



**NOTICE INVITING TENDER (NIT)
FOR**

NOTICE INVITING TENDER FOR SOLAR PLANT DEVELOPER (SPD) REGISTERED WITH JAIPUR DISCOM FOR DESIGN, MANUFACTURE, TESTING, SUPPLY, INSTALLATION & COMMISSIONING OF 15 KW GRID CONNECTED ROOF TOP MOUNTED SOLAR POWER PLANT ON CAPEX MODE AT HUDCO JAIPUR REGIONAL OFFICE.

NIT No.: HUDCO/JRO/2026

Issued by

**Regional Chief
Jaipur Regional Office
Housing and Urban Development Corporation Limited,**

**JAIPUR REGIONAL OFFICE, HUDCO
HUDCO BHAWAN, VIDYUT MARG, JYOTI NAGAR
JAIPUR-302005
Tel No:- 0141-2740863**

**www.hudco.org.in
CIN:L74899DL1970GOI005276GSTN:
08AAACH0632A1ZD**

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NOTICE INVITING TENDER

NIT No.: HUDCO/JRO/2026

Dated: 19.05.2026

Sub: Solar Plant Developer (SPD) Registered with Jaipur DISCOM for Design, Manufacture, Testing, Supply, Installation & Commissioning of 15kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO – Jaipur Regional Office.

Housing and Urban Development Corporation Ltd. (HUDCO) invites bids for selection agency to act as Solar Plant Developer (SPD) Registered with Jaipur DISCOM for Design, Manufacture, Testing, Supply, Installation & Commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO – Jaipur Regional Office.

SECTION I – OVERVIEW

The schedule of bidding process shall follow the events as detailed in Table 1 below:

Table1: Schedule of Bidding Process		
S.No.	Event Description	Date/Time
1	Date of Publication on GeM portal	As per GeM
2	Date of Online pre-bid meeting	As per GeM
3	Last date of submission of proposals on GeM Portal: https://gem.gov.in	As per GeM
4	Date of opening of EMD, Pre-qualification Proposals and Technical Proposals	As per GeM
5	Indicative cost of the project	Rs 8.14 lakhs (Rupees Eight Lakhs Fourteen Thousand Only)
6	EMD (5% of the tender estimated cost)	Rs. 40700/- (Rupees Forty Thousand Seven Hundred Only) <i>(The Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Startups as recognized by Department of Industrial Policy & Promotion (DIPP) are exempted from Earnest Money Deposit (EMD) on submission of requisite proof of valid MSME (Udyog Aadhaar/Udyam)/DIPP Certificates etc.)</i>
7	Details of Bank Account for deposit of EMD	HDFC Bank Ltd. Branch- B-3-4, Suryakiran Building 19, K.G. Marg, New Delhi-110066. IFSC Code-HDFC0000003, A/c No.- 00030350017801
8	Date and time of Pre-Bid Meeting	The Bidder/Tenderers or their official representative(s) are invited to attend Pre-Bid meeting which will take place through VC/ offline at Jaipur Regional office HUDCO on 04.08.2026 at 03:00 PM.
8	Last date & time for receipt of online bids	18.08.2026 at 3.00 p.m.
9	Technical Bid Opening Date	18.08.2026 at 3.30 p.m.
10	Date of Opening of Financial Proposals	Shall be intimated after evaluation of technical proposals
11	Validity of Proposals	180 days from the Due Date of submission of proposals/ bids
12	Period of Commencement	15 days from the date of work order or the date of instruction for taking possession of site, whichever is later.
13	Signing of Agreement	Within 07 days from the issue of Letter of Award/ Work Order
15	Time of Completion	Three (03) months from the Date of Work Order
14	Performance Guarantee/ Security Deposit	5% of awarded contract value shall be submitted by successful Agency/Firm by a specified date (generally 14 to 28 days after notification of the award, depending on the amount), as per Annexure A3 and it should remain valid for a period of 60 (sixty, or any other period mentioned in the tender Documents) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.
17	Defect liability period (DLP)	5 years from Completion certificate.
18	Name & address of office inviting tender	Housing and Urban Development Corporation Limited, (A Govt. of India Enterprises), JAIPUR REGIONAL OFFICE , HUDCO BHAWAN, VIDYUT MARG, JYOTI NAGAR JAIPUR-302005, Tel No:- 0141-2740863

19	Help Desk Number for E-procurement portal	Mail us at: helpdesk-gem[at]gov[dot]in Toll Free Numbers (Inbound): Call 1800-419-3436 / 1800-102-3436. (9:00 am - 10:00 pm Mon to Sat)
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For further Clarification/ Information, if any:

Regional Chief, Housing and Urban Development Corporation Limited,
Jaipur regional office, HUDCO Bhawan, Vidyut Marg, Jyoti Nagar Jaipur-302005
Tel No:- 0141-2740863; Email.Id.:jro@hudco.org

1. INTRODUCTION

Housing and Urban Development Corporation Ltd., (HUDCO) is a Navaratna Central Public Sector Undertaking (CPSU) under the administrative control of Ministry of Housing and Urban Affairs (MoHUA), listed on major Stock Exchanges (BSE & NSE). HUDCO is Non-Banking Financial Company – Infrastructure Finance Company (“NBFC-IFC”), regulated by Reserve Bank of India (RBI). HUDCO is a premier techno-financing CPSE in the field of housing and urban development, playing a pivotal role in the socio-economic development of India for over five decades. HUDCO is one of the largest Public Sector HUDCO (PSU) in India with 20 Regional offices and 11 Development offices network in India.

2. SCOPE OF WORK

The scope of work of Solar Plant Developer includes the following:

- i) The Scope of work for the bidder include feasibility of installation in identified buildings, obtaining No Objection Certificate (NOC) from Distribution Company (DISCOM) for grid connectivity, complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected roof top solar PV project.
- ii) Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the grid connected rooftop Solar PV Project as per the technical specification.
- iii) Successful bidders are requested to visit the respective sites and check the feasibility of space including installation capacity in consultation with respective site in- charge.
- iv) Safety: The bidder shall provide suitable lifeline arrangement on the roof, to enable safety of workers while working at height during erection and O&M period. The workers working at site should have undergone proper training for safe working at height, should have been trained to use safety PPEs including Safety belts with double hooking system. The bidder shall follow the safety rules as per instruction of EIC. All safety PPEs like safety shoes, helmet, belt, lifeline, fall arrester etc. are to be provided by the bidder within the quoted price.
- v) All statutory approvals/ registration with Jaipur Discom for installation of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO – Jaipur Regional Office.

The Solar Plant Developer (SPD) agrees to perform the services as part of the scope of this engagement including but not limited to as mentioned in NIT. HUDCO reserves its right to change the scope of the services considering the size and variety of the requirements and the changing business & security conditions /environment with mutual consent.

SECTION-II (METHOD OF SELECTION)

1. The selection of the agency shall be made on the basis of 3-stage process under Two packet bid system as per GeM portal as detailed below:

S.No.	Stage as per RFP document	Packets as per GeM Portal
(a)	Stage1–EMD	Packet 1
(b)	Stage 2 - Technical Proposal	
(c)	Stage3–Financial Proposal	Packet 2

a) STAGE1–EMD (ONLINE)

The Earnest Money Deposit (EMD) equivalent to 5% of the indicative cost of the project i.e., Rs.40700/- (Rupees Forty Thousand Seven Hundred Only) shall be deposited electronically in the current a/c of HUDCO as per details given in Table 2 below. No interest would be payable on EMD.

Table2: Current Account of HUDCO for EMD Deposit	
Name of the Beneficiary	HUDCO Ltd.
Bank	HDFC Bank
Branch	KG Marg, New Delhi
IFSC Code	HDFC0000003
A/c Type &No.	Current A/c No. 00030350017801

Notes:

- i. The Bidders must ensure that the EMD amount is credited to HUDCO's account well before the stipulated closure date and time. Bidders shall submit the copy of receipt of the payment of Earnest

Money Deposit.

- ii. The Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Startups as recognized by Department of Industrial Policy & Promotion (DIPP) are exempted from Earnest Money Deposit (EMD) on submission of requisite proof of valid MSE (Udyog Aadhaar/Udyam) /DIPP Certificates etc.
- iii. Technical qualification documents of only those bidders will be opened, who's valid EMD or MSE Registration certificate (Udyog Aadhaar/Udyam) are submitted within the stipulated date and time.
- iv. EMD/ Bid securities of unsuccessful bidder shall be returned within 30 days of declaration of the results of the first stage, i.e., Technical Evaluation etc. No interest would be payable on EMD.
- v. Upon the successful Bidder's request, the Earnest Money Deposit (EMD)/ Bid Security may be adjusted against the Performance Security Deposit payable by the Bidder. EMD/ Bid security may also be provided by means of bank guarantee as per format in **Annexure-A 2** (including e-bank guarantee) from any of the commercial banks as per the terms of this NIT. The bid security will be non-interest bearing.

b) STAGE 2-TECHNICAL REQUIREMENTS (ONLINE)

To be technically qualified, Bidders registered with Jaipur DISCOM having relevant experience in the State of Rajasthan shall submit information in the prescribed Technical Forms provided in **Annexure I to Annexure XVI** of this document. Only those bidders whose documents are found complete and satisfactory will be considered for evaluation of next stage. Material deficiencies in providing the information requested may result in rejection of the Proposal. Bidder shall submit the scanned copy of the documents pertaining to technical requirements mentioned in the **Table 3 given below**:

Table 3: Technical Criteria (online)

SNo	Technical Requirements	Scanned copy of documents to be Attached/ Uploaded (Mandatory)
1	Covering letter on the letter head of the Agency/ Firm	Duly filled and signed as per Annexure-I
1A	Bidder must be a registered COMPANY/FIRM /LLP/PROPRIETARY etc under the Companies Act 1956/2013/Deed OR other Applicable laws.	• Copy of Certificate of Incorporation • Copy of certificate of GST Registration/Deed etc.
2	Registration with the Jaipur DISCOM authority	Copy of registration issued by Jaipur DISCOM
3	The applicant Agency/ Firm/ Company should be incorporated in India for a minimum of 07 years (as on 31.03.2026) and registered under relevant law/ regulation etc. as may be applicable to them. However, with respect to MSEs, the applicant Firm/ Agency/ Company should be incorporated in India for a minimum of 05 years and registered under relevant law/ regulation etc.	Duly filled and signed as per Annexure-II. Copy of Incorporation/ Registration issued by relevant Office/ Authority along with PAN Card and GST Registration should be furnished
4	The Agency/ firm must have, during the last seven (07) years ending on 31.03.2026, successfully completed projects involving - design, manufacture, testing, supply, installation & commissioning of -Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at Rajasthan. a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost. OR b) Two similar completed works costing not less than the amount equal to 60% of the estimated cost. OR c) One similar completed work costing not less than the amount equal to 80% of the estimated cost.	Duly filled and signed as per Annexure III <i>Submission of copies of award letters/ agreement and satisfactory completion certificate/ proof of completion issued by the concerned client.</i> Note: "Similar Work" shall mean Solar Plant Developer for Design, Manufacture, Testing, Supply, Installation & commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode.

5	Audited Financial Statements of the last 3 financial years (FY 2023-24, 2024-25 & 2025-26). If the audited Financial Statements for the year 2025-26 are not available, the Bidder/Agency may submit for the financial year 2022-23, 2023-24 & 2024-25.	Audited Balance sheets of 3 years. <i>UDIN shall be mentioned/printed in all the certificates to be certified by CA.</i>
6	Average Annual Turnover of at least Rs.6.00 lakhs through projects involving - Design, Manufacture, Testing, Supply, Installation & commissioning of Grid Connected Roof Top Mounted Solar Power Plant during the last three Financial years (FY 2023-24, 2024-25 & 2025-26). If the audited Financial Statements for the year 2025-26 are not available, the agency may submit for the year 2022-23, 2023-24 & 2024-25.	Duly filled as per Annexure-IV . <i>UDIN shall be mentioned/printed in all the certificates to be certified by CA.</i>
7	EMD Refund Form	Duly filled & signed as per Performa at Annexure-VIII
8	Each page of the NIT document & Annexures/ Corrigendum shall be signed and stamped by the bidders submitting the proposal in token of his/ their having acquainted himself/ themselves and accepted the entire NIT document including various conditions of the contract.	Duly signed and stamped scanned copy of complete NIT document along with other schedules/ annexures/ corrigendum. Power of Attorney in favour of authorized signatory to sign the bid should be submitted.
9	Bidder shall have followed infrastructure: a) Adequate resources including manpower, tools and tackles to execute the job. b) Adequate skills to adhere to DISCOM Power Quality and electrical safety standards.	Undertaking to be submitted as per Annexure XV <i>HUDCO reserves the right to inspect the tools and tackles and assess the competency of workers as a proof of compliance to this parameter.</i>
10	Detail of BEE Certified energy auditor in the firm, if any	Certificate of the Energy auditor (provisional/original) scanned copy
11	Preferably have at least one Certified Electrical supervisor in the firm	Certificate of the Supervisor (provisional/ original) scanned copy
12	Undertaking towards Employee Relationship	Duly signed by Solar Plant Developer (SPD) scanned Copy as per Annexure-XI
13.	Undertaking related to ESG	Duly signed by Solar Plant Developer (SPD) scanned Copy as per Annexure-XII
14.	Bid Security Declaration	Duly filled and by Solar Plant Developer (SPD) scanned Copy as per Annexure-XIII
15.	Vendor Profile Form	Duly filled and by Solar Plant Developer (SPD) scanned Copy as per Annexure-XIV

c) STAGE 3 – SUBMISSION OF FINANCIAL PROPOSAL (ONLINE)

The financial proposal shall be submitted online on GeM portal. **The last date for submission of the proposal will be as per GeM.** Please note that the financial bid/ value should be in terms of **percentage of estimated project cost (inclusive of GST as applicable)**, in the prescribed format. The date of opening of financial bids shall be intimated to the technically qualified agencies later.

Notes:

- i) Financial Bid **to be entered on GeM portal only (As given in Annexure-XVI in Excel Sheet).**
- ii) Price quoted for **Design, Manufacture, Testing, Supply, Installation & Commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional office shall be inclusive of GST and all other taxes (as applicable).** No

additional transportation/ freight charges shall be payable over and above the amount quoted. Further, the cost of co-ordination/ facilities extended to the bidder shall be deemed to be included in quoted amount of bidder and nothing extra shall be payable.

- iii) All out of pocket expenses, traveling, boarding and lodging expenses for the entire life of the contract should be a part of the financial bid submitted by the Bidder to HUDCO. No extra costs on account of any items or services or by way of any out-of-pocket expenses, including travel, boarding and lodging etc. will be payable by the HUDCO. The Bidder cannot take the plea of omitting any charges or costs and later lodge a claim on HUDCO for the same.
- iv) The discovered project cost shall be inclusive of all duties and taxes, insurance etc. The project cost quoted by the firm shall be complete in all respect and no price variation / adjustment shall be payable by HUDCO.
- v) The Project discovered shall remain firm and fixed and shall be binding on the Successful Bidder till completion of allocated capacity irrespective of his incurred actual cost of execution. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.

NOTE: Bidders must submit the tender as per original format. If any bidder changes any format of technical bid, price bid or any part of tender at any stage of tendering/ bidding, his bid may not be considered and his tender/ bid is liable to be rejected. If bidder makes any remarks or any condition, his bid will not be considered and his tender/ bid will be rejected. Tenderer must not revise, add, omit, or assume anything other than detailed in tender. No justification whatever may be considered in this regard.

2. PRE-BID CLARIFICATIONS

The bidders are requested to submit any queries/ questions on issues relating to this NIT at E-mail at jro@hudco.org, preferably **two days prior to the pre-bid meeting**. Pre-bid meeting shall be conducted in person or through Video Conferencing on the date and time mentioned in the NIT. Potential bidders interested in joining the **Pre-bid meeting** must share their Company Name, Authorized Person's name, Email and Contact No. at the email address jro@hudco.org at least one day before the pre-bid conference. In case of video conferencing, HUDCO shall invite them formally through email along with link. The text of the clarifications/ questions raised and the responses given will be uploaded on GeM portal. Any modifications of the tender document which may become necessary as a result of clarifications shall be made exclusively by way of issuing Addendum/Corrigendum. The Addendum/ Corrigendum, if any, will also be uploaded on GeM portal which will become part of NIT/ Bid document.

3. EXCLUSION OF BIDS/ DISQUALIFICATION

The following bids shall be excluded / disqualified, if

- a) The bidder is not qualified as per pre-qualification/ eligibility criteria mentioned in the NIT document.
- b) The Bid materially departs from the requirements specified in the bidding document or it contains false information.

4. Award of Contract

- a. On award of the work order for project involving - Design, Manufacture, Testing, Supply, Installation & commissioning of 15kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional office, the Solar Power Developer Agencies/ Firms shall be required to sign an agreement with HUDCO for the successful completion of the assignment as per the Terms of Reference.
- b. The terms & conditions of appointment is as mentioned in the draft agreement (enclosed as **Annexure – A 1**). The selected Solar Power Developer/Agency/Firm will have to enter into a formal Agreement on stamp paper of appropriate value as per the format within **07 days** from the date of work order and **he shall pay for all stamps and legal expenses incidental thereto**. The Solar Power Developer Agency/ Firm are requested to read all the conditions mentioned in the draft agreement. Please note that no change in the draft agreement is permitted and the same shall be strictly followed.

- c. Performance Guarantee/ Security Deposit equivalent to 5% of the awarded Contract value shall be required to be deposited by the successful bidder agency within 14-28 days from the letter of award. Performance Bank Guarantee (PBG) **(as per Annexure A-3)** shall require to be submitted (issued by any Scheduled Bank) with validity upto the completion period (including any extended period, if permitted), with an additional grace period of 02 months. No extra charge shall be payable by HUDCO for any extension of the Bank Guarantee. Upon completion of the work and issuance of the Final Completion Certificate (Taking Over Certificate with a list of Defects), the Performance Bank Guarantee **(Annexure – A-3)** shall, with the consent of HUDCO, be deemed to be converted into or treated as a Security Deposit, and shall continue to remain with HUDCO until the expiry of the Defect Liability Period (i.e., 5 years from the issuance of Completion Certificate) as defined in the contract. This retained Security Deposit shall serve as security against any defects or obligations arising during the DLP and shall be returned/ refunded within 60 days of satisfactory completion of the DLP and rectification of all listed defects, in accordance with the terms and conditions of the tender.

Upon the request of the successful Bidder, the Earnest Money Deposit (EMD) can also be adjusted against the Performance Security Deposit payable by the Bidder.

- d. The firm is expected to commence the assignment as per time stipulated in the LOA/ Work Order. Contract period for completion is three (03) months from the date of issuance of Work Order.
- e. If the Solar Power Developer/ Agency/ Supplier fails to Design, Manufacture, Testing, Supply, Installation & commissioning or fails to perform the services within the time frame(s) incorporated in the contract, the HUDCO shall, without prejudice to other rights and remedies available to the HUDCO under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods, installation, commissioning and/ or services until actual delivery or performance subject to a maximum of 5% of the contract price.

5. Payment and other payment terms:

Payments to the Contractor shall be made against Running Account (RA) bills (40% of quoted cost on receipt of goods, 80% (less already paid) on erection of plant, 90% (less already paid) on testing of plant and 100% (less already paid) on handing over the plant to HUDCO based on the actual quantities of work executed at site. Each RA bill shall be accompanied by measurement sheets jointly recorded and certified by the Engineer-in-Charge, relevant site progress photographs (where applicable), copy of goods bill and all necessary test reports and quality control documentation etc. The RA bills shall be subject to verification and approval by HUDCO or its authorized representative. Payments shall be released after adjustment of all applicable statutory deductions, including but not limited to TDS, GST, and any other recoveries as stipulated under the terms of the contract.

- No escalation is applicable. The Rates will be remained firm till completion and handing over of solar work.

6. GENERAL TERMS AND CONDITIONS OF THE NIT

- (i) The bidder must be a single legal entity (stand-alone) and fully responsible for execution of the project. Joint ventures/consortiums are not permitted.
- (ii) The issuance of NIT document is merely an invitation to offer and must not be construed as any agreement or contract or arrangement. The bidders unconditionally acknowledge by submitting its response to this NIT document that it has not relied on any idea, information, statement, representation, or warranty given in this NIT document.
- (iii) Acceptance of Terms: the bidders will, by responding to HUDCO's NIT document, be deemed to have accepted the terms as stated in this NIT document.
- (iv) Only one submission of response to NIT by each Solar Power Developer/ Agency/ Firm will be permitted.
- (v) HUDCO expects the Bidder to adhere to the terms of this tender document and would not accept any deviations to the same.
- (vi) HUDCO expects that the Bidder appointed under the tender document shall have the single point responsibility for fulfilling all obligations and providing all deliverables and services required by HUDCO.

- (vii) Unless agreed to specifically by the HUDCO in writing for any changes to the issued tender document, the Bidder responses would not be incorporated automatically in the tender document.
- (viii) All responses received after the due date/ time as mentioned in "Important Dates-Last Date of Submission of NIT Response (Closing Date)" would be considered late and would be liable to be rejected. GeM portal will not allow to lodgment of NIT response after the deadline. It should be clearly noted that HUDCO has no obligation to accept or act on any reason for a late submitted response to NIT. The HUDCO has no liability to any Solar Power Developer/Agency/Firm who lodges a late NIT response for any reason whatsoever, including NIT responses taken to be late only because of another condition of responding.
- (ix) Bidder should submit their Eligibility Cum Technical and Commercial bids through online portal. The bidder must register for submission of their bid as specified in this document.
- (x) The Bidder may modify or withdraw its offer after submission but prior to the closing date and time as prescribed by HUDCO. No offer can be modified or withdrawn by the bidder subsequent to the closing date and time for submission of the offers.
- (xi) The Bidders required to quote for all the components/ services mentioned in the "Project scope" and all other requirements of this NIT. In case the bidder does not quote for any of the components/ services, the response would be deemed to include the quote for such unquoted components/service. It is mandatory to submit the details in the formats provided along with this document duly filled in, along with the offer. The HUDCO reserves the right not to allow / permit changes in the technical specifications and not to evaluate the offer in case of non-submission of the technical details in the required format or partial submission of technical details.
- (xii) In the event the bidder has not quoted for any mandatory items as required by the HUDCO and forming a part of the tender document circulated to the Bidder's and responded to by the bidder, the same will be deemed to be provided by the bidder at no extra cost to the HUDCO.
- (xiii) HUDCO is not responsible for any assumptions or judgments made by the Bidder for proposing the deliverables. HUDCO's interpretation will be final.
- (xiv) HUDCO ascertains and concludes that everything as mentioned in the tender documents circulated to the Bidder and responded by the Bidders have been quoted for by the Bidder, and there will be no extra cost associated with the same in case the Bidder has not quoted for the same.
- (xv) All out of pocket expenses, traveling, boarding and lodging expenses for the entire life of the contract should be a part of the financial bid submitted by the Bidder to HUDCO. No extra costs on account of any items or services or by way of any out-of-pocket expenses, including travel, boarding and lodging etc. will be payable by the HUDCO. The Bidder cannot take the plea of omitting any charges or costs and later lodge a claim on HUDCO for the same.
- (xvi) By submitting a proposal, the Bidder agrees to contract with HUDCO within the time period prescribed by the HUDCO. Failure on the part of the successful bidder to execute an agreement with HUDCO will relieve the HUDCO of any obligation to the bidder, and a different bidder may be selected based on the selection process.
- (xvii) The terms and conditions as specified in the NIT, Corrigendum and addendums (if any) thereafter are final and binding on the bidders. In the event the bidders not willing to accept the terms and conditions of HUDCO, the bidder may be disqualified. Any additional or different terms and conditions proposed by the bidder would be rejected unless expressly assented to in writing by HUDCO and accepted by HUDCO in writing. The Bidder shall represent and acknowledge to HUDCO that it possesses necessary experience, expertise and ability to undertake and fulfill its obligations, involved in the performance of the provisions of this NIT.
- (xviii) HUDCO would not assume any expenses incurred by the Bidder in preparation of the response to this NIT and also would not return the bid documents to the Bidders.
- (xix) HUDCO will not bear any costs incurred by the Bidder for any discussion, presentation, demonstrations etc. on proposals or proposed contract or for any work performed in connection therewith.

- (xx) The selected Solar Plant Developer shall not sub-contract or permit anyone other than its personnel to perform any of the work, service or other performance required under this project. In case any particular specialized service in the prescribed in the scope of work requires subcontracting, it need to be specified in the proposal/ response document with all the details of the work/ services. Please note that no work/services shall be sub-contracted without the prior permission from HUDCO in writing.
- (xxi) Neither this Tender nor the Bidder's performance of obligations under this Tender shall create an association, partnership, joint venture, or relationship of principal and agent, master and servant, or employer and employee, between HUDCO and the Bidder or its employees, sub-contractor; and neither Party shall have the right, power or authority (whether expressed or implied) to enter into or assume any duty or obligation on behalf of the other Party.
- (xxii) The discovered project cost shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a "single responsibility" basis such that the project cost covers all the obligations mentioned in the Bidding Documents in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, goods and services including spares required if any during Defect Liability Period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training and such other items and services required to complete the scope of work mentioned above.
- (xxiii) The discovered project cost shall be inclusive of all duties and taxes, insurance etc. The project cost quoted by the firm shall be complete in all respect and no price variation / adjustment shall be payable by HUDCO.

7. OTHER TERMS AND CONDITIONS OF CONTRACT

- (i) The project discovered for CAPEX mode is for turnkey lump sum basis project and the bidder is responsible for the total Scope of work described at above.
- (ii) The Project discovered shall remain firm and fixed and shall be binding on the Successful Bidder till completion of allocated capacity irrespective of his incurred actual cost of execution. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.
- (iii) Bidder has to obtain all the necessary approvals/ Consents/ Clearances required for Erection, Testing, Commissioning and O&M of the project including Grid connectivity as per Net Metering guidelines. HUDCO shall not have any responsibility in this regard.
- (iv) Power with efficiency shall not be less than 97%, total harmonic distortion less than 3% and suitable for ambient temperature from 0 to 50-degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency. The PR will be measured at Inverter output level during peak radiation conditions.
- (v) If failed to achieve the guaranteed performance levels, the bidder will at its own cost rectify all the defects identified during the test and take necessary steps/ efforts to pass the PR test within the stipulated time span. Subsequent to rectification the PR will be restarted.
- (vi) Minimum CUF of 20% should be maintained after considering the degradation of solar PV modules for a period of 05 years after considering the degradation of modules for fulfilling one of the conditions for release of PBG.
- (vii) For determining the Annual CUF, the annual module degradation shall be taken from 2nd operational year. The duration for which the Generation was interrupted due to non-availability of Grid during solar hours or any other reasons not attributable to Bidder shall not be taken into account for calculation of Annual CUF.
- (viii) When the Successful Solar Power Developer/Bidder fulfills his obligation under the Contract, he shall be eligible to apply for Completion/ Commissioning Certificate. The Engineer-in-Charge shall normally issue to the successful bidder the Completion Certificate within one month after receiving any application therefore from the successful bidder after verifying from the completion documents and satisfying himself that the work has been completed in accordance with and as set out in contract documents.

- (ix) For the purpose of above the following documents will be deemed to form the completion documents:
 - i. Check list for inspection of Roof Top SPV power Plant as per HUDCO format (**Annexure-IX**).
 - ii. Project Completion Report (PCR) as **Annexure-X**.
- (x) Upon completion of the commissioning of the Rooftop Solar project and subject to the Engineer-in-Charge being satisfied, the Engineer-in-Charge shall (without prejudice to the rights of the HUDCO to retain the provisions of relevant Clause hereof) issue a certificate herein referred to as the Final Certificate to that effect and the successful bidder shall not be considered to have fulfilled the whole of his obligations under contract until Final Certificate shall have been issued by the Engineer-in-Charge notwithstanding any previous entry upon the work and taking possession, working or using of the same or any part thereof by the HUDCO.
- (xi) Contactor will submit built drawings, MTC, Warranty etc along with the full and final bill. The same shall be checked and verified by HUDCO. Full and final bill shall be settled within 2 months after Supply Installation, Testing and Commissioning of solar panel.
- (xii) HUDCO will be entitled to take all or any of the actions on the commission/omission by the agency/bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the agency/bidder, of an offence as defined in the Bharatiya Nyaya Sanhita, 2023 (BNS) including Amendments thereof or Prevention of Corruption Act, 1988 (PC Act) including Amendments thereof or any other statute enacted for prevention of corruption/offences.

8. INSURANCE

- i) The Bidder/Vendor shall be responsible and take Insurance Policy for transit-cum-storage-cum-erection for all the materials to cover all risks and liabilities for supply and storage of materials at site, erection, testing and commissioning.
- ii) Before commencement of work, the Vendor shall also take insurance policy for Third Party Liability covering loss of human life, engineers and workmen and also covering the risks of damage to the third party/ material/ equipment/ properties during execution of the Contract. The Vendor will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of bidder.
- iii) The vendor shall also take appropriate insurance policy during Defect Liability Period i.e. 5 years.
- iv) **The Insurance covers as mentioned in clause no. 8 (i), (ii) and (iii) are mandatory and in case of any violation of not taking Insurance cover may result in imposition of penalty. Penalty shall be deducted from the Payment/ PBG and balance Payment/ PBG shall be released only on submission of Indemnity Bond.**

9. WARRANTIES AND GUARANTEES

The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The Bidder shall provide warrantee covering and rectification of any and all defects in the design of equipment, materials and workmanship including spare parts of the plant for a period of 5 years from the date of commissioning of the Rooftop Solar plant. The responsibility of operation of Warrantee and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be responsibility of the Successful bidder. HUDCO will not be responsible in any way for any claims whatsoever on account of the above.

10. TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP

- i) The design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/ BIS as detailed in the **Section- IV** Technical specifications of the bid document. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.
- ii) The modules should be from the latest approved list of Models and Manufacturers (ALMM) of MNRE. Rest of the components can be procured from any source. However, these items should meet the technical specification and standards mentioned in NIT.

- iii) The specifications of the components should meet the technical specifications mentioned in Section- IV.
- iv) Any supplies which have not been specifically mentioned in this Contract but which are necessary for the design, engineering, manufacture, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

11. METERING AND GRID CONNECTIVITY

Metering and grid connectivity of the roof top solar PV system under this scheme would be the responsibility of the Solar Plant Developer in accordance with the prevailing guidelines of the concerned DISCOM and/or DERC (if available by the time of implementation). HUDCO could facilitate connectivity; however, the entire responsibility lies with bidder only.

12. PROJECT COMPLETION REPORT (PCR)

The bidder shall submit the Project Completion Report after commissioning of the project as per the Scope of NIT to HUDCO as per the Format given in **Annexure X**.

13. PROJECT INSPECTION

The projects shall be inspected by HUDCO officials or any other agencies/bodies to be notified by HUDCO from time to time.

14. DEFECT LIABILITY:

The bidder is liable for all damages (execution-related or natural disasters) and must rectify them at their own cost. Any damage done by the bidder to any existing work during execution of the work shall be made good by him at his own cost.

- **Defect liability period: 5 years from completion certification.**

All rectification work shall be completed within 15 days of receiving written notice from HUDCO.

15. INFORMATION/ GENERAL INSTRUCTIONS TO BIDDERS

- i) The bidders shall submit their bids electronically through the GeM Portal. Detailed instructions for online submission are provided at **point 16** given below.
- ii) The bidders must strictly adhere to the specifications mentioned in the bid.
- iii) The Proposals remain valid for 180 days from the due date of submission of proposal/ bids.
- iv) Each page of the tender application must be signed by an authorized representative (with Power of Attorney) with seal of the bidding firm/agency.
- v) False/ inadequate information will lead to rejection.
- vi) The Bidder is advised to visit and examine the site of the proposed work and its surroundings at their own cost and obtain all information that may be necessary for preparing the bid and entering into the contract. The Bidder shall be deemed to have full knowledge of the site conditions, whether physically inspected or not, and shall quote accordingly. No claim for extra charges or extension of time shall be entertained on the grounds of lack of knowledge of site conditions.
- vii) The Bidders must study site conditions and specifications beforehand. No claims will be entertained for ignorance of requirements.
- viii) The decision of HUDCO regarding technical qualification of Agencies/ Firms shall be final. HUDCO reserves the right to reject any/ all bids without justification.
- ix) HUDCO may issue amendments/ corrigenda to the NIT documents. The Bidders must check the GeM portal regularly for updates.
- x) The Work must align with Engineer-in-Charge's directions.

- xi) Statutory deductions on account of GST, income tax and surcharge as applicable shall be made from gross amount of the bill.
- xii) The Bidder shall be fully responsible for safe custody of the material issued or brought by him to site for doing the work.
- xiii) The Bidder must submit a work program within seven (07) days of commencement, adhering to the Engineer-in-Charge's schedule.
- xiv) The Bidder must provide test certificates for materials used, if requested.
- xv) All non-compliant materials will be rejected and removed at the bidder's expense.
- xvi) The successful MSE bidders, if any, shall get themselves registered on TReDS portal (M/s RXIL, M/s M1exchange, M/s Invoice Mart (A TReDS Ltd.), C2 TReDS (C2FO Factoring Solutions Private Ltd.) & M/s KredX Platform Private Ltd.), as per Govt. of India directions, Department of Public Enterprises.
- xvii) The bidder should not have been blacklisted by Central/State Govts/UTs/PSUs/Banks/Corporates, etc. during the last 05 years. Also, the bidder should not have any pending litigation with HUDCO.
- xviii) The Proposals must be submitted in English Language only.
- xix) HUDCO reserves the right to terminate this NIT at any stage without any notice or assigning any reason.
- xx) After the award of the contract, if the selected bidder does not perform satisfactorily or delays execution of the contract, the HUDCO reserves the right to get the balance contract executed by another party of its choice by giving one-month notice for the same. In such an event, the bidder is bound to make good the additional expenditure which the HUDCO may have to incur for the execution of the balance of the contract.
- xxi) Canvassing in any form in connection with the Tender is strictly prohibited and the bids submitted by the bidders who resort to canvassing are liable to be rejected.
- xxii) HUDCO reserves the right to annul (cancel) the bidding process at any time prior to award of Contract including rejection of any or all bids after the same have been received, without assigning any reason and without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders about the ground of HUDCO's action.
- xxiii) Price Quotation in tenders: In tender participating Micro and Small Enterprises, quoting price within price band of L1+15 per cent shall also be allowed to supply a portion of requirement by bringing down their price to L-1 price in a situation where L-1 price is from someone other than Micro and Small Enterprise and such MSE shall be allowed to supply upto 25 per cent of total tender value, if the tender may be split or divided. In case of more than one such Micro and Small Enterprise, the supply be shared proportionately (to tendered quantity). In case of tender cannot be split or divided, etc. the MSE quoting a price within the band L1+15% may be awarded for full/complete supply of total tendered value to MSE (on L-1 cost) considering the spirit of the Policy for enhancing Govt. Procurement from MSEs.
- xxiii) Non-conformities between Figures and Words: Sometimes, non-conformities/errors are also observed in responsive tenders between the quoted prices in figures and words, this should be taken care of in the manner indicated below:
 - If, in the price structure quoted for the required goods/service, there is a discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail, and the total price corrected accordingly;
 - If there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail, and the total shall be corrected.
 - If there is a discrepancy between words and figures, the amount in words shall prevail

16. INSTRUCTIONS TO BIDDERS TO BID ON GEM

- a) The bids shall be submitted online on GeM portal before the last date and time of submission along with receipt of valid EMD or valid EMD exemption (documentary evidence is to be attached). HUDCO shall not be responsible for non-submission of bids in time. No communication in this regard shall be entertained.
- b) The Bidder shall also submit the duly stamped and signed scanned copy of complete NIT document along with other schedules/ annexures on GeM portal.
- c) All the bidding schedules/ annexures which shall be identified as mandatory by HUDCO have to be duly filled in compulsorily. The Proposal will be rejected if all the mandatory bidding schedules are not filled up and signed by the authorized representative of the bidder. Bidders shall provide clarifications, if required, for proper evaluation of bids.
- d) Proposals are to be submitted online on GeM Portal on or before prescribed last date and time (As per GeM Portal).
- e) The Solar Power Developer/sellers/agency shall follow the link for reading the training module for GeM participation as follows:

S.no.	Module	Link for Training Module
1	Introduction to Seller/ Solar Plant Developer Functionality	https://assets--bg.gem.gov.in/resources/upload/shared_doc/training content/Introduction-Seller-Functionality-v1-1652261184.pdf
2	Seller/ Service Provider Registration Using PAN	Using PAN https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Seller-Registration-Using-PAN-v1-1652261232.pdf Using Aadhaar https://assetsbg.gem.gov.in/resources/upload/shared_doc/training content/Seller-Registration-Using-Adhaar-v1-1652261280.pdf
3	Profile Updation (Seller/Solar Plant Developer)	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Seller-Profile-Updation-Approved-07th-Feb-2022-1657021156.pdf
4	Secondary User Creation	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Secondary-User-Creation-Seller-v2-1652261408.pdf
5	Overview of Dashboard – Seller/Solar Plant Developer	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Seller-Dashboard-v2-1652261449.pdf
6	Vendor Assessment	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Vendor-Assessment-Approved-16th-Feb-2022-1657021088.pdf
7	Bid Participation Services	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Bid-Participation-Services-v2-1652262839.pdf
8	Earnest Money Deposit (EMD) Process	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/EMD-Requirements-Seller-v1-1652262911.pdf
9	Bill of Quantities [BoQ] – Seller	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training content/Item-Wise-BOQ-seller-v2-1652262676.pdf

The bidders are required to submit scanned copies of their bids electronically on the GeM Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the GeM Portal, prepare their bids in accordance with the requirements and submitting their bids online on

the GeM Portal.

More information useful for submitting online bids on the GeM Portal may be obtained at: <https://gem.gov.in>.

- a) Assistance to bidders
- i. Any queries relating to the NIT document and the terms and conditions contained therein should be addressed to the NIT Inviting Authority for a NIT
- ii. Any queries relating to the process of online bid submission or queries relating to GeM Portal in general may be directed to the 24x7 GeM Portal Helpdesk

Toll Free Numbers (Inbound): Call 1800-419-3436/1800-102-3436 (9:00 am - 10:00 pm Mon to Sat)

Mail: helpdesk-gem@gov.in

Helpdesk Outbound No's: 0755-6627270, 0120-6921990

- b) Minimum requirements at bidder's end
Computer System having configuration with minimum Windows 7 or above, and Broadband Connectivity.
 - Microsoft Internet Explorer 7.0 or above
 - Digital Certificate(s)

It may however, be noted that invitation of bids/ offers does not in any way bind the Corporation to accept the proposal (s) from any bidder. Further, Corporation reserves the right to reject/ modify any of the bid/ offer without assigning any reasons and its decision would be final.

For any further clarification you may please contact Mr. Bishwajeet Soy, JGM(P) - 9939364185; Mrs. Garima Swami, SM(P) - 9414970732, Ms. Supriya, DM(P) – 8766872518; email ID- jro@hudco.org

Thanking You,
Yours faithfully,

Mr. Sudhir Kumar Bhatnagar
Regional Chief, Jaipur Regional Office

SECTION–III
(ANNEXURE I-XVI) – To be submitted by Bidder/Agency

COVERING LETTER

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

To
Regional Chief
HOUSING AND URBAN DEVELOPMENT CORPORATION LIMITED,
JAIPUR REGIONAL OFFICE, HUDCO
HUDCO BHAWAN, VIDYUT MARG, JYOTI NAGAR JAIPUR-302005
Tel No:- 0141-2740863

Sub: Selection of Solar Plant Developers for Design, Manufacture, Testing, Supply, Installation, commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional Office

Sir,

We, the undersigned, hereby submit our Proposal for Design, Manufacture, Testing, Supply, Installation, Commissioning of 15kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional Office

The Proposal contains the following documents:

- EMD-copy of receipt of payment
- Technical requirements
- Financial Proposal

We have gone through the NIT documents and understood the terms and conditions. We understand that you are not bound to accept the proposal you receive.

Yours sincerely,

(Signature)
Name of Authorized Signatory
Designation
Office Seal

Encl: As above.

DETAILS OF THE BIDDER

[On the Letter Head of the Solar Plant Developer/ Agency/ Firm]

1.	Name of the Bidder	
	Address of the Registered office.	
	Phone No.:	
	E-mail address:	
	Mobile No. :	
	Website, if any :	
	Details of Local/ Branch Office in Rajasthan	
2.	Contact Person Details:	
	Person 1 (Authorized Signatory)	
	Name:	
	Mobile No.	
	Email:	
	Person 2 (Authorized Signatory)	
	Name:	
	Mobile No.	
	Email:	
3.	Year of Incorporation	(Enclose Incorporation Certificate)
4.	Type of the organization (Whether sole proprietorship, Partnership, Private Ltd. or Co-operative body etc.)	
5.	No. of years of experience in the relevant field (Minimum experience required is 07 years as on date in relevant field)	
6.	Audited Balance Sheet of Last 3 Financial Years (If the audited Financial Statements for the financial year 2025-26 are not available, the Agency/ Firm may submit for the financial year 2022-23, 2023-24& 2024-25.)	(copy to be attached)
6.	Permanent Account Number in the name of firm/applicant	(Proof to be attached).
7.	GST Registration No.	(Proof to be attached).
8.	Copy of Registration with Jaipur Discom	(Proof to be attached).

SIGNATURE OF AUTHORIZED SIGNATORY

Annexure- III

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

**List of similar nature projects executed during last 07 years along with copy of work orders
from the last date of the preceding month of floating of NIT
(i.e 31.03.2026)**

S. No.	Name of Work/ Project with address	Short description of Scope of Work	Name and address of Owner/ Client	Cost/ Value of Work/ Project	Date of Award of work/ Project	Date of Completion of Work/ Project
Projects having Value not less than the amount equal to 40% of the estimated cost.						
Projects having Value not less than the amount equal to 60% of the estimated cost.						
Projects having Value not less than the amount equal to 80% of the estimated cost.						

Notes:

- 1) The works/ project mentioned shall be supported with
 - a) Work Orders/ agreements
 - AND
 - b) Completion Certificates/ proof of completion.
- 2) The work order/agreement should clearly mention **scope of work** of the project. The applicant can also submit other document/letter indicating **scope of work** of the project submitted.

Average Annual Turnover and Financial Statement

Format for Financial Details of the Firm

The information regarding the Turnover from Design, Manufacture, Testing, Supply, Installation & Commissioning of Grid Connected Roof Top Mounted Solar Power Plant in last three financial years should be provided in the format as below:

S. No	Financial Years	Turnover from projects involving - Design, Manufacture, Testing, Supply, Installation & Commissioning of Grid Connected Roof Top Mounted Solar Power Plant (in INR)
1.	2023-2024	
2.	2024-2025	
3.	2025-2026	
	Average Annual Turnover	

Audited Balance Sheet(s) for the last three financial years are attached.

Certificate from the Statutory Auditor/ Chartered Accountant

This is to certify that [name of company] [registered address] has the turnover shown in **as above** against the respective years.

Name of the Authorized Signatory
 Designation Name of Agency/ Firm
 Signature of Authorized Signatory
 Seal of Audit firm

Note:

1. In case the Agency/Firm does not have a statutory auditor, it may provide the certificate from its Chartered Accountant.
2. **If the audited Financial Statements for the year 2025-26 are not available, the Agency/ Firm may submit for the year 2022-23 to 2024-25.**
3. UDIN shall be mentioned in all certificates to be certified by the Chartered Accountant

Declaration that the bidder has not been Blacklisted/debarred by Govt./ any organization etc

[On the Letter Head of the Solar Plant Developer/ Agency/ Firm]

To,
Regional Chief
HOUSING AND URBAN DEVELOPMENT CORPORATION LIMITED,
JAIPUR REGIONAL OFFICE, HUDCO
HUDCO BHAWAN, VIDYUT MARG, JYOTI NAGAR JAIPUR-302005
Tel No:- 0141-2740863

Subject: Self Declaration of not been blacklisted/ debarred in response to the NIT for Design, Manufacture, Testing, Supply, Installation, Commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional office

Dear Sir,

We confirm that our Firm/ Company is not blacklisted/debarred, in any manner whatsoever by Central/ State Govts/ UTs/ PSUs/ Banks/ Corporates, etc. in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

It is certified that our firm has no pending litigation with HUDCO.

Place:

Date:

Bidder's Company Seal:
Authorized Signatory's Signature:
Name and Designation:

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Self-Declaration cum Self-Authorization

1. I/we _____ son/daughter/wife of Shri _____, has been appointed / being a ----- (designation), undersigned as an Authorized Signatory for and on behalf of Agency/Bidder named _____ is fully competent to Sign & Seal this Authorization/Self-Authorization for Execution of all the Documents connected to the NIT/RFP/Bids/Award/Work Order/Contracts/Agreements/Declarations/Undertakings.
2. I/we have carefully read and understood all the Terms and Conditions of the Notice Inviting Tender/Request for Proposal and undertake to abide by them with full responsibility and the information/documents related to the Procurement/Assignment/Services along with the Application, are true and authentic to the best of my knowledge and belief.
3. I/We am/are well aware of the fact that furnishing of any false information/fabricated documents/concealment of any facts or documents, at any stage, would lead to rejection of my/our bid (s) along with held liable towards prosecution under the BNS / PC Act or any appropriate law.
4. I/We..... will be responsible for any breach/non-compliance/violation of any of the Rules/Guidelines settled as per the Appropriate Law simultaneously and action will also be taken along with making of compensation in any loss to HUDCO, if any.

Signature of the authorized Signatory of the

Agency/Firm.....

Full Name:.....

Place:

Seal:

Date:

Note: (The above “**Self-Declaration**” mandatorily required in case of **Proprietorship**).

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Format for Power of Attorney for Authorized Representative

Know all men by these presents, We, ...[**name of organization and address of the registered office**] do hereby constitute, nominate, appoint and authorize Mr/ Ms [name], son/ daughter/ wife of [name], and presently residing at [address], who is presently employed with/ retained by us and holding the position of [designation] as our true and lawful attorney (herein after referred to as the "Authorized Representative"), to do all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for and selection as consultant for [name of assignment], by Housing & Urban Development Corporation Ltd.(the "Client") including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/ responses to the HUDCO, representing us in all matters before the HUDCO, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the HUDCO in all matters in connection with or relating to or arising out of our Proposal for the said Project and/ or upon award thereof to us until the entering into of the Contract with HUDCO.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by ours aid Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers here by conferred shall and shall always be deemed to have been done by us.

INWITNESS WHERE OF WE, [name of the organization] THE ABOVE- NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS [date in words] DAY OF [month] [year in "yyyy" format].

For

[name and registered address of organization]

[Signature] [Name][Designation]

Witnesses:

1. [Signature, name and address of witness]
2. [Signature, name and address of witness]

Accepted
[Signature][Name][Designation][Address]

Note: (PoA or Board Resolution mandatorily required in case of **Company/LLP/Firm**).

Annexure- VIII

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Format for Bank Details for EMD Refund

The details of Bank Account in which payment is to be transferred and other details are as given below:

Bank Account Details for EMD Refund

S.No.	Name of the Bank	Details
1	Name of Bank	
2	Bank Account Number	
3	Bank Branch Name	
4	Bank Branch Address	
5	Bank Branch Telephone No.	
6	Type of Account (SBA/C/CA/Cash Credit with code)	
7	Bank Code No/ MICR Code (9-digit Code number of bank & branch)	
8	PAN No.(copy to be attached)	
10	TIN No.	
11	GST No. .(copy to be attached)	
12	IFSC Code No	

Please attach copy of Cancelled Cheque

Signature of Authorized Signatory

Name:

Seal:

Check List

Documents against Completion of Project

Name of Vendor:

Allocated Capacity: kWp

Allocation letter No.:-----Sanction letter No.: -----

Installed Capacity:-----kW

S. No.	Documents	Yes/No	Page No.
1.	Solar System Warranty Certificate for 5 years		
2.	Copy of Completion report		
3.	Copy of Solar System (Electrical side) testing report		
4.	Copy of Project Completion Report(PCR)		
5.	Solar PV module & Solar Inverter Serial No.		
6.	Solar PV module & Solar Inverter test sheet		
7.	Solar PV module & Solar Inverter warranty certificates		
8.	Solar PV plant Insurance Cover		
9.	As built drawing		
10.	Net Metering Installation report		
11.	Plant Photographs		

Signature of Authorized Signatory

Name

Seal

Date

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Project Completion Report for Grid-Connected Rooftop

Financial year:			
Sanction Letter No.:			
Proposal Title:			
Installed by agency:			
Title of the Project:		SPV Capacity (KWp):	
Category of the organization/beneficiary:		Name of the contact person:	
Address of contact person:			
State:		District/City:	
Mobile:		Email:	
Aadhaar Card Number (For Residential)		Latitude:	
		Longitude:	
DISCOM		Sanction Load	
CA No.			

Technology Description & System Design / Specification			
(Compliance to BIS/IEC Standards is mandatory)			
1.Solar PV Module:			
Power of each PV Module/Nos. (Wp)*/ Make			
Cumulative Capacity of Modules (KWp):			
Solar cell technology:		Tilt Angle of Modules:	
Module efficiency (in%):		Azimuth	
Indigenous or imported		RFID passed inside or outside:	
2.Inverters:			
Type of inverter:			
Power of each PCU/Nos. of inverters (KVA)*/Make			
Capacity/Power of PCU/inverters (KVA):		Type of Charge Controller/MPPT	
Inverter efficiency (in%)			
Grid connectivity level phase	Single Phase/ Three Phase	Grid connectivity level Voltage	220V/415V
3.MOUNTING STRUCTURES			
Type	Standards is mandatory	Surface Finish	

Material		Wind Speed Tolerance	
4.CABLES			
DC Cable Make		Size	
AC Cable Make (Inverter to ACDB)		Size	
AC Cable Make (ACDB to Electric Panel)		Size	
Conductor		Insulation/sheath	PVC/XLPE
5.JUNCTION BOX & DISTRIBUTION BOARDS			
ACDB		Nos.	
DCDB		Nos.	
6.EARTHING & LIGHTNING PROTECTION			
EQUIPMENT EARTHING			
AC(Nos.)		Earth Resistance	
DC(Nos.)		Earth Resistance	
LIGHTNINGARRESTORS(LA)			
Type			
LA(Nos.)		Earth Resistance	
7.WEATHER MONITORING			
Solar Irradiance (Pyranometer- Class IInd or better)		Temperature	Ambient & Module
Wind speed sensor			
8.FIREFIGHTINGDEVICE/SYSTEM			
9.DANGERBOARD			

Date: (Signature of Vendor)
With Stamp

Annex: Copy of System test & Earth test reports (annexed).

COMMISSIONING TEST REPORT: SOLAR PROJECT.....KW

Standards is mandatory

Inverter Testing (DC) Side: Nos. of Inverter Nos.

Inverter S.No.	Capacity	String1:Voc	String2:Voc	Remark

Inverter Testing (AC) Side – Single / Three Phase

Inverter S.No.	Capacity	R – Y/P-N	Y-B	B-R	R-N	Y-N	B-N	Remark

ACDB & Meter Panel Testing – Single / Three Phase

	R-Y/ P-N	Y-B	B-R	R-N	Y-N	B-N	Remark
ACDBI/C(V)							
ACDBO/G(V)							

Earthing Pit Details: Nos. of Earth Pit Nos.

	Earthing AC	Earthing DC	Earthing LA	Remark
Earth Test Value (Ohm)				

Date:.....

Sign.....

Site Engineer

Undertaking towards Employees Relationship

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

This is to certify that our Director or any partner of the firm is not in relation with any employee working in HUDCO and also not having any relationship within the meaning of Section 2(77) of the Companies Act, 2013 with any Directors of HUDCO.

Signature of Authorized Signatory

Name: _____

Designation: _____

Date: _____

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Undertaking related to ESG

TO WHOM SO EVER IT MAY CONCERN

1. Name of the Bidder/ Agency:

2. Address of Bidder/ Agency:

We herewith declare that-

- a) We adhere to fair labour practices, ensuring a safe working environment, fair wages, and compliance with applicable labour laws.
- b) We uphold ethical business conduct, including anti-corruption measures.
- c) We provide products that are environmentally sustainable, have consciously minimized carbon footprints in the production or sourcing process and invariably incorporate a minimum percentage of recycled materials wherever applicable.
- d) We encourage diversity and inclusion within its organization and supply chains and complies with health and safety regulations, ensuring the well-being of their employees

It is certified that the information furnished above is true and correct.

**Signature of Authorized Person/
Signatory of Bidder/Agency/ Vendor**

**Full Name & Designation of Authorized Person of Bidder/
Agency/ Vendor**

Seal of Bidder

Date:

Place:

Performa for Bid Security Declaration

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Whereas, I/We (name of Agency/Firm) have submitted bids for Solar Plant Developer (SPD) registered with Jaipur discom for Design, Manufacture, Testing, Supply, Installation & Commissioning of 15KW grid connected Roof Top Mounted Solar Power Plant on CAPEX mode at HUDCO Jaipur Regional Office. **(Name of work).**

I/we hereby submit following declaration -

- 1) If after the opening of tender, I/we withdraw or modify my/our bid during the period of validity of tender (including extended validity of tender) as specified in the tender documents,

Or

- 2) If, after the award of work, I/We fail to sign the contract within 07 days, or to submit performance guarantee before the deadline defined in the tender documents.
- 3) I/we shall be suspended for one year and shall not be eligible to bid for tenders issued by HUDCO from date of issue of suspension order.

Signature of authorized person

Name

Designation

Date

Seal

Vendor Profile Form

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Name & Legal Status of the Bidder			
Organization Registration Details (Incorporation or Commencement of Business/Other Statutory Registrations etc.)		Date of Incorporation/ Registration:	
GST Number:		PAN Number:	
Registered/Corporate office Address of Bidder			
Address & Contact Details (E-mail, Ph. Nos. etc.) of Proprietor/Directors of the Bidders		1)	
		2)	
		3)	
Jaipur Address if any & Contact Details:			
Name and Designations of the persons authorized for single point interaction with HUDCO			
Mobile Numbers of persons:		E-mail of contact persons:	
a) MSME Registration:	(Yes/No)	If Yes, Regd. No.	
		Date:	
		Category:	
		Range of Supply Services:	
b) GeM (Government e- Marketplace) Registration	(Yes/No)	If Yes, mention GeM Seller ID:	
		Date:	
		Category:	
		Range of Supply/ Services:	
		If no, then provide the date by which you will be registered on GeM portal:	Dt:
c) TReDS (Trade Receivables Discounting System) Registration:	(Yes/No)	If Yes, regd. No:	
		Date:	
		Category	
		Range of Supply/ Services:	
		If No, then provide the date by which you will be registered on TReDS portal:	Dt:
d) Whether SC/ ST/OBC Entrepreneur:	(Yes/No)	(If Yes, Please provide Supporting Documents)	
e) Whether Women Entrepreneur:	(Yes/No)	(If yes, Please provide Supporting Documents)	

Signature of the Bidder with seal

Undertaking regarding adequate resource and manpower

[On the Letter Head of the Solar Plant Developer/ Agency/ firm]

Whereas, I/We (name of Agency/Firm), the undersigned bidder have submitted bids for Solar Plant Developer (SPD) registered with Jaipur discom for Design, Manufacture, Testing, Supply, Installation & Commissioning of 15KW grid connected Roof Top Mounted Solar Power Plant on CAPEX mode at HUDCO Jaipur Regional Office. (Name of work), hereby solemnly undertake and declare as follows:

1. We possess adequate resources, including manpower, tools, tackles, and equipment, required to successfully execute the job as per the bid specifications and scope of work.
2. We have the necessary skills, expertise, and trained personnel to fully adhere to DISCOM Power Quality standards and electrical safety standards throughout the execution of the project.

We confirm that the above declarations are true and correct to the best of our knowledge and belief. We understand and agree that HUDCO reserves the right to inspect our tools, tackles, and equipment, as well as to assess the competency of our workers, at any time as proof of compliance with these parameters. Non-compliance may result in disqualification or termination of the contract.

The details of the manpower, tools, tackles, and equipment are hereby enclosed:

Signature of authorized person

Name

Designation

Date

Seal

Financial Bid (In Excel Format)
(Rates to be filled by Contractor in Percentage)

Name of Work: - Rooftop Solar Photovoltaic Power Plant

Description of Item	Estimated (Cost in Rs.) inclusive of GST	Bidder Price		
		Percentage (%) Above / Below/ At Par		Amount (Rs.)
		In figures	In words	After Adding % at Par/ Below/ Above
Complete Design, Supply, Installation, Testing, obtaining NoC from distribution company for Grid connectivity and Commissioning of grid Solar Photovoltaic Power Plant conforming to MNRE specifications as amended, consisting of Mono Crystalline silicon solar cells, net metering facility, necessary protections, earthing, mounted on GI structure of suitable strength with following components complete as required: - a) Solar Photovoltaic Module of capacity 540 Wp or above, manufactured in India, conforming to IS 14286/IEC 61730-Part-1, IS/IEC 61730-Part-2. Solar Photovoltaic Module conversion efficiency shall not be less than 20% PV modules used in solar power Plant/systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years. b) Power Conditioning Unit (PCU) of 230 Volts/415 Volts as the case may be nominal voltage, Single phase: shall work from 180 Volts to 270 Volts, Three phase: shall work from 180 volts to 270 Volts per phase, operating frequency/range 50Hz (47 to 52 Hz), efficiency- at nominal voltage and full load > 93% and for load > 25% is > 92%. No load losses should not be more than 5% and total harmonic distortion less than 3%, suitable for ambient temperature from 0 to 50-degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency. c) Data Monitoring System complete with accessories. d) Fixing of Array junction box & Main junction box with IP 65 protection and termination arrangement for incoming and outgoing cable along with glands, lugs and other accessories etc. as required. e) Lightning and surge voltage protection. f) Connections & Interconnections by supplying & fixing required size XLPE insulated copper conductor 1.1 KV grade armored power and control cable between solar modules, main power cable to grid supply CPU unit along with supplying & fixing of necessary channel/conduit lugs and other accessories etc. as required.	15kW X Rs.54280/-			
Total Amount (inclusive of GST)				

Notes:

- i) *The bidder has to quote rates on percentage basis (at par/below/above). (Rates shall be inclusive of GST)*
- ii) *The bids will be accepted from bidders who have valid GST number.*
- iii) *The Price quoted for for Design, Manufacture, Testing, Supply, Installation & Commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional office shall be inclusive of GST and all other taxes (as applicable). No additional transportation/ freight charges shall be payable over and above the amount quoted. Further, the cost of co-ordination/ facilities extended to the bidder shall be deemed to be included in quoted amount of bidder and nothing extra shall be payable.*
- iv) *All out of pocket expenses, traveling, boarding and lodging expenses for the entire life of the contract should be a part of the financial bid submitted by the Bidder to HUDCO. No extra costs on account of any items or services or by way of any out-of-pocket expenses, including travel, boarding and lodging etc. will be payable by the HUDCO. The Bidder cannot take the plea of omitting any charges or costs and later lodge a claim on HUDCO for the same.*
- v) *The discovered project cost shall be inclusive of all duties and taxes, insurance etc. The project cost quoted by the firm shall be complete in all respect and no price variation / adjustment shall be payable by HUDCO.*
- vi) *The Project discovered shall remain firm and fixed and shall be binding on the Successful Bidder till completion of allocated capacity irrespective of his incurred actual cost of execution. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.*

Date:

Authorised Signatory (s)

SECTION-IV

Technical Specifications

The projects under this tender shall be commissioned as per the technical specifications given below.

DEFINITION – SPV project

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables, Junction boxes, Distribution boxes and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power Plant including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

Solar PV system shall consist of following equipment's /components.

- i. Solar PV modules consisting of required number of Mono Crystalline PV cells.
- ii. Grid interactive Power Conditioning Unit with Remote Monitoring System
- iii. Mounting structures
- iv. Junction Boxes.
- v. Earthing and lightening protections.
- vi. IR/UV protected PVC Cables, pipes and accessories

1. SOLAR PHOTO VOLTAIC MODULES:

1.1 The PV modules used should be made in India.

1.2 The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part 1 - requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.

- a) For the PV modules to be used in a highly corrosive atmosphere throughout their life time, they must qualify to IEC61701.
- b) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar Mono crystalline modules of minimum 540Wp and above wattage. Module capacity less than minimum 540 watts shall not be accepted. The PV Module efficiency should be minimum 20%.
- c) Protective devices against surges at the PV module shall be provided. Low voltage drops by pass diodes shall be provided.
- d) PV modules must be tested and approved by one of the IEC authorized test Centers.
- e) The module frame shall be made of corrosion resistant materials, preferably having anodized Aluminum.
- f) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. HUDCO shall allow only minor changes at the time of execution.
- g) Other general requirement for the PV modules and sub systems shall be the Following:
 - I. The rated output power of any supplied module shall have tolerance within $\pm 3\%$.
 - II. The peak-power point voltage and the peak-power point current of any supplied Module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
 - III. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.
 - IV. I-V curves at STC should be provided by bidder.
- 1.3 Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each module. This should be inside the laminate only.
 - a) Name of the manufacturer of the PV module
 - b) Name of the manufacturer of Solar Cells.
 - c) Month & year of the manufacture (separate for solar cells and modules)
 - d) Country of origin (separately for solar cells and module)
 - e) I-V curve for the module Wattage, I_m , V_m and FF for the module
 - f) Unique Serial No and Model No of the module

- g) Date and year of obtaining IEC PV module qualification certificate.
- h) Name of the test lab issuing IEC certificate.
- i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

1.4 Warranties:

a) **Material Warranty:**

- i. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for as mentioned in clause 25 "warranty & Guarantee system"
- ii. Defects and/or failures due to manufacturing
- iii. Defects and/or failures due to quality of materials
- iv. Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option

b) **Performance Warranty:**

The predicted electrical degradation of power generated not exceeding 10% at the end of 10 years and 20% at the end of 25 years.

2. ARRAY STRUCTURE

- a) Hot dip galvanized MS mounting structures should be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum insolation. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.
- b) The Mounting structure shall be so designed to withstand the speed for the wind 150 kmper hour/as per IS 875. It may be ensured that the design has been certified by a chartered Engineer/Structural engineer. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed.
- c) 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.
- d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminum structures also can be used which can withstand the wind speed of respective wind zone. Protection towards rusting need to be provided either by coating or anodization.
- e) The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.
- f) Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.
- g) The total load of the structure (when installed with PV) on the terrace should be less than 60kg/m² and the minimum clearance of the structure from the roof level should be 1000 mm.
- h) Provision for safe and secure access to rooftop shall be in the scope of vendor, if required.

3. JUNCTION BOXES (JBs)

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminum /cast aluminum alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single/double compression cable glands. Provision of earthings. It should be placed at 5 feet height or above for ease of accessibility.
- c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs)/ SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- d) Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.
- e) All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

4. DC DISTRIBUTION BOARD:

- a) DC Distribution panel to receive the DC output from the array field.
- b) DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. The

bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

- c) DCDB not required, if PCU/inverter having in built DC fuses and SPD protection.

5. AC DISTRIBUTION PANEL BOARD:

- a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I,II and III/ IS 60947 part I,II and III.
- c) The changeover switches, cabling work should be under taken by the bidder as part of the project.
- d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air-insulated, cubical type suitable for operation on three phase/single phase, 415 or 230 volts, 50Hz.
- e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 per cent humidity and dusty weather.
- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP 65 or better.
- g) Should conform to Indian Electricity Act and rules (till last amendment).
- h) All the 415V AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions.

Variation in supply voltage	+/-10%
Variation in supply frequency	+/-5Hz

6. PCU / ARRAY SIZE RATIO:

- a) The combined watt age of all inverters should not be less than rated capacity of power plant under STC.
- b) Maximum power point tracker shall be integrated in the PCU/ inverter to maximize energy drawn from the array.

7. PCU / INVERTER:

As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. 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 (PCU)". In addition, the PCU house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter should also be DG set interactive, If necessary. Inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:

Switching devices	IGBT/MOSFET
Control	Microprocessor / DSP
Nominal AC output voltage and Frequency	230V/415V as the case may be
Voltage Range	Single Phase shall be from 180 Volts to 270 Volts; Three Phase shall work from 180 Volts to 270 Volts per phase
Operating frequency/range	50Hz (47 to 52 Hz)
Grid Frequency Synchronization range	+/-5Hz
Ambient temperature considered	0°C to 50°C
Humidity	95% non-condensing
Protection of Enclosure	IP-54(Minimum) for indoor. IP-65(Minimum) for outdoor.
Grid Frequency Tolerance range	+/-5Hz
Grid Voltage tolerance	-20% and +15%
No-load losses	Less than 1% of rated power
Inverter efficiency (minimum)	>97% (in case of 10 kW or above) > 90% (in case of less than 10 kW)
THD	<3%
Power Factor	>0.9

- a) Single Phase/ Three phase PCU/ inverter shall be used with each power plant system as per existing power supply of the building.
- b) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- c) The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power,

inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.

- d) Built-in meter and data logger to monitor plant performance through external computer shall be provided.
- e) Anti-islanding (Protection against Islanding of grid): The PCU shall have anti islanding protection in conformity to IEEE1547 / UL1741 / IEC62116 or equivalent BIS standard.
- f) Successful Bidders shall be responsible for galvanic isolation of solar roof top power plant with electrical grid or LT panel.
- g) In PCU/Inverter, there shall be a direct current isolation provided at the output by means of a suitable isolating transformer. If Isolation Transformer is not incorporated with PCU/Inverter, there shall be a separate Isolation Transformer of suitable rating provided at the output side of PCU/PCU units for capacity more than 100kW.
- h) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
- i) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC61683 / IS61683 and IEC 60068-2 (1,2,14,30) / Equivalent BIS Std.
- j) The MPPT units environmental testing should qualify IEC 60068-2(1,2,14,30) / Equivalent BIS std. The junction boxes / enclosures should be IP 65(for outdoor)/ IP 54(indoor) and as per IEC 529 specifications.
- k) The PCU/ inverters should be tested from the MNRE approved test centers/ NABL/ BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

8. INTEGRATION OF PV POWER WITH GRID:

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

9. DATA ACQUISITION SYSTEM/PLANT MONITORING:

- i. Data Acquisition System shall be provided for each of the solar PV plant.
- ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iii. The system should have feature of open API for inbuilt or external data loggers is mandatory for all Plant.
- iv. Solar Irradiance: An integrating Pyranometer/ Solar Cell based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Read out integrated with data logging system.
- v. Temperature: Temperature probes for recording the solar panel temperature and/or ambient temperature to be provided complete with read outs integrated with the data logging system.
- vi. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
 - a. AC Voltage.
 - b. AC Output current.
 - c. Output Power
 - d. Power factor.
 - e. DC Input Voltage.
 - f. DC Input Current.
 - g. Time Active.
 - h. Time disabled.
 - i. Time Idle
 - j. Power produced
- vii. Protective function limits (Viz-AC Over voltage, AC Under voltage, over frequency, under frequency ground fault, PV starting voltage, PV stopping voltage.
- viii. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.

- ix. PV array energy production: Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. Energy meter along with CT/PT should be of 0.5 accuracy class.
- x. Computerized DC String /Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/ array combiner box or separately.
- xi. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
- xii. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
- xiii. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- xiv. All instantaneous data shall be shown on the computer screen.
- xv. Software shall be provided for USB download and analysis of DC and AC parametric data for Individual plant.
- xvi. Provision for instantaneous Internet monitoring and download of historical data shall be also incorporated.
- xvii. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data and the data of the solar radiation and temperature monitoring system.
- xviii. Ambient/Solar PV module back surface temperature shall be also monitored on continuous basis.
- xvii Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
- xviii Remote Monitoring and data acquisition through Remote Monitoring System software with latest software/hardware configuration and service connectivity for online/ real time data monitoring/control complete to be supplied and operation and maintenance /control to be ensured by the bidder.

10. POWER CONSUMPTION:

Regarding the generated power consumption, priority need to give for internal consumption first and thereafter any excess power can be exported to grid. Finalization of tariff is not under the purview of HUDCO or EEREM center. Decisions of appropriate authority like DISCOM, state regulator may be followed.

11. PROTECTIONS: The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

11.1 LIGHTNING PROTECTION

The SPV power Plant shall be provided with lightning & overvoltage 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. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per NFC 17-102:2011 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable and separate earthing such that induced transients find an alternate route to earth.

Conventional copper Lightning Arrester can be provided for LA for Plant below 10kW. For plant above 10 kW, it should be of Early Streamer Emission (ESE) type.

11.2 SURGE PROTECTION

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

11.3 EARTHING PROTECTION

- 11.3.1 The PV module structure components shall be electrically interconnected and shall be grounded.
- 11.3.2 Earthing shall be done in accordance with IS 3043-1986, provided that earthing Conductors shall have a minimum size of 6.0 mm² copper, 10 mm² Aluminum or 70 mm² hot dip galvanized steel. Unprotected aluminum or copper-clad aluminum conductors shall not be used for final underground connections to earth electrodes.
- 11.3.3 A minimum of two separate dedicated and interconnected earth electrodes must be used for the earthing of the solar PV system support structure with a total Earth resistance not exceeding 5 Ohm.
- 11.3.4 The earth electrodes shall have a precast concrete enclosure with a removable lid for inspection and maintenance. The entire earthing system shall comprise non-corrosive components.
- 11.3.5 In case LA earthing conductors made up of dip galvanized steel, the conductor should have GI

- Strip Insulator.
- 11.3.6 Total Nos. of Earth pits for Solar PV plant:
- 11.3.6.1 For Solar PV plant upto 50KW:03 Nos. Earthpits: AC-01, DC-01LA-01
- 11.3.6.2 For Solar PV plant above 50 KW: 05 Nos. Earth Pits: AC-02, DC-02, LA-01 (double run of earthing conductors for AC& DC)

12. GRID ISLANDING:

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

13. CABLES

Cables of appropriate size to be used in the system shall have the following characteristics:

- i. Shall meet IEC60227/ IS694, IEC60502 / IS1554 standards.
- ii. Temp. Range:-10oC to+ 80oC
- iii. Voltage rating 660/1000V
- iv. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- v. Flexible
- vi. Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%).
- vii. For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi- stranded flexible copper cables shall be used; Multi-core cables shall not be used.
- viii. Multi Strand, annealed high conductivity Cable (As per MNRE Guideline issued) conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying.
- ix. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in color.
- x. The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
- xi. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers
- xii. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50cm; the minimum DC cable size shall be 4.0mm² copper; the minimum AC cable size shall be 4.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phasewires. 4 Core Aluminum/ Copper cables of required size can be used from ACDB to LT panel only.
- xiii. Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified. In addition, cable drum no./Batch no. to be embossed/ printed at every one meter.
- xiv. Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in color.
- xv. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper(Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
- xvi. The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant shall be provided by the bidder. Any change in cabling sizes if desired by the bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation.
- xvii. Multi Strand, annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS

Standards as specified below: BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100V, UV resistant for outdoor installation IS/IEC69947.

xviii. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

xix. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.

14. CONNECTIVITY:

The maximum capacity/Supply Code of the State and amended from time to time. Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting voltage
1 KW to 10 KW	220 V – Single phase/ 415 V – Three phase (as per existing phase of the Power Supply).
10 kW and upto 100 kW	415V–three phase

- Utilities may have voltage levels other than above, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.
- Evacuation of Solar power to LT/HT panel of Consumer at Ground floor level or as per requirement of DISCOM.

15. TOOLS & TACKLES AND SPARES:

- After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the bidder for maintenance purpose during defect liability period of 5 years.
- A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc along with spare set of PV modules be indicated, which shall be supplied along with the equipment. A minimum set of spares shall be maintained in the plant itself for the entire period of Defect Liability Period which upon its use shall be replenished.

16. DANGER BOARDS AND SIGNAGES:

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery-cum-control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with HUDCO.

17. FIRE EXTINGUISHERS:

The firefighting system for the proposed power plant for fire protection shall be consisting of:

- Portable fire extinguishers for fire caused by electrical short circuits.
- Sand buckets.

18. DRAWINGS & MANUALS:

- Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment.
- Approved ISI and reputed makes for equipment be used.
- For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to HUDCO before progressing with the installation work.

19. PLANNING AND DESIGNING:

- The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labor. The bidder should submit the array layout drawings along with Shadow Analysis Report to HUDCO for approval.
- HUDCO reserves the right to modify the land scaping design, Layout and specification of sub- systems and components at any stage as per local site conditions/requirements.

- c) The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submits three sets and soft copy of final drawing for formal approval to proceed with construction work.

20. DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT:

The Solar Plant Developer shall furnish the following drawings Award/Intent and obtain approval:

- General arrangement and dimensioned layout.
- Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- Structural drawing along with foundation details for the structure.
- Itemized bill of material for complete SV plant covering all the components and associated accessories.
- Layout of solar Power Array.
- Shadow analysis of the roof.

21. SAFETY MEASURES:

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

22. DISPLAY BOARD:

The bidder has to display a board at the project site mentioning the following:

- Plant Name, Capacity, Location, Date of commissioning, estimated Power generation.
- The size and type of board and display shall be approved by Engineer-in-charge before site inspection.

All the IEC standards to be mandatorily adhered as specified in this NIT.

23. Technical Specification

All components of the ground mounted Solar PV plant shall be in accordance with technical specifications given in relevant IS/ IEC/BIS Standards. The design and commissioning also shall be as per latest IS/ IEC/ BIS standards. The following are some of the technical measures required to ensure quality of the major components used in grid connected solar power Projects.

24. Minimum assured items/ services and technical specifications

The Following are the standard items and their specifications and make of Grid Connected Solar Power Plant, the Solar Plant Developer (SPD) must comply these standards, while supplying and erection of the grid connected solar power plant.

S.N	Items/Service Name	Specification	Make
1.	PV Module	Mono Crystalline technology SPV module (540Wp and above). The PV modules used in this project are with IEC 61215 and IEC 61730 test certified by one of the IEC authorized test centres	Reputed make as per latest Approved List of Models & Manufacturers (ALMM) of MNRE as per table below.
2.	Grid Tied Inverter	- As per BIS/IS Standard and should be tested from the MNRE approved test centres / NABL/ BIS/ IEC - IGBT/MOSFET Based Microprocessor- controlled inverters. - The selected Inverter shall be with a Max. Efficiency :98.6%.	BIS/IS Standard as per table below.
3.	Module Mounting Structure	- HDG Min 120 Micron, SS fasteners - Bolts, nuts, fasteners used in the MMS shall be minimum SS 304.	

		- The minimum clearance of the lowest part of the module/module structure and the terrace shall not be less than 1000mm . - RCC foundation shall be minimum M20 Grade - Must withstand the wind load of 150 Km/hour or as per IS 875 - Certified chartered engineer's/Structural engineer's certificates are required.	Reputed make and standards as per table below.
4.	DC Cable	1x 4/6sq.mm, XLPO Solar cable	Reputed make and standards as per table below.
5.	AC Cable	Copper/Al Armoured XLPE	Reputed make and standards as per table below.
6.	Distribution Boards & Junction Boxes (AC&DC)	GRP/FRP/Powder Coated Aluminium /cast Aluminium alloy with SPD/MCCB, IP65 & IP67	Reputed make and standards as per table below.
7.	Earthing Kit	As per IS standards	Reputed make and standards as per table below.
8.	Lightening Arrestor	Plant below 10kW- conventional copper lighting arrester. Plant above 10 kW- early steamer Emission (ESE) type.	Reputed make and standards as per table below.
9.	Other Balance of System(BOS) such as Danger boards, Signages, Fire extinguishers, Drawings and manuals etc.	As required	Reputed make and standards as per table below.
10.	Monitoring System	3G/4G/5GGPRS Enabled Able to track and monitor- PV Side: PV Voltage, PV Current, PV Power, Daily PV Generation, total Generation etc. Inverter side: Inverter Voltage, Current, Frequency, Mains Voltage, Current, Frequency, Daily & Total load energy consumption(kWh), Daily & Total energy import energy from Grid(kWh), Daily & Total energy export energy from Grid(kWh), Active Faults etc.	Reputed make and standards as per table below.
11.	Installation & Commissioning	As per Standards with Safety Guidelines	As per Standards
S. No.	Items/Service Name	Specification	Make
1.	PV Module	Mono Crystalline technology SPV module (540Wp and above). The PV modules used in this project are with IEC 61215 and IEC 61730 test certified by one of the IEC authorized test centres	Reputed make as per latest Approved List of Models & Manufacturers (ALMM) of MNRE as per table below.
2.	Grid Tied Inverter	- As per BIS/IS Standard and should be tested from the MNRE approved test centers/ NABL/ BIS/ IEC - IGBT/MOSFET Based Microprocessor- controlled inverters. - The selected Inverter shall be with a Max. Efficiency :98.6%.	BIS/IS Standard as per table below.
3.	Module Mounting Structure	HDG Min 120 Micron, SS fasteners	

		• Bolts, nuts, fasteners used in the MMS shall be minimum SS 304. • The minimum clearance of the lowest part of the module/module structure and the terrace shall not be less than 1000mm . • RCC foundation shall be minimum M20 Grade • Must withstand the wind load of 150 Km/hour or as per IS 875 • Certified chartered engineer's/Structural engineer's certificates are required.	Reputed make and standards as per table below.
4.	DC Cable	1x 4/6sq.mm, XLPO Solar cable	Reputed make and standards as per table below.
5.	AC Cable	Copper/Al Armoured XLPE	Reputed make and standards as per table below.
6.	Distribution Boards& Junction Boxes (AC&DC)	GRP/FRP/Powder Coated Aluminium /cast Aluminium alloy with SPD/MCCB, IP65 & IP67	Reputed make and standards as per table below.
7.	Earthing Kit	As per IS standards	Reputed make and standards as per table below.
8.	Lightening Arrestor	Plant below 10kW- conventional copper lighting arrester. Plant above 10 kW- early steamer Emission (ESE) type.	Reputed make and standards as per table below.
10.	Other Balance of System(BOS) such as Danger boards, Signages, Fire extinguishers, Drawings and manuals etc.	As required	Reputed make and standards as per table below.
10.	Monitoring System	3G/4G/5GGPRS Enabled Able to track and monitor- PV Side: PV Voltage, PV Current, PV Power, Daily PV Generation, total Generation etc. Inverter side: Inverter Voltage, Current, Frequency, Mains Voltage, Current, Frequency, Daily & Total load energy consumption(kWh), Daily & Total energy import energy from Grid(kWh), Daily & Total energy export energy from Grid(kWh), Active Faults etc.	Reputed make and standards as per table below.
11.	Installation & Commissioning	As per Standards with Safety Guidelines	As per Standards

25. Technical Standards of the Components

The Solar Plant Developer (SPD) must comply with these standards, while supplying and erection of the grid connected RTS system. The Solar Plant Developer (SPD) shall submit the test reports and warranty cards in line with following standards. In case Any components do not comply and meet the following standards then HUDCO shall ask to replace/ return the components within 7 days from reporting the incident.

Solar PV Module/Panel Technical Standards to be followed	
IEC 61215 and IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photo voltaic (PV) Modules
IEC 61701:2011	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853-1:2011 / IS 16170-1:2014	Photovoltaic(PV) module performance testing and energy rating :- Irradiance and temperature performance measurements, and power Rating.
IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH3) Corrosion Testing (as per the site condition like dairies, toilets etc.)
IEC 61730-1,2	Photovoltaic(PV) Module Safety Qualification – Part1: Requirements for Construction, Part 2: Requirements for Testing
IEC 62804	Photovoltaic(PV) modules–Test method for detection of potential Induced degradation. IEC62804-1: Part1: Crystalline Silicon
Solar PV Inverters	
IEC 62109 or IS: 16221	Safety of power converters for use in photovoltaic power systems – Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems Part 2: Particular requirements for inverters. Safety compliance (Protection degree IP65 or better for outdoor mounting, IP54 or better for indoor mounting)
IS/IEC 61683 latest (as applicable)	Photovoltaic Systems–Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90 -100% Loading Conditions)
IEC60068-2 / IEC62093 (as applicable)	Environmental Testing of PV System – Power Conditioners and Inverters
IEC 62116:2014/ IS16169	Utility-interconnected photo voltaic inverters-Test procedure of is landing prevention measures
Fuses	
IS/IEC60947 (Part 1,2 & 3), EN50521	General safety requirements for connectors, switches, and circuit breakers (AC/DC): 1. Low-voltage Switch gear and Control-gear, Part 1: General rules 2. Low-Voltage Switch gear and Control-gear, Part 2: Circuit Breakers 3. Low-voltage switch gear and Control-gear, Part 3: Switches, disconnectors switch-disconnectors, and fuse-combination units 4. EN 50521: Connectors for photovoltaic system-Safety requirements and tests
IEC 60269-6:2010	Low-voltage fuses - Part 6: Supplementary requirements for fuse- links for the protection of solar photovoltaic energy systems

Solar PV Mounting Structure	
IS2062/IS4759/AA6063T6	Material for the structure mounting
IS822	Welding Joints of the structure
IS6911	SS304 or 8.8 grade
Surge Arrestors	
BFC 17-102:2011/ NFC 102:2011/ IEC 62305 IEC 63227	Lightning Protection Standard For SPD
IEC 60364-5-53/ IS 15086- 5 (SPD) IEC 61643-31	Electrical installations of buildings- Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems – Requirements and test methods
Cables	
IEC 60227/IS 694, IEC 60502 / IS1554 (Part 1&2) /IEC69947 (as applicable)	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BSEN50618	Electric cables for photo voltaic systems (BT(DE/NOT) 258), mainly for DC Cables
Earthing/Lightning	
IEC 62561/IEC 60634	IEC62561-1: Lightning protection system components (LPSC) Part 1: Requirements for connection components IEC 62561-2:Lightning

Series (Chemical earthing) (as applicable)	protection system components (LPSC) – Part 2: Requirements for conductors and earth electrodes IEC62561-7: Lightning protection system components (LPSC) - Part7:Requirements for earthing enhancing compounds
IS3043	Code of Practice for Earthing
Junction Boxes	
IEC 60529	Junction boxes and solar panel terminal boxes shall be of the thermo-plastic type with IP65 or better protection for outdoor use, and IP 54 or better protection for indoor use

26. Warranty and Guarantee of the system components

The Solar Plant Developer (SPD) shall ensure to supply the components those have minimum warranty as mentioned in the below table. The documents related to guarantee and warranty shall be submitted to HUDCO within 15 days from date of supply of the system.

Sl No:	Component name	Warranty*	Estimated serviceable life*	Remarks
1	Comprehensive system integrator warranty	5years	-	Defect liability period of 5-years
2	*Solar PV Module	25years	25 years	05 Years Guarantee and Rest 20- year performance warranty which covers manufacturing defects, Micro cracks, under performance of PV modules.
3	Inverter	Minimum 5years	10 years	Warranty may vary as per manufacturers between 5-10 years.
4	BOS items	As per manufacturer	As per manufacturer	As per manufacturer (Junction boxes, Cables, lightning arresters, Earthing items, and other accessories)

*** PV modules used in solar power Plant are always warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.**

Approved Makes:-

S. no	Name of material	Approved make
1	Solar photovoltaic module (SPV)	TATA/ADANI/ Luminous Power Technologies/ Waaree
2	Module Mounting Structure	TATA/JNDAL/RINL/SAIL
3	Power Conditioning Unit (PCU)	TATA/Legrand/ Schneider/ Siemens/ ABB/Luminous Power Technologies
4	Inverter	TATA/ADANI/ Luminous Power Technologies/ Exide
5	Earthing Kit (Chemical)	Legrand / Schneider / Siemens / ABB / L&T
6	Array Junction Box /Main junction Box	Legrand/ Schneider/ Siemens/ ABB/TATA/Luminous Power Technologies
7	AC Distribution Box	Legrand/ Schneider/ Siemens/ ABB/Tata/ Luminous Power Technologies/
8	DC Distribution Box	Legrand/ Schneider/ Siemens/ ABB/Luminous Power Technologies/
9	Lightning Arrestor (Vertical Air Terminal)	Legrand / Schneider / Siemens / ABB / L&T
10	LUGS/THIMBLES	Legrand / Schneider / Siemens / ABB / L&T
11	HT/LT Cables	Finolex / Polycab / Havells
12	43/53 Grade Ordinary Portland Cement	ACC, Ultratech, Ambuja

ARTICLES OF AGREEMENT

(The successful applicant to whom the contract would be awarded has to enter in to an Agreement in this format in a stamp paper of appropriate value)

THE AGREEMENT executed BETWEEN HUDCO AND THE AGENCY/ FIRM for Design, Manufacture, Testing, Supply, Installation & commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional Office

This Agreement is executed on this day of.....Two thousand Twenty-Six BETWEEN HUDCO, a company constituted under the Companies Act 1956 and existing under Companies Act 2013 and having its Corporate/ Head Office at HUDCO Bhawan, Core-7A, India Habitat Centre, Lodhi Road, New Delhi – 110003 and (hereinafter referred to as the "HUDCO Ltd." which expression shall include its successors and assigns) of the ONE PART.

AND

M/s -----Company registered under the Indian Companies Act 1956 or 2013/ a Partnership firm registered under the Indian Partnership Act 1932 / Proprietorship Firm under its appropriate Law having its registered office at -----

(herein after referred to as the " Agency/Firm " which expression shall include its partners present and in future, their respective heirs, legal representatives, administrators, successors and permitted assigns as the case may be) of the other part.

WHEREAS

HUDCO intends to Design, Manufacture, Testing, Supply, Installation & commissioning of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at **HUDCO Jaipur Regional Office**

- I. Details of which are more fully mentioned in the schedule –I hereunder written (hereinafter referred to as the "Said Project")
- II. HUDCO is desirous of engaging an Agency/ Firm for the said Project and invited offers for this purpose. The Agency/ Firm has responded by submitting its proposal **dated.....**
- III. Based on the representations of the Agency/ Firm made in its said Proposal, HUDCO has decided to engage the Agency/Firm for Design, Manufacture, Testing, Supply, Installation & commissioning of 15kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO Jaipur Regional Office. for the said Project on the terms and conditions contained in the HUDCO's NIT **No HUDCO/JRO/2026 dated 19.05.2026** which have been accepted by the Agency/Firm with absolute consensus.
- IV. HUDCO and the Agency/Firm have agreed to set out in writing the terms and conditions in respect of his engagement for the said Project.

NOW THEREFORE, in consideration of the foregoing and the mutual covenants and promises contained herein and other good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the Parties intending to be bound legally, agree as follows:-

ARTICLE 1**SCOPE OF THE WORK**

The scope of work of Solar Plant Developer includes the following:

- i) The Scope of work for the bidder include feasibility of installation in identified buildings, obtaining No Objection Certificate (NOC) from Distribution Company (DISCOM) for grid connectivity, complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected roof top solar PV project.
- ii) Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the grid connected rooftop Solar PV Project as per the technical specification.
- iii) Successful bidders are requested to visit the respective sites and check the feasibility of space including installation capacity in consultation with respective site in- charge.
- iv) Safety: The bidder shall provide suitable lifeline arrangement on the roof, to enable safety of workers while working at height during erection and O&M period. The workers working at site should have undergone proper training for safe working at height, should have been trained to use safety PPEs including Safety belts with double hooking system. The bidder shall follow the safety rules as per instruction of EIC. All safety PPEs like safety shoes, helmet, belt, lifeline, fall

arrester etc. are to be provided by the bidder within the quoted price.

- v) All statutory approvals/ registration with Jaipur Discom for installation of 15 kW Grid Connected Roof Top Mounted Solar Power Plant on CAPEX Mode at HUDCO – Jaipur Regional Office.

The Solar Plant Developer (SPD) agrees to perform the services as part of the scope of this engagement including but not limited to as mentioned in NIT. HUDCO reserves its right to change the scope of the services considering the size and variety of the requirements and the changing business & security conditions /environment with mutual consent.

ARTICLE- 2

PAYMENT AND OTHERS TERMS:

Payments to the Contractor shall be made against Running Account (RA) bills (40% of quoted cost on receipt of goods, 80% (less already paid) on erection of plant, 90% (less already paid) on testing of plant and 100% (less already paid) on handing over the plant to HUDCO based on the actual quantities of work executed at site. Each RA bill shall be accompanied by measurement sheets jointly recorded and certified by the Engineer-in-Charge, relevant site progress photographs (where applicable), copy of goods bill and all necessary test reports and quality control documentation etc. The RA bills shall be subject to verification and approval by HUDCO or its authorized representative. Payments shall be released after adjustment of all applicable statutory deductions, including but not limited to TDS, GST, and any other recoveries as stipulated under the terms of the contract.

- No escalation is applicable. The Rates will be remained firm till completion and handing over of solar work.

ARTICLE-3

TIMELINES FOR THE PROJECT-

The time duration for completion of the work shall be three (03) months from the Letter of Award (LOA)/ Work Order.

ARTICLE-4

PENALTIES FOR DELAY

If the agency/ supplier fails to Design, Manufacture, Testing, Supply, Installation & commissioning or fails to perform the services within the time frame(s) incorporated in the contract, the HUDCO shall, without prejudice to other rights and remedies available to the HUDCO under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods, installation, commissioning and/ or services until actual delivery or performance subject to a maximum of 5% of the contract price.

ARTICLE-5

TERMS & TERMINATION OF AGREEMENT:

This agreement shall commence from the date of its execution and shall remain valid till the completion of the work unless it is terminated as per the provisions of these presents.

HUDCO shall be within its right at its sole discretion to terminate this agreement without giving any notice in the event of:

- i. Closure of the business by the Agency/ Firm, any winding up proceedings are commenced/ initiated against the Company or if in the case of a partnership firm, if the firm is dissolved or in the event of death or resignation of one or more partners or reorganization of the firm.
AND/ OR
- ii. In case there is any change in the constitution of the company / firm of the Agency/ Firm for any reason whatsoever.
AND/ OR
- iii. The Agency/ firm fails to perform its duties and obligations under this agreement to the satisfaction of HUDCO. Save as stated above, HUDCO shall be with in its right to terminate this agreement by giving 30 days' notice in writing and without assigning any reasons to the Agency/Firm.
- iv. The Agency/Firm shall not terminate this agreement unless there is failure on the part of HUDCO to make payment of any undisputed payment to the Agency /Firm after serving a notice of 90 days to HUDCO.

ARTICLE-6

DEFECT LIABILITY

The bidder is liable for all damages (execution-related or natural disasters) and must rectify them at their own cost. Any damage done by the bidder to any existing work during execution of the work shall be made good by him at his own cost.

Defect liability period: 5 years from issuance of completion certificate. All rectification work shall be completed within 15 days of receiving written notice from HUDCO.

ARTICLE 7

CONFIDENTIALITY

The Agency agrees and acknowledges that during the course of execution of the project for Design, Manufacture, Testing, Supply, Installation & commissioning of solar project, it may gain access to HUDCO's confidential and proprietary information. The Agency shall maintain strict confidentiality of all such information, including but not limited to technical, financial, operational, customer-related data, project layouts, designs, or any other materials—whether written, oral, electronic, or visual—shared or accessed during the project. The Agency shall use such information solely for fulfilling its obligations under this Agreement and shall not disclose it to any third party without HUDCO's prior written consent. The Agency shall also ensure that its employees, subcontractors, or agents involved in the project are bound by the same confidentiality obligations. Confidential Information shall not include information that is publicly available, lawfully known to the Agency before disclosure, or disclosed with HUDCO's prior permission. These confidentiality obligations shall survive the termination or completion of this Agreement.

ARTICLE 8

COPYRIGHTS AND OWNERSHIP RIGHTS

HUDCO shall retain full rights of ownership over all drawings, designs, specifications, presentations, and any literary or pictorial works related to this project. All such materials shall be considered the intellectual property of HUDCO and may be used by HUDCO in its other projects, without restriction.

ARTICLE 9

GENERAL LEGAL CLAUSES

1. Arbitration Clause

If any dispute, difference or disagreement shall at any time arise between the successful Agency/Bidder and HUDCO (herein and below referred as 'Parties') as to the interpretation of this Contract/Agreement or concerning anything herein contained or arising out of this Contract/Agreement or as to the rights, liabilities and duties of the said parties hereunder, or as to the execution of the said Project, except in respect of the matters for which it is provided herein that the decision of HUDCO shall be final and binding as successful Agency/Bidder. In case the dispute / disagreement continues, the matter shall be referred to the Arbitration as per the Provisions of *Arbitration and Conciliation Act 1996 and Amendments thereto* (hereinafter referred as 'said Act'). The Arbitrator(s) shall be appointed by both the parties as per said Act who shall be based in Delhi/Jaipur. The final decision of the Arbitrator(s) shall be binding upon both the Parties. The work under the contract shall, however, have to continue during the Arbitration proceedings or otherwise. No payment due or payable to the successful Agency/Bidder shall be withheld on account of such proceedings except the disputed payment of fees on account of other provisions in this Agreement.

The Arbitrator(s) shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of the first hearing. The Arbitrator(s) may from time to time, with the consent of the parties, extend the time for making and publishing the Award and the place of Arbitration shall be at such place as per Provisions of the said Act. The fees of the Arbitrator shall be arranged/paid in terms of the said Act and also the language of the arbitration proceedings and that of all documents and communications between the parties shall be in terms of said Act preferably in English.

2. Compliance Clause

The successful Agency/Bidder shall be responsible for any breach or non-compliance of the Contract/Agreement executed between HUDCO and the successful Agency/Bidder and will also compensate HUDCO accordingly, if any. Further, HUDCO shall have the absolute right/authority to terminate the entire Contract/Agreement on the event of above mentioned reasons, and the decision of HUDCO shall be final in this regard. The successful Agency/Bidder shall also be responsible for ensuring all the compliances related to the applicable Rules & Regulations of CVC/MoF/GFR/DoE etc.

3. Transfer of Interests Clause

The successful Agency/Bidder shall not assign or transfer its duties and obligations under this agreement without the prior written consent of HUDCO.

4. No Agency Clause

The successful Agency/Bidder shall perform its obligations under this Contract/Agreement as an independent contractor. Neither this Contract/Agreement nor the successful Agency/Bidder's performance of obligations under this Contract/Agreement thereunder shall create an association, partnership, joint venture, or relationship of principal and agent, master and servant, or employer and employee, between HUDCO and the Agency/Bidder or its employees and neither Party shall have the right, power or authority (whether expressed or implied) to enter into or assume any duty or obligation on

behalf of the other party.

5. Amendments Clause

No change or modification of the Contract/Agreement shall be valid unless the same shall be mutually agreed, in writing and signed and Stamped by both the Parties.

6. Counterparts Clause

This Contract/Agreement shall be signed and stamped in two counterparts, each of which shall be treated as original, and both of which, taken together, constitutes one and the same instrument/document.

7. Severability Clause

If any of the provisions of this Contract/Agreement may be construed in more than one way, the interpretation that would render the provision legal or otherwise enforceable, shall be accepted.

8. Expenses & Stamp Duty Clause

All the expenses, including Stamp Duty, statutory taxes, levies, and other monies payable in connection with the execution of this Contract/Agreement with HUDCO shall be borne by the successful Agency/Bidder.

9. Force Majeure Clause

Should either party be prevented from performing any of its responsibilities (as mentioned in the Contract/Agreement) by reasons caused by an act of God or any cause beyond its reasonable control, the time for performance shall be extended until the operation or such cause has ceased. If a Force Majeure situation arises, the Bidder/Consultant shall promptly notify/communicate immediately to HUDCO in writing of such situation and the cause thereof within 03 calendar days. Unless otherwise directed by HUDCO in writing, the successful Agency/Bidder shall continue to perform its obligations under the Contract/Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

10. Fraud and Prohibited Practices Clause

The successful Agency/Bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics & integrity during the Selection Process. Notwithstanding anything contained in this proposal, HUDCO shall reject the proposal without being liable in any manner whatsoever to the successful Agency/Bidder, if it determines that the successful Agency/Bidder has, directly or indirectly or through an agent, is engaged/indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices"), HUDCO shall without prejudice forfeit the EMD and the Security Deposit, as the case may be or take appropriate action as per applicable laws.

11. Foreclosure of Contract/Agreement by HUDCO

If at any time after commencement of assignments/services, for any reason what-so-ever, HUDCO is required to foreclose the assignments/services or is not required the whole work done as specified in NIT/RFP to be carried out, the assignment In-charge shall give a Notice in writing (For 07 days/---) to this effect to the Agency/Bidder, who shall have no claim for any compensation what-so-ever on account of any profit or loss which he might have derived from the work in full, but which he couldn't as a consequence of the foreclosure of the whole or part of work as aforesaid.

12. Penalty Clause:

In case a successful Bidder/Agency/Firms does not acknowledge the work order/contract, HUDCO reserves the right to cancel/revoke the work order/contract and impose suitable penalty in proportion to the damages as per applicable laws/EMD deposited by bidder may be forfeited.

NOT WITHSTANDING ANYTHING CONTAINED IN THE CONTRACT/AGREEMENT, HUDCO shall have the absolute right to reject the aforesaid Proposal/Assignment at any time while serving a 7-day's Notice period in this regard.

ARTICLE 10

STANDARDS

All standards to be followed will adhere to Bureau of Indian Standards (BIS) specifications or other acceptable standards.

ARTICLE 11

GOVERNING DOCUMENTS AND TERMS

All other terms and conditions governing this Agreement shall be in accordance with the provisions set forth in the tender documents issued by HUDCO for the project, including all annexures, schedules, clarifications, and any amendments or corrigendum issued thereto, which shall form an integral part of this Agreement.

ARTICLE 12

SINGLE POINT OF CONTACT & DIRECT SUPPORT of the Agency/ Bidder

Name	
Designation	
Address	
E-mail address	
Telephone/mobile No.	

Escalation matrix for support should also be provided with full details.

Name	
Designation	
Address	
E-mail address	
Telephone/mobile No.	

Name	
Designation	
Address	
E-mail address	
Telephone/mobile No.	

ARTICLE 13

SET-OFF

Without prejudice to other rights and remedies available to HUDCO, HUDCO shall be entitled to set-off or adjust any amounts due to HUDCO under this clause from the Solar Plant Developer against payments due and payable by HUDCO to the Solar Plant Developer for the services rendered.

The provisions of this Clause shall survive the termination of this Agreement.

ARTICLE 14

COVENANTS OF THE SOLAR PLANT DEVELOPER

The Solar Plant Developer shall deploy and engage suitably experienced and competent personnel as may reasonably be required for the performance of the services. During the currency of this Agreement, the Solar Plant Developer shall not substitute the key staff identified for the services mentioned in this Agreement.

The Solar Plant Developer shall forthwith withdraw or bar any of its employee/s from the provision of the services if, in the opinion of HUDCO:

- (i) The quality of services rendered by the said employee is not in accordance with the quality specifications stipulated by HUDCO; or
- (ii) The engagement or provision of the services by any particular employee is prejudicial to the interests of HUDCO.

All employees engaged by the Solar Plant Developer shall be in sole employment of the Solar Plant Developer and the Solar Plant Developer shall be solely responsible for their salaries, wages, statutory payments etc. That under no circumstances shall HUDCO be liable for any payment or claim or compensation (including but not limited to compensation on account of injury/death/termination) of any nature to the employees and personnel of the Solar Plant Developer.

The Solar Plant Developer:

- i. shall be responsible for all negotiations with personnel relating to salaries and benefits, and shall be responsible for assessments and monitoring of performance and for all disciplinary matters.
- ii. shall not knowingly engage any person with a criminal record/conviction and shall bar any such person from participating directly or indirectly in the provision of services under this Agreement.

- iii. shall at all times use all reasonable efforts to maintain discipline and good order amongst its personnel.
- iv. shall not exercise any lien on any of the assets, documents, instruments or material belonging to HUDCO and in the custody of the Solar Plant Developer for any amount due or claimed to be due by the Solar Plant Developer from HUDCO.
- v. shall regularly provide updates to HUDCO with respect to the provision of the services and shall meet with the personnel designated by HUDCO to discuss and review its performance at such intervals as may be agreed between the Parties.
- vi. shall be responsible for compliance of all laws, rules, regulations and ordinances applicable in respect of its employees, sub-contractors and agents (including but not limited to code of Wages Act, Provident Fund laws, Workmen's Compensation Act) and shall establish and maintain all proper records including, but not limited to, accounting records required by any law, code, practice or corporate policy applicable to it from time to time, including records and returns as applicable under labour legislations.
- vii. shall not violate any proprietary and intellectual property rights of HUDCO or any third party, including without limitation, confidential relationships, patent, trade secrets, copyright and any other proprietary rights in course of providing services hereunder.
- viii. shall ensure that the quality and standards of materials and services to be delivered or rendered hereunder, will be of the kind, quality and timeliness as designated by the HUDCO and communicated to the Solar Plant Developer from time to time.
- ix. shall not work in a manner which, in the reasonable opinion of HUDCO, may be detrimental to the interests of HUDCO and which may adversely affect the role, duties, functions and obligations of the Solar Plant Developer as contemplated by this Agreement.
- x. shall be liable to HUDCO for any and all losses of any nature whatsoever arisen directly or indirectly by negligence, dishonest, criminal or fraudulent act of any of the representatives and employees of the Solar Plant Developer while providing the services to the HUDCO.
- xi. shall itself perform the obligations under this Agreement and shall not assign, transfer or sub-contract any of its rights and obligations under this Agreement except with prior written permission of HUDCO.
- xii. Solar Plant Developer shall comply with the HUDCO's Code of Ethics, available on the HUDCO's website>Shareholder's Corner> Policies/Codes> Our Code of Ethics, during the validity period of this agreement/contract.

ARTICLE 15

INDEMNITY

The Solar Plant Developer shall indemnify HUDCO, and shall always keep indemnified and hold the HUDCO, its employees, personnel, officers, directors, (hereinafter collectively referred to as "Personnel") harmless from and against any and all losses, liabilities, claims, actions, costs and expenses (including attorneys' fees) relating to, resulting directly or indirectly from or in any way arising out of any claim, suit or proceeding brought against HUDCO as a result of:

- HUDCO's authorized / bona fide use of the Deliverables and /or the Services provided by Solar Plant Developer under this Agreement; and/or
- an act or omission of the Solar Plant Developer and/or its employees, agents, sub- contractors in performance of the obligations under this Agreement; and/or
- claims made by employees or subcontractors or subcontractors' employees, who are deployed by the Solar Plant Developer, against the HUDCO; and/or
- claims arising out of employment, non-payment of remuneration and non-provision of statutory benefits by the Solar Plant Developer to its employees, its agents, contractors and sub-contractors
- breach of any of the term of this Agreement or breach of any representation or false representation or inaccurate statement or assurance or covenant or warranty of the Solar Plant Developer under this Agreement; and/or
- any or all Deliverables or Services infringing any patent, trademarks, copyrights or such other Intellectual Property Rights; and/or breach of confidentiality obligations of the Solar Plant Developer contained in this Agreement; and/or
- Negligence or gross misconduct attributable to the Solar Plant Developer or its employees or sub-contractors.

The Solar Plant Developer shall at its own cost and expenses defend or settle at all point of time any claim against HUDCO that the Deliverables and Services delivered or provided under this Agreement infringe a patent, utility model, industrial

design, copyright, trade secret, mask work or trade mark in the country where the Deliverables and Services are used, sold or received, HUDCO:

- notifies the Solar Plant Developer in writing as soon as practicable when the HUDCO becomes aware of the claim; and
- cooperates with the Solar Plant Developer in the defence and settlement of the claims.

However, (i) the Solar Plant Developer has sole control of the defence and all related settlement negotiations (ii) HUDCO provides the Solar Plant Developer with the assistance, information and authority reasonably necessary to perform the above and (iii) HUDCO does not make any statements or comments or representations about the claim without the prior written consent of the Solar Plant Developer, except where HUDCO is required by any authority/regulator to make a comment/statement/representation.

If use of deliverables is prevented by injunction or court order because of any such claim or deliverables is likely to become subject of any such claim then the Solar Plant Developer, after due inspection and testing and at no additional cost to HUDCO, shall forthwith either 1) replace or modify the software / equipment with software / equipment which is functionally equivalent and without affecting the functionality in any manner so as to avoid the infringement; or 2) obtain a license for HUDCO to continue the use of the software / equipment, as required by HUDCO as per the terms and conditions of this Agreement and to meet the service levels; or

3) refund to HUDCO the amount paid for the infringing software / equipment and bear the incremental costs of procuring a functionally equivalent software / equipment from a third party, provided the option under the sub clause (3) shall be exercised by HUDCO in the event of the failure of the Solar Plant Developer to provide effective remedy under options (1) to (2) within a reasonable period which would not affect the normal functioning of HUDCO.

The Solar Plant Developer shall not be liable for defects or non-conformance resulting from:

- Software, hardware, interfacing, or supplies for the solution not approved by Solar Plant Developer; or
- any change, not made by or on behalf of the Solar Plant Developer, to some or all of the deliverables supplied by the Solar Plant Developer or modification thereof, provided the infringement is solely on account of that change;

Indemnity shall exclude indirect, consequential and incidental damages. However, indemnity would cover damages, loss or liabilities suffered by HUDCO arising out of claims made by customer and / or regulatory authorities for reasons attributable to breach of obligations under this agreement by the Solar Plant Developer.

In the event of Solar Plant Developer not fulfilling its obligations under this clause within the period specified in the notice issued by HUDCO, HUDCO has the right to recover the amounts due to it under this provision from any amount payable to the Solar Plant Developer under this project

The indemnities under this clause are in addition to and without prejudice to the indemnities given elsewhere in this Agreement.

ARTICLE 16

PROPERTY RIGHTS

Each Party owns and retains all rights, title and interests in and to its respective Pre-Existing Intellectual Property and Independent Intellectual Property. Independent Intellectual Property means any Intellectual Property developed by a Party independently of the applicable statement of work. "Pre-Existing Intellectual Property" means any Intellectual Property owned by a Party, or licensed to such Party (other than by the other Party), as at the commencement date of the applicable statement of work.

Whereas title to all inventions and discoveries made jointly by the parties resulting from the Work performed as per this agreement shall reside jointly between the parties. Both the parties shall mutually decide the future course of action to protect/ commercial use of such joint IPR. The Intellectual Property Rights shall be determined in accordance with Indian Laws.

Without prejudice to above paras all the interim/ final deliverables shall be property of HUDCO. Subject to requisite payments the Solar Plant Developer deemed to grant exclusive, perpetual rights to use of the deliverables in favour of HUDCO.

ARTICLE 17

PERFORMANCE GUARANTEE

5% of the awarded Contract Value shall be submitted as a Performance Bank Guarantee (PBG) (As issued by any Scheduled Bank within 14-28 days from the Letter of Award. The PBG shall remain valid up to the completion period (including any extended period, if permitted), with an additional grace period of 02 months. No extra charge shall be payable by HUDCO for any extension of the Bank Guarantee.

Upon completion of the work and issuance of the Final Completion Certificate (Taking Over Certificate with a list of Defects), the Performance Bank Guarantee shall, with the consent of HUDCO, be deemed to be converted into or treated as a Security Deposit, and shall continue to remain with HUDCO until the expiry of the Defect Liability Period as defined in the contract. This retained Security Deposit shall serve as security against any defects or obligations arising during the DLP and shall be refunded within 60 days of satisfactory completion of the DLP and rectification of all listed defects, in accordance with the terms and conditions of the tender.

ARTICLE 18

TERMINATION

In following events HUDCO shall terminate this assignment or cancel any particular order if Solar Plant Developer:

- Breaches any of its obligations set forth in this agreement and such breach is not cured within 15 Working Days after HUDCO gives written notice; or
- Failure by Solar Plant Developer to provide HUDCO, within fifteen (15) Working days, with a reasonable plan to cure such breach, which is acceptable to the HUDCO. Or
- The progress regarding execution of the contract/ services rendered by the Solar Plant Developer is not as per the prescribed time line, and found to be unsatisfactory. Like:
 - Supply of substandard materials/ services
 - Delay in delivery / installation / commissioning of services.
 - Discrepancy in the quality of service / security expected during the implementation, rollout and subsequent maintenance process.
 - If deductions of penalty exceed more than 10% of the total contract price.

Effect of termination

If HUDCO terminates or cancels the assignment on the default mentioned in the termination clause, in such case HUDCO reserves the right to get the balance contract executed by another party of its choice. In this event, the Solar Plant Developer shall be bound to make good the additional expenditure, which the HUDCO may have to incur to carry out bidding process for the selection of a new Solar Plant Developer and for execution of the balance of the contract

Immediately upon the date of expiration or termination of the Agreement, HUDCO shall have no further obligation to pay any fees for any periods commencing on or after such date.

Without prejudice to the rights of the Parties, upon termination or expiry of this Agreement, HUDCO shall pay to Solar Plant Developer, within thirty (30) days of such termination or expiry, All the undisputed amount outstanding till the date of termination;

Upon the termination or expiry of this Agreement:

- The rights granted to Solar Plant Developer shall immediately terminate.
- The Solar Plant Developer shall not be relieved of its obligations under the reverse transition mechanism notwithstanding the termination of the assignment.
- Upon HUDCO's request, with respect to (i) any agreements for maintenance, disaster recovery services or other third-party services, and any Deliverables not owned by the Solar Plant Developer , being used by Solar Plant Developer to provide the Services and (ii) the assignable agreements, Solar Plant Developer shall, use its reasonable commercial endeavours to transfer or assign such agreements and Solar Plant Developer Equipment to HUDCO and its designee(s) on commercially reasonable terms mutually acceptable to both Parties.
- Upon HUDCO's request in writing, Solar Plant Developer shall be under an obligation to transfer to HUDCO or its designee(s) the Deliverables being used by Solar Plant Developer to perform the Services free and clear of all liens, security interests, or other encumbrances at a value calculated as stated.
- In the event that this Agreement is terminated for any reasons, either Party shall forthwith hand over to the other the possession of all documents, material and any other property belonging to the other that may be in the possession of the Party or any of its employees, agents or individuals.

ARTICLE 19

AUDIT

All Solar Plant Developer records with respect to any matters covered by this Agreement shall be made available to auditors and or inspecting officials of HUDCO, at any time during normal business hours, as often as HUDCO deems necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Said records are subject to examination. HUDCO's auditors would execute confidentiality agreement with the Solar Plant Developer provided that the auditors would be permitted to submit their findings to HUDCO, which would be used by HUDCO. The cost of the audit will be borne by HUDCO. The scope of such audit would be limited to Service Levels being covered under the contract, and financial information would be excluded from such inspection, which will be subject to the requirements of statutory and regulatory authorities.

HUDCO and its authorized representatives or any other regulator shall have the right to visit any of the Solar Plant Developer 's premises without prior notice to ensure that data provided by HUDCO is not misused. The Solar Plant Developer shall cooperate with the authorized representative/s of the HUDCO and shall provide all information/ documents required by HUDCO.

ARTICLE 20

LIMITATION OF LIABILITY

Except the grounds mentioned under the para two of this clause, Solar Plant Developer's aggregate liability in connection with obligations undertaken as a part of the Agreement regardless of the form or nature of the action giving rise to such liability (whether in contract, tort or otherwise), shall be at actual and limited to the Total Contract Value.

However, Solar Plant Developer's liability in case of claims against HUDCO resulting from Wilful Misconduct or Gross Negligence of Solar Plant Developer, its employees and Subcontractors or from infringement of patents, trademarks, copyrights or such other Intellectual Property Rights or breach of confidentiality obligations shall be unlimited.

HUDCO shall not be held liable for and is absolved of any responsibility or claim / litigation arising out of the use of any third-party software or modules supplied by Solar Plant Developer as part of procurement under the Agreement.

Under no circumstances HUDCO shall be liable to the Solar Plant Developer for direct, indirect, incidental, consequential, special or exemplary damages arising from termination of this Agreement, even if HUDCO has been advised of the possibility of such damages, such as, but not limited to, loss of revenue or anticipated profits or lost business.

Subject to any law to the contrary, and to the maximum extent permitted by law neither parties shall be liable to other for any consequential/ incidental, or indirect damages arising out of this agreement.

All employees engaged by the party shall be in sole employment of the party and the respective parties shall be solely responsible for their salaries, wages, statutory payments etc. That under no circumstances shall other party be liable for any payment or claim or compensation (including but not limited to compensation on account of injury/death/termination) of any nature to the employees and personnel of the other party.

ARTICLE 21

SUB-CONTRACTING

The Solar Plant Developer shall not sub-contract or permit anyone other than its personnel to perform any of the work, service or other performance required by it under the contract without the prior written consent of HUDCO.

ARTICLE 22

ASSIGNMENT

The Solar Plant Developer agrees that the Solar Plant Developer shall not be entitled to assign any or all of its rights and or obligations under this Agreement to any entity including Solar Plant Developer's affiliate without the prior written consent of the HUDCO.

If the HUDCO undergoes a merger, amalgamation, takeover, consolidation, reconstruction, change of ownership, etc., this Agreement along with the subsequent Addendums published shall be considered to be assigned to the new entity and such an act shall not affect the obligations of the Solar Plant Developer under this Agreement.

ARTICLE 23

NON – SOLICITATION

The Solar Plant Developer, during the term of the contract shall not without the express written consent of HUDCO, directly or indirectly: a) recruit, hire, appoint or engage or attempt to recruit, hire, appoint or engage or discuss employment with or otherwise utilize the services of any person who has been an employee or associate or engaged in any capacity, by HUDCO in rendering services in relation to the contract; or b) induce any person who shall have been an employee or associate of HUDCO at any time to terminate his/ her relationship with HUDCO.

The above restriction would not apply to either party for hiring such key personnel who (i) initiate discussions regarding such employment without any direct or indirect solicitation by the other party (ii) respond to any public advertisement placed by either party or its affiliates in a publication of general circulation or (iii) has been terminated by a party prior to the commencement of employment discussions with the other party.

ARTICLE 24

VICARIOUS LIABILITY

The Solar Plant Developer shall be the principal employer of the employees, agents, contractors, subcontractors, etc., if any, engaged by the Solar Plant Developer and shall be vicariously liable for all the acts, deeds, matters or things, whether the same is within the scope of power or outside the scope of power, vested under the contract. No right of any employment in HUDCO shall accrue or arise, by virtue of engagement of employees, agents, contractors, subcontractors etc., by the

Solar Plant Developer for any assignment under the contract. All remuneration, claims, wages dues etc., of such employees, agents, contractors, subcontractors etc., of the Solar Plant Developer shall be paid by the Solar Plant Developer alone and HUDCO shall not have any direct or indirect liability or obligation, to pay any charges, claims or wages of any of the Solar Plant Developer 's employees, agents, contractors, subcontractors etc. The Solar Plant Developer shall agree to hold HUDCO, its successors, assigns and administrators fully indemnified, and harmless against loss or liability, claims, actions or proceedings, if any, whatsoever nature that may arise or caused to HUDCO through the action of Solar Plant Developer 's employees, agents, contractors, subcontractors, etc.

ARTICLE 25

MISCELLANEOUS

Any provision of this Agreement may be amended or waived if, and only if such amendment or waiver is in writing and signed, in the case of an amendment by each Party, or in the case of a waiver, by the Party against whom the waiver is to be effective.

No failure or delay by any Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

Unless otherwise provided herein, all notices or other communications under or in connection with this Agreement shall be given in writing and may be sent by personal delivery or post or courier or facsimile to the person at the address given below. Any such notice or other communication will be deemed to be effective if sent by personal delivery, when delivered, if sent by post, two days after being deposited in the post and if sent by courier, one day after being deposited with the courier, and if sent by facsimile, when sent (on receipt of a confirmation to the correct facsimile number).

The addresses referred to hereinabove are:

If to the HUDCO:

If to the

Address ATTN:

IN WITNESS HERE OF THE PARTIES HAVE SET THEIR RESPECTIVE HANDS ON THE DATE ABOVE MENTIONED.

By	For and on behalf of	By	For and on behalf of Housing and Urban Development Corporation Limited
Name		Name	
Title		Title	
Signature with seal		Signature with seal	
Date:		Date:	
Place:		Place:	

In presence of witnesses

1. Name Address Signature

Bank Guarantee (Earnest Money)

This deed of Guarantee made this day of 2026 by **(Name of the Bank)** having one of its branch at acting through its Manager (hereinafter called the “Bank”) which expression shall wherever the context so requires includes its successors and permitted assigns in favour of Housing and Urban Development Corporation Ltd. (HUDCO) (A Govt. of India Enterprise) registered under the Companies Act, 1956, and validly existing under the Companies Act, 2013 having its office at (hereinafter called “HUDCO”) which expression shall include its successors and assigns.

WHEREAS HUDCO has invited tender vide their Tender Notice No.....Dated.....to be opened on AND WHERE AS M/s(Name of Tenderer) having its office at(hereinafter called the “Tenderer”), has/ have in response to aforesaid tender notice offered to supply/ do the job as contained in the tender.

AND WHEREAS the Tenderer is required to furnish to HUDCO a Bank Guarantee for a sum of Rs.40700/- (Rupees Forty Thousand Seven Hundred Only) as Earnest Money for participation in the Tender aforesaid.

AND WHEREAS, we (Name of the Bank) have at the request of the tenderer agree to give HUDCO this as hereinafter contained.

NOW, THEREFORE, in consideration of the promises we, the undersigned, hereby covenant that, the aforesaid tender shall remain open for acceptance by HUDCO during the period of validity as mentioned in the Tender or any extension thereof as HUDCO and the Tenderer may subsequently agree and if the Tenderer for any reason back out, whether expressly or impliedly, from his said Tender during the period of its validity or any extension thereof as aforesaid or fail to furnish Bank Guarantee for performance as per terms of the aforesaid Tender, we hereby undertake to pay HUDCO, on demand without demur to the extent of Rs.....(Rupees.....Only). We further agree as follows:-

That HUDCO may without affecting this guarantee extend the period of validity of the said Tenderer grant other indulgence to or negotiate further with the Tenderer in regard to the conditions contained in the said tenderer thereby modify these conditions or add there to any further conditions as may be mutually agreed to in between HUDCO and the Tenderer AND the said Bank shall not be released from its liability under these presents by an exercise by HUDCO of its liberty with reference to the matters aforesaid or by reason of time being given to the Tenderer or any other forbearance, act or omission on the part of the HUDCO or any indulgence by HUDCO to the said Tenderer or any other matter or thing whatsoever.

The Bank hereby waive all rights at any time in consistent with the terms of this Guarantee and the obligations of the Bank in terms thereof shall not be otherwise affected or suspended by reason of any dispute or dispute having been raised by the Tenderer (whether or not pending before any arbitrator, tribunal or court) or any denial of liability by the Tenderer stopping or preventing or purporting to stop or prevent any payment by the Bank to HUDCO in terms thereof.

We the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of HUDCO in writing and agree that any change in the constitution, winding up, dissolution or insolvency of the Tenderer, the said Bank shall not be discharged from their liability.

NOT WITHSTANDING anything contained above, the liability of the Bank in respect of this Guarantee is restricted to the said sum of Rs.(Rupees.....Only) and this Guarantee shall remain in force till unless acclain under this guarantee is filed with the bank within 60 (Sixty) days from this date or the extended date, as the case may be i.e., up to all rights under this Guarantee shall lapse and the Bank be discharged from all liabilities hereunder.

In witness whereof the Bank has subscribed and set its name and seal here under.

Authorized Signatory

Format of Performance Bank Guarantee (to be submitted by successful bidder)**SUCCESSFUL BIDDER SHALL PROVIDE PERFORMANCE BANK GUARANTEE TO HUDCO WITHIN 14-28 DAYS FROM THE DATE OF WORK ORDER**

OUR LETTER OF GUARANTEE No.

Date: _____

Amount: 5% of Contract awarded Value (Rs. _____)

Valid Date: _____

M/s HUDCO Limited

.....

(With due stamp duty if applicable) OUR LETTER OF GUARANTEE No.:

In consideration of Housing and Urban Development Corporation Limited, having its office at REGIONAL OFFICE HUDCO, HUDCO BHAWAN, VIDYUT MARG, JYOTI NAGAR, JAIPUR-302005 (hereinafter referred to as "HUDCO" which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators, and executors) and having entered into an agreement dated _____/issued Purchase Order No. _____ dated _____ with/on M/s _____ (hereinafter referred to as "The Supplier" which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Supplier having unequivocally accepted to supply the materials as per terms and conditions given in the Agreement dated _____/Purchase Order No. _____ dated _____ and HUDCO having agreed that the Supplier shall furnish to HUDCO a Performance Guarantee for the faithful performance of the entire contract, to the extent of -----% (percent of the value of the Purchase Order i.e. for _____).

We, ("The Bank") which shall include OUR successors, administrators, and executors herewith establish an irrevocable Letter of Guarantee No. _____ in your favour for account of (The Supplier/Bidder) in cover of performance guarantee in accordance with the terms and conditions of the Agreement/Purchase Order.

Hereby, we undertake to pay up to _____ but not exceeding _____ (say _____ only) upon receipt by us of your first written demand accompanied by your declaration stating that the amount claimed is due by reason of the Supplier having failed to perform the Agreement and despite any contestation on the part of above named supplier.

This Letter of Guarantee will expire on _____ plus 60 (Sixty) days of claim period and any claims made hereunder must be received by us on or before expiry date/claim period after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

Authorized Signature Name of the bank official

Designation of the bank official

Seal