Government of Rajasthan
RAJASTHAN AGRICULTURAL COMPETITIVENESS PROJECT
II FLOOR, ACADEMIC BLOCK, SIAM CAMPUS, DURGAPURA, JAIPUR-302017
Tel.No.0141-2554215, 2554218; Fax: 0141-2554214; E-mail: pd@racpmis.com

NATIONAL COMPETITIVE BIDDING FOR
SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF DISTRIBUTED GRID
CONNECTED SOLAR PV SYSTEM

<table>
<thead>
<tr>
<th>BID REFERENCE</th>
<th>IFB No.: IN-PMU-RACP-153471-GO-RFB</th>
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<tbody>
<tr>
<td>DATE AND TIME OF PRE-BID MEETING</td>
<td>07.02.2020 AT 11.00 AM</td>
</tr>
<tr>
<td>PERIOD OF SALE OF BIDDING DOCUMENT</td>
<td>24.01.2020 to 24.02.2020</td>
</tr>
<tr>
<td>LAST DATE AND TIME FOR RECEIPT OF BIDS</td>
<td>25.02.2020 up to 2.00 PM</td>
</tr>
<tr>
<td>TIME AND DATE OF OPENING OF BIDS</td>
<td>25.02.2020 at 2.30 PM</td>
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<tr>
<td>PLACE OF OPENING OF BIDS</td>
<td>RAJASTHAN AGRICULTURAL COMPETITIVENESS PROJECT, II FLOOR, ACADEMIC BLOCK, SIAM CAMPUS, DURGAPURA, JAIPUR-302018</td>
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<tr>
<td>OFFICER INVITING BIDS</td>
<td>PROJECT DIRECTOR, RAJASTHAN AGRICULTURAL COMPETITIVENESS PROJECT, II FLOOR, ACADEMIC BLOCK, SIAM CAMPUS, DURGAPURA, JAIPUR-302018</td>
</tr>
</tbody>
</table>
SECTION I: INVITATION FOR BIDS (IFB)
NATIONAL COMPETITIVE BIDDING FOR
SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF DISTRIBUTED
GRID CONNECTED SOLAR PV SYSTEM
INVITATION FOR BIDS (IFB)

IFB No.: IN-PMU-RACP-153471-GO-RFB-2019-20/10823 Date: 23.01.2020

1. The Government of India [GOI] has received a credit [Credit No. 5085IN] from the World Bank toward the cost of Rajasthan Agricultural Competitiveness Project and it is intended that part of the proceeds will be applied to eligible payments under the contracts for which this Invitation for Bids is issued.

2. The Project Director, Rajasthan Agricultural Competitiveness Project Management and Implementation Society (RACPMIS) (Purchaser) invites sealed bids from eligible bidders for Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimated Quantity in Nos.</th>
<th>Bid Security (INR Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System</td>
<td>51</td>
<td>07.65</td>
</tr>
</tbody>
</table>

3. The total quantity of 51 nos. includes 31 Nos. under Jaijaspura Feeder of Bagru and 20 Nos. under Mohabbatpura feeder of Sanganer. The capacities of the solar PV plants shall have two SPV system unit sets of 8 kWp & 12 kWp as per details below:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of Feeder</th>
<th>Bifurcation of load in HP</th>
<th>No. of consumers</th>
<th>Type of SPV System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jaijaspura of Bagru</td>
<td>5 HP</td>
<td>6</td>
<td>8 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.5 HP</td>
<td>22</td>
<td>12 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 HP</td>
<td>3</td>
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</tr>
<tr>
<td>2</td>
<td>Mohabbatpura of Sanganer</td>
<td>5 HP</td>
<td>9</td>
<td>8 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.75 HP</td>
<td>5</td>
<td>8 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.5 HP</td>
<td>6</td>
<td>12 kWp</td>
</tr>
</tbody>
</table>

4. Bidder will quote the rates for all the items mentioned in the price schedule. If any of the items in the price schedule is left without quoting the rate, then the bid would be considered as non-responsive.

5. Bidding will be conducted through the National Competitive Bidding (NCB) procedures agreed with World Bank. The bidding is open to all eligible bidders as defined in the Bank’s
Procurement Guidelines. In addition, please refer to paragraphs 1.6 and 1.7 of the Guidelines setting forth the World Bank’s policy on conflict of interest.

6. Interested eligible bidders may obtain further information from the RACP office and inspect the Bidding Documents at the address given above from 10.00AM to 5.00 PM on any working day during the period of sale of bid documents.

7. A complete set of bidding documents may be purchased from the RACP office from 24.01.2020 to 24.02.2020 upon payment of a non-refundable fee of Rs. 3,000/- (Rupees Three Thousand) in the form of Demand Draft/Banker’s Cheque payable at Jaipur in favor of Project Director, RACPMIS. Bidding documents requested by mail will be dispatched by registered/speed post on payment of an extra amount of Rs. 500/-. The Project will not be responsible for the postal delay if any, in the delivery of the documents or non-receipt of the same.

8. A pre-bid meeting will be held on 07.02.2020 at 11.00 AM in RACP office, Jaipur. The last date and time of submission of bidding documents will be 25.02.2020 up to 02:00 PM and the time and opening of the bidding documents will be on 25.02.2020 at 2.30 PM.

9. All bids must be accompanied by a bid security as specified in the bid document and must be delivered to the above Office at the date and time indicated above. The Bid Security should be valid for at least 45 days beyond the bid validity period. The bid will be valid for the period of 120 days, therefore bid security should be valid for 165 days from the date of bid submission.

10. The bid document can be seen and downloaded from the website http://www.agriculture.rajasthan.gov.in/content/agriculture/en/RACP-dep.html. The bidder will be responsible for ensuring that any addenda available on the website is also downloaded and incorporated. The downloaded bid document and addenda will be submitted along with non-refundable fee of Rs. 3,000/- (Rupees three thousand only) towards the cost of the bid document. Electronic bidding is not permitted. Late bids will be rejected.

11. Bids will be publically opened in the presence of Bidders’ designated representatives who choose to attend at the address given above on the specified date and time.

12. In the event of the date specified for bid receipt and opening being declared as a closed holiday for the purchaser’s office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.

---------sd---------
(Dr. Om Prakash)
Commissioner Agriculture &
Ex-officio Project Director
RACP
# TABLE OF CONTENTS

**PART 1 – BIDDING PROCEDURES** .................................................................6  
SECTION I - INSTRUCTIONS TO BIDDERS [ITB] ...........................................7  
SECTION II - BIDDING DATA SHEET .............................................................32  
SECTION III. EVALUATION AND QUALIFICATION CRITERIA ............................36  
SECTION IV – BIDDING FORMS ....................................................................39  
SECTION V. – ELIGIBLE COUNTRIES ............................................................52  
SECTION VI. BANK POLICY - CORRUPT AND FRAUDULENT PRACTICES ..........53  
**PART 2 - SUPPLY REQUIREMENTS** ...............................................................56  
SECTION VII – SCHEDULE OF REQUIREMENTS ...........................................57  
PROJECT SITE ALONG WITH BIFURCATION OF TYPE OF SPV SYSTEM ...........61  
**PART 3 – CONTRACT** ....................................................................................95  
SECTION VIII – GENERAL CONDITIONS OF CONTRACT ..............................96  
SECTION IX. SPECIAL CONDITIONS OF CONTRACT .....................................115  
SECTION X – CONTRACT FORMS ..................................................................122
PART 1 – BIDDING PROCEDURES
SECTION I - INSTRUCTIONS TO BIDDERS [ITB]
## Section I. Instructions to Bidders

Table of Clauses

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. GENERAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Scope of Bid ..................................................................................</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Source of Funds ............................................................................</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Corrupt &amp; Fraudulent Practices ..................................................</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Eligible Bidders ..........................................................................</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>Eligible Goods and Related Services .........................................</td>
<td>13</td>
</tr>
<tr>
<td><strong>B. CONTENTS OF BIDDING DOCUMENT</strong></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>6.</td>
<td>Sections of Bidding Documents ..................................................</td>
<td>13</td>
</tr>
<tr>
<td>7.</td>
<td>Clarification of Bidding Documents ..........................................</td>
<td>14</td>
</tr>
<tr>
<td>8.</td>
<td>Amendment of Bidding Documents ................................................</td>
<td>15</td>
</tr>
<tr>
<td><strong>C. PREPARATION OF BIDS</strong></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>9.</td>
<td>Cost of Bidding ...........................................................................</td>
<td>15</td>
</tr>
<tr>
<td>10.</td>
<td>Language of Bid ...........................................................................</td>
<td>15</td>
</tr>
<tr>
<td>11.</td>
<td>Documents Comprising the Bid ....................................................</td>
<td>15</td>
</tr>
<tr>
<td>12.</td>
<td>Letter of Bid and Price Schedules .............................................</td>
<td>16</td>
</tr>
<tr>
<td>13.</td>
<td>Alternative Bids ..........................................................................</td>
<td>16</td>
</tr>
<tr>
<td>14.</td>
<td>Bid Prices and Discounts ............................................................</td>
<td>16</td>
</tr>
<tr>
<td>15.</td>
<td>Currencies of Bid &amp; Payment ......................................................</td>
<td>18</td>
</tr>
<tr>
<td>16.</td>
<td>Documents Establishing the Eligibility and Conformity of the Goods and Related Services</td>
<td>18</td>
</tr>
<tr>
<td>17.</td>
<td>Documents Establishing the Eligibility &amp; Qualifications of the Bidder</td>
<td>19</td>
</tr>
<tr>
<td>18.</td>
<td>Period of Validity of Bids ..........................................................</td>
<td>20</td>
</tr>
<tr>
<td>20.</td>
<td>Format and Signing of Bid ................................................................</td>
<td>22</td>
</tr>
<tr>
<td><strong>D. SUBMISSION AND OPENING OF BIDS</strong></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>21.</td>
<td>Sealing and Marking of Bids ..........................................................</td>
<td>23</td>
</tr>
<tr>
<td>22.</td>
<td>Deadline for Submission of Bids ...................................................</td>
<td>23</td>
</tr>
<tr>
<td>23.</td>
<td>Late Bids .......................................................................................</td>
<td>23</td>
</tr>
<tr>
<td>24.</td>
<td>Withdrawal, Substitution, and Modification of Bids ........................</td>
<td>23</td>
</tr>
<tr>
<td>25.</td>
<td>Bid Opening .....................................................................................</td>
<td>24</td>
</tr>
<tr>
<td><strong>E. EVALUATION AND COMPARISON OF BIDS</strong></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>26.</td>
<td>Confidentiality ..............................................................................</td>
<td>25</td>
</tr>
<tr>
<td>27.</td>
<td>Clarification of Bids .....................................................................</td>
<td>26</td>
</tr>
<tr>
<td>28.</td>
<td>Deviations, Reservations, Omissions ............................................</td>
<td>26</td>
</tr>
<tr>
<td>29.</td>
<td>Determination of Responsiveness ................................................</td>
<td>26</td>
</tr>
<tr>
<td>30.</td>
<td>Nonconformities, Errors, and Omissions ........................................</td>
<td>27</td>
</tr>
<tr>
<td>31.</td>
<td>Correction of Arithmetical Errors ...............................................</td>
<td>28</td>
</tr>
<tr>
<td>32.</td>
<td>Conversion to Single Currency ....................................................</td>
<td>28</td>
</tr>
<tr>
<td>33.</td>
<td>Margin of Domestic Preference ....................................................</td>
<td>28</td>
</tr>
</tbody>
</table>
F. AWARD OF CONTRACT .........................................................................................30
38 AWARD CRITERIA .............................................................................................30
39 PURCHASER’S RIGHT TO VARY QUANTITIES AT TIME OF AWARD ..........30
40 NOTIFICATION OF AWARD ..............................................................................31
PUBLICATION OF AWARD ..................................................................................31
RECOURSE TO UNSUCCESSFUL BIDDERs ................................................................31
41 SIGNING OF CONTRACT ....................................................................................31
42 PERFORMANCE SECURITY ................................................................................31
Section I. Instructions to Bidders

A. General

1. Scope of Bid

1.1 The Purchaser indicated in the Bidding Data Sheet (BDS), issues these Bidding Documents for the supply of Goods and Related Services incidental thereto as specified in Section VII, Schedule of Requirements. The name and identification number of lots (contracts) of this National Competitive Bidding (NCB) procurement are specified in the BDS.

1.2 Throughout these Bidding Documents:

(a) the term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt;

(b) if the context so requires, “singular” means “plural” and vice versa; and

(c) “day” means calendar day.

2. Source of Funds

2.1 The Government of India (hereinafter called “Borrower”) specified in the BDS has applied for or received financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount specified in BDS toward the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract for which these Bidding Documents are issued.

2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan or other financing) account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the funds.

3. Corrupt & Fraudulent Practices

3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section VI.
3.2 In further pursuance of this policy, Bidders shall permit and shall cause its agents (where declared or not), sub-contractors, sub-consultants, service providers or suppliers and to permit the Bank to inspect all accounts, records and other documents relating to the submission of the application, bid submission (in case prequalified), and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

4.1 A Bidder may be a firm that is a private entity, or a government owned entity subject to ITB 4.5.

4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:

   a. directly or indirectly controls, is controlled by or is under common control with another Bidder; or
   b. receives or has received any direct or indirect subsidy from another Bidder; or
   c. has the same legal representative as another Bidder; or
   d. has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
   e. Participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
   f. any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid; or
   g. any of its affiliates has been hired (or is proposed to be hired) by the Purchaser or Borrower for the Contract implementation; or
   h. would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any of its affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
   i. has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or
supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the contract.

4.3 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.7. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.

4.4 A Bidder that has been sanctioned by the Bank in accordance with the above ITB 3.1, including in accordance with the Bank’s Guidelines on Preventing and Combating Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (“Anti-Corruption Guidelines”), shall be ineligible to be prequalified for, bid for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS.

4.5 Bidders that are Government-owned enterprises or institutions in the Purchaser’s Country may participate only if they can establish that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not dependent agencies of the Employer. To be eligible, a government-owned enterprise or institution shall establish to the Bank’s satisfaction, through all relevant documents, including its Charter and other information the Bank may request, that it: (i) is a legal entity separate from the government (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to the government, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt; and (iv) is not bidding for a contract to be awarded by the department or agency of the government which under their applicable laws or regulations is the reporting or supervisory authority of the enterprise or has the ability to exercise influence or control over the enterprise or institution.
4.6 A Bidder shall not be under suspension from bidding by the Purchaser as the result of the operation of a Bid–Securing Declaration.

4.7 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower’s country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower’s country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

4.8 A bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

5. Eligible Goods and Related Services

5.1 All the Goods and Related Services to be supplied under the Contract and financed by the Bank may have their origin in any country in accordance with Section V, Eligible Countries.

5.2 For purposes of this Clause, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, installation, training, and initial maintenance.

5.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

B. Contents of Bidding Document

6. Sections of Bidding Documents

6.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addendum issued in accordance with ITB Clause 8.

PART 1 Bidding Procedures

- Section I. Instructions to Bidders (ITB)
- Section II. Bidding Data Sheet (BDS)
- Section III. Evaluation and Qualification Criteria
6.2 The Invitation for Bids issued by the Purchaser is not part of the Bidding Document.

6.3 Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the document, responses to requests for clarification, minutes of pre-bid meeting (if any), or Addenda to the Bidding Document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as is required by the Bidding Documents.

7. Clarification of Bidding Documents

7.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser’s address specified in the BDS. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than fifteen (15) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source. If so specified in the BDS, the Purchaser shall also promptly publish its response at the web page identified in the BDS. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB Clause 8 and ITB Sub-Clause 22.2.
8. Amendment of Bidding Documents

8.1 At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addendum.

8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents directly from the Purchaser in accordance with ITB clause 6.3. The Purchaser shall also promptly publish the addendum on the Purchaser’s web page in accordance with ITB 7.1.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB Sub-Clause 22.2.

C. Preparation of Bids

9. Cost of Bidding

9.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into English language, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

11.1 The Bid shall comprise the following:

(a) Letter of Bid, in accordance with ITB Clause 12;
(b) Completed schedules, in accordance with ITB 12 and 14;
(c) Bid Security, in accordance with ITB Clause 19.1, if required;
(d) Alternative bids, if permissible, in accordance with ITB 13;
(e) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB Clause 20.2;
(f) documentary evidence in accordance with ITB Clause 17 establishing the Bidder’s qualifications to perform the contract if its bid is accepted;
(g) documentary evidence in accordance with ITB 17 establishing the Bidders eligibility to bid;
documentary evidence in accordance with ITB Clause 16, that the Goods and Related Services to be supplied by the Bidder are of eligible origin;

(i) documentary evidence in accordance with ITB Clauses 16 and 30, that the Goods and Related Services conform to the Bidding Documents;

(j) Manufacturer’s authorization form; and

(k) Any other document required in the BDS.

11.2 The Bidder shall furnish in the Letter of Bid, information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

12. Letter of Bid and Price Schedules

12.1 The Letter of Bid and Price Schedules shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.2. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

13.1 Unless otherwise specified in the BDS, alternative bids shall not be considered.

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Price Schedules shall conform to the requirements specified below.

14.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.

14.3 The price to be quoted in the Letter of Bid, in accordance with ITB 12.1, shall be the total price of the bid, excluding any discounts offered.

14.4 The Bidder shall quote any unconditional discounts and indicate the method for their application in the Letter of Bid in accordance with ITB 12.1.

14.5 Prices quoted by the Bidder shall be fixed during the Bidder’s performance of the Contract and not subject to variation on any account, unless otherwise specified in the BDS. A bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 29. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

16
14.6 If so specified in ITB 1.1, bids are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise specified in the BDS, prices quoted shall correspond to 100% of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer discounts for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4 provided the bids for all lots (contracts) are opened at the same time.

14.7 The terms EXW, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, as specified in the BDS

14.8 Prices shall be quoted as specified in the Price Schedule included in Section IV, Bidding Forms. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser’s right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with Section V Eligible Countries. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V Eligible Countries. Prices shall be entered in the following manner:

(a) For Goods:

(i) the price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable), including all duties (customs, excise etc.) and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;

(ii) any vat, sales tax and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and

(iii) The price for inland transportation, insurance, and other local services required to convey the Goods to their final destination (Project Site) specified in the BDS.
14.9 **Deemed Export Benefits**

Bidders may like to ascertain availability of excise or other duty exemption benefits, available for contracts financed under World Bank Credits/Loans. They are solely responsible for obtaining such benefits, which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Purchaser will not compensate the bidder.

Where the bidder has quoted taking into account such benefits, it must give all information required for issue of necessary Certificates in terms of the Central Excise Notification -108/95 along with its bid in form at Serial. Number. 7 of Section IV Bidding Forms. Where the Purchaser issues such Certificates, Excise Duty will not be reimbursed separately.

If the Bidder has considered the Deemed Export Benefits in its bid, the Bidder shall confirm and certify that the Purchaser will not be required to undertake any responsibilities of the deemed export scheme or the benefits available during contract execution except issuing the required certificates. Bids which do not conform to this provision or any condition by the Bidder which makes the bid subject to availability of deemed export benefits or compensation on withdrawal of or any variations in the deemed export benefits scheme will make the bid non responsive and hence liable to rejection.

15. **Currencies of Bid & Payment**

15.1 The Bidder shall quote the Price in Indian Rupees only.

16. **Documents Establishing the Eligibility and conformity of the Goods and Related Services**

16.1 To establish the eligibility of the Goods and Related Services in accordance with ITB Clause 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.

16.2 To establish the conformity of the Goods and Related Services to the Bidding Documents, the Bidder shall furnish as part of its Bid
the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.

16.3 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII Schedule of Requirements.

16.4 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period specified in the BDS following commencement of the use of the goods by the Purchaser.

16.5 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser’s satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII Schedule of Requirements.

17. Documents Establishing the Eligibility & Qualifications of the Bidder

17.1 To establish Bidder’s eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.

17.2 The documentary evidence of the Bidder’s qualifications to perform the contract if its bid is accepted shall establish to the Purchaser’s satisfaction:

(a) that the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification

(b) (i) that, if required in the BDS, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer’s Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser’s Country;
(ii) Supplies for any particular item in each schedule of the bid should be from one manufacturer only. Bids from agents offering supplies from different manufacturers for the same item of the schedule in the bid will be treated as non-responsive.

(iii) that, if **required in the BDS**, the Bidder is or will be (if awarded the contract) represented by an Agent in the country equipped and able to carry out the Supplier’s maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications;

(c) Bids from Joint Ventures are not acceptable

### 18 Period of Validity of Bids

18.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Purchaser in accordance with ITB 22.1. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 19, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid, except as provided in ITB Sub-Clause 18.3.

18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be determined as follows:

(a) In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor **specified in the BDS** for each week or part of the week that has elapsed from the expiration of the initial bid validity to the date of notification of award to the successful bidder.

(b) In the case of adjustable price contracts, no adjustment shall be made.

(c) In any case, bid evaluation shall be based on the bid Price without taking into consideration the applicable correction from those indicated above.
19 Bid Security

19.1 The Bidder shall furnish as part of its bid, a Bid Security, if required, as specified in the BDS.

19.2 Not used

19.3 The Bid Security shall be in the amount specified in the BDS and denominated in Indian Rupees or a freely convertible currency, and shall:

(a) at the bidder’s option, be in the form of either a certified check, demand draft, letter of credit, or a bank guarantee from a Nationalized /Scheduled Bank in India.

(b) be substantially in accordance with one of the forms of Bid Security included in Section IV, Bidding Forms, or other form approved by the Purchaser prior to bid submission;

(c) be payable promptly upon written demand by the Purchaser in case the conditions listed in ITB Clause 19.7 are invoked;

(d) be submitted in its original form; copies will not be accepted;

(e) remain valid for a period of 45 days beyond the original validity period of the bids, or beyond any period of extension of bid validity, if so requested under ITB Clause 18.2;

19.4 If a Bid Security is required in accordance with ITB Sub-Clause 19.1, any bid not accompanied by a substantially responsive Bid Security shall be rejected by the Purchaser as non-responsive.

19.5 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder’s furnishing of the Performance Security pursuant to ITB Clause 42.

19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the contract and furnished the required performance security

19.7 The Bid Security may be forfeited:

(a) if a Bidder

(i) withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, except as provided in ITB Sub-Clause 18.2; or
(ii) does not accept the correction of errors in pursuant to ITB 31,

or,

(b) if the successful Bidder fails to:

(i) sign the Contract in accordance with ITB Clause 41; or

(ii) Furnish a Performance Security in accordance with ITB Clause 42.

19.8 Not used

19.9 If a bid security is not required in the BDS, and

(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid Form, except as provided in ITB 18.2, or does not accept the correction of errors pursuant to ITB 31; or

(b) if the successful Bidder fails to sign the Contract in accordance with ITB 41; or furnish a performance security in accordance with ITB 42;

the Borrower may, if provided for in the BDS, declare the Bidder disqualified to be awarded a contract by the Purchaser for a period of time as stated in the BDS.

20 Format and Signing of Bid

20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB Clause 11 and clearly mark it “ORIGINAL.” Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked “ALTERNATIVE.” In addition, the Bidder shall submit copies of the bid, in the number specified in the BDS and clearly mark them “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. The authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.

20.3 Not used

20.4. Any interlineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.
## D. Submission and Opening of Bids

### 21 Sealing and Marking of Bids

21.1 The Bidder shall enclose the original and all copies of the bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL”, “ALTERNATIVE”, and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope.

21.2 The inner and outer envelopes shall:

a. bear the name and address of the Bidder;
b. be addressed to the Purchaser in accordance with ITB 24.1;
c. bear the specific identification of this bidding process indicated in ITB 1.1; and
d. bear a warning not to open before the time and date for bid opening.

21.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the bid.

21.4 Telex, Cable or Facsimile bids will be rejected as non-responsive.

### 22 Deadline for Submission of Bids

22.1 Bids must be received by the Purchaser at the address and no later than the date and time specified in the BDS. When so specified in the BDS, bidders shall have the option of submitting their bids electronically. Bidders submitting bids electronically shall follow the electronic bid submission procedures as specified in the BDS.

In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received up to the appointed time on the next working day.

22.2 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB Clause 8, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

### 23 Late Bids

23.1 The Purchaser shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB Clause 22. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.

### 24 Withdrawal, Substitution, and

24.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the
Modification of Bids

authorization (the power of attorney) in accordance with ITB Sub-Clause 20.2, (except that no copies of the withdrawal notice are required). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:

(a) Prepared & submitted in accordance with ITB Clauses 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and

(b) Received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB Clause 22.

24.2 Bids requested to be withdrawn in accordance with ITB Sub-Clause 24.1 shall be returned unopened to the Bidders.

24.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

25 Bid Opening

25.1 Except as in the cases specified in ITB 23 & 24, the Purchaser shall publicly open and read out in accordance with ITB 25.3 all bids received by the deadline at the date, time and place specified in the BDS in the presence of Bidders’ designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as specified in the BDS.

In the event of the specified date of bid opening being declared a holiday for the Purchaser, the bids will be opened at the appointed time and location on the next working day.

25.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Bidder, the corresponding bid will be opened. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice
contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only bids that are opened and read out at Bid opening shall be considered further.

25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the Bid Prices, per lot (contract) if applicable including any discounts and alternative bids; the presence or absence of a Bid Security, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative bids read out at Bid opening shall be considered for evaluation. The Letter of Bid and the Price Schedules are to be initialed by representatives of the Purchaser attending bid opening in the manner specified in the BDS. The Purchaser shall neither discuss the merits of any bid nor reject any bid (except for late bids, in accordance with ITB 25.1).

25.4 The Purchaser shall prepare a record of the Bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per lot (contract) if applicable, including any discounts, and alternative bids if they were permitted; and the presence or absence of a Bid Security, if one was required. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted bids in time, and posted online when electronic bidding is permitted.

E. Evaluation and Comparison of Bids

26 Confidentiality 26.1 Information relating to the examination, evaluation, comparison, and post-qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until information on Contract Award is communicated to all Bidders in accordance with ITB 40.

26.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post-qualification of the bids or contract award decisions may result in the rejection of its Bid.

26.3 Notwithstanding ITB Sub-Clause 26.2, from the time of bid opening to the time of Contract Award, if any Bidder wishes to
contact the Purchaser on any matter related to the bidding process, it should do so in writing.

27 Clarification of Bids

27.1 To assist in the examination, evaluation, comparison of the bids and post-qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid, that changes the substance of the Bid or Bidder price shall not be considered. The Purchaser’s request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids, in accordance with ITB Clause 31.

27.2 If a Bidder does not provide clarifications of its bid by the date and time set in the Purchaser’s request for clarification, its bid may be rejected.

28 Deviations, Reservations, Omissions

28.1 During the evaluation of bids, the following definitions apply:

(a) “Deviation” is a departure from the requirements specified in the Bidding Documents;

(b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and

(c) “Omission” is the failure to submit part or all of the information or documentation required in the Bidding Documents.

29 Determination of Responsiveness

29.1 The Purchaser’s determination of a bid’s responsiveness is to be based on the contents of the bid itself as defined in ITB 11.

29.2 A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

(a) If accepted, would

   (i) affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
(ii) limit in any substantial way, inconsistent with the Bidding Documents, the Purchaser’s rights or the Bidder’s obligations under the Contract; or

(b) If rectified would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

29.2.1 Bids from Agents, without proper authorization from the manufacturer as per Section XII, shall be treated as non-responsive.

29.3.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in ITB Clause 11 have been provided, and to determine the completeness of each document submitted.

29.3.2 The Purchaser shall examine the bid to confirm that the Bidder has accepted all terms and conditions specified in GCC and the SCC without material deviations or reservations. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 18), Warranty (GCC Clause 28), Force Majeure (Clause 32), Limitation of liability (GCC Clause 30), Governing law (GCC Clause 9) and Taxes & Duties (GCC Clause 17) will be deemed to be a material deviation. The Purchaser’s determination of a bid’s responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

29.4 If a bid is not substantially responsive to the Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

30 Nonconformities, Errors, and Omissions

30.1 Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.

30.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price or substance of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
Provided that a bid is substantially responsive, the Purchaser shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component.

31 Correction of Arithmetical Errors

31.1 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:

(a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;

(b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1 shall result in the rejection of the Bid. If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be rejected and the Bid security may be forfeited.

32 Conversion to Single Currency

Not applicable.

33 Margin of Domestic Preference

Not applicable.

34 Evaluation of Bids

34.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria listed in this Clause. No other criteria or methodology shall be permitted.

34.2 To evaluate a Bid, the Purchaser shall consider the following:

(a) evaluation will be done for Items or Lots (contracts), as specified in the BDS; and the Bid Price as quoted in accordance with clause 14;

(b) price adjustment for correction of arithmetic errors in accordance with ITB Sub-Clause 31.1;

(c) price adjustment due to discounts offered in accordance with ITB Sub-Clause 14.4;

(d) not used

(e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3;

(f) The additional evaluation factors as specified in the BDS as per ITB 34.6 from amongst those set out in Section III, Evaluation and Qualification Criteria;

34.3 The estimated effect of the price adjustment provisions of the conditions of contract, applied over the period of execution of the contract, shall not be taken into account in bid evaluation.

34.4 If these Bidding Documents allow Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Letter of Bid Form, is specified in Section III, Evaluation and Qualification Criteria.

34.5 The Purchaser’s evaluation of a bid will exclude and not take into account:

(a) In the case of Goods manufactured in India or goods of foreign origin already located in India, vat, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;

(b) Any allowance for price adjustment during the period of execution of the contract, if provided in the bid.

34.6 The Purchaser’s evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB Clause 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the
factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids, unless otherwise specified in Section III, Evaluation and Qualification Criteria. The factors, methodologies and criteria to be used shall be as specified in ITB 34.2 (f).

35  **Comparison of Bids**

35.1 The Purchaser shall compare all substantially responsive bids to determine the lowest-evaluated bid, in accordance with ITB Clause 34.

36  **Qualification of the Bidder**

36.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section III evaluation and Qualification Criteria.

36.2 The determination shall be based upon an examination of the documentary evidence of the Bidder’s qualifications submitted by the Bidder, pursuant to ITB Clause 17.

36.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder’s qualifications to perform satisfactorily.

37  **Purchaser’s Right to Accept Any Bid, and to Reject Any or All Bids**

37.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

**F. Award of Contract**

38  **Award Criteria**

38.1 Subject to ITB 37.1, the Purchaser shall award the Contract to the Bidder whose bid has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

39  **Purchaser’s Right to Vary Quantities at Time of Award**

39.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VII, Schedule of Requirements, provided this does not exceed the percentages specified in the BDS, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
40.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter called “Letter of Acceptance”) shall specify the sum that the purchaser will pay in consideration of the supply of Goods (hereinafter called “the Contract Price”).

40.2 At the same time the Purchaser shall publish in a website http://www.agriculture.rajasthan.gov.in/content/agriculture/en/RACP-dep.html the results identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the successful Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.

40.3 The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after Publication of contract award, requests in writing the grounds on which its bid was not selected.

40.4 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.

40.5 Upon the successful Bidder’s furnishing of the performance security and signing the Contract Form pursuant to ITB Clause 42, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 19.5.

41.1 Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.

41.2 Within twenty-Eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.

42.1 Within twenty Eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC, using for that purpose the Performance Security Form included in Section X Contract forms, or another Form acceptable to the Purchaser. Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.
SECTION II - BIDDING DATA SHEET

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

<table>
<thead>
<tr>
<th>ITB Clause Reference</th>
<th>A. General</th>
</tr>
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<tbody>
<tr>
<td>ITB 1.1</td>
<td>The Purchaser is: Project Director, Rajasthan Agricultural Competitiveness Project, II Floor, Academic Block, SIAM Campus, Durgapura, Jaipur-302018, (Rajasthan), INDIA</td>
</tr>
<tr>
<td>ITB 1.1</td>
<td>The name and identification number of the NCB is Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System and IFB No IN-PMU-RACP-153471-GO-RFB-2019-20</td>
</tr>
<tr>
<td>ITB 2.1</td>
<td>The Borrower is Government of India Loan or Financing Agreement Amount: US $ 109.00 Million</td>
</tr>
<tr>
<td>ITB 2.1</td>
<td>The name of the Project is: Rajasthan Agricultural Competitiveness Project (R.A.C.P)</td>
</tr>
<tr>
<td>ITB 4.4</td>
<td>A list of firms debarred from participating in World Bank projects is available at <a href="http://www.worldbank.org/debarr">http://www.worldbank.org/debarr</a></td>
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</tbody>
</table>

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<tr>
<th>B. Contents of Bidding Documents</th>
</tr>
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<tbody>
<tr>
<td>ITB 7.1</td>
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## C. Preparation of Bids

**ITB 11.1(k)**
The Bidder shall submit the following additional documents along with formats as under -

1. Bidder shall submit copies of its original documents defining the constitution or legal status, place of registration and principal place of business of the company or firm or partnership, etc.
2. If the bidder is an authorized by manufacturer then the bidder shall also submit copies of original documents defining the constitution or legal status, place of registration and principal place of business of the company or firm or partnership, etc of the manufacturer as well.
3. The bidder should furnish the information on past five year supplies of similar equipment and their satisfactory performance received from respective client.

**ITB 13.1**
Alternative Bids shall not be considered.

**ITB 14.5**
The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.

**ITB 14.7**
The Incoterms edition is Incoterms 2010.

**ITB 14.8 (a) (iii)**
Final destinations are farmer field in various villages of Clusters of RACP in different districts of Rajasthan as specified in the Section – VII: Supply Requirements.

**ITB 16.4**
Period of time the Goods are expected to be functioning: 05 Years

**ITB 17.2 (b) (i)**
Manufacturer’s authorization is: *as per proforma in Section IV.*

**ITB 17.2 (b)iii**
*N/A*

**ITB 18.1**
The bid validity period shall be 120 days.

**ITB 18.3(a)**
The factor will be 7% per annum.

**ITB 19.1**
Bid shall include a Bid Security (issued by bank) included in Section IV Bidding Forms.

**ITB 19.3**
The amount of the Bid Security shall be: Rs. 07.65 Lakh
In addition to the original of the bid, the number of copies is: Two

The written confirmation of authorization to sign on behalf of the Bidder shall indicate the name and description of the documentation required to demonstrate the authority of the signatory to sign the Bid such as a Power of Attorney.

**D. Submission and Opening of Bids**


**ITB 22.1** For bid submission purposes, the Purchaser’s address is:

**Project Director**
Rajasthan Agricultural Competitiveness Project
II Floor, Academic Block, SIAM Campus,
Durgapura, Jaipur-302018
Ph. No. - 0141-2554215, 2554214
Fax: 0141-2554214
Email-pd@racpmis.com.

The deadline for the submission of bids is:
Date: 25.02.2020
Time: up to 2:00 PM

**ITB 22.1** Bidders shall not have the option of submitting their bids electronically.

**ITB 25.1** The bid opening shall take place at:

**Project Director**
Rajasthan Agricultural Competitiveness Project
II Floor, Academic Block, SIAM Campus,
Durgapura, Jaipur-302018
Ph. No. - 0141-2554215, 2554214
Fax: 0141-2554214
Email-pd@racpmis.com The deadline for the opening of bids is:
Date: 25.02.2020
Time: at 2:30 PM

**ITB 25.3** The Letter of Bid, Price Schedules, and any modifications to the unit or total price shall be initialed by the representatives of the Purchaser conducting Bid opening.

**E. Evaluation and Comparison of Bids**
| ITB 34.2(a) | The evaluation and award of contract will be done all together for the items mentioned in price schedule. |
| ITB 34.4 | Not Applicable |
| ITB 34.6 | The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria:  
(a) Deviation in Delivery schedule: Adjustment as referred to in paragraph 1(a) of Section III will be applied to the bid price for bids offering delivery beyond the earliest delivery date (specified in Section VII - Schedule of Requirements) @ 0.5% per week or part of week. No credit will be given to deliveries before the earliest date and bids offering delivery after the final date (beyond 4 weeks) of stipulated delivery period will be treated as non-responsive.  
(b) Deviation in payment schedule: No  
(c) the cost of major replacement components, mandatory spare parts, and service: ‘Not Applicable’.  
(d) the availability in the Purchaser’s Country of spare parts and after-sales services for the equipment offered in the bid: ‘Not Applicable’.  
(e) the projected operating and maintenance costs during the life of the equipment: ‘Not Applicable’.  
(f) the performance and productivity of the equipment offered; ‘Not Applicable’. |
| F. Award of Contract |
| ITB 39.1 | The maximum percentage by which quantities may be increased is: 15%  
The maximum percentage by which quantities may be decreased is: As per beneficiary demand |
SECTION III. EVALUATION AND QUALIFICATION CRITERIA

This Section complements the Instructions to Bidders. It contains the criteria that the Purchaser shall use to evaluate a bid and determine whether a Bidder qualifies in accordance with ITB 34 & 36. No other criteria shall be used.

Contents

1. Evaluation Criteria (ITB 34)
2. Qualification Requirements (ITB 36)
1. Evaluation Criteria (ITB 34.6)

The Purchaser’s evaluation of a bid may take into account, in addition to the Bid Price quoted in accordance with ITB Clause 14.8, one or more of the following factors as specified in ITB Sub-Clause 34.2 (f) and in BDS referring to ITB 34.6, using the following criteria and methodologies.

(a) Delivery schedule. (as per Incoterms specified in the BDS)

_The Goods specified in the List of Goods are required to be delivered within the acceptable time range (after the earliest and before the final date, both dates inclusive) specified in Section VII, Schedule of requirements. No credit will be given to deliveries before the earliest date, and bids offering delivery after the final date shall be treated as non-responsive. Within this acceptable period, an adjustment, as specified in BDS Sub-Clause 34.6, will be added, for evaluation purposes only, to the bid price of bids offering deliveries later than the “Earliest Delivery Date” specified in Section VII, Schedule of requirements._

(b) Deviation in payment schedule. _Not Applicable_

(c) Cost of major replacement components, mandatory spare parts, and service. _Not Applicable_

(d) Availability in the Purchaser’s Country of spare parts and after sales services for equipment offered in the bid. _Not Applicable_

(e) Projected operating and maintenance costs. _Not Applicable_

(f) Performance and productivity of the equipment. _Not Applicable_

(g) Specific additional criteria. _Nil_

2. Post-qualification Requirements (ITB 36.1)

After determining the lowest-evaluated bid in accordance with ITB Sub-Clause 35.1, the Purchaser shall carry out the post-qualification of the Bidder in accordance with ITB Clause 36, using only the requirements specified.

(a) Financial Capability

The Bidder shall furnish documentary evidence that it meets the following financial requirement(s): The minimum required average annual turnover during the last three years (2016-17, 2017-18 and 2018-19) will be Rs. 500.00 Lakh The bidder shall furnish all financial details including audited and certified annual accounts for past five years (from 2014-15 to 2018-19).

(b) Experience and Technical Capacity

1. The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s): Bidder shall have experience of execution of supply, installation and maintenance of grid connected / off-grid Solar Photovoltaic
Systems (SPV) (SPV Pumps, SPV Power Plants, Mini- grid) in rural areas amounting at least equal to 2000kW during last Five years [i.e. 2014-15 to 2018-19].

2. The successful performance of the supplied by the bidder must be documentarily evidenced with the details like Names and addresses of Purchasers with contact details as e-mail addresses/ Phone Nos, Contract Nos. and Dates, Equipment’s/ items ordered/ supplied & installed with their respective quantities, Scheduled completion date and actual completion date, Details of Complaint, if any, received from the purchaser about the performance of the Equipment’s/ items.

3. The Bidder shall furnish documentary evidence to demonstrate that the Goods it offers meet the following usage requirement: The bidder must provide list of parallel list of purchasers/Farmers with all details justifying its capacity to perform the contract (if awarded) satisfactorily.

4. If the bidder submits the Bid as an Authorized Supplier of the Manufacturer, then the bidder shall also submit copies of original documents defining the constitution/legal status, place of registration and principal place of business of the manufacturer also.

5. The Bidder must furnish details of supplies made by him in the last five years in proforma attached in Section IV.

6. List of after sales service centers/resident service executive in the State for the last 3 years.

7. The bidder or the Manufacturer must have valid BIS license for items which pertains to only prevalent BIS item.

8. The bidder must furnish sufficient information demonstrating its technical capacity, Production capacity, quality control, and execution capacity (including technical and support manpower).

9. The bidder shall submit the evidence of manufacturing of PV modules. The bidder also need to submit the Test Report of PV Modules from testing laboratories authorized by MNRE / recognized by BIS.
SECTION IV – BIDDING FORMS
Table of Forms

1. LETTER of Bid.................................................................41
2. BIDDER Information Form..................................................44
3. Price Schedule Forms ...........................................................45
   PRICE SCHEDULE AS per Schedule of Requirements ..........46
4. Form of Bid Security ...........................................................47
5. Manufacturer’s Authorization ...............................................49
6. DECLARATION for Claiming Excise Duty Exemption ...............50
7. Performa FOR PERFORMANCE Statement .........................51
1. LETTER OF BID

The Bidder must prepare the Letter of Bid on stationery with its letterhead clearly showing the Bidder’s complete name and address.

Date: [insert date (as day, month and year) of Bid Submission]
NCB No.: [insert number of bidding process]
Invitation for Bid No.: [insert No of IFB]
Alternative No.: [insert identification No if this is a Bid for an alternative]

To
Project Director,
Rajasthan Agricultural Competitiveness Project (R.A.C.P.)
II Floor, Academic Block,
SIAM Campus, Durgapura,
Jaipur-302018, Rajasthan

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda No. issued in accordance with ITB 8: [insert the number and issuing date of each Addenda];

(b) We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;

(c) We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid Securing Declaration in the Purchaser’s country in accordance with ITB 4.6

We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System;

(d) The total price of our Bid, excluding any discounts offered in item (f) below, is:

(e) The discounts offered and the methodology for their application are:

   (i) The discounts offered are: [Specify in detail each discount offered.]

   (ii) The exact method of calculations to determine the net price after application of discounts is shown below:[Specify in detail the method that shall be used to apply the discounts]. Discounts.

(f) Our bid shall be valid for the period of time specified in ITB Sub-Clause 18.1, from the date fixed for the bid submission deadline in accordance with ITB Sub-Clause 22, and it shall
remain binding upon us and may be accepted at any time before the expiration of that period;

(g) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

(h) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 4.2(e), other than alternative bids submitted in accordance with ITB 13

(i) We, including any of our subcontractors or suppliers for any part of the contract, have not been declared ineligible by the Bank, under the Employer’s country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council;

(j) We are not a government owned entity/ We are a government owned entity but meet the requirements of ITB 4.5;¹

(k) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

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<th>Name of Recipient</th>
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(If none has been paid or is to be paid, indicate “none.”)

(m) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.

(n) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

(o) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.

(p) We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely, “Prevention of Corruption Act 1988.”

¹Bidder to use as appropriate
Name of the Bidder [insert complete name of person signing the Bid]

Name of the person duly authorized to sign the Bid on behalf of the Bidder** [insert complete name of person duly authorized to sign the Bid]

Title of the person signing the Bid [insert complete title of the person signing the Bid]

Signature of the person named above [insert signature of person whose name and capacity are shown above]

Date signed _[insert date of signing] day of [insert month], [insert year]

**: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.
## 2. BIDDER INFORMATION FORM

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: [insert date (as day, month and year) of Bid Submission]

NCB No.: [insert number of bidding process]

Page ________ of_______ pages

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<table>
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<tbody>
<tr>
<td>1. Bidder’s Legal Name</td>
<td>[insert Bidder’s legal name]</td>
</tr>
<tr>
<td>2. Bidder’s actual or intended Country of Registration:</td>
<td>[insert actual or intended Country of Registration]</td>
</tr>
<tr>
<td>3. Bidder’s Year of Registration:</td>
<td>[insert Bidder’s year of registration]</td>
</tr>
<tr>
<td>4. Bidder’s Legal Address in Country of Registration:</td>
<td>[insert Bidder’s legal address in country of registration]</td>
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<td>5. Bidder’s Authorized Representative Information</td>
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<td>6. Attached are copies of original documents of:</td>
<td>[check the box(es) of the attached original documents]</td>
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<tr>
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<td>Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB Sub-Clauses 4.3.</td>
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<td></td>
<td>In case of government owned entity from the Purchaser’s country, documents establishing legal and financial autonomy and compliance with commercial law and not dependent agency of borrower or sub-borrower or purchaser, in accordance with ITB Sub-Clause 4.5.</td>
</tr>
<tr>
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<td>Included are the organizational chart, a list of Board of Directors, and the beneficial ownership</td>
</tr>
</tbody>
</table>
3. Price Schedule Forms

[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the Price Schedules shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.]
## 3. PRICE SCHEDULE AS PER SCHEDULE OF REQUIREMENTS

<table>
<thead>
<tr>
<th>Line Item No</th>
<th>Description of Goods</th>
<th>Delivery Date</th>
<th>Quantity and physical unit in Nos.</th>
<th>Unit price EXW per line item [including excise duty if any] (Col. 4x5)</th>
<th>Total EXW price per line item for inland transportation, insurance and other services required to convey the Goods to their final destination (ITB 14.8(a)(iii))</th>
<th>Price per line item for inland transportation, insurance and other services required to convey the Goods to their final destination (ITB 14.8(a)(ii))</th>
<th>GST payable per item if Contract is awarded (in accordance with ITB 14.8(a)(ii))</th>
<th>Total Price per line item (Col. 6+7) excluding GST</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 1</td>
<td>Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System</td>
<td>8 kWp</td>
<td>20</td>
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### Total Price Quoted

- The bidder must quote rate for all the items as mentioned in the price schedule.
- The unit price shall include the cost of comprehensive warranty for 5 years.
- In case of discrepancy between unit price and total price, the unit price shall prevail. Total Price is only for evaluation purpose and purchase orders will be issued by Purchaser and/or Users using unit price quoted above.

**Name of Bidder** [insert complete name of Bidder]  **Signature of Bidder** [signature of person signing the Bid]  **Date** [insert date]
4. **FORM OF BID SECURITY**

(Bank Guarantee)

[The bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]

[Guarantor letterhead or SWIFT identifier code]

**Beneficiary:** [Purchaser to insert its name and address]

**IFB No.:** [Purchaser to insert reference number for the Invitation for Bids]

**Alternative No.:** [Insert identification No if this is a Bid for an alternative]

**Date:** [Insert date of issue]

**BID GUARANTEE No.:** [Insert guarantee reference number]

**Guarantor:** [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that ___________________________ (insert name of the Bidder) (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its bid (hereinafter called "the Bid") for the execution of ___________________________ under Invitation for Bids No. ___________ (“the IFB”).

Furthermore, we understand that, according to the Beneficiary’s conditions, bids must be supported by a bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of ___________ (__________) upon receipt by us of the Beneficiary’s complying demand, supported by the Beneficiary’s statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

(a) has withdrawn its Bid during the period of bid validity set forth in the Applicant’s Letter of Bid (“the Bid Validity Period”), or any extension thereto provided by the Applicant; or

(b) having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Bidders (“ITB”) of the Beneficiary’s bidding document.

This guarantee will expire: (a) if the Applicant is the successful bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the performance security issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicant is not the successful
bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary’s notification to the Applicant of the results of the bidding process; or (ii) forty five days after the end of the Bid Validity Period.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

_____________________________

[Signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.
5. **Manufacturer’s Authorization**

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are legally binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the BDS.]

Date: [insert date (as day, month and year) of Bid Submission]

NCB No.: [insert number of bidding process]

Alternative No.: [insert identification No if this is a Bid for an alternative]

To: [insert complete name of Purchaser]

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer’s factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract against the above IFB.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm against this IFB.

No company or firm or individual other than M/s. ________________ are authorized to bid, and conclude the contract for the above goods manufactured by us against this specific IFB. [This para should be deleted for simple items where manufacturers normally sell the product through different stockists].

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]

Dated on ____________ day of __________________, _______ [insert date of signing]
6. DECLARATION FOR CLAIMING EXCISE DUTY EXEMPTION

(RACP)

Bid No. ………………………
Description of item to be supplied …………………………………………………………………
……………………………………………………………………………………………………………………

(Information for issue of certificate for claiming exemption of Excise Duty (ED) in terms of Central excise notification No. 108/95)

(Bidder’s Name and Address): To
(Name of Purchaser)

…………………………

Dear Sir:

1. We confirm that we are solely responsible for obtaining deemed export benefits which we have considered in our bid and in case of failure to receive such benefits for reasons whatsoever, Purchaser will not compensate us.

2. We are furnishing below the information required by the Purchaser for issue of necessary certificate in terms of Central Excise notification no 108/95 read along with all subsequent amendments including the amendment dated 01-03-2008.

(i) Ex-factory price per unit on which ED is payable: *Rs. ___________________

(ii) No of Units to be supplied:

(iii) Total cost on which ED is payable (Rs.) ___________________

(The requirements listed above are as per Current notifications. These may be modified, as necessary, in terms of the rules in force)

(Signature) ___________________
(Printed Name) ___________________
(Designation) ___________________
(Common Seal) ___________________

* Please attach details item-wise with cost, if there are more than one items. The figures indicated should tally with what is given in the price schedule.
### 7. **Performa for Performance Statement**

[Please see ITB Clause 36.2 and Section III-Evaluation and Qualification Criteria]

Proforma for Performance Statement (for a period of last five years)

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<th>Bid No.</th>
<th>Date of opening</th>
<th>Time</th>
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<td>Hours</td>
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Name of the Firm ________________________________

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<tr>
<th>Order placed by (full address of Purchaser)</th>
<th>Order No. and date</th>
<th>Description and quantity of ordered equipment</th>
<th>Value of order</th>
<th>Date of completion of delivery</th>
<th>Remarks indicating reasons for late delivery, if any</th>
<th>Has the equipment been satisfactorily functioning? (Attach a certificate from the Purchaser/Consignee)</th>
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<th>As per contract</th>
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Signature and seal of the Bidder ________________________________

____________________________________

____________________________________
SECTION V. – ELIGIBLE COUNTRIES

Public Information Center

Eligibility for the Provision of Goods, Works and Non Consulting Services in Bank-Financed Procurement

In reference to ITB 4.7 and 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this bidding process:

Under ITB 4.7(a) and 5.1:
Under ITB 4.7(b) and 5.1:
SECTION VI. BANK POLICY - CORRUPT AND FRAUDULENT PRACTICES


“Fraud and Corruption:

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts. In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;³;

(ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;⁴

(iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;⁵

---

2 In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

3 For the purpose of this sub-paragraph, “another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

4 For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

5 For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.
“coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;\(^6\)

"obstructive practice" is:

(aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or

(bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.

(b) will reject a proposal for award if it determines that the bidder recommended for award, or any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

(c) will declare mis procurement and cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

(d) will sanction a firm or individual, at any time, in accordance with the prevailing Bank’s sanctions procedures,\(^7\) including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated\(^8\);

---

\(^6\) For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.

\(^7\) A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank’s sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

\(^8\) A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either been: (i) included by the bidder in
(e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.”
PART 2 - SUPPLY REQUIREMENTS
### SECTION VII – SCHEDULE OF REQUIREMENTS

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LIST OF GOODS AND DELIVERY SCHEDULE</td>
<td>.................................................................59</td>
</tr>
<tr>
<td>2.</td>
<td>TECHNICAL SPECIFICATIONS</td>
<td>.................................................................66</td>
</tr>
<tr>
<td>3.</td>
<td>DRAWINGS- N/A</td>
<td>.................................................................91</td>
</tr>
<tr>
<td>4.</td>
<td>INSPECTIONS AND TESTS</td>
<td>.................................................................92</td>
</tr>
<tr>
<td>5.</td>
<td>PROFORMA OF CERTIFICATE FOR ISSUE BY THE PURCHASER AFTER</td>
<td>.................93</td>
</tr>
<tr>
<td></td>
<td>SUCCESSFUL INSTALLATION AND STARTUP OF THE SUPPLIED GOODS</td>
<td>.................93</td>
</tr>
</tbody>
</table>
Notes for Preparing the Schedule of Requirements

The Schedule of Requirements shall be included in the bidding documents by the Purchaser, and shall cover, at a minimum, a description of the goods and services to be supplied and the delivery schedule.

The objective of the Schedule of Requirements is to provide sufficient information to enable bidders to prepare their bids efficiently and accurately, in particular, the Price Schedule, for which a form is provided in Section IV. In addition, the Schedule of Requirements, together with the Price Schedule, should serve as a basis in the event of quantity variation at the time of award of contract pursuant to ITB 39.

The date or period for delivery should be carefully specified, taking into account (a) the implications of delivery terms stipulated in the Instructions to Bidders pursuant to the Incoterms rules (i.e., EXW, or CIP, terms—that “delivery” takes place when goods are delivered to the carriers), and (b) the date prescribed herein from which the Purchaser’s delivery obligations start (i.e., notice of award, contract signature, opening or confirmation of the letter of credit).
1. **List of Goods and Delivery Schedule**

<table>
<thead>
<tr>
<th>Line Item No</th>
<th>Description of Goods</th>
<th>Quantity</th>
<th>Physical unit</th>
<th>Final (Site) Destination as specified in BDS</th>
<th>Delivery (as per Incoterms) Date</th>
<th>Bidder’s offered Delivery date [to be provided by the bidder]</th>
<th>Bid Security in Indian Rupees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System</td>
<td>51 Nos</td>
<td>Farmers Field in Jaijaspura Feeder of Bagru and Mohabbatpura Feeder of Sanganer.</td>
<td>30 Days</td>
<td>Contract will be valid up to 30th June, 2020 or till the exhaust of contract value, whichever occurs earlier. Material to be delivered in 30 days on farmer’s field and construction and commissioning in 20 days after delivery of material. A total period of 50 days from the signing of the contract.</td>
<td>Rs. 07.65 Lakh</td>
<td></td>
</tr>
</tbody>
</table>
• The manufacturer/supplier should furnish a detailed operations and maintenance manual for each appropriate unit of the supplied goods and equipment's.

• The manufacturer/supplier is responsible for Performance of on-site assembly and start-up of the supplied equipment’s / instrument units.

• The manufacturer/supplier is responsible for all unpacking, lay out and installations as per specific design. The Supplier will test all operations of the instruments, measurements and accomplish all adjustments necessary for successful and continuous operation of the instrument at all installation sites.

• The manufacturer/supplier shall develop detailed operation manual and training material (including sufficient no. of printed booklets, CDs, etc.) in local language. The same shall be first submitted to Purchaser for review and approval. Once the document is approved, manufacturer/supplier shall provide hands-on training/ orientation in village/cluster, where manufacturer/supplier has supplied the system. The manufacturer/supplier shall provide training on-site or shall organize at centralized location and shall bear all expenditure towards their own transport, stay, food and any other expenditure for the said training.
## Project Site along with bifurcation of type of SPV system

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of Feeder</th>
<th>Bifurcation of load in HP</th>
<th>No. of consumers</th>
<th>Type of SPV System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jaiaspura of Bagru</td>
<td>5 HP</td>
<td>6</td>
<td>8 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.5 HP</td>
<td>22</td>
<td>12 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 HP</td>
<td>3</td>
<td>12 kWp</td>
</tr>
<tr>
<td>2</td>
<td>Mohabbatpura of Sanganer</td>
<td>5 HP</td>
<td>9</td>
<td>8 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.75 HP</td>
<td>5</td>
<td>8 kWp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.5 HP</td>
<td>6</td>
<td>12 kWp</td>
</tr>
</tbody>
</table>
2. **Detailed Scope of Work**

2.1. Overall Scope

2.1.1. The Project Director, Rajasthan Agricultural Competitiveness Project Management and Implementation Society (RACPMIS) (Purchaser) invites sealed bids from eligible bidders for design, survey, supply, installation, testing, commissioning & 5 years comprehensive maintenance of distributed grid connected solar PV systems for solarization of grid connected agriculture consumers.

2.1.2. The Bidder shall be responsible for acquainting oneself with all terms and conditions of this Tender document, site location(s) and conditions prior to quoting. In case of any safety or compliance issues foreseen by the Bidder, the same shall be immediately reported by the Bidder.

2.1.3. The solar PV plants shall consist of complete system including PV modules, grid-tie inverters, module mounting structures (MMS), AC and DC junction boxes, solar meter, net-meter, cables, earthing, lightning protection, associated civil works, and accessories as described in this section.

2.1.4. The capacities of the solar PV plants shall have two SPV system unit sets 8 kWp & 12 kWp. The capacity of the PV plant shall be based on the existing sanctioned load of the Agriculture Consumer.

2.1.5. All components and works shall adhere to relevant Indian Standards, State and Central policies and regulations, and all statutory provisions under the Indian law.

2.1.6. Contractor shall adhere to all Boundary Conditions described in this section including but not limited to outreach and handholding of Agriculture Consumers on the given feeder; integrating the Contractor’s own Scope of Work with the supplier of the metering and communicating equipment; obtaining insurance on the PV system including metering set; and so on.

2.1.7. The Contractor shall be entirely responsible for the execution of the Scope of Work in accordance to this Bidding Document including but not limited to its specification, schedules, and annexure. The Contractor shall further provide guarantee and be responsible for the quality and workmanship of all materials and completed works, survey, correct designs and drawings, correct delivery of material, erection, testing, commissioning and comprehensive maintenance.

2.1.8. The Contractor shall be responsible for undertaking all applications and
obtaining all approvals, permissions, etc. in order to successfully complete the Scope of Work. In cases where Discom’s certifications are required, the Contractor shall inform the Discom and provide the requisite formats for such certificates well in advance.

2.1.9. The Contractor shall provide a generation guarantee and maintain an active local office cum service center in each operation district where work is carried on under this tender, to rectify faults within the stipulated timeframe described in this section.

2.1.10. The Contractor shall adhere to best practices in terms of safety, quality and performance while undertaking the Scope of Work, and the same shall be included within the Contractor’s contract price.

2.1.11. The Contractor shall repair at its own cost any damage caused to the Discom’s premises due to implementation of the Scope of Work.

2.1.12. Submission of brochures, technical specifications, designs, data sheets, etc. at the time of Bidding do not imply approval of the same. All such approvals shall be taken up separately at the time of project execution by the Contractor.

2.1.13. All final specifications, designs, drawings bill of material, quality assurance plan, etc. shall be inspected, vetted and approved.

2.1.14. It is mandatory for Contractor to provide for Comprehensive Maintenance Contract (CMC) for five years from the date of installation, helpline, district level office cum service center and comply standards of performance in dealing with complaints.

2.1.15. It will be mandatory for Contractor to create remote monitoring system to monitor performance of the system post-installation. It will be mandatory to submit quarterly maintenance report along with performance data of solar power plant online to MNRE and/or Discom / or RACP in a manner and format prescribed by MNRE and/or Discom / or RACP.

2.1.16. Systems installed shall meet technical specification and construction standards as specified by BIS and MNRE from time to time. Non-compliance will be taken seriously to the extent of blacklisting of the Contractor, in the same manner as specified, apart from taking action under any other law in force.

2.1.17. Survey shall include assessing the works/approvals required on the Sites/ location of the list of agriculture consumers which will be provided by RACP.
2.2. **OBLIGATION TOWARDS AGRICULTURE CONSUMERS**

2.2.1. It shall be the prime responsibility of the Contractor / JVVNL / RACP to manage all Agriculture Consumers connected to the Agriculture Feeder assigned to the Contractor.

2.2.2. The Contractor shall directly deal with the Agriculture Consumers on a regular basis to:
   (a) Educate, create awareness and market the Scheme to the Agriculture Consumers,
   (b) Obtain all necessary approvals, permissions, etc. towards installation and commissioning of the PV system on behalf of the Agriculture Consumer,
   (c) Obtain the necessary insurance on the PV system on behalf of the Agriculture Consumer to comply with loan guidelines,
   (d) Coordinate successful operation and maintenance of the PV system.

2.2.3. The Contractor shall identify a suitable location for the installation of the PV system within the premises of the Agriculture Consumer. This location shall be identified in close coordination with concerned Official of RACP and agreement of the Agriculture Consumer in writing. The cable routing of the PV system shall also be mutually agreed upon by the Contractor, Discom Official and the Agriculture Consumer in writing. The Scope of Work includes AC cabling for a distance between the inverter and interconnection point of up to 30 meters.

2.2.4. The Contractor shall provide prompt service to the Agriculture Consumer in times of fault of breakdown of the PV system. Any complaint received from the Agriculture Consumer/ Discom shall be rectified by the Contractor within 48 (forty eight) hours of such complaint. The Contractor shall be liable for loss of generation from the PV system arising from persisting fault beyond the 48-hour period and shall compensate the Agriculture Consumer at the rate of Rs. 7.00 per kWh of generation loss beyond the 48-hour period. The loss in generation shall be decided on an hourly-basis based on the performance of nearby generating solar plants or nearby weather station.

2.3. **INTERFACING WITH METERING AND COMMUNICATION SOLUTION PROVIDER**

2.3.1. The bidder shall work in close coordination with the M&P Wing of Discom / IT Wing of Discom/ Billing agency of Discom/ or any other agency assigned by the Discom.
2.3.2. The bidder shall install the hardware including but not limited to energy meters and communication gateway (data logger, modem and antenna) provided in an enclosure to be provided by the Contractor. The GPRS sim shall be provided by the bidder and maintain the sim for complete 5 year maintenance period at its own cost.

2.3.3. The bidder shall mount this hardware as per Discom’s standards, make appropriate connections to this hardware with respect to power cables and communication cables.

2.3.4. The bidder shall connect all its inverters to the appropriate interconnection point within the hardware via a shielded RS-485 communication cable. The Contractor shall ensure appropriate cable laying standards for both power cable(s) and RS-485 cable(s). The bidder shall ensure avoidance of signal attenuation within the RS-485 cable and install repeaters if required.

2.3.5. The bidder shall only utilize grid-tie inverters with Modbus communication capability via RS-485 serial port, and share the details of the protocol with the M&P Wing of Discom / IT Wing of Discom/ Billing agency of Discom/ or any other agency assigned by the Discom. Further, the Contractor shall assist the M&P Wing of Discom / IT Wing of Discom/ Billing agency of Discom/ or any other agency assigned by the Discom to ensure successful communication of the inverter data to the designated server by the Discom.

2.3.6. The bidder shall assist the M&P Wing of Discom / IT Wing of Discom/ Billing agency of Discom/ or any other agency assigned by the Discom in case any hardware adjustments are required by the Discom in case any hardware adjustments are required by the M&P Wing of Discom / IT Wing of Discom/ Billing agency of Discom/ or any other agency assigned by the Discom or if any support is required during configuration of the inverter communication or commissioning of the metering and communication hardware.

2.3.7. Net-Meter: The bi-directional electronic energy meter (0.5 s class) shall be installed for the measurement of import/Export of energy. The bidder shall integrate meter parameter with the Billing agency of Discom.

2.3.8. Solar Meter: Energy Meters to log the actual value of Energy generated by the PV system be provided. Energy meter if required with CT/PT shall be of 0.5 s accuracy class/as per Discom guidelines.

2.3.9. All parameters of the meter shall be transferred online to the M&P Wing of Discom / IT Wing of Discom/ Billing agency of Discom/ or any other agency assigned by the Discom.
24. Insurance during Construction of PV System

2.4.1 During the construction period, i.e. before the commissioning of the PV system, all insurance-related expenses shall be borne by the Contractor. The goods supplied by the Contractor shall be fully insured against the loss or damage incidental to manufacture or acquisition, transportation, storage, delivery, theft, natural or other disaster/calamity, etc.

2.4.2 In case of any loss or damage or pilferage or theft or fire accident or natural calamity or combination of the said incidents under the coverage of insurance, the Contractor shall lodge the claim as per rules of insurance. Any FIR required to be lodged at the local Police Station shall be the responsibility of the Contractor.

2.4.3 The Contractor shall arrange to supply/ rectify/ recover the materials even if the claim is unsettled for timely completion of the Project. The final financial settlement with the insurance company shall be rested upon the Contractor.

25. Insurance during Operation of PV System

2.5.1 Upon commissioning of the PV system, the Contractor shall undertake insurance on the PV system against theft and vandalism and natural calamities for a minimum period of 5 (five) years and include the same within the quoted cost.

2.5.2 The insurance shall comply with terms and conditions of the loan obtained from the financial institution.

2.5.3 The metering and communication hardware supplied by Contractor shall also be covered under the insurance by the Contractor at the Contractor’s cost.

2.5.4 The Contractor shall assist the Agriculture Consumer for insurance claims during the 5 (five)-year comprehensive maintenance period.

2.5.5 At least 2 months before the end of the term of insurance undertaken by the Contractor, the Contractor shall ensure to provide all the necessary documents & guidance to the satisfaction of the Agriculture Consumer in order to enable the Agriculture Consumer, in case he wants to renew or to take up the insurance of the PV system at the end of the term of Insurance.

3. Technical Specifications

3.1 PV System Capacity
3.1.1. The AC and DC Capacity of the grid-connected PV system shall be based on the sanctioned load of the Agriculture Consumer’s pump connection. In case the Agriculture Consumer is applying addition/alteration in sanctioned load, prior to installation of the PV system, then the Contractor shall size the PV system based on the revised capacity of the connection as confirmed by the Discom.

3.1.2. The AC and DC Capacity of the PV system shall be based on the pump connection capacity as follows:

<table>
<thead>
<tr>
<th>S.N o.</th>
<th>Sanctioned Load (HP)</th>
<th>Minimum AC (Invertor) Capacity (kW)</th>
<th>Minimum DC (PV Module) Capacity (kW @STC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>7.5</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

32. APPLICABLE STANDARDS

3.2.1. Table of Applicable Standard with description

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Applicable Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Solar PV Modules</td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>IEC 61215/IS 14286</td>
<td>Design qualification and type of approval for crystalline silicon Terrestrials photovoltaic Modules</td>
</tr>
<tr>
<td>(b)</td>
<td>IEC 61853-1/IS 16170-1</td>
<td>Photovoltaic (PV) module performance testing and energy rating-Irradiance and temperature performance measurements and power rating</td>
</tr>
<tr>
<td>(c)</td>
<td>IEC 61730-1,2</td>
<td>Photovoltaic (PV) Module safety Qualifications</td>
</tr>
<tr>
<td>(d)</td>
<td>IEC 62759-1</td>
<td>Photovoltaic (PV) modules - Transportation testing</td>
</tr>
<tr>
<td>2</td>
<td>Solar PV Grid-tie Inverters</td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>IEC 62109-1,2</td>
<td>Safety of power converters for use in photovoltaic power systems</td>
</tr>
<tr>
<td>(b)</td>
<td>BS EN 50530:2010+A1:2013 /IEC 62891</td>
<td>Overall efficiency of grid connected photovoltaic inverters</td>
</tr>
<tr>
<td>(c)</td>
<td>IEC 61683</td>
<td>Photovoltaic Systems –Power conditioners: Procedure for Measuring</td>
</tr>
</tbody>
</table>
### Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>(d)</td>
<td>IEC 62116/UL 1741/IEEE 1547</td>
<td>Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures</td>
</tr>
<tr>
<td>(e)</td>
<td>VDE V 0126-1-1</td>
<td>Automatic disconnection device between a generator and the public low-voltage grid</td>
</tr>
<tr>
<td>(f)</td>
<td>IEC 60255-27:2013</td>
<td>Measuring relays and protection equipment - Part 27: Product safety requirements</td>
</tr>
<tr>
<td>(g)</td>
<td>IEC 60068-2(1,2,14,27,30,64)</td>
<td>Environmental testing of PV system – Power Conditioners and inverters</td>
</tr>
<tr>
<td>(h)</td>
<td>IEC 62093</td>
<td>Balance-of-system components for photovoltaic systems - Design qualification natural environments</td>
</tr>
</tbody>
</table>

### 3 Fuses and switches

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>IS/IEC 60947(1,2,3),EN 50521</td>
<td>General Requirements for connectors, switches, circuit breakers(AC/DC)</td>
</tr>
<tr>
<td>(b)</td>
<td>IEC 60269-6</td>
<td>Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems</td>
</tr>
</tbody>
</table>

### 4 Cables

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>IEC 60227/IS694, IEC 60502/IS 1554(1,2)</td>
<td>General Test and measuring method for PVC insulated cables</td>
</tr>
<tr>
<td>(b)</td>
<td>IS 7098-1</td>
<td>Cross linked polyethylene insulated PVC sheathed cables up to 1000 V</td>
</tr>
<tr>
<td>(c)</td>
<td>BS EN 50618</td>
<td>Electric cables for photovoltaic systems, mainly for DC cables</td>
</tr>
</tbody>
</table>

### 5 Surge Arrestors

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<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>IEC 61643-11/IS 15086-5</td>
<td>Low voltage surge and protection devices, requirements and test methods</td>
</tr>
</tbody>
</table>

### 6 Earthing/ Lightning

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>IEC 62561 (1,2,7)</td>
<td>Lightning protection system components</td>
</tr>
<tr>
<td>(b)</td>
<td>IS 2309</td>
<td>Protection of Buildings and Allied Structures Against Lightning</td>
</tr>
</tbody>
</table>

### 7 Junction Boxes

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>IEC 60529</td>
<td>Degree of protection provided by the enclosure</td>
</tr>
</tbody>
</table>

### 8 Solar Meter

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As per relevant specifications by MNRE/ Discom.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Net Meter</td>
<td>As per relevant specifications by MNRE/ Discom.</td>
</tr>
</tbody>
</table>
3.2.2. If the equipment offered by the Contractor conform to other standards, salient points of difference between the standards adopted and the specific standards shall be clearly brought out in relevant schedule. In case of any difference between provisions of these standards and provisions of this specification, the provisions contained in this specification shall prevail. One hard copy of such standards with authentic English Translations shall be furnished for consideration of such approvals.

3.3. **PV Modules**

3.3.1. The Contractor shall employ solar PV module of mono/ poly-crystalline silicon solar technology only. The Contractor shall provide detail Technical Data Sheets, Certifications of Standard Testing Conditions (STC: defined as Standard Testing Condition with air mass AM1.5, irradiance 1000W/m2, and cell temperature 25°C) as per the latest edition of IEC 61215 and IEC 61730 and as tested by MNRE/IEC-recognized test laboratory.

3.3.2. The PV modules to be employed shall fulfil MNRE’s criteria of domestic content requirement. The manufacturer of the PV module shall have supplied net PV modules of a capacity more than 5 MW in other projects, and the same shall be successfully performing for over 1 year prior to the date of submission of the Bid.

3.3.3. PV modules shall consist of 60 or 72 numbers of solar cells, each with a dimension of 156 mm x 156 mm. PV modules with 60 cell configuration shall have a minimum capacity of 250 W at STC, while PV modules with 72 cell configuration shall have a minimum capacity of 300 W at STC.

3.3.4. The rated power of solar PV module shall have maximum tolerance upto +3%. No negative tolerance in the rated capacity of solar PV module is allowed.

3.3.5. All PV modules shall be certified IEC 61215 2nd Ed. (Design qualification and type approval for Crystalline Si modules), IEC 61730 (PV module safety qualification testing @ 1000 V DC or higher).

3.3.6. Minimum certified PV module efficiency shall be 15.75% for crystalline. The temperature co-efficient power of the PV module shall not be less than - 0.50% / °C.

3.3.7. All PV modules shall carry a performance warranty of >90% during the first 10 years, and >80% during the next 15 years. Further, module shall have performance warranty of >97% during the first year of installation. Degradation of module shall not be more than 0.7% per annum.

3.3.8. All PV modules shall be PID-free, and documents for the same shall be submitted with conditions of the PID test for a humidity of 85 % and a cell temperature of 85°C at 1000VDC.

3.3.9. The warranty on the workmanship of the PV modules including its
electrical connections and mechanical construction shall be at least for 5 (five) years.

3.3.10. The mismatch losses for PV modules connected to an inverter shall be less than 1%.

3.3.11. PV module shall have module safety class-II and shall be highly reliable, light weight and must have a service life of more than 25 years.

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

3.3.13. The SPV module shall be made up of high transmissivity glass and front surface shall give high encapsulation gain and the module shall consists of impact resistance, low iron and high transmission toughened glass. The module frame shall be made of corrosion resistant anodized aluminium, which shall be electrically compatible with the structural material used for mounting the modules.

3.3.14. The PV modules shall have suitable encapsulation and sealing arrangements to protect the silicon cells from environment. The encapsulation arrangement shall ensure complete moisture proofing for the entire life of PV modules.

3.3.15. The PV module frame shall be made of aluminium or corrosion resistant material, which shall be electrolytically compatible with the structural material used for mounting the PV modules.

3.3.16. All materials used for manufacturing solar PV module shall have a proven history of reliability and stable operation in external applications. It shall perform satisfactorily in temperature between -40°C to +85°C and shall withstand adverse climatic conditions, such as high speed wind, blow with dust, sand particles, saline climatic/ soil conditions.

3.3.17. Modules only with the same rating and manufacturer shall be connected to any single inverter.

3.3.18. The Bidder shall provide in the Bid power performance test data sheets of all modules. The exact power of the module shall be indicated if the data sheet consists of a range of modules with varying output power.

3.3.19. RACP or the Discom or the TPIA reserves the right to inspect the PV modules at the manufacturer’s site prior to dispatch.

3.3.20. The Contractor would be required to maintain accessibility to the list of module IDs/ serial numbers along with the parametric data for each module.

3.3.21. RF Identification tag for each solar module shall be provided inside the
module and must be able to withstand environmental conditions and last the lifetime of the solar module.

3.4. GRID-TIE INVERTER

3.4.1. Make of only those Grid-tie Inverters which are commissioned for more than 1 MW capacity in other solar PV projects in India and operational for more than 1 (year) shall be considered.

3.4.2. The Contractor shall provide sufficient information for the satisfaction of RACP / Discom prior placing the order for the inverters.

3.4.3. All inverters shall consist of associated control, protection and data logging devices and remote monitoring hardware, software for string level monitoring.

3.4.4. Capacity of single unit of inverter shall be at least 5 kW.

3.4.5. Inverter shall conform to the following details:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Particulars</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Nominal AC Output Voltage</td>
<td>As per the manufacturer’s guidelines</td>
</tr>
<tr>
<td>2.</td>
<td>Type of solar charge controller</td>
<td>415 VAC ±15%, 3 phase, 50 Hz</td>
</tr>
<tr>
<td>3.</td>
<td>Switching Devices</td>
<td>MPPT-based Solar Charge Controller</td>
</tr>
<tr>
<td>4.</td>
<td>Maximum Input Voltage</td>
<td>MOSFET/ IGBT-based</td>
</tr>
<tr>
<td>5.</td>
<td>Output Waveform</td>
<td>Not more than 1000 VDC</td>
</tr>
<tr>
<td>6.</td>
<td>DC voltage range, MPPT</td>
<td>Pure Sine wave</td>
</tr>
<tr>
<td>7.</td>
<td>Peak Efficiency</td>
<td>As per design</td>
</tr>
<tr>
<td>8.</td>
<td>Euro Efficiency</td>
<td>At least 97%, measure as per IEC 61683</td>
</tr>
<tr>
<td>9.</td>
<td>Output frequency</td>
<td>At least 96%, measure as per IEC 61683</td>
</tr>
<tr>
<td>10.</td>
<td>Power Factor</td>
<td>50 Hz +3% to - 5% Hz</td>
</tr>
<tr>
<td>11.</td>
<td>Maximum THD at rated power</td>
<td>0.8 lag- 0.8 lead</td>
</tr>
<tr>
<td>12.</td>
<td>Ambient dry bulb temperature range</td>
<td>≤ 3 % 0 to 50° deg C</td>
</tr>
<tr>
<td>13.</td>
<td>Humidity</td>
<td>15% to 95 % non-condensing</td>
</tr>
<tr>
<td>14.</td>
<td>Enclosure</td>
<td>At least IP21 for indoor installation, At least IP65 for outdoor installation, as per IEC-60068-2 (environmental)</td>
</tr>
<tr>
<td>15.</td>
<td>Protection rating (as per IEC-60721-3-3)</td>
<td>Classification of chemically active substances: 3C2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Classification of chemically active substances: 3S2</td>
</tr>
<tr>
<td>16.</td>
<td>Grid Specifications</td>
<td>IEC 61727, VDE 0126</td>
</tr>
<tr>
<td>17.</td>
<td>Nominal Voltage &amp; Frequency</td>
<td>415 Volts, 3-phase&amp; 50 Hz</td>
</tr>
<tr>
<td>18.</td>
<td>Grid Voltage Tolerance</td>
<td>± 15% and -10%</td>
</tr>
<tr>
<td>19.</td>
<td>Communication protocol and interface</td>
<td>Modbus protocol over RS-485 interface</td>
</tr>
</tbody>
</table>

3.4.6. The inverters shall comply with applicable IEC/ equivalent BIS standard for environmental tests as per standard codes IEC 60068- 2 (1,2,14,30)/
Equivalent BIS Standard.

3.4.7. All inverters shall be IEC 61000 compliant for electromagnetic compatibility, harmonics, etc.

3.4.8. All inverters shall be safety rated as per IEC 62109 (1 &2), EN 50178 or equivalent DIN or UL standard.

3.4.9. All inverters shall be compliant with IEEE standard 929-200 or equivalent. The Contractor shall select the inverter as per its own system design so as to optimize the power output.

3.4.10. Display: The inverter shall have LCD (Liquid crystal display) and keypad for monitoring instantaneous parameters, event logs and data logs. Display should be simple and self-explanatory, and should indicate:
   (a) Instantaneous DC power input
   (b) DC input voltage
   (c) DC Current
   (d) Instantaneous active AC power output
   (e) Instantaneous reactive AC power output
   (f) AC voltage (all the 3 phases and line)
   (g) AC current (all the 3 phases and line)
   (h) kWh Produced during entire day
   (i) Total kWh produced during its life time
   (j) PCU must be provided with display

3.4.11. DC input terminals must be in enough numbers so as each terminal is connected to dedicated single input from the PV string. Two DC inputs cannot be connected to a single input DC terminal of the inverter. If adequate number of inputs are not available in the selected inverter by the Contractor then a DC junction box shall be incorporated into the design.

3.4.12. The inverter shall be tropicalized and design shall be compatible with conditions prevailing at site. Provision of exhaust fan with proper ducting for cooling of inverter’s internal circuitry shall be incorporated in the inverter, keeping in mind the extreme climatic condition of the site.

3.4.13. The Contractor shall completely adhere to the installation guidelines of the inverter manufacturer including but not limited to protection from exposure to sun, rain and other weather condition.

3.4.14. Nuts and bolts and the PCU enclosure shall have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.

3.4.15. (Grid Connectivity) CERC/ RERC regulations and grid code as amended and revised from time to time shall be complied with.

3.4.16. All three phases shall be supervised with respect to rise/fall in
programmable threshold values of frequency.

3.4.17. The inverter output shall always follow the grid in terms of voltage and frequency. This shall be achieved by sensing the grid voltage and phase and feeding this information to the feedback loop of the inverter. Thus, control variable then shall control the output voltage and frequency of the inverter, so that inverter is always synchronized with the grid.

3.4.18. The inverter shall be capable of synchronizing with the grid in less than 1 (one) minute.

3.4.19. The inverter shall automatically “wake up” in the morning and begin to export power provided there is sufficient solar energy and the grid voltage and frequency is in range.

3.4.20. Sleep Mode: Automatic sleep mode shall be provided so that unnecessary losses are minimized at night. The power conditioner must also automatically re-enter standby mode when threshold of standby mode reached.

3.4.21. Stand-by Mode: The control system shall continuously monitor the output of the solar power plant until pre-set value is exceeded & that value to be indicated.

3.4.22. Basic System Operation (Full Auto Mode): The control system shall continuously monitor the output of the solar power plant until pre-set value is exceeded and that value to be indicated.

3.4.23. The inverter shall include appropriate self-protective and self-diagnostic features to protect itself and the PV array from damage in the event of inverter component failure or from parameters beyond the inverter’s safe operating range due to internal or external causes. The self-protective features shall not allow signals from the inverter front panel to cause the inverter to be operated in a manner which may be unsafe or damaging. Faults due to malfunctioning within the inverter, including commutation failure, shall be cleared by the inverter’s protective devices. In addition, the inverter shall have following minimum protection against various possible faults:
(a) Ground fault monitoring
(b) Grid monitoring
(c) DC surge protection, Type II (if the inverter does not have integrated DC surge arrestors, then the surge arrestors shall be separately installed in the DC junction box on the positive and negative DC inputs)
(d) DC reverse polarity
(e) AC short-circuit capability
(f) Over-voltage and over-current
(g) Anti-islanding (as per IEEE 1547/UL 1741/ equivalent BIS standard)
(h) Balancing of unequal phases
(i) Negative earthing
(j) Manual DC isolator
3.4.24. Reactive Power: The output power factor of the inverter shall be of suitable range to supply or sink reactive power. The inverter shall have internal protection arrangement against any sustained fault in the feeder line and against lightning in the feeder line.

3.4.25. Inverter shall meet the reactive Power requirement of the induction motor pump set installed in Agriculture connections.

3.4.26. DC inputs of the inverters shall have suitably rated isolators on both positive and negative DC inputs to allow safe start up and shut down of the system. Circuit breakers used in the DC lines must be rated suitably.

3.4.27. No load loss < 1% of rated power and maximum loss in sleep mode shall be less than 0.05%.

3.4.28. The inverter shall have the facility of unit wise and integrated data logging.

3.4.29. The inverter shall be entirely self-managing and stable in operation. A self-diagnostic system check shall occur on start-up. Functions shall include a test of key parameters on start up.

3.4.30. The inverters shall be tested from the MNRE approved test centres/ NABL/BIS/IEC- accredited testing/ calibration laboratories.

3.4.31. Maximum power point tracker (MPPT) shall be integrated in the inverter to maximize energy drawn from the Solar PV array. The MPPT shall be microprocessor- based to minimize power losses. The MPPT unit shall confirm to IEC 62093 for design qualification and efficiency of MPPT shall be greater than 99%.

3.4.32. Inverter shall be capable to convert the DC using its MPPT feature to produce AC power as per following:
(a) The AC output voltage and frequency of the inverter must synchronize automatically to the exact AC voltage and frequency of the grid. Grid voltage shall be continuously monitored and in the event of voltage dip or rise above a pre-set value, the solar system shall be disconnected from the grid within the set time.
(b) In the case of inverters connected on different phases in the plant shall be capable of communicating with other and in the event of the fault even on a single phase all the inverters must be disconnected from the grid.
(c) Inverters shall have adjustable voltage setting and time settings. The output power factor shall be of suitable range to supply or sink reactive power.

3.4.33. The inverter shall have an RS-485 interface and support communication of its operational parameters and logs over Modbus protocol. The register mapping/memory mapping of the inverter data shall be made available by the Contractor from the inverter supplier and the Contractor/ inverter supplier shall provide full support for integration of inverter’s
communication data with third-party software and hardware as directed by the Discom.

3.4.34. RACP or the Discom or the TPIA reserves the right to inspect the inverters at the manufacturer’s site prior to dispatch.

3.5. MODULE MOUNTING STRUCTURE

3.5.1. Supply, installation, erection and acceptance of module mounting structure (MMS) with all necessary accessories, auxiliaries and spare part shall be in the scope of the Contractor.

3.5.2. The PV modules shall be mounted on fixed metallic structures having adequate strength and appropriate design, which can withstand the load of the modules and high wind velocities as per the wind zone and IS of the location of installation.

3.5.3. The MMS shall be designed and constructed such that it complies with the necessary mounting requirements of PV modules in order to maintain the PV module’s warranty.

3.5.4. MMS and its foundation shall be designed considering life span of 25 years.

3.5.5. The lowest point of the Module shall be the higher of (i) highest flood-level (HFL) of the location of installation, and (ii) 900 mm from the ground.

3.5.6. Design of the MMS shall take into consideration site conditions, soil report, loading data, wind data and design standards as per latest applicable IS standard.

3.5.7. The structure shall be designed for simple mechanical and electrical installation. It shall support SPV modules at a given orientation and tilt, absorb and transfer the mechanical loads to the ground properly.

3.5.8. The Contractor shall be fully responsible for any damages caused by high wind velocity within guarantee period. The parameters of prevailing wind speed, soil conditions, load, and upward lift shall be taken care of while preparing the design and the same is required to be mentioned on design.

3.5.9. MMS shall be made of hot dip Galvanized steel per ASTM A123. Minimum thickness of HDGI zinc coating shall be 70 micron at any point when measured. No averaging is allowed in the measurement of coating thickness. Necessary testing provision for MMS to be made available by Contractor at site.

3.5.10. All bolts, nuts, panel mounting clamps fasteners shall be of stainless steel of grade SS 304 and must sustain the adverse climatic conditions.

3.5.11. MMS shall be designed and positioned such that the PV modules are
completely shadow-free solar during generation hours.

3.5.12. All solar panels shall be easily accessible for cleaning and the Agriculture Consumer shall not be inclined to climb on the MMS or PV modules for cleaning the PV modules.

3.5.13. Junction boxes shall be mounted on the MMS such that they are easily accessible and are protected from direct sunlight and harsh weather.

3.5.14. Civil foundation design for MMS shall be made in accordance with the IS and prevailing soil conditions with the help of Chartered Structural Designer having substantial experience in similar work. All the cables shall be aesthetically tied to module mounting structure.

3.5.15. Cutting, Welding, drilling etc. at site is not allowed for MMS. Contractor shall carry out all correction in structure (if required) at his works. If any cutting, welding, drilling is required to be done after material arrived at site then material shall be again sent for hot dip galvanization. No zinc spray shall be allowed on the MMS.

3.5.16. Contractor shall submit the all the quality test documents and test certificates complying with the requirement of the structure.

3.5.17. Contractor shall submit detailed drawings of the MMS and its civil foundations, results of design computations and stability calculations for foundations, and structural fitness of PV module mounting structures as per STADD Pro analysis.

3.5.18. RACP or the Discom or the TPIA reserves the right to inspect the MMS at the manufacturer’s site prior to dispatch.

3.6. **DC Junction Box**

3.6.1. The Contractor shall provide sufficient numbers of array junction boxes/ PV combiner boxes/ DC distribution boxes to comply with design requirements of the PV system.

3.6.2. All switch boards shall be provided with adequately rated bus-bar, incoming control, outgoing control etc. as a separate compartment inside the panel to meet the requirements of the Chief Electrical Inspector of Government (CEIG). All live terminals and bus bars shall be shrouded. The outgoing terminals shall be suitable to receive suitable runs and size of cables required for the inverter/ transformer rating.

3.6.3. The degree of protection for junction boxes shall be:
   (a) Indoor Junction box: IP 21(Minimum)
   (b) Outdoor Junction Box: IP 65 (Minimum)

3.6.4. Junction boxes including the module junction box, string junction box, shall be equipped with appropriate functionality, safety (including fuses,
grounding, etc.), and protection (surge, etc.) if not provided on the DC-side of the inverter.

3.6.5. The terminals shall be connected to bus bar arrangement of proper sizes to be provided. The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables. Suitable markings shall be provided on the bus bars for easy identification and cable ferrules will be fitted at the cable termination points for identification.

3.6.6. For array junction box/ PV combiner box, Contractor may also provide polyamide glands and MC4 Connectors. The rating of the junction box shall be suitable with adequate safety factor to interconnect the Solar PV array.

3.6.7. The junction boxes shall be dust, vermin, and waterproof and made of thermoplastic/ metallic in compliance with IEC 62208, which shall be sunlight/ UV- resistive as well as fire retardant and Protection Class II or higher.

3.6.8. The current carrying rating of the Junction Boxes shall be rated with standard safety factor to interconnect the Solar PV array.

3.6.9. Suitable markings shall be provided on the bus-bars for easy identification and cable ferrules will be fitted at the cable termination points for identification.

3.6.10. Detailed junction box specifications, certifications and data sheet shall be provided by the Contractor for approval during project execution.

3.6.11. RACP or the Discom or the TPIA reserves the right to inspect the junction box at the manufacturer’s site prior to dispatch.

3.6.12. It is recommended that the interim, the cables of 1000 Volts DC for outdoor installations shall comply with the draft EN 50618 for service life expectancy of 25 years.

3.7. **AC DISTRIBUTION BOARD**

3.7.1. The inverter output shall have the necessary rated AC surge arrestors and MCB/ MCCB. MCB shall be used for currents up to 63 Amperes, and MCCB shall be used for currents greater than 63 Amperes. RCCB shall be used by the Agency if required for successful operation of the PV system.

3.7.2. AC Distribution Board (ACDB) shall house all the equipment described above.

3.7.3. All switches and the circuit breakers, connectors shall conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
3.7.4. All the 415 VAC 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:
(a) Variation in supply voltage: +/- 15 %
(b) Variation in supply frequency: +/- 3 Hz

3.8. CABLES AND WIRES

3.8.1. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions for 25 years and voltages as per latest IEC standards. (Note: IEC standards for DC cables for PV systems is under development, the cables of 1000 volts DC for outdoor installations shall comply with the draft EN 50618 for service life expectancy of 25 years.)

3.8.2. Wires with sufficient ampacity and parameters shall be designed and used so that average voltage-drop at full power from the PV modules to inverter shall not be more than 2% (including diode voltage drop). PV Modules shall be connected with USE-2/ RHW-2 cables array to junction box conductors and junction box to photovoltaic disconnector with the sunlight resistant insulation cable. Due consideration shall be made for the de-rating of the cables with respect to the laying pattern in buried trenches/ on cable trays, while sizing the cables. The Contractor shall provide voltage drop calculations in excel sheet during the design approvals.

3.8.3. All cables shall be supplied in the single largest length to restrict the straight-through joints to the minimum number. Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. All wires used on the LT side shall conform to IS and shall be of appropriate voltage grade. Only copper conductor wires of reputed make shall be used for DC connections, while copper or aluminium conductor wires may be us used for AC connections.

3.8.4. All cables shall be XLPE insulated grade conforming to IS 7098-I.

3.8.5. Irrespective of utilization voltage and current rating all type of power cables shall be minimum of 1100 V grade XLPE/ PVC insulated conforming to IS 7098/ 1554/ IS 694. For working voltage less than, 150 V control cable shall be of minimum 500 V grade. All LT XLPE cables shall confirm to IS: 7098 Part I.

3.8.6. Cable routing/ marking: All cable/ wires are to be suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified.

3.8.7. The cables shall be adequately insulated for the voltage required and shall be suitably colour coded for the required service. Bending radius for cables shall be as per manufacturer's recommendations and IS: 1255.
3.8.8. All the cables required for the installation provided by the Contractor. All cable schedules/ layout drawings shall be submitted by the Contractor for approval of RACP or the Discom or TPIA prior to installation.

3.8.9. Multi-strand, annealed high conductivity copper conductor PVC type ‘A’ pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured cable shall be used 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 1100 V ,UV resistant for outdoor installation IS/IEC 69947.

3.8.10. Technical Specification Of LT XLPE Cables: General Constructional Features
(a) The medium voltage cables shall be supplied, laid, connected, tested and commissioned in accordance with the drawings, specifications, relevant Indian Standards specifications, manufacturer’s instructions. The cables shall be delivered at site in original drums with manufacturer’s name, size, and type, clearly written on the drums.

(b) Material: Medium voltage cable shall be XLPE insulated. PVC sheathed, aluminium or copper conductor, armoured conforming to IS: 7098 Part I.

(c) Conductor: Uncoated, annealed copper, of high conductivity upto 4 mm² size, the conductor shall be solid and above 4 mm², conductors shall be concentrically stranded as per IEC: 228.

(d) Insulation: XLPE rated 70° c. extruded insulation.

(e) Core Identification:

<table>
<thead>
<tr>
<th>Core Type</th>
<th>Color Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two core</td>
<td>Red and Black</td>
</tr>
<tr>
<td>Three core</td>
<td>Red, Yellow and Blue</td>
</tr>
<tr>
<td>Four core</td>
<td>Red, Yellow, Blue and Black</td>
</tr>
<tr>
<td>Single core</td>
<td>Green cable with Yellow strips for earthing</td>
</tr>
<tr>
<td>Black shall always be used for neutral. Solar DC cable shall be black with red strip for positive and black for negative in colour.</td>
<td></td>
</tr>
</tbody>
</table>

3.8.11. Armour: All cables laid underground shall be armoured. And laid in ground at a minimum depth of 1.5 meter. Armour shall be of galvanised steel flat strip/ round wires applied helically in single layers complete with covering the assembly of cores.

(a) For cable size up to 25 Sq. mm. Armour of 1.4 mm dia G.I. round wire
(b) For cable size above 25 Sq. mm. Armour of 4 mm wide 0.8 mm thick G.I strip.

3.8.12. Sheath: The cable shall be rated extruded for XLPE 90°C. Inner sheath shall be extruded type and shall be compatible with the insulation provided
for the cables. Outer sheath shall be of an extruded type layer of suitable PVC material compatible with the specified ambient temp 50°C and operating temperature of cables. The sheath shall be resistant to water, ultraviolet radiation, fungus, termite and rodent attacks. The colour of outer sheath shall be black. Sequential length marking required at every 1.0 meter interval on outer sheath shall be available. The Contractor shall furnish resistance/ reactance/ capacitances of the cable in the technical datasheet. Packing and marking shall be as per Clause No. 18 of IS 7098 (part I)/1988 amended up to date.

3.8.13. Cable terminations shall be made with suitable cable lugs and sockets, crimped properly and passed through brass compression type cable glands at the entry and exit point of the cubicles.

3.8.14. All cable/wires shall be provided with Punched Aluminium tags only. The marking on tags shall be done with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.

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

3.8.16. The wiring for modules interconnection shall be in the GI/ HDPE/DWC Pipe of reputed make.

3.8.17. The RS-485 cable from inverter to the metering box shall be armoured and may be laid along with the AC power cables only if there is no mutual interference. In case any interference is found between the power cables and the RS-485 cable, the Contractor shall separately lay the RS-485 cable at its own cost.

3.9. **Lightening Protection for PV Array**

3.9.1. All PV systems shall have lightning protection.

3.9.2. The source of over voltage can be lightning or other atmospheric disturbance. Main aim of over voltage protection is to reduce the over voltage to a tolerable level before it reaches the PV or other sub-system components as per IS: 2309 – 1989 (Reaffirmed-2005), Edition 3.1 (2006-01).

3.9.3. Necessary foundation/ anchoring for holding the lightning conductor in position to be made after giving due consideration to shadow on PV array, maximum wind speed and maintenance requirement at site in future.

3.9.4. The lightning conductor shall be earthed through flats and connected to the earth mats as per applicable Indian Standards with earth pits. Two earth pits shall be provided for each lightning arrestor. Each lightning conductor shall be fitted with individual earth pit as per required Standards including accessories, and providing masonry enclosure with cast iron cover plate
having locking arrangement, watering pipe using charcoal or coke and salt as required as per provisions of IS & Earth Resistance of Lightening System must be less than one (1) Ohm.

3.9.5. If necessary more numbers of lightning conductors may be provided. The Contractor is also free to provide franklin rod/ early streamer type of lightning arrestors on the MMS structure designed in such a way not to cast shadow on the next raw of solar PV modules.

3.9.6. The Contractor shall submit the drawings and detailed specifications of the PV array lightning protection equipment to the Discom or TPIA for approval before installation of system.

3.9.7. Contractor shall provide dedicated earth pits for Lightening Arrestor as per relevant IS standard.

3.10. POWER EVACUATION

3.10.1. Individual plant shall be connected to grid as per guidelines of CEA, RERC and Chief Electrical Inspector.

3.10.2. The output power from PV array would be fed to the inverters which converts DC produced by PV 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.

3.10.3. Contractor shall follow the maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time.

3.10.4. Interconnection Voltage level: All solar plant interconnection voltage level shall be at LT 415VAC, 3-phase, 50 Hz.

3.11. EARTHING

3.11.1. Each array structure of the PV yard, LT power system, earthing grid for switchyard, all electrical equipment, inverter, all junction boxes, etc. shall be grounded properly as per IS 3043-1987. All metal casing/shielding of the plant shall be thoroughly grounded in accordance with Indian Electricity Act/ Rules.

3.11.2. Each string/ array and MMS of the plant shall be grounded properly. The array structures are to be connected to earth pits as per IS standards. Necessary provision shall be made for bolted isolating joints of each earthing pit for periodic checking of earth resistance.

3.11.3. The complete earthing system shall be mechanically and electrically connected to provide independent return to earth.
3.11.4. Earthing bus bar shall be terminated at both ends of the switchgear to suit the connections to outside earthing conductor. All components and the module are required to be earthed individually and are to be looped and connected to the earthing grid. Separate earth pits shall be prepared for equipment body earthing. Lightning arrestor earth pits and equipment earth pit are to be kept separate.

3.11.5. Earthing system shall consist of earth grids and electrodes buried in soil in the plant area, embedded in concrete inside the buildings/rooms to which all the electrical equipment, metallic structures are connected to have earth continuity for safety reasons.

3.11.6. All the bolts of earthing system shall be of Stainless steel (SS) type.

3.11.7. Minimum earthing conductor size shall be 50 x 6 Sq. mm for aluminium strips, or 6 mm² for copper conductors.

3.11.8. The earthing system shall be designed with consideration of the earth resistivity of the project area. The earth resistivity values shall be measured prior to designing the earthing system. Unless otherwise specified, earthing system shall be in accordance with IS: 3043 and IEEE 80-2000, Indian Electricity Rules, Codes of practice and regulations existing in the location where the system is being installed.

3.11.9. The earthing shall be maintenance free earthing and shall be done through 3 meter long stainless steel earthing rod.

3.12. LOW VOLTAGE (LV) SWITCHGEARS

3.12.1. LV switchboard shall be IP 21 for indoor and IP 65 for outdoor application made with heavy duty PVC/ metal enclosure.

3.12.2. LV switchboard with metal enclosure shall be minimum 2mm thick and with properly coated.

3.12.3. MCB/MCCB/ RCCB and cables shall be rated as per rated current of the circuit, application voltage class, short circuit capacity.

3.12.4. All switchboards shall be supplied completely wired internally upto the terminals, ready to receive external cables.

3.12.5. No extra holes shall be allowed in the gland plate. Proper vermin proofing of the panel is required.

3.12.6. Suitable cable entry shall be provided considering bending radius of the incoming and outgoing cable.

3.12.7. All cables, MCB, MCCB, RCCB shall be of reputed make.

3.13. SOLAR METER
3.13.1. Energy Meters to log the actual value of Energy generated by the PV system be provided. Energy meter if required with CT/PT shall be of 0.5 s accuracy class as per relevant specifications by MNRE/Discom.

3.14. **NET-METER**

3.14.1. The bi-directional electronic energy meter (0.5 s class) shall be installed for the measurement of import/Export of energy, as per relevant specifications by MNRE/Discom.

3.14.2. Old meter of the existing Agriculture consumer shall be replaced by the Contractor after issue of Meter Change Order by concerned AEN (O&M) of Discom on the same day of installation of net-meter. The old meter is to be deposited by the Contractor in the concerned Office of AEN (O&M) of Discom.

3.14.3. Net-meter shall be installed in the presence of the Contractor, the Agriculture Consumer, concerned AEN (O&M), AEN (M&P) and Nodal Officer jointly with preparation of “Joint Inspection Report” (JIR) in prescribed format.

3.15. **CIVIL WORK**

3.15.1. The scope works shall cover for all services required for completion of civil works in all respect for PV plant. All machineries, tools and designs to be arranged by Contractor.

3.15.2. Contractor shall carry out geotechnical survey prior to design and installation of the PV system.

3.15.3. The work shall be executed according to the specifications and good standard practice necessary to fulfil the objective of the survey work, strictly in accordance with the instructions and satisfaction of RACP / the Discom.

3.15.4. Foundations:

   (a) The Contractor is responsible for the detailed soil investigation and subsequent foundation design of the structures in the plant. Minimum 5 (five) numbers of soil exploration is to be carried out for each feeder. The foundation of the module mounting structures foundation and other important equipment foundation must be approved through RACP or Discom or TPIA prior to construction. The Contractor shall provide the detailed design report with calculations of the proposed foundation. Pedestals over the MMS foundation shall be projected minimum 150 mm above the finished ground level.

   (b) The foundations shall be designed considering the weight and distribution of the load of structure and its assembly. The foundation
shall be designed in accordance to recommendation and results of soil investigation reports and mounting structure shall be designed for maximum wind speed as per the wind zone of the location and relevant IS. Seismic effect relevant to the seismic zone of the area and highest water logging level has to be considered while making the design of the foundation.

(c) The MMS foundation shall be constructed using RCC concrete pile foundation of required diameter and depth based on approved design.

(d) The elevated structure has to be securely anchored to the supporting surface, also bolted with anchor bolts of appropriate strength for elevated structures mounted on RCC surfaces.

### 3.16. CAUTION SIGNS

3.16.1. In addition to the standard caution and danger boards or labels as per Indian Electricity Rules, the AC distribution box near the solar grid inverter and the distribution board to which the AC output of the solar PV system is connected shall be provided with a noncorrosive caution label with the following text:

WARNING – DUAL POWER SOURCE SECOND SOURCE IS SOLAR SYSTEM

3.16.2. The size of the caution label shall be 105mm (width) x 20mm (height) with white letters on a red background.

### 3.17. SIGN BOARDS

3.17.1. The sign board containing brief description of various components of the power plant as well as the complete power plant in general shall be installed at appropriate location near the PV system.

3.17.2. The Signboard shall be made of MS angle or pipe for vertical post with ACP (Aluminium Composite Panel) sheet of not less than 3 mm. The Contractor shall provide detailed specifications of the sign boards as per requirement of the RACP / Discom.

3.17.3. Name Plate: Name Plate in Hindi language of size 600 mm x 600 mm x 2 mm on iron plate is required to be prepared as provided in Section M Format M4 separately and required to be fixed on the system for every installation.

### 3.18. DRAWINGS & MANUALS

3.18.1. Two sets of engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidder 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 PV Installation
setup and power evacuation, synchronization along with protection equipment.

3.18.2. The Contractor shall furnish the following drawings after Letter of Award/ Letter of Intent and obtain approval:
(a) General arrangement and dimensioned layout.
(b) Schematic drawing showing the requirement of PV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
(c) Routing diagram of cables and wires.
(d) Data sheets and user manuals of the solar PV panels and the solar grid inverter.
(e) Structural drawing along with foundation details for the structure.
(f) Itemized bill of material for complete SV plant covering all the components and associated accessories.
(g) Layout of solar Power Array
(h) Shadow analysis of the site
(i) Maintenance register.

3.18.3. Approved ISI and reputed makes for equipment be used.

3.18.4. For complete electromechanical works, Contractor shall supply complete design, details and drawings for approval to RACP / Discom and TPIA before progressing with the installation work.

3.19. PLANNING & DESIGNING

3.19.1. RACP / the Discom reserves the right to modify the layout and specification of sub- systems and components at any stage as per local site conditions/requirements.

3.19.2. The Contractor shall submit preliminary drawing for approval and based on any modification or recommendation, if any. The Contractor shall submit three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

3.20. SAFETY MEASURES

The Contractor 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, as well as applicable rules & regulations of Rajasthan State, etc.

4. MAINTENANCE & GENERATION GUARANTEE

4.1. Comprehensive Maintenance (CMC)

4.1.1. The Contractor shall undertake comprehensive maintenance of the PV system including all its equipment and subsystems for a period of 5 (five) years from the date of commissioning of the PV system

4.1.2. This shall also include free replacement warranty on spare parts against
manufacturing defects for five years from the date installation.

4.1.3. The Contractor shall attend to any complaint from the Agriculture Consumer and rectify any faults or breakdown within a timeframe of 48 (forty eight) hours from such complaint. The Contractor shall be liable for any loss of generation from the PV system arising from persisting fault beyond the 48-hour period and shall compensate the Agriculture Consumer at the rate of Rs. 7.00 per kWh of generation loss beyond the 48-hour period.

4.1.4. CMC will include submission of monthly /quarterly inspection report of the installation as per prescribed format of RACP/Discom. Quarterly report shall be prepared and submitted to RACP/ DISCOM after providing necessary services.

4.1.5. To ensure timely maintenance of the systems the vendor shall have one Office-cum-service centre in each operational district and a helpline in local language in each operational State.

4.1.6. Contractor shall proceed to first establish office-cum-service centre in each operational district for installation of systems. Contractor shall be bound to provide after sales service to the beneficiaries in the vicinity of the area of the installed systems or at least at tehsil level /at district to facilitate CMC services. The beneficiaries shall be well informed about the CMC centre of the Contractor, call centre/toll free numbers. This may consist of office cum service centre at a convenient place to be reached by a beneficiary. Such office cum service centres shall have spares for the system and repair facility. The Concerned Nodal officer of Discom shall verify this fact and only then Contractor shall be allowed to install the systems.

4.1.7. The Contractor will educate the Beneficiaries on the process for registering the complaints on Call Center/toll free nos. The details of office cum after sales service centers along with telephone numbers & contact persons of firm & details of Discom offices, address and telephone numbers must be provided to each beneficiary. Beneficiaries shall also be educated through brochures about dos & don’ts on the system. Contractor will update the status of fault rectification on Discom website /call centre for online monitoring of the complaints registered and services being provided by the Contractor.

4.1.8. It may be carefully noted that maintenance of SPV Systems includes maintenance of all items including all accessories.

4.2. GENERATION GUARANTEE

4.2.1. The Contractor shall provide a minimum generation guarantee corresponding to a capacity utilization factor (CUF) of 18.6% (the “Guaranteed CUF”) with respect to the AC capacity of the PV system.

4.2.2. This Guaranteed CUF shall be calculated on an annual-basis and shall be verified by the Discom at the end of each year during the 5 (five) year
4.2.3. There shall be no year-on-year reduction on the Guaranteed CUF during the 5 (five) year guarantee period.

4.2.4. In case of energy generation corresponding to the average of surrounding 10 such locations is less or less than the Guaranteed CUF, whichever is higher, the Discom shall recover an amount at the rate of Rs. 7.00 per kWh from the Contractor for such shortfall at the end of the contract year to compensate the same to the Agriculture Consumer.

4.2.5. In case of energy generation corresponding to less than the Guaranteed CUF, It is clarified that the penalty for loss in generation shall not be duplicated with the penalty for delay in rectification of fault beyond 48 hours of complaint.

5. PROJECT MANAGEMENT

5.1. Testing and Third-Party Inspection

5.1.1. The Contractor shall provide all relevant plant and equipment specifications, data sheets, certificates, designs, drawings, etc. to RACP/Discom/TPIA for approval prior to commencement of installation. Structural designs shall be provided to the TPIA in STAAD Pro format for verification and approval.

5.1.2. RACP/Discom/TPIA shall have, at all times, access to the Contractor’s premises and also shall have the power to inspect and examine the materials and workmanship of project work during its manufacturing, shop assembly and testing. If part of the equipment is required to be manufactured in the premises other than the Contractor’s, the necessary permission for inspection shall be obtained by the Contractor on behalf of RACP/Discom/TPIA.

5.1.3. RACP/Discom and the TPIA shall have the right to serve notice in writing to the Contractor on any grounds of objections, which they may have in respect of the work. The Contractor shall have to satisfy the objection, otherwise, the Discom at its liberty may reject any or all components of equipment or workmanship connected with such work.

5.1.4. The Contractor shall issue request letter to RACP/Discom for testing of any component of the plant, which is ready for testing at least 15 (fifteen) days in advance from the date of actual date of testing at the premises of the Contractor or elsewhere. When the inspection and the tests have been satisfactorily completed at the Contractor’s works, RACP/Discom or the TPIA shall issue a certificate to that effect. However, RACP/Discom at its own discretion may waive the inspection and testing in writing. In such case, the Contractor may proceed with the tests which shall be deemed to have been made in the RACP/Discom or the TPIA’s presence, and it shall forthwith forward 6 (Six) sets of duly certified copies of test results and
certificates to the RACP /Discom and the TPIA for approval of RACP /Discom. The Contractor, on receipt of written acceptance from RACP /Discom or the TPIA, may dispatch the equipment for erection and installation.

5.1.5. For all tests to be carried out, whether in the premises of the Contractor or any subcontractor or the supplier, the Contractor shall provide labour, materials, electricity, fuel, water, stores, apparatus and instruments etc. free of charge as may reasonably be demanded to carry out such tests of the equipment. The Contractor shall provide all facilities to RACP / Discom / TPIA to accomplish such testing.

5.1.6. The RACP / Discom / TPIA shall have the right to carry out inward inspection of the items on delivery at the Site and if the items have been found to be not in line with the approved specifications, shall have the liberty to reject the same.

5.1.7. Neither the waiving of inspection nor acceptance after inspection by the RACP / Discom / TPIA shall, in anyway, absolve the Contractor of the responsibility of supplying the equipment strictly in accordance with requisite standards and specifications.

5.1.8. RACP / Discom / TPIA shall undertake final commissioning test of the PV system including its design, specification, safety and performance.

6. Other Key Responsibilities

6.1. MNRE/Discom Inspection & Reporting

6.1.1. The Ministry officials or designated agency may inspect the ongoing installation or installed plants. In case the installed systems are not as per standards, non-functional on account of poor quality of installation, or non-compliance of AMC, the Ministry reserves the right to blacklist the Contractor. Blacklisting may inter-alia include the following:

(a) The Contractor will not be eligible to participate in tenders for Government supported projects.

(b) In case, the concerned Director(s) of the Contractor joins another existing or starts/ joins a new firm/company, the company will automatically be blacklisted.

6.1.2. The Contractor shall be responsible for providing daily / weekly / monthly or customized information regarding progress of projects required by Discom / MNRE, online or in hard copy. For which the Contractor is also responsible for maintaining online & off-line records.

6.1.3. Assist Discom with a real-time monitoring dedicated web-portal.

6.1.4. Providing training to the locals.
6.2. **Net-Metering of Power**

6.2.1. Net metering is the concept which records difference between export of generated energy and import of energy from Discom grid during billing cycle.

6.2.2. Rajasthan Electricity Regulatory Commission (RERC) has issued “Regulation for net metering and grid connectivity” on 26th February, 2015. The Agriculture Consumers / Contractor going for installation of SPV Power units will also be governed by the rules & regulations of Net Metering scheme as notified by RERC and amended time to time.

6.2.3. The Contractor shall bear the entire cost of metering arrangement provided including its accessories. The fee and other charges, if applicable, such as security deposit payable to office of Discom & Electrical inspector will be payable by beneficiary separately.

6.2.4. The installation of meters including CTs & PTs, wherever applicable, shall be carried out by the supplier as per the procedures in line with Discom(s) guidelines and with their permission.
3. **DRAWINGS- N/A**
4. INSPECTIONS AND TESTS

The following inspections and tests shall be performed:

(a) The Purchaser will test the equipment after completion of the installation and commissioning at the site. For site preparation, the Supplier should furnish all details to the Purchaser sufficiently in advance so as to get the works completed well in time. Complete equipment should be supplied, installed and commissioned properly by the supplier prior to commencement of performance tests.

(b) The acceptance test will be conducted by a Committee constituted by the PMU\PIU/ PIA, RACP, and the Committee shall inspect and make recommendations for acceptance of goods & related services offered by the supplier.

(c) Frequent surveillance by inspection teams comprising officials from RACP/ designated agency by RACP may be a regular feature under the Project. They may draw random samples periodically from the field, within a period of five years from the date of installation of the system. At the time of inspection, the system should be fully functional.

(d) Manufacturing unit (factory) may be inspected before agreement or as and when RACP authorities feels necessary to ensure the performance and quality of the product. Any official nominated by the PD, RACP, will do inspection. Pre Dispatch Inspection (PDI) may be made by the PMU authorised officers for the supplies. The supplier will inform the tentative date of supply along with the details of the material and accordingly PDI may be made before the dispatch of material. Authorizes service centres may also be inspected as and when required.

(e) A random sampling from the manufacturing unit or go-down of authorized distributor/dealer will, as and when required, be performed to ascertain the quality of supplies. Provision of third party inspection from any authentic agency will also be kept so as to take samples and the testing done from a reputed test house for the same purpose.
5. PROFORMA OF CERTIFICATE FOR ISSUE BY THE PURCHASER AFTER SUCCESSFUL INSTALLATION AND STARTUP OF THE SUPPLIED GOODS

[This is to be attached for supply, erection, supervision of erection and startup contracts only]

No. Date:

M/s.

Sub: Certificate of startup of the supplied Goods

1. This is to certify that the plant/s as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para No. 2) and a set of spares in accordance with the Contract/Specifications. The same has been installed and commissioned.

   (a) Contract No. ________________________dated_____________________

   (b) Description of the plant_________________________________________

   (c) Plant Nos. ___________________________________________________

   (d) Quantity _____________________________________________________

   (e) Rail/Roadways Receipt No. _______________dated_____________________

   (f) Name of the consignee ___________________________________________

   (g) Date of startup and proving test _________________________________

2. Details of accessories/spares not yet supplied and recoveries to be made on that account.

   S. No. Description Amount to be recovered

3. The proving test has been done to our entire satisfaction and operators have been trained to operate the plant.

93
4. The supplier has fulfilled his contractual obligations satisfactorily. *

or

The supplier has failed to fulfill his contractual obligations with regard to the following:

(a) 

(b) 

(c) 

(d) 

5. The amount of recovery on account of non-supply of accessories and spares is given under Para No. 2.

6. The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated in endorsement of the letter.

Signature _________________________

Name ____________________________

Designation with Stamp _____________

* Explanatory notes for filling up the certificates:

(a) He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to Technical Specifications.

(b) He has supervised the startup of the plan in time i.e., within the period specified in the contract from the date of intimation by the Purchaser in respect of the installation of the plant.

(c) Training of personnel has been done by the supplier as specified in the contract

(d) In the event of documents/drawings having not been supplied or installation and startup of the plant have been delayed on account of the supplier, the extent of delay should always be mentioned.
PART 3 – CONTRACT
SECTION VIII – GENERAL CONDITIONS OF CONTRACT
Section VIII. General Conditions of Contract

Table of Clauses

1. DEFINITIONS ..................................................................................................................98
2. CONTRACT DOCUMENTS ...............................................................................................99
3. CORRUPT & FRAUDULENT PRACTICES ........................................................................99
4. INTERPRETATION ...........................................................................................................99
5. LANGUAGE .....................................................................................................................100
6. DELETED ........................................................................................................................100
7. ELIGIBILITY ....................................................................................................................100
8. NOTICES ........................................................................................................................101
9. GOVERNING LAW ..........................................................................................................101
10. SETTLEMENT OF DISPUTES .......................................................................................101
11. INSPECTIONS AND AUDIT BY THE BANK ..................................................................101
12. SCOPE OF SUPPLY .......................................................................................................102
13. DELIVERY AND DOCUMENTS .....................................................................................102
14. SUPPLIER’S RESPONSIBILITIES ..................................................................................102
15. CONTRACT PRICE .........................................................................................................102
16. TERMS OF PAYMENT ....................................................................................................102
17. TAXES AND DUTIES ....................................................................................................103
18. PERFORMANCE SECURITY ............................................................................................103
19. COPYRIGHT ..................................................................................................................103
20. CONFIDENTIAL INFORMATION ......................................................................................103
21. SUBCONTRACTING ........................................................................................................104
22. SPECIFICATIONS AND STANDARDS ...........................................................................104
23. PACKING AND DOCUMENTS .........................................................................................105
24. INSURANCE ....................................................................................................................105
25. TRANSPORTATION & INCIDENTAL SERVICES ............................................................105
26. INSPECTIONS AND TESTS ............................................................................................106
27. LIQUIDATED DAMAGES ................................................................................................107
28. WARRANTY ....................................................................................................................107
29. PATENT INDEMNITY .....................................................................................................108
30. LIMITATION OF LIABILITY ............................................................................................109
31. CHANGE IN LAWS AND REGULATIONS ......................................................................109
32. FORCE MAJEURE ...........................................................................................................109
33. CHANGE ORDERS AND CONTRACT AMENDMENTS ...................................................110
34. EXTENSIONS OF TIME ................................................................................................111
35. TERMINATION ...............................................................................................................111
36. ASSIGNMENT ...............................................................................................................112
Section VIII. General Conditions of Contract

1. Definitions

The following words and expressions shall have the meanings hereby assigned to them:

(a) “Bank” means the World Bank and refers to the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).

(b) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.

(c) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.

(d) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.

(e) “Day” means calendar day.

(f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.

(g) “GCC” mean the General Conditions of Contract.

(h) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.

(i) “Purchaser’s Country” is India.

(j) “Purchaser” means the entity purchasing the Goods and Related Services, as specified in the SCC.

(k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, start-up, training and initial maintenance and other such obligations of the Supplier under the Contract.

(l) “SCC” means the Special Conditions of Contract.
“Subcontractor” means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.

“Supplier” means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.

“The Project Site,” where applicable, means the place named in the SCC.

2. Contract Documents

2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

3. Corrupt & Fraudulent Practices

3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix to the GCC.

3.2 The Purchaser requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

4. Interpretation

4.1 If the context so requires it, singular means plural and vice versa.

4.2 Incoterms

(a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms.

(b) The terms EXW and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the SCC and published by the International Chamber of Commerce in Paris, France.

4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

4.4 Amendment
No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

4.5 Non waiver

(a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

(b) Any waiver of a party’s rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.6 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be English. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in English language, in which case, for purposes of interpretation of the Contract, this translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

6. Deleted

7. Eligibility

7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

7.2 All Goods and Related Services to be supplied under the Contract and financed by the Bank shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture,
processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

8. Notices

8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.

8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.

9. Governing Law

9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Union of India.

10. Settlement of Disputes

10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

10.3 Notwithstanding any reference to arbitration herein,

(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

(b) the Purchaser shall pay the Supplier any monies due the Supplier.

11. Inspections and Audit by the Bank

11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time changes and costs.

11.2 The Supplier shall permit, and shall cause its Subcontractors to permit, the Bank and/or persons appointed by the Bank to inspect the Supplier’s offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by
the Bank if requested by the Bank. The Supplier’s and its Subcontractors and consultants’ attention is drawn to Clause 3 [Fraud and Corruption], which provides, inter alia, that acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under this Sub-Clause 11.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank’s prevailing sanctions procedures).

12. Scope of Supply 12.1 The Goods and Related Services to be supplied shall be as specified in the Special Condition of Contract.

13. Delivery and Documents 13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.

14. Supplier’s Responsibilities 14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

15. Contract Price 15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.

16. Terms of Payment 16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the SCC.

16.2 The Supplier’s request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.

16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.

16.4 The payments shall be made in Indian Rupees to the Supplier under this Contract.

16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the SCC, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the SCC, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.
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<td><strong>17. Taxes and Duties</strong></td>
<td>17.1 The Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.</td>
</tr>
</tbody>
</table>
| **18. Performance Security** | 18.1 If required as specified in the SCC, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the SCC.  
18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier’s failure to complete its obligations under the Contract.  
18.3 As specified in the SCC, the Performance Security shall be denominated in the Indian Rupees, and shall be in the format stipulated by the Purchaser in the SCC, or in another format acceptable to the Purchaser.  
18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier’s performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC. |
| **19. Copyright** | 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party |
| **20. Confidential Information** | 20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.  
20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the |
Purchaser for any purpose other than the performance of the Contract.

20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:

(a) the Purchaser or Supplier need to share with the Bank or other institutions participating in the financing of the Contract;

(b) now or hereafter enters the public domain through no fault of that party;

(c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or

(d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. Subcontracting

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. Specifications and Standards

22.1 Technical Specifications and Drawings

(a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VII, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods’ country of origin.

(b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.

(c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the
edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

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

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

24. Insurance

24.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

25. Transportation & Incidental Services

25.1 Unless otherwise specified in the SCC, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.

25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in Schedule of Requirements and SCC:

(a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;

(b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;

(c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;

(d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
training of the Purchaser’s personnel, at the Supplier’s plant 
and/or on-site, in assembly, start-up, operation, maintenance, 
and/or repair of the supplied Goods

25.3 Prices charged by the Supplier for incidental services, if not 
included in the Contract Price for the Goods, shall be agreed upon 
in advance by the parties and shall not exceed the prevailing rates 
charged to other parties by the Supplier for similar services

26. Inspections and Tests

26.1 The Supplier shall at its own expense and at no cost to the 
Purchaser carry out all such tests and/or inspections of the 
Goods and Related Services as are specified in the SCC.

26.2 The inspections and tests may be conducted on the premises of 
the Supplier or its Subcontractor, at point of delivery, and/or at 
the Goods’ final destination, or in another place in the 
Purchaser’s Country as specified in the SCC. Subject to GCC 
Sub-Clause 26.3, if conducted on the premises of the Supplier 
or its Subcontractor, all reasonable facilities and assistance, 
including access to drawings and production data, shall be 
furnished to the inspectors at no charge to the Purchaser.

26.3 The Purchaser or its designated representative shall be entitled 
to attend the tests and/or inspections referred to in GCC Sub-
Clause 26.2, provided that the Purchaser bear all of its own costs 
and expenses incurred in connection with such attendance 
including, but not limited to, all traveling and board and lodging 
expenses.

26.4 Whenever the Supplier is ready to carry out any such test and 
inspection, it shall give a reasonable advance notice, including 
the place and time, to the Purchaser. The Supplier shall obtain 
from any relevant third party or manufacturer any necessary 
permission or consent to enable the Purchaser or its designated 
representative to attend the test and/or inspection.

26.5 The Purchaser may require the Supplier to carry out any test 
and/or inspection not required by the Contract but deemed 
necessary to verify that the characteristics and performance of 
the Goods comply with the technical specifications codes and 
standards under the Contract, provided that the Supplier’s 
reasonable costs and expenses incurred in the carrying out of 
such test and/or inspection shall be added to the Contract Price. 
Further, if such test and/or inspection impedes the progress of 
manufacturing and/or the Supplier’s performance of its other 
obligations under the Contract, due allowance will be made in 
respect of the Delivery Dates and Completion Dates and the 
other obligations so affected.

26.6 The Supplier shall provide the Purchaser with a report of the 
results of any such test and/or inspection.
26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.

26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for Sixty (60) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier’s risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29. Patent Indemnity

29.1 The Supplier shall, subject to the Purchaser’s compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney’s fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

(a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and

(b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.

29.4 The Purchaser shall, at the Supplier’s request, afford all available assistance to the Supplier in conducting such
proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.

29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney’s fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

30. Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct,

(a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and

(b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement.

31. Change in Laws and Regulations

31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to
perform its obligations under the Contract is the result of an event of Force Majeure.

32.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. Change Orders and Contract Amendments

33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

(a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;

(b) the method of shipment or packing;

(c) the place of delivery; and

(d) the Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier’s performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier’s receipt of the Purchaser’s change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.
Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

34. Extensions of Time

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier’s notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier’s time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. Termination

35.1 Termination for Default

(a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:

(i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34;

(ii) if the Supplier fails to perform any other obligation under the Contract; or

(iii) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.

(b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency.
(a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

35.3 Termination for Convenience.

(a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser’s convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

(b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier’s receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

(i) to have any portion completed and delivered at the Contract terms and prices; and/or

(ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

36. Assignment 36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.
APPENDIX TO GENERAL CONDITIONS
Bank’s Policy- Corrupt and Fraudulent Practices

(text in this Appendix shall not be modified)
Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

“Fraud and Corruption:

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.\footnote{In this context, any action to influence the procurement process or contract execution for undue advantage is improper.} In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;\footnote{For the purpose of this sub-paragraph, “another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.}

(ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;\footnote{For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.}

(iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;\footnote{For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.}

(iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;\footnote{For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.}

(v) "obstructive practice" is:

(aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or
intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or

(bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.

(b) will reject a proposal for award if it determines that the bidder recommended for award, or any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

(c) will declare mis procurement and cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

(d) will sanction a firm or individual, at any time, in accordance with the prevailing Bank’s sanctions procedures, \(^{14}\) including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated\(^ {15}\);

(e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.”

\(^{14}\) A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank’s sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

\(^{15}\) A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.
SECTION IX. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

| GCC 1.1(j) | The Purchaser is:  
Project Director  
Rajasthan Agricultural Competitiveness Project  
II Floor, Academic Block, SIAM Campus,  
Durgapura, Jaipur-302018  
Ph. No. - 0141-2554215, 2554214  
Fax: 0141-2554214  
Email-pd@racpmis.com |
| GCC 1.1 (o) | Final Destinations are Farmers in various villages of Clusters of RACP in different districts of Rajasthan as specified in the Section – VII: Supply Requirements. |
| GCC 4.2 (a) | The meaning of the trade terms shall be as prescribed by Incoterms. |
| GCC 4.2 (b) | The version edition of Incoterms shall be 2010 |
| GCC 8.1 | For **notices**, the Purchaser’s address shall be:  
Project Director  
Rajasthan Agricultural Competitiveness Project  
II Floor, Academic Block, SIAM Campus,  
Durgapura, Jaipur-302018  
Ph. No. - 0141-2554215, 2554214  
Fax: 0141-2554214  
Email-pd@racpmis.com |
GCC 10.2 Settlement of Disputes

The dispute settlement mechanism to be applied shall be as follows:

(a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the *Indian Council of Arbitration.

(b) In the case of a dispute with a Foreign Supplier, the dispute shall be settled in accordance with provisions of UNCITRAL (United nations Commission on International Trade Law) Arbitration Rules. The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties, and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the *Indian Council of Arbitration.

(c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) and (b) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the *Indian Council of Arbitration, both in cases of the Foreign supplier as well as Indian supplier, shall appoint the arbitrator. A certified copy of the order of the *Indian Council of Arbitration, making such an appointment shall be furnished to each of the parties.
(d) Arbitration proceedings shall be held at Jaipur, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.

(e) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.

(f) Where the value of the contract is Rs. 10 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the *Indian Council of Arbitration.

(g) Except otherwise agreed to by the Parties, Arbitrators should give a decision in writing within 120 days of receipt of notification of dispute.

| GCC 12.1 and 25.2 | The scope of supply for the Goods and Related Services to be supplied shall be as specified below: **Supply, Installation, Testing and Commissioning of Distributed Grid Connected Solar PV System** |
**GCC 13.1** Details of Shipping and other Documents to be furnished by the Supplier are given below:

Upon delivery of the goods to the transporter/consignee, the supplier shall notify the purchaser and mail the following documents to the Purchaser:

(i) Two Copies of the Supplier invoice showing contract number, goods description, quantity, unit price, total amount;

(ii) Delivery note, Railway receipt, or Road consignment note or equivalent transport document or acknowledgement of receipt of goods from the Consignee;

(iii) Two Copies of packing list identifying contents of each package;

(iv) Insurance certificate;

(v) Manufacturer’s/Supplier’s warranty certificate;

(vi) Inspection certificate issued by the nominated inspection agency, and the Supplier’s factory inspection report; and

(vii) Certificate or origin.

The above documents shall be received by the Purchaser before arrival of the Goods (except where it is handed over to the Consignee with all documents) and if not received, the supplier will be responsible for any consequent expenses.

**GCC 15.1** The prices charged for the Goods supplied and the related Services performed shall not be adjustable.

**GCC 16.1** Payment shall be made in Indian Rupees in the following manner:
1. An advance payment may be made on specific request of the bidder/contractor @ 10% of the contract value on submission of an irrevocable bank guarantee of equivalent amount (from nationalized/scheduled banks only).


3. The adjustment of advance (if availed by the bidder/contractor) shall be made on pro-rata-basis (multiplied by a factor of 1.5) from each payment.

For all the payments to be made, against Bank guarantees, the bank guarantee shall be issued by a Scheduled Indian Bank or a foreign bank located in India in the format enclosed at Section VIII. The guarantees issued by other banks should be confirmed by a Scheduled Indian Bank or a foreign bank operating in India.

Bank guarantees for advance payment shall be released not later than 30 days after the date of completion of supply of the goods at their final destination.

| GCC 16.5 | The payment-delay period after which the Purchaser shall pay interest to the supplier shall be 60 days. The interest rate that shall be applied is 7.00%. |
|GCC 17 | In the case of Excise duty waiver, the purchaser will issue only the certificates in terms of the Central Excise notification as per information given by supplier in form at serial no.7 of Section IV. Supplier is solely responsible for obtaining such benefits and in case of failure to receive such benefits, the purchaser will not compensate the supplier separately. |
|GCC 18.1 | Performance Security to the Purchaser shall be for an amount of 5% of the contract value, valid up to 60 days after the date of completion of performance obligations including warranty obligations. In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of 12 months and the Performance Bank guarantee for proportionate value shall be extended 60 days over and above the extended warranty period. |
| GCC 18.3 | If required, the Performance Security shall be in the form of a “Bank Guarantee” or “a cashier’s Cheque or banker’s certified Cheque or crossed demand draft or pay order” drawn in favor of the Purchaser. |
| GCC 18.4 | Discharge of the performance Security shall take place not later than 60 days following the date of completion of the Supplier’s performance obligations, including the warranty obligation, under the contract. |
| GCC 18.5 | Add as Clause 18.5 to the GCC the following:  
In the event of any contractual amendment, the Supplier shall, within 28 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for 60 days after the completion of performance obligations including warranty obligations. |
| GCC 23.2 | Packing Instructions: The Supplier will be required to make separate packages for each Consignee. Each Package shall be marked with proper paint/indelible ink with the following: (i) The Manufacture name or brand or registered trademark; (ii) Code, Batch No. and RACP  
Suppliers should use recycled materials as much as possible for packing |
| GCC 24.1 | The insurance shall be paid in an amount equal to 110 percent of the EXW value of the Goods from “Warehouse to warehouse (final destination)” on “All Risks” basis including War Risks and Strikes. |
| GCC 25.1 | The Supplier is required under the Contract to transport the Goods duly insured to the specified final destination, and all related costs shall be included in the Contract Price. |
| GCC 26.1 | The inspections and tests shall be: Refer to Inspection and Test (Section VII) Schedule of Requirements |
| GCC 26.2 | The Inspections and tests shall be conducted at: Manufacturing Unit (Factory Point), assembly unit and on Site of Farmers at the site (Farmer’s Field) or any other place as found suitable by the RACP-PMU. |
| GCC 27.1 | The liquidated damages shall be: 0.5% of contract price per week or part thereof with respect to each individual delivery schedule. |
| GCC 27.2 | The maximum amount of liquidated damages shall be: 10% of the contract price. |
| GCC 28.3 | The period of validity of the Comprehensive Warranty shall be: 60 months  
For purposes of the Warranty, the place(s) of final destination(s) shall be:  
same as place of final destination. (Please refer BDS corresponding to clause 14.8 (a))  
If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:  
(a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 4,  
or  
(b) pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 10% of contract price. |
| GCC 28.5 | The period for repair or replacement shall be: 15 days |
| GCC 31.1 | This clause will apply only to variations in VAT/Sales tax/ Octroi etc. payable in India on the final product which is being supplied and not for variations in tax on the individual components / raw materials which go into the product. |
**SECTION X – CONTRACT FORMS**

### Table of Forms

1. LETTER OF ACCEPTANCE ........................................................................................................123
2. CONTRACT AGREEMENT .....................................................................................................124
3. PERFORMANCE SECURITY ...................................................................................................126
4. BANK GUARANTEE FOR ADVANCE PAYMENT ................................................................127
5. DETAILS OF MATERIAL TO BE OFFERED .........................................................................128
6. FORMAT OF AGREEMENT BETWEEN BENEFICIARY (AGRICULTURE CONSUMER AND CONTRACTOR FOR MAINTENANCE OF SPV SYSTEM) ........................................................................................................131
7. FORMAT FOR SPV INSTALLATION CERTIFICATE FROM BENEFICIARY OFFICER.133
8. FORMAT FOR NAME PLATE ....................................................................................................134
9. INSTALLATION CERTIFICATE ..............................................................................................135
10. CONTRACT COMPLETION CERTIFICATE .........................................................................137
11. GUARANTEE CARD ..............................................................................................................138
12. MAINTENANCE & SERVICING REPORT .............................................................................139
1. **LETTER OF ACCEPTANCE**

[letterhead paper of the Purchaser]

To: [name and address of the Supplier]

Subject: *Notification of Award Contract No.* ............

This is to notify you that your Bid dated . . . [insert date] . . . for execution of the . . . . . . . . . [insert name of the contract and identification number, as given in the SCC] . . . . . . . . for the Accepted Contract Amount of . . . . . . . . . [insert amount in numbers and words in Rupees], as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X, Contract Forms, of the Bidding Document.

Authorized Signature: .................................................................
Name and Title of Signatory: ......................................................
Name of Agency: .......................................................................

**Attachment:** Contract Agreement
2. **CONTRACT AGREEMENT**

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS CONTRACT AGREEMENT is made

the \[ insert: **number** \] day of \[ insert: **month** \], \[ insert: **year** \].

BETWEEN

(1) \[ insert complete name of Purchaser \], a \[ insert description of type of legal entity, for example, an agency of the Ministry of .... of the Government of \[ insert name of **Country of Purchaser** \], or corporation incorporated under the laws of \[ insert name of **Country of Purchaser** \] and having its principal place of business at \[ insert address of Purchaser \] (hereinafter called “the Purchaser”), and

(2) \[ insert name of Supplier \], a corporation incorporated under the laws of \[ insert: **country of Supplier** \] and having its principal place of business at \[ insert: **address of Supplier** \] (hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., \[ insert brief description of Goods and Services \] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of \[ insert Contract Price in words and figures, expressed in the Contract currency(ies) \] (hereinafter called the “Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract Agreement. This Agreement shall prevail over all other contract documents: In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed below.

   (a) The letter of Acceptance
   (b) this Contract Agreement
   (c) The Supplier’s letter of Bid and original completed Schedules including Price Schedules
   (d) Special Conditions of Contract
   (e) General Conditions of Contract
   (f) Technical Requirements (including Schedule of Requirements and Technical Specifications)
   (g) [Add here any other document(s) listed in GCC/SCC as part of contract]

3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of [insert the name of the Contract governing law country] on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: [insert signature]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]
3. PERFORMANCE SECURITY

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Guarantor letterhead or SWIFT identifier code]

**Beneficiary:** [insert name and Address of Purchaser]

**Date:** [Insert date of issue]

**PERFORMANCE GUARANTEE No.:** [Insert guarantee reference number]

**Guarantor:** [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that [insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Applicant") has entered into Contract No. [insert reference number of the contract] dated [insert date] with the Beneficiary, for the supply of [insert name of contract and brief description of Goods and related Services] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] ([insert amount in words]),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the …. Day of ……, 2… ², and any demand for payment under it must be received by us at this office indicated above on or before that date.

[signature(s)]

*Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

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¹ The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

² 2022
4. BANK GUARANTEE FOR ADVANCE PAYMENT

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated.]

Date: [insert date (as day, month, and year) of Bid Submission]
NCB No. and title: [insert number and title of bidding process]

[Bank's letterhead]

Beneficiary:  [insert legal name and address of Purchaser]

ADVANCE PAYMENT GUARANTEE No.: [insert Advance Payment Guarantee no.]

We, [insert legal name and address of bank], have been informed that [insert complete name and address of Supplier] (hereinafter called "the Supplier") has entered into Contract No. [insert number] dated [insert date of Agreement] with you, for the supply of [insert types of Goods to be delivered] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance is to be made against an advance payment guarantee.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [insert amount(s)]16 in figures and words upon receipt by us of your first demand in writing declaring that the Supplier is in breach of its obligation under the Contract because the Supplier used the advance payment for purposes other than toward delivery of the Goods.

It is a condition for any claim and payment under this Guarantee to be made that the advance payment referred to above must have been received by the Supplier on its account [insert number and domicile of the account]

This Guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until [insert date17].

16 The bank shall insert the amount(s) specified in the SCC and denominated, as specified in the SCC, either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Purchaser.

17 Insert the Delivery date stipulated in the Contract Delivery Schedule. The Purchaser should note that in the event of an extension of the time to perform the Contract, the Purchaser would need to request an extension of this Guarantee from the bank. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Purchaser might consider adding the following text to the Form, at the end of the penultimate paragraph: "We agree to a one-time extension of this Guarantee for a period not to exceed [six months][one year], in response to the Purchaser’s written request for such extension, such request to be presented to us before the expiry of the Guarantee.”
5. DETAILS OF MATERIAL TO BE OFFERED

(On Letterhead of Bidder)

A. DETAILS OF ALL MATERIALS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Detail of material proposed for supply for different models as required in the Tender Document</th>
<th>Name of Manufacturer with whom Bidder has made MoU o supply material under this project</th>
<th>Manufacturing Country</th>
<th>Production Capacity of the material (per annum)</th>
<th>Tested from....... { Enclose the test certificate}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SPV Modules</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Invertors</td>
<td></td>
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</tr>
<tr>
<td>3.</td>
<td>Module Mounting Structures</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4.</td>
<td>Other Material………..</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Other Material………..</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Other Material………..</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Other Material………..</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:
1. Also power performance test data sheets of all modules. The exact power of the module shall be indicated if the data sheet consists of a range of modules with varying output power.
2. Also provide complete technical data sheets for each equipment giving details of the specifications along with make/makes along with basic design of the PV Installation setup and power evacuation, synchronization along with protection equipment.

B. DETAILS OF SOLAR PV MODULES
For Manufacturing of Solar PV Panels:
Name and Address of the Bidder’s Supplier of SPV Modules:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Equipment</th>
<th>Date of Purchase</th>
<th>Date of Calibration</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

128
C. Solar PV System Configuration of Respective Capacity (8 kWp, 12 kWp)

General Arrangement Drawing of Grid connected SPV Plant for solarization of Grid-connected Agriculture pump sets of Agriculture Consumers:

Brief description of configuration:

D. Work execution Capacity per month for Supply, Installation, testing and commissioning of Grid connected PV System at Site on Agriculture Consumer premises where Agriculture Connection is located.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>SPV System Capacity</th>
<th>Per month Execution (Nos.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8 kWp</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12 kWp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
E. Details of after sales service centres in Rajasthan

a. Existing

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Dealer/centre</th>
<th>Village</th>
<th>Tehsil</th>
<th>District</th>
<th>Name of contact Person &amp; Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. Proposed

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Dealer/centre</th>
<th>Village</th>
<th>Tehsil</th>
<th>District</th>
<th>Name of contact Person &amp; Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

(Signature & Seal of Authorized Signatory for which POA attached)
Name of Authorized Signatory:
Designation:
Date:
Place:
6. FORMAT OF AGREEMENT BETWEEN BENEFICIARY (AGRICULTURE CONSUMER AND CONTRACTOR FOR MAINTENANCE OF SPV SYSTEM)

अनुबंध पत्र
(आर.एस.पी. अनुर्गत जमयूर विभाग निगम ग्रिडेड के लिए कनेक्टेड कृषि पप्सेट के सीलराईजेशन हेतु एस.पी.पी. प्रकरण सप्लार्य व लामान्यतिक के मध्य स्थापना व संधारण के लिए किये जाने वाला अनुबंध पत्र)
आज दिनांक ................................ को मैं ............................................. (सप्लायर) व श्री ............................... पुत्र श्री .............................
................................................. निवासी – ............................................. जिला ...................... क्रय किये जाने वाले ......... किलोवाट एस.पी.पी. सीर उपकरण की स्थापना के सम्बन्ध में यह अनुबंध निम्न शर्तों के साथ किया जा रहा है :-
सामान्य शर्तें व विभिन्न पक्षों के दायित्व--
(1) सप्लायर के दायित्व--
1. प्रत्येक लामान्यी राजस्थान राज्य का निवासी होना चाहिए।
2. सप्लायर द्वारा कार्यालय के सम्बन्धित संगठन के अनुसार पूर्ण सिस्टम की स्थापना की जावेगी।
3. पढ़ आर.एस.पी. लामान्यी डिप्लम उपकरण स्थापना पश्चात् लामान्यी को संभालने विद्यमान अनुबंध के दिन उपकरण पूर्णता कार्यान्वीत होगा व कोई हिस्सा दूर-दूर व यदि नहीं होगा।
4. सप्लायर द्वारा देख देखिए लिपि में सिस्टम की पूर्ण जानकारी एवं क्या करने क्या ना करने तथा संचालन मैं न्यूज़ उपलब्ध करवाए।
5. उपकरण लगाने से पांच वर्ष के भीतर ही सिस्टम खराब होने पर सप्लायर द्वारा उपकरण को ठीक कर क्रियान्वित करना होगा। जिसके लिए यदि नया उपकरण लगाना पड़े तो भी सप्लायर का लगातार उपकरण क्रियान्वित करना होगा।
6. सप्लायर के कर्मचारी लामान्यी को उपकरण के रख--खराब के सम्बन्ध में पूर्ण जानकारी एवं प्रशिक्षण देंगे।
7. सप्लायर अपने कर्मचारियों/एजेंट को इस कार्य के लिए तारीखते/जिला मुख्यालय व ज चतवायम संबंध पर नियुक्त रखेंगे, जिससे लामान्यी इससे सीधे सम्पर्क रख सकेंगे।
8. सप्लायर के कर्मचारियों/एजेंट को पहचान पत्र देकर रखेंगे जो दिखाने पर ही लामान्यत उनको निवास स्थान पर प्रवेश करने देगा।
9. इस सम्बन्ध में आर.एस.पी. परियोजना निदेशक का निर्णय अतिम व मान्य होगा।

(2) लामान्यति के दायित्व--
1. लामान्यति अपने खेत पर लगे ग्रिड कनेक्टेड एस.पी.पी. द्वारा स्वीकृत भार के कृषि पप्सेट को चलाने के उपयोग में ही होगा। लामान्यति अतिरिक्त क्षमता के कृषि पप्सेट अथवा किसी भी उपयोग में नहीं होगा।
2. यदि लामान्य क्षेत्र उपकरण के साथ निर्देशों के विपरित किसी प्रकार की अवधारित छेड़-छाड़ जैसे स्थानांतरण, दूरसे काम में लेना सिद्ध हो जाने पर उपकरण की पांच वर्ष की गारंटी स्वतः ही समाप्त हो जाएगी।
3. लामान्यति सिस्टम खराब होने पर सप्लायर के कर्मचारियों को सूचित करेंगे न कि स्वयं सिस्टम को ठीक करने का प्रयास करेंगे।
4. सप्लायर द्वारा रख--खराब न करने पर नोटल अधिकारी आर.एस.पी. को तत्काल सूचित करेंगे।
5. लामान्यति लगाने पर उपकरण की सुखा के लिए पूर्णता जिम्मेदार होगा व बोरी होने पर पुलिस से तत्काल एफआईआर दर्ज करा के निम्न को सूचित करेंगे।
<table>
<thead>
<tr>
<th>सप्ताहर के अधिकृत प्रतिनिधि</th>
<th>लाभार्थी के हस्ताक्षर</th>
</tr>
</thead>
<tbody>
<tr>
<td>नाम</td>
<td>लाभार्थी श्री</td>
</tr>
<tr>
<td>पद</td>
<td>पुत्र श्री</td>
</tr>
<tr>
<td>विभाग</td>
<td>क्या अनुजाति/जनजाति के सदस्य है</td>
</tr>
<tr>
<td></td>
<td>ग्राम</td>
</tr>
<tr>
<td>संयुक्त पद</td>
<td>पंचायत समिति</td>
</tr>
<tr>
<td>जिला</td>
<td></td>
</tr>
<tr>
<td>विभाग पद</td>
<td>जिला</td>
</tr>
</tbody>
</table>

प्रमाण—पत्र
प्रमाणित किया जाता है कि श्री ........................................... पुत्र श्री ........................................... निवासी ........................................... जिला ........................................... के यहाँ मैंसर्स ........................................... द्वारा ........................................... किलोवाट एस.पी. वि. वम. मोड्यूल क्षमता के संयंत्र की स्थापना की गई है, यह उपकरण लाभार्थी द्वारा निर्देशित उपयोग में कार्य लिया जायेगा। यह अनुबंध पत्र लाभार्थी एवं सप्ताहर/सप्ताहर एजेंट के मध्य दिनांक ........................................... को निम्न हस्ताक्षरकर्ता की उपस्थिति में किया।

हस्ताक्षर मय शील
नोडल अधिकारी, आर.ए.सी.पी.

132
7. Format for SPV Installation Certificate from Beneficiary Officer.

Format for system installation verification from beneficiary, Nodal Officer RACP/Concerned O&M Office & Project Officer, JVVNL

उपकरण स्थापना प्रमाण—पत्र

प्रमाणित किया जाता है कि लाभार्थी श्री ........................................ पुत्र श्री ........................................ निवासी ..............................

…………………………………………………………………………………………………………………………………….

जिला ................................................................................................................................. के निवास पर मैंसर्स ......

……………………………………………………………………………………………………………………………….

के अधिकृत सप्ताहर द्वारा एक ऐस.पी.वी. उपकरण उपलब्ध है। उपकरण इंद्र की स्थापना

दिनांक ................................................ को की गई है जो मेरे द्वारा देख ली गई है, यह सुचारू रूप से कार्य कर रही है। फर्म

द्वारा लाभार्थी की एक देख नागरी लिपि का मैनुअल, अंशभ इंद्र एवं सेवा केंद्रों तथा सम्पर्क करने वाली

अधिकारीगण की सूची उपलब्ध करा दी गई है।

हस्ताक्षर लाभार्थी

हस्ताक्षर मय सील

नोडल अधिकारी, आर.ए.सी.पी.

कनिष्ठ अभियंता/सहायक अभियंता (पवस)

…………………………………………………………………………………………………………………..

आर.ए.सी.पी. के नोडल अधिकारी की रिपोर्ट

मैं .......................................................... नोडल अधिकारी आर.ए.सी.पी. ................................. उपरोक्त वर्णित ऐस.पी.वी. उपकरण

की स्थापना बाबत् लाभार्थी के संयंत्र का व्यक्तियाँ: निरीक्षण उपरान्त प्रमाणित करता हूँ कि :-

(i) ऐस.पी.वी. उपकरण सही प्रकार के टेंडर में वर्णित स्पेसिफिकेशन एवं निविदा शर्तों के अनुसार

स्थापित किया गया है।

(ii) लाभार्थी के ग्रिड कनेक्टेड कृपि पम्प सेट पर स्थापित उपकरण; इंद्र शाही हालत में

कार्यरत है।

हस्ताक्षर नोडल अधिकारी मय सील

नोट: लाभार्थी के ग्रिड कनेक्टेड कृपि पम्प सेट पर स्थापित निविदा शर्तों के अनुसार जांच उपरान्त हस्ताक्षर कर इस प्रमाण पत्र

के साथ संलग्न की जाये।
8. फॉर्मेट फॉर नेम प्लेट

<table>
<thead>
<tr>
<th>संख्या</th>
<th>विवरण</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>सामाजिक कृषि उपयोगका का जान</td>
</tr>
<tr>
<td>2</td>
<td>क. तलवर</td>
</tr>
<tr>
<td>3</td>
<td>सामाजिक कृषि उपयोगका की बंगी</td>
</tr>
<tr>
<td>4</td>
<td>जान का जान</td>
</tr>
<tr>
<td>5</td>
<td>उप्रेषित</td>
</tr>
<tr>
<td>6</td>
<td>जानाल लोकसूचना भार (HP)</td>
</tr>
<tr>
<td>7</td>
<td>जिया ते चुटेल हुए लीलार पी.के.पी. की कमान (KWP)</td>
</tr>
<tr>
<td>8</td>
<td>लीलार पी.के.पी. लीलार का नाम</td>
</tr>
<tr>
<td>9</td>
<td>लीलार के लोकसूचना लंगर का मान / फॉर्मर लंगर</td>
</tr>
<tr>
<td>10</td>
<td>अविभक्त लेफ्टर्ड का उपयोग लंगर</td>
</tr>
<tr>
<td>11</td>
<td>लेफ्टर्ड / लाइटर लेफ्टर्ड की इंग्रजी साइड</td>
</tr>
<tr>
<td>12</td>
<td>लीलार लेफ्टर्ड की उद्योग की सिधि</td>
</tr>
</tbody>
</table>
9. INSTALLATION CERTIFICATE

<table>
<thead>
<tr>
<th>GST No:</th>
<th>M/s...........................................</th>
<th>Address:</th>
<th>Phone No:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Name and Address of Contractor ..................)</td>
<td></td>
<td>Fax No:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>E-mail</td>
</tr>
</tbody>
</table>

**INSTALLATION CERTIFICATE**

**Date of Installation:**

**Payment claim Note No:**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Name of Agriculture Consumer (Beneficiary)</td>
</tr>
<tr>
<td>2.</td>
<td>K.No.</td>
</tr>
<tr>
<td>3.</td>
<td>Agriculture Consumer Category</td>
</tr>
<tr>
<td>4.</td>
<td>Sanctioned Load</td>
</tr>
<tr>
<td>5.</td>
<td>Mobile No:</td>
</tr>
<tr>
<td>6.</td>
<td>Aadhar No:</td>
</tr>
<tr>
<td>7.</td>
<td>Father/ Husband Name</td>
</tr>
<tr>
<td>8.</td>
<td>Address</td>
</tr>
<tr>
<td>9.</td>
<td>Dhani Name</td>
</tr>
<tr>
<td>10.</td>
<td>Name of Village</td>
</tr>
<tr>
<td>11.</td>
<td>Name of Gram Panchayat</td>
</tr>
<tr>
<td>12.</td>
<td>Name of Panchayat Samiti</td>
</tr>
<tr>
<td>13.</td>
<td>Name of District</td>
</tr>
<tr>
<td>14.</td>
<td>Name of Rajasthan State Constituency</td>
</tr>
<tr>
<td>15.</td>
<td>Name of Parliamentary Constituency</td>
</tr>
<tr>
<td>16.</td>
<td>Caste Group: (Gen/SC/ST/OBC/Other….specify)</td>
</tr>
<tr>
<td>17.</td>
<td>Site Co-ordinate (Longitude / Latitude)</td>
</tr>
</tbody>
</table>

Certified that ..............KW PV Capacity Grid-Connected SPV system in reference to (.........Name of Discom) Work Order No:........................................... Dated:......... has been installed and commissioned at the place of Agriculture Consumer mentioned above and the system has been handed over to the Agriculture Consumer in good working condition.

The details of material supplied and installed are as under :

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item:</th>
<th>Quantity</th>
<th>Make</th>
<th>Serial Numbers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

135
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item:</th>
<th>Quantity</th>
<th>Make</th>
<th>Serial Numbers.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Agriculture Consumer

Name of Agriculture Consumer Date
Place

Signature of and on behalf of Contractor

Name of Authorized Signatory Name of Contractor
Seal of Contractor Date
Place
10. CONTRACT COMPLETION CERTIFICATE

Certificate from Project Officer, ……

Following are certified in reference to contract No. IN-PMU-RACP-153471-GO-RFB and Work Order No……………………………………………………Date……………… referred above for supply, installation & commissioning of …….. Nos. Grid-Connected SPV systems:

1. A contract (including maintenance agreement) as per the format of Tender Document has been executed with the beneficiary.
2. The material has been supplied in good condition as per technical specification of tender document/work order.
3. The work has been completed within stipulated period / with a delay of ……… days.
4. Instruction Manual, Guarantee Card & Money Receipt has been provided to beneficiaries.
5. System has been installed at beneficiary site and working satisfactory.
6. Village wise details of installation is as per above statement.
7. The work as envisaged under the Contract to complete the CMC for the required period has been completed.

Verified for payment of Rs. …………/- (Rs……………………………………………………………..) as per terms and condition of said Tender Document and Work Order.

Signature

Name with seal of Nodal Officer
Date
Place
11. GUARANTEE CARD

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

1. Name & Address of the supplier of the System:
2. Name & Address of Discom:
3. Date of supply of the system:
4. Details of PV Module (s) supplied in the System Make (Name of the Contractor):
   1. Model Serial No(s)
   2. Wattage of the PV Module (s) under STC Guarantee valid up to
5. Details of Electronics & other BOS items:
   3. System Make (Name of the Contractor) Model
   4. Serial No(s) Guarantee valid up to
5. Designation & Address of the person to be Contacted for claiming Guarantee obligations

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

(During the guarantee period RACP reserves the right to cross check the performance of the systems with the minimum performance levels specified in the Tender Document specifications).
12. MAINTENANCE & SERVICING REPORT

QUARTERLY MAINTENANCE & SERVICING REPORT

1. DETAILS OF SOLAR PHOTOVOLTAIC SYSTEM INSTALLED
   a) Supplied by :
   b) Date of installation :
   c) Servicing period : From to

2. USER PROFILE
   1. Name and address of User:

3. TECHNICAL DETAILS
   1. Module Capacity, make and serial numbers :
   2. Inverter Capacity, make and serial no.

4. CHECK OF THE PRODUCT
   1. Correct inclination and orientation of SPV panel :
   2. Cleaning of dust from SPV panel :
   3. Interconnection of modules, charge controller etc.:
   4. Fuse of charge controller:
   5. Working of inverter

5. DIFFICULTIES IN OPERATION/ PROBLEM FACED BY USER:

6. DIAGNOSIS DETAILS/ REPAIR ACTION:

7. DATE ON WHICH SYSTEM WAS LAST ATTENDED:

8. IT IS MANDATORY TO SUBMIT INSTALLATION WISE QUARTERLY ENERGY

9. GENERATION DATA TO RESPECTIVE OFFICE.

10. REMARKS:

   User Name & Signature Technician’s Name &
   Signature Date: (with rubber stamp)