

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA



**E-TENDER FOR**

**DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150 KWp(100+50) GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ**

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED (ASCDCL)**

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### Table of Contents

SECTION-I BID INVITATION		
1	Brief Description of the Bidding Process	5
2	Bidding Information	6-7
SECTION-II INFORMATION AND INSTRUCTION TO BIDDERS		08
1	Scope of Contract	08
2	Eligibility	09
3	Standards and Certificates	10
4	Instructions	10
5	Cost of Bidding	12
6	Language of Bid	12
7	Documents Comprising the Bid	12
8	E.M.D.(Earnest Money Deposit), Security Deposit, Additional Security Deposit(ASD) and Forfeiting of E.M.D.	15
9	Price Variation	17
10	Jurisdiction	17
11	Time Frame	18
12	Period of Validity of Bids	18
13	Mode of submission of Bids	18
14	Amendment of Bidding Documents	18
15	Deadline for Submission of Bids	19
16	Late Bids	19
17	Clarification of Bids	19
18	Preliminary Examination	19
19	Acceptance or Rejection of Bids	20
20	Criteria for Evaluation of Bids	21
21	Award Criteria- Award of Contract	22
22	Corrupt or Fraudulent Practices	22
SECTION – III GENERAL TERMS AND CONDITIONS		
1	General Terms and Conditions of Tender	24

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE &amp; ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

2	Communications	27
3	Manner of Execution	28
4	Application	28
5	Standards	28
6	Inspection	29
7	Transportation	29
8	Terms of Payment	29
9	Payment Terms for Comprehensive Maintenance Contract (CMC)	30
10	Penalty Clause	30
11	Assignment	30
12	Sub-contracts	31
13	Termination for Default	31
14	Applicable Law	31
15	Notices	31
16	Packing	31
17	Danger Plates	32
18	Control Room	32
19	Provision for Cleaning of SPV System	32
20	Insurance	33
21	Guaranteed Kwh Energy Generation Clause	33
<b>SECTION – IV :TECHNICAL SPECIFICATION</b>		
1	Technical and General Specifications For 150(100+50) kWp	34-46
2	CMC For 150 kWp(100+50) SPV Power plant	47-50
<b>APPENDIX</b>		
1	Appendix - I (A) : Bidder's Information Sheet	51
2	Appendix – I (B) : Firm Profile at a Glance	52
3	Appendix - I (C) : Financial Status	55
4	Appendix - I (D) : Annual Turnover	57
5	Appendix - II : Form of Performance Bank Guarantee	58
6	Appendix - III : Experience for Supply & Commissioning of Solar (SPV) Power Plant	60

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

7	Appendix – IV : Site Visit Report	61
8	APPENDIX –V POWER OF ATTORNEY	62
9	APPENDIX-VI DETAILS OF OFFERED SYSTEM	63
10	APPENDIX-VIII Declaration	64
11	APPENDIX- X Commitment from the Tenderer for Assured Power Generation	65
ANNEXURE		
1	Annexure A - Check List	66

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### SECTION-I

#### BID INVITATION

- **Brief Description :**

The Chief Executive Officer, Aurangabad Smart City Development Corporation Ltd (ASCDCL) (invites bids from eligible bidders for “works” include design, manufacture, supply, installation, testing and commissioning with FIVE YEARS comprehensive maintenance contract of 150 KWp(100+50) of grid connected Solar Power Plant (With Net Meter), at **OPERATION COMMAND CENTRE & ASCDCL HQ**, Aurangabad, in the state of Maharashtra. (Here in after referred to as the contract of works) and as described in the Bidding Data under single point responsibility “**Turnkey Contracts**” .

- **Bidding Process :**

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

If any technical difficulties arise while filling up e-tender, please contact on toll free No. 1800 3070 2232 at NIC. It is compulsory to pay tender document fee, EMD through E-payment SBI Net Banking, RTGS and NEFT only.

Eligible bidders can upload the Tenders through Maha-eTender portal of GoM:<https://mahatenders.gov.in>

# AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA



## NOTICE INVITING TENDER

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LTD**

ASCDCL Office, War Room, Near Ambedkar Research Center, Aam Khaas Maidan, Aurangabad -431001 Tel.: 0240 2333536 to 40, Fax.: 0240 2331213



NIT No: ASCDCL/2021/425

Date: 27/05/2021

Aurangabad Smart City Development Corporation Ltd. (ASCDCL) invites E-Tender for the following work via online e-tendering system (<https://mahatenders.gov.in>) from Contractors possessing relevant capability.

NO.	PARTICULARS	DETAILS
1	Name of the Authority	Aurangabad Smart City Development Corporation Ltd (ASCDCL)
2	Name of the Work	DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA
3	Method of Selection	Least Cost method.
4	Date of Issuance	27/ 05/2021
5	Issuing Authority	<b>Chief Executive Officer,</b> Aurangabad Smart City Development Corporation Ltd
6	Authority Contact Person	Assistant Project Manager ASCDCL, War Room, Ambedkar Research Center, Near Amkhas Maidan, Aurangabad-431001
7	Authority Address/Email for Seeking Clarifications on RFP	ASCDCL, War Room, Ambedkar Research Center, Near Amkhas Maidan, Aurangabad- 431001. Email: <a href="mailto:hq@aurangabadsmartcity.in">hq@aurangabadsmartcity.in</a>
8	Authority Website	<a href="http://www.mahatenders.gov.in">www.mahatenders.gov.in</a>
9	Last Date for Submissions of Queries/Clarifications	31/05/2021 by 4:00 PM
10	Last Date and Time for Submission of Bid including Technical and Financial Bids	03/06/2021 by 4:00 PM
11	Date, Time, & Venue for Submission of Hard Copy of Technical Bid	Not Required
12	Date and Time of Opening of Technical Bid	04/06/2021 by 4:00 PM
13	Date, Time, and Venue of Opening of Financial Bid	Technically qualified bidders shall be notified 24 hours in advance of financial bid opening
14	Bid Validity	180 days
15	Cost of Tender Document	INR 10000 + GST
16	Bid Security/EMD	Rs.100,000/-
17	Performance Security	5% of the Contract Value
18	Work completion schedule	60 days
19	Defect liability period	5 years
20	Estimated Cost of Work	Rs. 81,45,983 /- (Rupees Eighty One Lakh Fouty Five Thousand Nine Hundred & Eighty Three Only)

Sd/-

Chief Executive Officer

Aurangabad Smart City Development Corporation Ltd.

**SECTION-II**

**INFORMATION AND INSTRUCTION TO BIDDERS**

**The Chief Executive Officer, Aurangabad Smart City Development Corporation Ltd (ASCDCL) (Aurangabad),** on behalf of **ASCDCL (the Employer),** invites bids from eligible bidders for “works” include design, manufacture, supply, installation, testing and commissioning with FIVE YEARS comprehensive maintenance contract of 150 KWp (100+50) of grid connected Solar Power Plant (With Net Meter), at OPERATION COMMAND CENTRE & ASCDCL HQ, Aurangabad, in the state of Maharashtra.(Herein after referred to as the contract of works) and as described in the Bidding Data under single point responsibility “**Turnkey Contracts**” under NIT NO:ASCDCL/2021/425

**1. Scope of Contract**

The Scope of contract is as below:

- Design, manufacture, supply, installation, testing and commissioning with FIVE YEARS comprehensive maintenance contract of 150 KWp(100+50) of grid connected Solar Power Plant, with Water Cleaning system (With Net Meter), at OPERATION COMMAND CENTRE & ASCDCL HQ, Aurangabad, in the state of Maharashtra on “Turnkey” Contract Basis and as described in the Bidding Document.
- Free replacement of defective components of systems within Comprehensive Maintenance Contract period (CMC) of five years after commissioning for efficient running of the system.
- Detailed planning for smooth execution of project.
- Selected Bidder(s) shall be bound by operation and management arrangements and rules, regulations and modalities as per MNRE and as established by ASCDCL and mutually agreed between ASCDCL and the contractor for effective implementation of the project.
- Time is the essence in completing the works. The successful Bidder will be required to complete the works within the stipulated time as specified in the tender document. The bidder shall ensure that SPV power plants should be

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

commissioned within 60 days (including NET Meter connectivity) from the date of issue of work order.

- Bids shall be complete and cover all works described in the Schedule of Prices. Any item of works required for complete usable system shall be deemed to be included in bidder's scope irrespective of whether it is specifically mentioned or not in the price schedules.
- Bidder should note that obtaining permissions from statutory bodies wherever required for execution of works, shall be entirely in bidder's scope.
- Bidder should note that during progress of the work he has to submit the progress report of the work in every week along with the photographs of the site to ASCDCL, Aurangabad.
- Partial bids, conditional bids, or bids which do not cover the entire scope of the project will be treated as incomplete and not responsive to the terms and conditions of bidding and are liable to be summarily rejected.
- Net Meter - Bidder shall apply to Netmeter and get permission from MSEDCL. The charges for the same (including Load Extension, Net Meter approval, Testing from Local Discom, HT Meter Cubical Work,required CT,PT, connectivity etc.) will be paid by bidder. The Netmeter connectivity will be responsibility of the bidder.
- Bidder shall be Provide RMS facility--(Remote Monitoring System) with Internet connection for CMC Period at own Cost. (provide SIM card if required.)

### 2. Eligibility

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

- The manufacturer/supplier of SPV system or System Integrator shall provide the valid IEC certificate of SPV Module & Inverter and test report from authorized test centre of MNRE, GoI.
- Bidder must be registered to MEDA GCRT 2018-19/MNRE portal.



## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

- Must have annual turnover of minimum 70 Lakhs for every year during last three years (i.e.2017-18, 2018-19 & 2019-20) or Rs.2.0 cr or more in any last three years.
- Has experience of manufacturing, supply, installation testing, installation/commissioning and maintenance/after sale services in the field of at least single grid connected system with 100 kw single project or more for Govt. / Private system/PSU department during last three years. The details must be submitted in the Performa given in Technical- Bid section of tender document along with the self attested copies of work order. (For private work TDS certificate has to be attached)
- Must have field service setup to provide good after sale services including necessary repair and maintenance in the state of Maharashtra (attach proof).
- Will not be having Joint venture.

All above criteria shall be strictly followed. Bidder should quote only if he is eligible.

### 3. Standards/ Certificates

- The goods supplied and works executed under this contract shall confirm to the standards mentioned in the technical specification and where no applicable standard is mentioned, the latest version of Indian Standard Institution or Bureau of Indian Specification shall be applicable.
- The Bidder shall submit all the valid test certificates and reports of the system components following the latest MNRE Guidelines and the same components shall be supplied for which the test reports/ certificates are submitted.

### 4. Instructions

- Bidder shall upload Information, Experience Certificates, Test Reports and other such relevant documents specified in the list of other important documents in same sequence.
- The bidder should visit the site and carryout the survey along with concern persons of OPERATION COMMAND CENTRE & ASCDCL HQ as mentioned in Tender in Aurangabad, Maharashtra and upload the certificate along with GPS

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

Co-ordinate photo indicating that the survey is carried out by the bidder in Appendix – IV format, which is compulsory.

- Technical Proposals which are submitted by non qualified bidders or which are evaluated to be not responsive will be rejected and not further considered.
- Only Technical Proposals conforming to eligibility criteria and found to be responsive will be taken up for detailed technical evaluation. A technical/tender evaluation committee shall evaluate the Bids submitted by bidders for a detailed scrutiny. During evaluation of Bids, ASCDCL, may, at its discretion, ask the bidders for clarification of their proposals.
- In case bidder fails in the technical bid, his financial bid shall not be opened & he shall be disqualified from further bidding process.
- Price Proposals (financial offer) of bidders qualifying above conditions shall be subsequently opened. The time and date of the opening of the Price Proposals shall be intimated on Mahatenders portal.
- The lowest price quoted for the bid will be determined on the intimated date in presence of the present bidders.
- The work order shall be issued to the successful bidder who will Technically qualify with lowest bid offer.
- Bidder shall quote their rates (including all taxes) considering wide variation of site conditions, MSEDCL/DISCOM NET Meter liaisoning Work, variation in price, logistics and distribution needs etc complete.
- Bidder should upload only the documents which are asked to upload in the tender document, as per sequence mentioned in list of documents.
- All bids must be accompanied by EMD as specified in the Tender Notification and uploaded/furnished on or before the prescribed date and time given in this document. Bids submitted without EMD will be summarily rejected. Bidder would need to upload the required documents through electronic mode as part of their proposal.
- For any Clarification please contact to [hq@aurangabadsmartcity.in](mailto:hq@aurangabadsmartcity.in).

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

- ASCDCL reserves the right to reject or accept any or all tenders wholly or partly without assigning any reason on the grounds considered advantageous to ASCDCL, whether it is the lowest tender or not.
- The successful bidder is bound to complete the work of SPV power plant at the specified places in given time.
- The Bid uploaded by the Bidder and all correspondence and documents in relations to the bid shall be in English Language.
- The work order is not transferable. Subletting is not allowed.
- The ASCDCL will not entertain any claim at any stage from the successful bidder on the plea of not having sufficiently acquainted himself as to the site conditions.

### **5. Cost of Bidding**

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

### **6. Language of Bid**

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

### **7. Documents Comprising the Bid**

The Bid prepared by the Bidder shall be uploaded in 'Two parts Viz. Technical and Financial bids comprising the following components. Bids shall electronically submit online in the E-tender platform and the documents shall be scanned and submitted.

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### Part I

#### Technical Proposal shall contain:

Bidder shall submit relevant certificates to demonstrate the financial, technical capabilities & eligibility criteria prescribed under this Tender Document. In this regard the Bidder shall upload following minimum documents/ information for technical document in same sequence strictly -

1. Copy of receipt for EMD
2. Duly stamped and signed tender document (Tender Document).
3. Valid Channel Partner Certificate issued by MNRE/MEDA GCRT 2018-19 registration details.
4. Firm registration certificate/Shop Act Certificate.
5. Copy of PAN and GST registration details.
6. Bidder's Information Sheet -Appendix-I(A)
7. Firm Profile at a Glance - Appendix-I(B)
8. Financial credentials of bidder - Appendix-I(C), along with scanned copy of IT returns for last three financial years, supporting with summary of balance sheet alongwith auditor's report certified by CA.
9. Annual Turnover Banker's -Appendix-I (D)
10. Performance of Bank Guarantee - Appendix-II
11. Experience for installation and commissioning of SPV power plants / list of projects (Appendix- III) along with scanned copies of work / purchase orders received for completed projects.
12. Site visit report -Appendix - IV
13. Power of attorney for company's authorized person -Appendix - V
14. Details of proposed / offered system - Appendix - VI
15. Self Certification of No Barr/non failure/blacklisted Declaration (Appendix-VIII)
16. Commitment from the Tenderer for Assured Power Generation (Appendix-XI)
17. Registration Certificate under EPF/Provident Fund and latest challan.
18. List of skilled persons with qualification and experience.
19. Brochure for offered P V Module along with test certificates compiling applicable

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

Standards as per guidelines issued by MNRE and details of Guarantee and Warranty.

20. Brochure for offered Inverter along with test certificates compiling applicable Standards as per guidelines issued by MNRE And details of Guarantee and Warranty.

21. Document Checklist.

The Bidder is expected to examine all instructions, forms, terms and specifications in the Tender Documents. Failure to furnish all information required, by the Bidder, documents or submission of a Bid not substantially responsive to the Tender documents in every respect or incomplete bid document will be at the Bidder's risk and may result in rejection of its Bid.

### **Part II**

#### **Financial bid**

The Bidder shall indicate on the Price Schedule the price of SPV Power Plant it proposes to supply under the Contract. Financial Bid shall contain:

- The bidder should quote the price as against total contract tender estimate as shown in price schedule format.
- Installation, testing, commissioning charges includes "FOR" destination prices inclusive of packing, forwarding, freight, inland transportation, insurance, loading, unloading, supply, distribution, collection, testing inspection and any/all charges incidental for successful design, supply, Installation, commissioning and comprehensive maintenance for FIVE YEARS of SPV Power Plants (With NET Meter installation and Bidder shall be take and bear all necessary permission, Paying applicable statutory fess, inspection from concern Discom's etc complete)
- Prices shall be quoted in Indian Rupees only, inclusive all charges and taxes.
- The Bidder shall complete the price schedule furnished in the Tender Document, Indicating the price of SPV Power Plant towards Design, Manufacture, Supply, Transport, Installation, Testing and Commissioning of SPV Power Plant System with Net Meter as per the Technical specifications. ASCDCL will not pay any extra

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

charges over and above rate quoted by the Bidder. The quoted price shall be 'FIXED', during the entire term of the Contract.

- Financial Bid uploaded with an adjustable price quotation will be treated as on responsive and will be rejected.

Any Bid not in accordance with above clauses of this Section will be rejected.

**8. EARNEST MONEY DEPOSIT (EMD) and FORFEITING OF EMD, SECURITY DEPOSIT (SD), ADDITIONAL SECURITY DEPOSIT(ASD):**

**A) EARNEST MONEY DEPOSIT:**

The Earnest Money Deposit of Rs.1,00,000/- should be paid online through respective portal.

No interest shall be payable on the amount of Earnest Money. It shall be retained by ASCDCL. EMD shall be returned to unsuccessful Bidders after acceptance of work order by successful Bidder, upload work order to portal. The EMD of successful Bidder shall be returned after submission of Security Deposit, if paid.

**FORFEITING OF EMD:**

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

1. The Bidder withdraws his tender before finalization of work order.
2. The Bidder does not accept Work Order/ Letter of Award.
3. The Bidder violates any of the terms and conditions of the tender.
4. The Bidder fails to deposit requisite Security Deposit / Additional Security Deposit.
5. The Bidder fails / refuses to execute the order as herein, the Bidder shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Bidders calculated and wilful breach of contract, the cost and consequence of which shall be to the sole account of the Bidder and in such an event the ASCDCL shall have full right to claim damages thereof in addition to the forfeiture of EMD.

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### **B) SECURITY DEPOSIT:**

1. The Bidder shall furnish security deposit at 2% of the total contract value within 10 days from the date of issue of work order (including Sunday and public holiday) by way of DD of Nationalized Bank/Scheduled commercial bank in favour of Maharashtra Energy Development Agency, Aurangabad.
2. Failure to comply with the terms of security deposit shall result into cancellation of work order without any further reference to the Bidder and the EMD shall be forfeited.
3. The security deposit shall be liable to be forfeited wholly or partly at the sole discretion of the ASCDCL, if the Bidder either fails to execute the work of above projects or fails to fulfil the contractual obligations or fails to settle in full his dues to the ASCDCL.
4. In case of premature termination of the contract, the security deposit will be forfeited and the ASCDCL will be at liberty to recover the losses suffered by it & if additional cost is to be paid, the same shall be recovered from the Bidder.
5. The ASCDCL is empowered to recover from the security deposit for any sum due and for any other sum that may be fixed by the ASCDCL as being the amount or loss or losses or damages suffered by it due to delay in performance and / or non-performance and / or partial performance of any of the conditions of the contract and / or non-performance of guarantee obligations.
6. Additional security deposit at 3% of the total contract value will deducted from bill and retained. i.e in total  $2\% + 3\% = 5\%$  of total contract value will be retained till defect liability period.
7. The security deposit shall be released to the Bidder after last payment and satisfactory working of the system.

### **C) ADDITIONAL SECURITY DEPOSIT :**

Additional Performance Security shall be made as per following calculation.

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

- i. If the tenderer quotes his offer 1% to 10% below the cost put to tender, he shall submit the Demand Draft / FDR / Bank Guarantee of the amount equal to 1% of cost put to tender.
- ii. If the offer quoted is more than 10% below but less than or upto 15% below the cost put to tender, the tenderer shall submit the Demand Draft / FDR / Bank Guarantee of the cumulative amount which is equal to the amount by which offer is more than 10% below plus the amount as per (i) above (For example, for 14% below rate : 1% + (14% - 10%) i.e.4% thus total 5%)
- iii. If the offer quoted is more than 15% below the cost put to tender, the tenderer shall submit the Demand Draft / FDR / Bank Guarantee double amount for remaining amount in addition to above. (For example, for 19% below rate: (19% - 15%) = 4%\*2 = 8%). Thus, if the offer quoted is more than 15% below the cost put to tender, the tenderer shall submit the Demand Draft / FDR / Bank Guarantee as for example: for 19% below rate : (1% + (15%- 10%) i.e.5% thus total 6%) + (19%- 15%)= 4% \* 2 = 8%) i.e., total 14%)
- iv. Additional Performance Security of the successful bidder shall be returned immediately upon satisfactory completion of work; the certificate of which shall be issued by the ASCDCL before releasing the additional security.

### **Note:**

- If the Performance Security of **Demand Draft / FDR / Bank Guarantee** amount below Rs.1000/- then Demand Draft should be at least for Rs. 1000/-.
- Submit the **Demand Draft / FDR / Bank Guarantee from Nationalized/Scheduled Bank** of the commutative amount which should be rounded off to next hundred rupees.
- Additional performance security is permitted to be accepted in the form of DD/ FDR/ BG of any Nationalized/ Scheduled Bank. Shall be submitted after the issuance of letter of award within 7 days.

### **9. PRICE VARIATION AND USE OF APPROVED SUBSTITUTIONS OR EQUALS, EXTRA ITEMS :**

- A. The Project cost shall be inclusive of all duties and taxes, insurance etc. The prices quoted by the firm shall be complete in all respect and no price variation/adjustment shall be payable by ASCDCL. However, statutory variation of taxes and duties may be paid by the bidder.
- B. Under any circumstances / for any reasons, escalation in the contract value will not be considered by ASCDCL.
- C. The contractor shall bear all extra expenses resulting from providing or using approved substitutions of higher specifications or equals in case the contractor



## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

desires so, including the expenses of required engineering, redesigning, drafting and permits where necessary, on written Engineer's approval only.

- D. In the case of Extra Item(s) being the schedule items (State Schedule of Rates 2020-21, PWD, Government of Maharashtra for civil and Current Schedule of Rates (Electrical) 2019-20, PWD, Government of Maharashtra, for electrical items), these shall be paid as per the schedule rate plus/minus percentage above/ below quoted contract amount. Payment of Extra items in case of non-schedule items (Non-State Schedule of Rates 2019-20, PWD, GoM items for civil and Non Current Schedule of Rates, PWD, GoM 2019-20 for electrical items) shall be made as per the prevailing market rates, subject to the rate analysis.

### **10. JURISDICTION:**

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

### **11. TIME FRAME:**

- The time frame for the completion of work is 60 Days from the date of issue of work order. Strictly follow time frame and complete work on/before 60 days including Net metering.

### **12. Period of Validity of Bid**

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

### **13. Mode of submission of bids**

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

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

### **14. Amendment of Bidding Document**

- At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by issuing corrigendum.
- Any corrigendum thus issued shall be part of the bidding documents pursuant to Sub-Clause and shall be communicated through the website: - <https://mahatenders.gov.in>.
- In order to afford prospective bidders reasonable time in which to take an addendum into account in preparing their bids, or for any reason deemed appropriate by the Employer, the Employer may extend the deadline for submission of bids.

### **15. Deadline for Submission of Bids**

- Bids must be uploaded by the bidder through e-tender process not later than the time and date specified in the invitation for Bids.
- The ASCDCL may, at the discretion, extend this deadline for submission of bids by issuing an addendum, in which case all rights and obligations of ASCDCL and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

### **16. Late Bids**

In online e-tender system, you shall not be able to submit the bid after the bid submission time and date as the icon or the task in the e-tender portal will not be available.

### **17. Clarification of Bids**

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

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

### **18. Preliminary Scrutiny**

- The ASCDCL will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
- Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the lower of the two will prevail. If the Bidder does not accept the correction of errors, its bid will be rejected.
- ASCDCL may waive any minor infirmity or non-conformity in a bid, which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any bidder.
- Prior to the detailed evaluation, the ASCDCL will determine the substantial responsiveness of each bid to the Tender Documents. For purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the Tender Documents without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security, applicable Law and taxes and duties, Warranty, Force Majeure will be deemed to be a material deviation. ASCDCL's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- If a bid is not substantially responsive, it will be rejected by ASCDCL and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

## **19. Acceptance or Rejection of Bids**

- ASCDCL reserves the right to accept or reject any bid or all the bids and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability or any obligation to inform the affected bidder or bidders of the grounds for the said action.
- Any Bid with incomplete information is liable for rejection.
- For each category of pre-qualification criteria, the documentary evidence is to be produced duly attested by the authorized representative of the bidder and serially numbered. If the documentary proof is not submitted for any/all criteria the Bid is liable for rejection.
- If any information given by the bidder is found to be false/ fictitious OR in case Bidder accepted/not accepted LOA/Work Order and further refuse to continue work, the bidder will be blacklisted and EMD/SD/ASD will be forfeited. Also note that the Bidder will be debarred for 3 years from participating in any other tenders of ASCDCL/Govt. of Maharashtra.

## **20. Criteria for evaluation of Bids**

- **Step 1: Test of Responsiveness**

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

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

- **Step 2: Bid Evaluation**

Bid evaluation will be carried out considering the information furnished by Bidders as per the Tender documents. This process will involve evaluation of the response to tender document of the Bidder as per terms and conditions of this

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

Tender Document. Based on technical/qualifying criteria preferred bidders will be short listed.

- **Technical Evaluation**

Only Technical Proposals conforming to eligibility criteria and found to be responsive will be taken up for detailed technical evaluation. A technical/tender committee shall evaluate the Bids submitted by bidders for a detailed scrutiny. During evaluation of Bids, ASCDCL, may, at its discretion, ask the bidders for clarification of their proposals.

- **Financial Evaluation.**

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

- At the outset, the price bids of all the Bidders who are technically qualified in technical evaluation shall be opened in the presence of the Bidders' Representatives who choose to attend.
- The bidder's names, the Bid Prices, the total amount of each bid, any discounts, and such other details as the Employer may consider appropriate, will be announced and recorded by the Employer at the opening. The bidder's authorized representatives will be required to sign this record.
- Bidder that has quoted the lowest price in Indian Rupees (inclusive of all the taxes/duties) shall be declared as the preferred Bidder.
- The work orders shall be issued to the successful bidder who ever qualifies in the complete process as mentioned.

### **21. Award Criteria and Award of Contract**

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

### **22. Corrupt or Fraudulent Practices**

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

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

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

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

### **Tender terms and Conditions:**

1. After award of work order, agency should produce evidence of security deposit paid, sign agreement on stamp paper to ASCDCL in hard copy before inspection of material procured by agency for said project and Material inspection is compulsory before start of installation.
2. At the time of material, hand over all invoices, guarantee/warranty card, test certificates, manufacture manual of procured Material to the ASCDCL authority.
3. Agency should inform about date of start of work status to concern department and ASCDCL (on letterhead).

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

4. Give inspection call after completion of project all work before sumitting Invoice.

### **SECTION -III**

#### **GENERAL CONDITIONS OF CONTRACT (GCC)**

##### **1. General Terms and Conditions:**

The following are the General Terms and Conditions of Contract for Supply, Installation and commissioning of SPV Power Plants as per the specifications given in the document.

- a) Bidder shall be responsible for any damage occurred, if any, to other installations of the OPERATION COMMAND CENTRE & ASCDCL HQ building of Aurangabad during the course of work.
- b) The Bidder should provide appropriate tools and equipment's to the workmen and ensure that those are in proper working condition and the workmen use the appropriate tools and take precaution "PLEASE NOTE THAT ANY ACCIDENT TO THE WORK MEN / PUBLIC / ANIMALS / PROPERTY BOTH MOVABLE AND IMMOVABLE SHALL BE ENTIRE AND SOLE RESPONSIBILITY OF THE BIDDER AND ANY PROCEEDING ARISING OUT OF THE SAME SHALL BE AT THE BIDDER'S RISK AND COST. AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED (ASCDCL) OR ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR ANY SUCH INCIDENT".
- c) Bidder should provide necessary manufacture's test certificates for materials being used for the work. Bidder should provide facilities and bear the cost for the same. Power curve of all the panels erected by manufacturers shall be provided to the ASCDCL.
- d) The selected Bidder is bound to work on the guideline provided by ASCDCL from time to time. Guidelines if issued in future by ASCDCL, the changes proposed will also be applicable without enhancement in project cost till the completion of five years period.

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

- e) The Bidder shall carry out the work strictly according to the specifications as per given in Section-IV Technical Specifications and complete the work within stipulated time.
- f) It is the responsibility of Bidder to submit the reports for systems installed & commissioned and certificates for undertaking the responsibility of maintenance of the systems to ASCDCL with a copy to user agency. Bidder shall also impart training to the user for regular Operation & Maintenance of the system, handover toolbox and certificate in this respect should be submitted.
- g) Bidder may install appropriate cleanly system for the solar power plant by water. Bidder may submit the ideal design of the cleanly of the system.
- h) Bidders should give Guarantee against any manufacturing defects from the date of commissioning up to CMC period. For any manufacturing defects, supplier shall replace defective parts at free of cost during the CMC period and shall keep the system functional.
- i) Bidders and User Agency shall allow ASCDCL officials for inspection as and when necessary, during the execution of work and thereafter subsequent to installation and commissioning of the work for the purpose of issuing final completion certificate.
- j) In the event of any discrepancy observed in specifications, the specifications given by ASCDCL will be final. In the event of dispute arising any time, related to this work and document, decision of the Chief Executive Officer, ASCDCL or his nominee shall be final.
- k) ASCDCL at its discretion may visit supplier's factory for testing / inspection at any time during the period of supply and installation of the systems.
- l) Bidder may submit the quote any one or all of the system for SPV plant Also may quote for only SPV System.
- m) ASCDCL will not pay any interest on any amount, due to the Bidders.
- n) During the inspection, if any deviations in Technical Specifications are observed, ASCDCL reserves right to test any solar module / system at any authorized test



## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

centre of MNRE. Bidder shall provide the facilities for getting the sample tested & the supplier shall bear the cost for the same.

- o) If the supplier fails to complete the work or partially completes it then, ASCDCL reserve right to cancel the work order and get it done from other supplier and any loss due to this shall be recovered either from any amount due to the supplier or from his Security Deposit.
- p) At the time of inspection of ASCDCL, manufacturer or supplier has to submit the I.V. curves and test reports of supplied PV modules to respective officer.
- q) Also the manufacturer has to submit the relevant IEC / IS certification (test reports).
- r) The Wiring must be carried out in casing-capping / conduit which are suitable as per site condition.
- s) It will be responsibility of the Bidder to ensure the satisfactory performance of the system during the contract period.
- t) Please note that for any of the discrepancy observed during the period of installation and commissioning, conditions specified in tender by ASCDCL shall be final & binding.
- u) The Bidder shall provide the display board of size 3ft x 3ft that gives detailed information of system along with the contact details of manufacturer. This will help the beneficiary during five years CMC period.
- v) The Bidder shall comply with the provision of contract labour (Regulation and Abolition) Act 1970, minimum wages Act 1948, payment of the wages Act 1963 Workmen's Compensation Act 1961, the contract labour (Regulation and Abolition) Act 1979 and all other related Acts and any modification thereof or any law relating thereto and rules made there under from time to time.
- w) If previous performance of any Bidder found unsatisfactory, he will be disqualified.

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

- x) If any information / confirmation on any point of these tender conditions are required Bidder may contact / write to ASCDCL, Aurangabad giving tender reference no. etc.
- y) In the event of dispute during installation & commissioning of the systems related to the work and documents, decision of the Chief Executive Officer, Aurangabad Smart City Development Corporation Ltd (ASCDCL) shall be final.
- z) It is the responsibility of bidder to make the insurance of the system for whole five years CMC period. Bidder must renew insurance, if policy is for one year. Submit insurance details to ASCDCL office and user agency.
- aa) Once the Bidder submit his offer and subsequently if not interested to work, in such case ASCDCL will forfeit his EMD amount.
- bb) At the time of placing work order and during the implementation ASCDCL can revise the technical terms and conditions if revised by MNRE, which will be binding on the Bidder.
- cc) Chief Executive Officer, Aurangabad Smart City Development Corporation Ltd (ASCDCL), ASCDCL Aurangabad, reserves the right to select L2 Bidder i.e. second lowest Bidder at L1 rate to complete the work, if L1 Bidder fails to fulfil tender conditions or fails to complete the work.
- dd) It is binding on the successful Bidder to submit original certificates, documents required by ASCDCL.
- ee) ASCDCL at its discretion may visit Bidders factory for testing / inspection of the material to be utilized for work. The testing shall be carried out in manufacturer's premises and / or at appropriate testing laboratory or as per direction of Director General or his authorized representative. However inspection of material at site will be considered as final inspection.

### **2. Communications**

- Wherever provision is made for the giving or issue of any notice, instruction, consent, approval, certificate or determination by any person, unless otherwise

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

specified such communication shall be in writing and shall not be unreasonably withheld or delayed.

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

### **3. Manner of Execution**

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

- The Contractor/Agency should successfully complete the project within timeframe set out by the employer and mutually agreed between Contractor/Agency and Employer.
- ASCDCL shall not be responsible for any loss or damage of any material when installing SPV power plants.
- Undertake necessary activities during the warranty period as set out in this Contract.
- It is the responsibility of successful bidder to make the insurance of SPV system from the date of commissioning for the CMC period by following standard procedure. Bidders may pay the necessary insurance premium for the said project.

### **4. Application**

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

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### 5. Standards

- The goods supplied under this contract shall confirm to the Standards mentioned in the Technical specification Section as per the MNRE/ASCDCL requirements and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Good's country of origin and such standards shall be the latest issued by the concerned institution.

### 6. Inspection:

- Bidder shall inform ASCDCL Division, Aurangabad in writing when any portion of the work is ready for inspection giving sufficient notice to enable ASCDCL to depute officials to inspect the same without affecting the further progress of the work. The work shall not be considered in accordance with the terms of the contract until the competent person from ASCDCL certifies in writing to that effect.
- Bidder has to strictly follow the specifications given in the work order while carrying out the execution of work. During inspection if it is found that Bidder has deviated from the specifications, Bidder has to do the alteration / modification / reconstructions as per the given specifications at his own cost & risk.

### 7. Transportation

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

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### 8. Terms of Payment:

- a. 60% of the total cost will be released after supply, installation & successful commissioning with NET METER of the systems duly certified by Bidder, Officer of ASCDCL and authorized person of User Agency (From OPERATION COMMAND CENTRE & ASCDCL HQ, Aurangabad) in the State of Maharashtra along with submission of Insurance policy documents effective from date of commissioning for CMC period.
- b. 20% of the total cost shall be released on receipt of one month successful performance report generated automatically through Remote Monitoring System.
- c. 20% of the total cost shall be released on submission of next two month successful performance report in prescribed format generated automatically through Remote Monitoring System which should be duly certified by Officer of MEDA, authorized person of User Agency

Deduction:-

- i. The TDS at the source will be deducted as per the Govt. rule and regulations.
- ii. ASCDCL will issue necessary certificates of TDS deduction.
- iii. 'C' / 'D' form will not issued by ASCDCL.

### 9. Comprehensive Maintenance Contract (CMC):

- a. Performance Bank Guarantee equivalent to 5% of the project cost from any Nationalized Bank/Scheduled commercial bank valid up to five years from date of completion of the project must be submitted.
- b. Latest report must be submitted to ASCDCL for systems functioning at OPERATION COMMAND CENTRE & ASCDCL HQ Aurangabad in the State of Maharashtra duly certified by authorized person of User Agency.

### 10. PENALTY CLAUSE

If the systems are not installed as per scope of work and commissioned within the stipulated period as mentioned in the work order the Bidder shall be required to pay

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

penalty of 1/2 % (half percent) per week, maximum up to 10% of the total cost of the systems and the amount shall be recovered either from the amount due to the Bidder or from security deposit.

### **11. Assignment**

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

### **12. Sub-contracts**

Subcontract is strictly prohibited.

### **13. Termination for Default**

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

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

In the event ASCDCL terminates the contract in whole or in part, ASCDCL may procure, upon such terms and in such manner as it deems. Appropriate goods or services similar to those undelivered and the Contractor/Agency shall be liable to ASCDCL for any excess costs for such similar goods or services. However, the Contractor/Agency shall continue the performance of the contract to the extent not terminated.

### **14. Applicable Law**

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

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### **15. Notices**

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

### **16. Packing**

The Bidder shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods final destination and the absence of heavy handlings facilities at all points in transit.

The packing, marking and documentation within and outside the item shall comply strictly with such special requirements as shall be provided for in the contract including additional requirements, if any and in any subsequent instructions ordered by the ASCDCL.

### **17. Danger plates:**

The bidder shall provide at least 16 Danger Notice Plates of 200mm X 150 mm made (8 Danger Plates for 100 kw & 8 Danger plates for 50 Kw) of mild steel sheet, minimum 2mm thick and vitreous enamelled white on both sides and with inscription in signal red colour on front side as required. The inscription shall be in English and local language. Out of eight, four danger notice shall have to be provided at PV Yard & Four-danger notice at Control Room .

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### **18. Control Room:**

Installation of Inverters shall be done at safe weatherproof location at site for 150 kW SPV power plants.

### **19. Provision for Cleaning of SPV System:**

Supplying & installing one piece moulded HDP / Fibre water tank. For -ve suction only, having capacity 1000 liters\*2 nos. fitted with necessary accessories complete as per specification no. FF-FFA/PT. also, Supplying & erecting centrifugal water pump (Monoblock), 230V, Single phase 50 cycles A.C. supply of 1 HP\*2 of specified discharge head & size of suction, delivery pipes on provided C.C foundation as per specification no. WP-CGP.

Above cleaning system including Pump(1Hp\*2)with connection from existence available electric supply & Pipe connection from available water source to Water tank(1000 lit \*2 nos) and same form tank to modules, Controllers, Timer, and required atom for cleaning of all module)

### **20. Insurance:**

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

### **21. GUARANTEED ENERGY GENERATION CLAUSE -**

The On Grid plant needs to be generated at least 4 Kwh for 300 days per Kwh of respected capacity (Measurement of kwh reading on Generation side only). If system produces units below guaranteed generation as mentioned above then penalty of Rs. 8/- per unit will be levied. Accordingly, to above condition bidder has to quote.



**TECHNICAL**  
**SPECIFICATION OF SPV**  
**POWER PLANT**

TECHNICAL SPECIFICATION OF SPV POWER PLANT PROPOSED AT AURANGABAD  
SMART CITY DEVELOPMENT CORPORATION (ASCDCL),AURANGABAD

**I. PV MODULES:**

- a. The Mono Perc PV modules(380 W and Above) must conform to the latest edition of any of the following / equivalent BIS Standards for PV module design qualification and type approval:
- b. Mono Perc Solar Modules In addition, the modules must conform to IEC Standards requirements for testing, for safety qualification.
- c. Identification and Traceability:

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

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

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



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

Details of Power Conditioning Units:

a. General:

As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels before powering equipment designed for nominal mains AC supply. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the "Power Conditioning Unit" OR simply PCU. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to maximize Solar PV array energy input into the System. PCU should conform IEC 61683, IEC 60068 as per specifications.

PCU refers to combination of MPPT based and shall be supplied as integrated unit or separate units.

Power Conditioning Unit (Inverter)	
Switching device	MOSFET/IGBT
Type	MPPT based PWM charger
Input voltage from PV array	240V DC for 187.5 kVA unit.(The voltage variation shall be as per change in array output)
Protections	Short circuit protection Input under voltage Input surge voltage protection Over current Solar array reverse blocking diode (provided in array junction box)DC rated fuse at input and AC rated fuse at output with

*Atabish*


MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

	<p>suitable contactor/solid-state switches for safe start-up &amp; shutdown of system</p> <p>Load surge current</p> <p>Over temperature</p> <p>Under / Over output voltage</p> <p>Under / Over frequency</p> <p>Automatic / manual isolation at input &amp; output</p> <p>Suitable protection for solid-state switching devices</p>
Dielectric strength	1.1kV between input/output and ground with EMI protections removed
Cooling	Solar natural and Forced air cooling with temperature sensitive fan operation
Ambient operation (max)	45° C
Relative humidity	95% maximum
Assembly & mounting	As per normal industry practice
Finish	Epoxy powder coating
Cable entry	From rear 200mm above ground level
Load test at factory	Minimum 6 hours at full load
Features	<p>On Grid mode of operation.</p> <p>High quality with high efficiency and reliability</p>

*Handwritten signature*

*Handwritten mark*

MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

	<p>Microprocessor based intelligent controller</p> <p>Self monitoring capability.</p> <p>Integral design with MPPT and inverter</p> <p>Highly reliable &amp; efficient solid-state switching devices</p> <p>Rated for continuous operation at full load</p> <p>High over-load capability of 200% surge for 10 seconds</p> <p>Inverter output power factor of 0.8 lag</p> <p>Automatic re-start facility after over load triggered shutdown</p>
Efficiency	<p>90% at rated load and normal operating conditions</p> <p>85% (min) at 25% load and nominal input voltage with UPF load</p>
%THD	Sine-wave output with 3% THD at full load UPF and nominal input voltage
Output voltage	415 (+12.5-20%)V AC
Output frequency	50 Hz $\pm$ 0.5 Hz
%Regulation	5% against input voltage and load variation
Indications	As many as possible with relevance
AC charger input	240 V AC, 50 Hz from AC mains grid
Enclosure	IP 22 (For indoor application)
Weight/ Dimension	The details of the inverter will be provided in the specification / user manual 

*Stabilis.*

**b. Remote Monitoring Facilities:**

## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

The Power Plants should have suitable inbuilt instrumentation for remote monitoring of its Real Time Status. Power Plants shall be capable of transmitting its monitor able parameters over GSM/CDMA/GPRS/ TCP IP/WIFI Network and conform to respective standard protocols. The Power Plants shall also have suitable Data Logging & Storage capacity for at least 60 days event logs. The systems should also be able to be monitored From internet at any time.

### c. Maximum Power Point Tracker (MPPT)

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

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

### d. Inverter

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

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

The inverter shall be designed for continuous, reliable power supply as per specifications. The inverter shall have high conversion efficiency from 25 percent load to the full rated load. The efficiency of the inverter shall be more than 90% at full load and more than 88% at partial load (50%-75%). The supplier shall specify the conversion efficiency in the offer.

The inverter shall be designed for extreme temperatures.

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

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

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

Supplier shall indicate tripping voltage & start up voltage for the inverters.

*Stabilis*

MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA} AURANGABAD

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

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

The inverter will be highly efficient. The inverter should conform IEC 61683 / IEC 60068 and should be based on PWM technology and using IGBT. Inverters would display its own parameters. The inverter's capacity should be minimum 150 KW for SPV power plant. The inverters should be designed to be completely compatible with the distribution panels and are of integrated design.

**Salient features of the Inverters shall be as follows:**

Nominal Capacity	Minimum 150 KW(MNRE Approved Make only.)
Input / Voltage	240 V DC Nominal The voltage variation shall be as per change in array output.
Regulation	From minimum to maximum voltage 1%
Output frequency	50 Hz +/- 0.5 Hz
Overload Capacity	200% for 30 Second.
Efficiency	80% at 50% of load and More than 92% at full load 0.8 PF
Short Circuit Protection	Circuit Breaker and Electronics protection against sustained fault.
Low Voltage	Automatic Shut Down
Total Harmonic Distortion	Less than 3% ✓

*Stabur.*

Over Voltage	Automatic Shut Down
AC over Current/Load	Automatic Shut Down
Protection	Over Voltage both at Input & Output Over Current both at Input & Output Over Frequency Surge voltage inducted at output due to external source.
Protection Degree	IP65
Instrumentation & Indication	Input & Output voltage, Input & Output Current, Frequency, Power output, different status of inverter, kind of fault by audio signal. ✓

### 3) 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 Aurangabad Smart City Development Corporation(ASCDCL), Aurangabad main LT Panel.

#### a.Junction Boxes

The junction boxes shall be dust, vermin and waterproof and made of FRP / Thermo Plastic. The terminals shall be connected to copper bus bar arrangement of proper sizes. The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and out going cables. Suitable markings shall be provided on the bus bar for easy identification and cable ferrules shall be fitted at the cable termination points for identification. Each main junction box shall be fitted with appropriate rating blocking diode.

The junction boxes shall

*Atabish.*



## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

be of reputed make and should be as per IP 66(for outdoor), IP 65 (for indoor) & as per IEC 62208.

The junction boxes shall have suitable arrangement for the Following:

Provide arrangement for disconnection for each of the groups.

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

To provide group array isolation.

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

### **c.Cables & Wirings:**

All cables shall be supplied conforming to IEC 60227/ IS 694 & IEC 60352/ IS 1554. Voltage rating: 1,100V AC, 1,350V DC For the DC cabling, Solar Cables, XLPE or XLPO insulated and sheathed, UV stabilized single core flexible copper cables shall be used. Multi-core cables shall not be used.

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

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

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

All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 35 cm. The minimum DC cable size shall be 6.0 mm<sup>2</sup> copper. The minimum AC cable size shall be 100sq.mm./50sq. mm Aluminium (or equivalent)From Inverter /ACDB to Panel. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires. The following colour coding shall be used for cable wires:

- DC positive: red (the outer PVC sheath can be black with a red line marking) ✓

*Atubish*

## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

- DC negative: black
- AC single phase: Phase: red; neutral: black
- AC three phase: Phases: red, yellow, blue; neutral: black
- Earth wires: green

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

Cable conductors shall be terminated with tinned copper end-ferrules to prevent fraying and breaking of individual wire strands. The termination of the DC and AC cables at the Solar Grid Inverter shall be done as per instructions of the manufacturer, which in most cases will include the use of special connectors.

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

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

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

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

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

*Stabos*

## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

The wiring must be carried out in casing capping only.

### a. Distribution System:

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

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

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

### b. Earthing and lightning protection:

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

- System earth
- Equipment earth

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

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

*[Handwritten signature]*

## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

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

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

Earth resistance shall not be more than 1 ohms. It shall be ensured that all the earth's are bonded together to make them at the same potential.

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

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

A PCC Earth pit chamber should be provided on top above the ground level size 18"x18"x18" with its cover in including GI Pipe size 25mm dia with funnel for watering. Earth lead (strip size 25x4mm GI should not be less than 7.5 mtr.) For Earthing all this work to be carried out as per IS 3043-1987.

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

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

*Attabis*

## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

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

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

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

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

**Total Earthings required** –Minimum 06 nos of cu pipe earthing for ( for Module structure, DCDB, Inverter, ACDB, LA) for each system as per above material list and specifications. & Asper Requirement

### **c. Lightning & Over Voltage Protection System:**

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

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

**f. Cleaning SPV Provision:**

Supplying & installing one piece moulded HDP / Fibre water tank. For –ve suction only, having capacity 1000 liters\*2 nos. fitted with necessary accessories complete as per specification no. FF-FFA/PT. also, Supplying & erecting centrifugal water pump (Monoblock), 230V, Single phase 50 cycles A.C. supply of 1.5 HP of specified discharge head & size of suction, delivery pipes on provided C.C foundation as per specification no. WP-CGP.

Above cleaning system including Pump 1.5 HP with connection from existence available electric supply & Pipe connection from available water source to Water tank(1000 lit \*2 nos) and same form tank to modules and required atom for cleaning of all module).

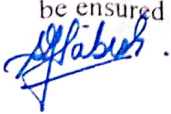
**3. MAIN FEATURES & OPERATING MODE**

PCU should give preference to the solar power as the first input to load. In the absence of solar the power from grid will be feed to the load.

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

**4. MODULE MOUNTING STRUCTURE**

Hot dip galvanized iron mounting structures (with 80 micron coating) may be used for mounting the modules/panels/arrays. These mounting structures must be suitable to mount the SPV modules/panels/arrays on the roof top, on the ground or on the poles/masts, at an angle of tilt with the horizontal in accordance with the latitude of the place of installation. (only C Channel used)

The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (wind speed of 200 km/ hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard. 

## MAHARASHTRA ENERGY DEVELOPMENT AGENCY[MEDA] AURANGABAD

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

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

### 5. ORIENTATION AND TILT OF PV MODULE

Modules alignment should be due south and tilt angle shall be equal to latitude(Lat)with horizontal.

### 6. DC DISTRIBUTION BOARD (DCDB)

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

### 7. AC DISTRIBUTION LINE

The generated electricity from these Power Plants will be utilized for illumination of Streets/Indoor Lighting, Fans, Computers, Internet modem, Printer within allowable practice limit. Necessary electric cable/connection shall be supplied/made by the bidder.

### 8. OPERATION MANUAL

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

*Stabilis*

## AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

### 9. COMPREHENSIVE MAINTENANCE CONTRACT (CMC)

- The complete Solar PV Power Plant must be guaranteed against any manufacturing/ design/ installation defects for a minimum period of 5 years.
- PV modules used in Solar PV Power Plant must be guaranteed for their output peak watt capacity, which should not be less than 90% at the end of 12 years and 80% at the end of 25 years.
- During the CMC period, MNRE / ASCDCL / users will have all the rights to cross check the performance of the Solar PV Power Plant. ASCDCL may carry out the frequent inspections of the Solar PV Power Plant installed and randomly pick up its components to get them tested at Govt. / MNRE approved any test centre. If during such tests any part is not found as per the specified technical parameters, ASCDCL will take the necessary action. The decision of ASCDCL in this regard will be final and binding on the bidder.

### 10. TEST REPORTS

The test certificate of various components of the proposed SPV system should be in accordance with guidelines of MNRE for grid Solar PV systems under Jawaharlal Nehru National Solar Mission (JNNSM) and related Addendums/ Minutes of meeting published on MNRE website. Test certificates from MNRE approved test centres shall also be considered valid.

### 11. OTHER FEATURES

- The supplier must fulfil all the technical & other requirements as per provisions under JNNSM, MNRE, GoI.
- Only indigenously manufactured Solar PV Power Plant which fully conform to the MNRE specifications shall be procured. Fully imported Solar PV Power Plant shall not be procured. However, use of imported components of PV system would be permitted, subject to adequate disclosure and compliance to specified quality norms and standard. Only those bidders who manufacture at least one of the major items used in the Solar PV Power Plant i.e. PV modules or BOS and



**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

have adequate facilities for testing of Solar PV Power Plant would be allowed to participate.

- A strip containing the following details should be laminated inside the module to be clearly visible from the front side:
  - a. Name of the Manufacturer or distinctive Logo
  - b. Model or Type No.
  - c. Serial No.
  - d. Year of make.

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- I (A)**

**Bidder's Information Sheet**

To establish its qualifications to perform the contract the Bidder shall provide the information requested in the corresponding Information Sheet as follows -

Bidder's legal name	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's UIN No.	
Bidder's Copy of Constitution	
Bidder's registration certificates for GST and Service Tax, and registration certificates under the applicable PF and labour laws.	
Bidder's authorized representative (Name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the necessary original documents.	
1	
2	
3	
4	
5	
6	

Signature of Bidder

Name

Designation

Company

Date:

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- I (B)**

**Firm profile at a glance**

<b>Sr. No.</b>	<b>Particulars</b>	
1	Name & Mailing Address of firm	
2	Contact Person Name, Designation & Contact No.	
3	E-mail Address for correspondence	
4	Firm Website Address	
5	Firm Status (Private/ PSU/ Incorporate/Proprietor)	
6	Establish Year of firm	
7	PAN/ TAN No.	
8	Firm Registration No/ ROC	
9	EPF Registration No, if applicable	
10	GST No.	
11	Bank name & contact No	
12	Turnover 2016-17, 2017-18 & 2018-19 (in Crore Rs.)	
13	Company Profile (<100 words)	
14	Partner/ JV Firm details, if any (<100 words)	
15	Factory Address & Floor Area of factory	
16	Net worth	
17	Self Manufacturing facilities & Capacity ( A list of machinery be attached)	

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

<b>Sr. No.</b>	<b>Particulars</b>	
18	Outsourcing Item and Firm (Name & Address of Indian/ foreign	
19	Collaborator/s, if Any )	
20	Own Testing facility	
21	Skilled manpower	
22	Dealer/ supply network in Maharashtra	
23	Experience in SWHS of 10,000 LPD (Flat Plate)	N.A.
24	Experience in other solar projects (<100 words)	
25	Solar related Product Range	
26	Guarantee, Maintenance & After Sales Services (Years)	
27	Accreditation (Own Firm)	
28	Accreditation (Partner/ outsourcing Firm)	
29	List of ISI, ISO, other cert. for own firm	
30	List of ISI, ISO, other cert. for partner/ outsourcing firm	
31	Technical specification for solar photovoltaic cell/ panel/ module	
32	Technical specification for Junction boxes	
33	Technical specification for Inverter / Controller	

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

<b>Sr. No.</b>	<b>Particulars</b>	
34	Technical specification for Cables	
35	Technical specification of SWHS	NA
36	Has any Govt. / Under - taking ever debarred the company / firm from executing any work?	
37	Special Remarks, if any	

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

Signature of Bidder

Name

Designation

Company

Date:

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- I (C)**

**Financial Status**

Each Bidder must fill in this form including private/ public limited company.

Sr. No.	Particulars	Financial Data for Previous 3 Years [Rs. in Lakhs]		
		2017-18	2018-19	2019-20
1	Total Assets			
2	Current Assets			
3	Total Liabilities			
4	Long Term Loans			
5	Current Liabilities*			
6	Profits Before Taxes			
7	Profits After Taxes			
8	Net Worth [1 - 4 - 5]			
9	Dedicated Revolving Line of Credit (as per format)			
10	Available Working Capital [2 -5] + [9]			
11	Return on Equity [6 / 8 of previous year]			
12	Attached are copies of the audited balance sheets, including all related notes, and income statements for the any three years of FY 2017-18,2018-19 and 2019-20, as indicated above, complying with the following conditions?			

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

	<ul style="list-style-type: none"><li>• All such documents reflect the financial situation of the Bidder, and not sister or parent companies.</li></ul>
	<ul style="list-style-type: none"><li>• Historic financial statements must be audited by a certified accountant</li></ul>
	<ul style="list-style-type: none"><li>• Historic financial statements must be complete, including all notes to the financial statements.</li></ul>
	<ul style="list-style-type: none"><li>• Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).</li></ul>
	<ul style="list-style-type: none"><li>• As per International Accounting, Current Liabilities shall include loan and other repayments due within one year.</li></ul>
	<ul style="list-style-type: none"><li>• If the bidder feels that its financial capacity is insufficient bidder may include with the bid a letter from a reputed bank, addressed to the DGM, ASCDCL which describes the revolving line of credit that the bidder is eligible for with the bank.</li></ul>

Applicant's Auditor

Signature of Bidder

Name

Designation

Company

Date:

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- I (D)**

**TURNOVER CERTIFICATE**

(On C.A.'s letter head)

This is to certify that, the ..... (Name of Firm) ..... registered as / under ..... having registered address ..... and assess to income tax with Circle ....., ... (location) .... and holding IT PAN ..... Further, it is certified that, the sales / turnover of the above referred company for the last three years are as under.

<b>Annual Turnover Data for the any 3 Years of FY 2017-18, 2018-19 &amp; 2019-20</b>			
<b>Year</b>	<b>Amount Currency</b>	<b>Exchange Rate</b>	<b>Rs in Lakhs</b>
2017-18			
2018-19			
2019-20			

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

For  
(Name of C.A. Firm)

Seal

Name of signing authority (C.A.)

Place:

Date:

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



**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- II**

**PERFORMANCE BANK GUARANTEE**

**FORM OF BANK GUARANTEE**

In consideration of the CEO, Aurangabad Smart City Development Corporation Limited (hereinafter called "ASCDCL having agreed to exempt hereafter called "The said contractor") from the demand, under the terms and conditions of an Agreement dated (hereafter called "the said Agreement") made between the ASCDCL and the said contractor for the Security Deposit for the due fulfilment by the said contractor of the terms and conditions contained in the said Agreement, on production of the Bank Guarantee for Rs------(in figures) (Rs------(in words) we, (hereinafter referred to as "the Bank" at the request of the said contractor do hereby undertake to pay to the ASCDCL an amount not exceeding the above said amount of Guarantee against any loss or damage caused to or would be caused to or suffered by the ASCDCL by reason of any breach by the said contractor or any of the terms or conditions.

2.We, \_\_\_\_\_ do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, in hereby on a demand from the ASCDCL stating that the amount claimed is due by way of loss or damage caused to or would be to or suffered by the ASCDCL by reason of breach of the said contractor of any of the terms or condition contained in the said agreement or any reason of the contractor's failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding the above said amount Guarantee.

3.We undertake to pay to the ASCDCL any money so demanded not withstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor shall have no claim against us for making such payment

4.We \_\_\_\_\_ further agree that the guarantee herein contained shall remain in full force and effect during the period that would be

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

taken for the performance of the said Agreement and that it shall continued to be enforceable till all the dues of the ASCDCL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged till ASCDCL certified that the terms and conditions of the said Agreement have been duly and properly carried out by the said contractor and accordingly discharges this guarantee unless a demand or claim under this guarantee is made on us in writing on or before we shall be discharged from all liability under this guarantee thereafter.

5.We \_\_\_\_\_ further agree that ASCDCL shall have the fullest liberty without our consent and without affecting in any manner our obligations here under to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the ASCDCL against the said contractor and to forbear or enforce any of the terms and conditions relating to the said Agreement, and we shall not be relieved from any liability by reason of any such variation, or extension being granted to the said contractor, or for any forbearance act or omission on the part of the ASCDCL any indulgence by the ASCDCL to the said contractor or by any such matter or thing whatsoever which under the law to sureties would, but for this provisions, have effect of so relieving us.

This guarantee shall not be discharged due to the change in the constitution of the Bank or of the Contractor.

7.We, lastly undertake not revoke this guarantee during its currency except with the previous consent of the ASCDCL in writing.

***Dated the day of 2021***

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



**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- IV**

**SITE VISIT REPORT LETTER**

(To be submitted on letterhead of bidder with GPS co-ordinate photographs

To,

Date: \_\_\_\_\_

Chief Executive Officer, Aurangabad Smart City Development Corporation Ltd (ASCDCL),  
ASCDCL, Aurangabad

**Sub. : Site Visit Report for \_\_\_\_\_ at OPERATION COMMAND CENTRE & ASCDCL HQ, Aurangabad in the state of Maharashtra through SPV Power Plant.**

Ref. : NIT NO :ASCDCL/2021/415

Dear sir,

This has reference to above referred tender of electrification of OPERATION COMMAND CENTRE & ASCDCL HQ Aurangabad, Maharashtra to be electrified through Solar Power System. I / We hereby declare that we have visited sites. I / We made ourselves acquainted with site conditions, approach to site, requirement of land, soil conditions, availability of water, requirement of tender conditions etc. I / We verified all details required to execute the projects. I / We have no problems in undertaking the projects and complete them in the given time period.

Thanking you

Yours faithfully,

(Signature of Bidder)

Seal:

**Name, Signature of User Agency authority**

**Seal:.....**



**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX-VI**

**DETAILS OF OFFERED SYSTEM**

Sr. No.	Particulars	Capacity
		Quantity
		Make
1.	Module Mounting Structure	
2.	Solar PV modules	
3.	Inverter with Maximum (MPPT) Charge Controller within built data Monitoring & safety interlocks	
4.	Array Junction Box	
5.	DC Cables	
6.	Distribution Boards/Panels	
7.	AC Cables	
8.	Lightening Arrestor	
9.	Earthing Equipments	
10.	Net Meter / Bidirectional Meter /Generation Meter	
11.	Fire Detection & Protection System/ Fire Extinguishers	
12.	Tools & Tackles required for installation, testing, operation & maintenance of entire 150 kW-AC SPV Systems	

Note: Bidders to submit technical Brochure for offered PV Module & Inverter along with test certificates / reports compiling applicable Standards as per guidelines issued by MNRE & with details of Guaranty & Warranty. Sub-standard makes or indication of 'Equivalent make 'shall strictly be avoided.

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX-VII**

**DATA FOR ASSURED POWER GENERATION**

---

<b>Sr. No.</b>	<b>Power Generation During #</b>	<b>100kW-AC</b>	<b>50 KW- AC</b>
1.	Min. total peak hour		
2.	Min. total for 1 <sup>st</sup> year		
3.	Min. total for 2 <sup>nd</sup> year		
4.	Min. total for 3 <sup>rd</sup> year		
5.	Min. total for 4 <sup>th</sup> year		
6.	Min. total for 5 <sup>th</sup> year		
7.	Min. total for 10 <sup>th</sup> year		
8.	Min. total for 15 <sup>th</sup> year		
9.	Min. total for 20 <sup>th</sup> year		
10.	Min. total for 25 <sup>th</sup> year		

**Note:** “#” Energy generation / Power production in (AC) units at application end by Offered SPV system; considering ideal conditions / climatic conditions for proposed Location; as per reference Data available by various reputed International / GoI institutes

For

(Company Name)

Name of signing authority:

Designation: (Owner / Director / Proprietor / Partner)

Place:

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX-VIII**

**Self Declaration**

**To,**

Chief Executive Officer  
Aurangabad Smart City Development Corporation Limited

**Subject:** NIT NO:ASCDCL/2021/415 DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

Respected Sir/Madam,

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

For

(Company Name)

Name of signing authority:

Designation: (Owner / Director / Proprietor / Partner)

Place:



**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE & ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**APPENDIX- XI**

**Format: Commitment from the Tenderer for Assured Power Generation**

(To be submitted separately on Rs.100 stamp paper)

We here by confirm that the from proposed 150 KW(100+50) Distributed capacity on Grid solar PV power plant at OPERATION COMMAND CENTRE & ASCDCL HQ Aurangabad Tal: Aurangabad Dist: Aurangabad in the state of Maharashtra.

We will provide the assured generation of Min. 4 units per day per KW (measured at Generation electrical load side) calculated as Min.4 units\*300 days...1 kW=..... units per year at energy meter in control cabin/room as certified by joint meter reading of manufacturer’s representative and user's representative.

However for 5 years we hereby commit to pay an amount of Rs.8/- per unit as compensation to Aurangabad Smart City Development Corporation Limited, Tal:Aurangabad Dist:Aurangabad for the amount of units unable to supply against the guaranteed generation and submit following Assured Power Generation data -

Sr.No.	Power Generation During #	100kW-AC system	50 KW- AC system
1.	Min. total peak hour		
2.	Min. total for 1 <sup>st</sup> year		
3.	Min. total for 2 <sup>nd</sup> year		
4.	Min. total for 3 <sup>rd</sup> year		
5.	Min. total for 4 <sup>th</sup> year		
6.	Min. total for 5 <sup>th</sup> year		
7.	Min. total for 10 <sup>th</sup> year		
8.	Min. total for 15 <sup>th</sup> year		
9.	Min. total for 20 <sup>th</sup> year		
10.	Min. total for 25 <sup>th</sup> year		

**Note:** “#” Energy generation / Power production in (AC) units at application end by Offered SPV system; considering ideal conditions / climatic conditions for proposed Location; as per reference Data available by various reputed International / GoI institutes

Date:

Place: Signature of the Bidder

Seal

**AURANGABAD SMART CITY DEVELOPMENT CORPORATION LIMITED**

DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT OF 150(100+50) KWp GRID CONNECTED SOLAR POWER PLANT WITH NET METER AT OPERATION COMMAND CENTRE &amp; ASCDCL HQ, AURANGABAD, IN THE STATE OF MAHARASHTRA

**ANNEXURE- A -Document Checklist**

All the necessary Documents / Certificates should be uploaded clear readable copy as a SINGLE PDF in proper sequence (*Strictly*) as mentioned below:

Sr no	Document	Document enclosed (Yes/No/ n/a)	Page no. From	Upto page no.
	Copy of receipt for EMD / Valid exemption certificate issued by competent Govt authority			
2	Duly stamped and signed tender document (Tender Document).			
3	Valid Channel Partner Certificate issued by MNRE/MEDA GCRT 2018-19 registration details.			
4	Firm registration certificate/Shop Act Certificate			
5	Copy of PAN and GST registration details			
6	Bidder Information Sheet Appendix I(A)			
7	Firm Profile at a Glance Appendix I(B)			
8	Financial credentials of bidder - Appendix-I(C), along with scanned copy of IT returns for last three financial years, supporting with summary of balance sheet and auditor's report certified by CA.			
9	Annual Turnover Banker's -Appendix-I(D)			
10	Forms of Performance of Bank Guarantee - Appendix-II..			
11	Experience for installation and commissioning of SPV power plants / list of projects (Appendix- III). Along with scanned copies of work / purchase orders received for completed projects			
12	Site visit report -Appendix - IV			
13	Power of attorney; for company's authorized person - Appendix - V			
14	Details of proposed / offered system - Appendix - VI			
15	Self Certification of No Barr/non failure/blacklisted Declaration (Appendix-VIII)			
16	Commitment from the Tenderer for Assured Power Generation(Appendix-XI)			
17	Registration Certificate under EPF/Provident Fund and latest challan.			
18	List of skilled persons with qualification and experience.			
19	Brochure for offered P V Module along with test certificates compiling applicable Standards as per guidelines issued by MNRE and details of Guarantee and Warranty.			
20	Brochure for offered Inverter along with test certificates compiling applicable Standards as per guidelines issued by MNRE And details of Guarantee and Warranty.			
21	Any other relevant document.			

**(fill above sheets details is compulsory)**

Signature of Bidder

Name

Designation

Company& Seal

Date

---End of tender documents---

SIGNATURE & SEAL OF TENDERER

Page 66 of 66