the ED-DD. By reasons of breach of any conditions of the agreement / contract relating to the bid mentioned at para 1 of this guarantee by the said bidder..... *<insert name of the bidder>*. Any such demand made by ED-DD on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. The guarantor bank shall not have any records against the ED-DD or its authorized representative in respect of any payment made under this guarantee.
 5. We..... *<Name of the Guarantor Bank>* do hereby further undertakes to pay the ED-DD any money so demanded not withstanding any dispute or disputes raised by the said bidder M/s..... *<insert name of the bidder>* in any suits or proceeding pending before any court or tribunal relating there to, our liability under this guarantee being absolute and unequivocal. However, our liability under this guarantee shall be restricted to an amount not exceeding ₹ (Rupees only *<amount in words>*).
 6. This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring, liquidation, winding up, dissolution or any other change in the constitution of the Guarantor Bank.
 7. This Guarantee shall not be discharged due to the change of constitution of the Guarantor bank or the ED-DD.
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8. Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to ₹ (Rupees only <amount in words>) and it shall remain in force until <Date to be inserted on the basis of Tender Documents>, with an additional claim period of thirty (30) days thereafter. We are liable to pay the guaranteed amount or any part thereof under this BANK GUARANTEE only if ED-DD or its authorized representative serves upon us a written claim or demand within the claim period mentioned herein above.

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

Witness:

1. Signature Name and address.	Name: Designation with Bank Stamp
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2. Signature Name and address	Name: Designation with Bank Stamp
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Attorney as per power of attorney No.

For:
 <Insert Name of the Bank>

Banker's Stamp and Full Address:
 Dated this day of 20.....

Note: The Stamp Paper should be in the name of the Executing Bank.

CERTIFICATE OF TURNOVER

<on letter head of CA firm>

I/We, M/s <name of CA firm> have verified the books of accounts, financial statements and other relevant records of M/s..... <name of bidder>having its registered office at and we hereby certify that the turnover of the company for the last three years is as under :

Year	Turn over (₹ in Crore)
2015-16	
2017-18	
2019-20	
2021-22	
Total	

This certificate is issued at the request of the M/s <name of bidder> for the purpose of submitting bid for tender ID.....

Date of Issue

Place :.....

Name of the Chartered Accountant (with Seal)

Registration no:

Contact No.

Fax No.....

E-Mail ID.....

For and on behalf of Bidding Company

(Signature of Authorized Signatory)

Name:

Date:

Designation:

Place:

Company Seal:

DETAILS OF EXPERIENCE IN LAST THREE YEARS

<on letter head of Company>

Sr. No.	Name of the Company with full address, phone, fax and name of Contact Person	Work Description	Ref. & date of order	Work Order Value	Details of Order & its configuration	Date of Completion

For and on behalf of Bidding Company

(Signature of Authorized Signatory)

Name:

Date:

Designation:

Place:

Company Seal:

BOARD RESOLUTION

<on letterhead of the bidding company>

The Board, after discussion, at the duly convened Meeting on <Insert date>, with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956, passed the following Resolution:

1. **RESOLVED THAT** Mr./Ms....., be and is hereby authorized to do on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Bid for "....." <insert tender title> by the ED-DD in the country of India, including signing and submission of all documents and providing information / Bid to ED-DD, representing us in all matters before ED-DD, and generally dealing with ED-DD in all matters in connection with our bid for the said Project.

2. **FURTHER RESOLVED THAT** pursuant to the provisions of the Companies Act, 1956 and compliance thereof and as permitted under the Memorandum and Articles of Association of the company, approval of the Board is hereby accorded bid for the Project.

Certified true copy

(Signature, Name and stamp of Company Secretary/Director)

Notes:

- 1) The board resolution should not be older than 3 (three) months.
- 2) This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary/Director.
- 3) Memorandum and Articles of Association of the Bidder and its Parent/Affiliate(s) whose credentials have been used should be submitted.
- 4) The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution. This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act 1956 may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing company and the authorizations granted therein are true and valid.

WARRANTY CARD**(For 1000 KW Solar Central Inverter)**

Equipment Item Description	
1	Supply, Installation, Testing and Commissioning of 1000 KW Solar Central Inverter at 6 MW Solar Plant, Fudam, Diu as per tender Specification.

Place & Date:

(Signature)**Name & Designation****Name & Address of the Manufacturer/Supplier****(SEAL)**