

**Unique Identification Authority of India (UIDAI)
Planning Commission, Government of India**

(Reference Number: A11016/08/2011-Tech.(Pt-II))



REQUEST FOR PROPOSAL

**“Design, Installation, Commissioning and 5 years
Operation & Maintenance of Grid connected Solar
Power Generating Plant for Unique Identification
Authority of India at Manesar (Delhi-NCR) and/or
Bengaluru ”**

November 2013

Section I – Invitation for Bids

This invitation to Bid is for "**Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and/or Bengaluru**"

1. Bidders are advised to study the Bid Document carefully. Submission of Bid shall be deemed to have been done after careful study and examination of the Bid Document with full understanding of its implications. Sealed offers prepared in accordance with the procedures enumerated in **Clause 1 of Section II** should be submitted to the **Deputy Director – (Admin), UIDAI** not later than the date and time laid down, at his address specified in document under **Clause 4, Schedule for Invitation to Bid of Section 1**.
2. All Bids must be accompanied by an Earnest Money Deposit (EMD) of
 - a) **Rs. 15,00,000 (Rupees Fifteen Lakh)**
3. This Bid document is not transferable.

4. Schedule for Invitation to Bid

a) Name of the Purchaser:

The President of India acting through the Director General,
Unique Identification Authority of India, Planning Commission,
Government of India

b) Place, Time and Date of Pre-Bid Conference:

Unique Identification Authority of India (UIDAI),
Planning Commission, Govt. of India (Gol),
3rd Floor, Tower II (Conference Room), Jeevan Bharati Building,
Connaught Circus,
New Delhi – 110001

At 1100 hours of 10.12.2013.

c) Addressee and Address at which Queries regarding the RFP and Bids to be submitted:

Deputy Director (DD) - (Admin)
Unique Identification Authority of India (UIDAI),
Planning Commission, Govt. of India (Gol),
2nd Floor, Tower I, Jeevan Bharati Building,
Connaught Circus,
New Delhi – 110001

d) Latest time and date for receipt of Bid

On or before 1500 hours of 14.01.2014.

e) Place, Time and Date of opening of Pre-qualification and Technical Bids:

Unique Identification Authority of India (UIDAI),
Planning Commission, Govt. of India (Gol),
3rd Floor, Tower II (Conference Room), Jeevan Bharati Building,
Connaught Circus,
New Delhi – 110001

At 1530 hours of 14.01.2014.

f) **Name of the contact person for any clarification :**

Deputy Director (DD)- (Admin)
Unique Identification Authority of India (UIDAI),
Planning Commission, Govt. of India (Gol),
2nd Floor, Tower I, Jeevan Bharati Building,
Connaught Circus,
New Delhi – 110001

Queries should be submitted via e-mail to dcda@uidai.gov.in and must be followed by a paper copy.

The envelope containing the query should have the following written in bold capital letters on the top:

"QUERIES REGARDING for "Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru"

g) **Date till which the response to the Bid should be valid:**

180 days from the last date of submission of the Bid

h) **Important dates :**

The following table provides information regarding the important dates of the Bid process for Project:

Activity	Date
Pre-Bid Conference	10.12.2013
Last date for submission of written queries for clarifications (Refer format provided in Section II, Clause 4.1)	13.12.2013
Date of Issue of Clarifications	24.12.2013
Date of site visit by prospective bidders at Manesar (Delhi-NCR)	26.12.2013
Date of site visit by prospective bidders at Bengaluru	27.12.2013
Last date for submission of Bids	14.01.2014
Opening of Pre-qualification Bid and Technical Bid	14.01.2014

Note: The Purchaser shall not be responsible for non-receipt / non-delivery of the Bid documents due to any reason whatsoever.

Section II – Instructions to Bidders

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1. Procedure for Submission of Bids

- 1.1. The RFP document can be downloaded from the UIDAI website (<http://uidai.gov.in/>). The cost of RFP document should be remitted in the form of a demand draft enclosed with the response to the RFP document. The Bank draft of Rs 5,000/- (Rupees Five Thousand only) should be drawn in favor of "PAO, UIDAI, New Delhi" and payable at New Delhi.

Please note that the RFP response of a respondent shall not be entertained in case the cost of RFP document is not paid by them as per the details mentioned above. The Bid Document Fee is Non-Refundable.

- 1.2. It is proposed to have a **Three Bid System** for this Bid for each location i.e Manesar (Delhi/NCR) and Bangalore.

- a) Pre – Qualification Bid (2 copies) in one cover.
- b) Technical Bid (2 copies) in one cover.
- c) Commercial Bid (2 copies) in one cover.

- 1.3. The Bidder is required to bid for both locations (Delhi/NCR and Bangalore region) and as a response of the RFP, the Bidder should submit separate pre-qualification, technical and commercial bids. The RFP document details out the specifications for the solar power plant at both these locations. Unless explicitly specified the requirements should be considered common for both solar power plants. Each copy of Pre-Qualification Bid, Technical Bid and Commercial Bid of the Bidder should be enclosed in separate sealed covers super scribing "Pre-Qualification Bid", "Technical Bid" and "Commercial Bid" respectively. The copies in each bid should be marked as "Original" and "First copy". The copies of each bids; Pre-Qualification, Technical Bid and Commercial Bid should be put in a single sealed cover super scribing "Pre-Qualification Bid" "Technical Bid" and "Commercial Bid" as the case may be. Please note that Prices should not be indicated in the Prequalification Bid, Technical Bid and should only be indicated in the Commercial Bid.

- 1.4. The cover containing two copies of Pre-qualification Bid, Technical Bid and of Commercial Bid should be put in another single sealed cover clearly marked "Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru". This cover is to be super scribed with Bid Number, Due Date, Item and the wordings "**DO NOT OPEN BEFORE 1530 hrs of 14.01.2014**". The cover thus prepared should also indicate clearly the name, address and telephone number of the Bidder, to enable the Bid to be returned unopened in case it is declared "**Late**".

- 1.5. The Prices should not be indicated in either the Pre-Qualification Document or Technical Bid and should be indicated in the Commercial Bid only.

- 1.6. Each copy of the Bid should be a complete document and should be bound as a volume. The document should be page numbered and must contain the list of contents with page numbers. Different copies must be bound separately. Deficiency in documentation may result in the rejection of the Bid.

- 1.7. As part of the Bid, Bidder should also provide the Pre-Qualification bid, Technical bid and Commercial bids in soft copy, in the form of a non-re-writeable compact disc (CD).

- Two copies of CD containing the Pre-Qualification Bid

- Two copies of CD containing the Technical Bid
- Two copies of CD containing the Commercial Bid

The CDs must be signed by the Bidder using a Permanent Marker.

- 1.8. The CDs would be sealed along with the hard copies of the respective Pre-Qualification bid, Technical bid and Commercial bids. All CDs submitted by the Bidder must be in sealed covers. The sealed covers as well as the CD media must be duly signed by the Bidder using a “Permanent Pen/Marker”, should be super scribed with “Pre-Qualification Bid”/”Technical Bid” / “Commercial Bid” (as the case may be) and should bear the name of the Bidder.
- 1.9. Bidder must ensure that the information furnished by him in respective non-rewriteable CDs is identical to that submitted in the Original Paper Bid Document. In case of any discrepancy observed by the Purchaser in the contents of the CDs and Original Paper Bid Documents, the information furnished on Original Paper Bid Document will prevail over the Soft Copy.
- 1.10. Bidder must ensure that Technical Bid CDs do not contain any Commercial Items / Prices

2. Cost of Bid

- 2.1. The Bidder shall bear all costs associated with the preparation and submission of its Bid, including cost of presentation for the purposes of clarification of the Bid, if so desired by the Purchaser. The Purchaser, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

3. Contents of the Bid Document

- 3.1. The Schedule of Requirements of the services required, Bid procedures and contract terms are prescribed in the Bid Document. The Bid Document includes:
 - i.**Section I** - Invitation for Bids
 - ii.**Section II** - Instructions to Bidders
 - iii.**Section III** - General Conditions of Contract
 - iv.**Section IV** – Contents of the Bid
 - **Pre-Qualification Bid Forms**
 - **Technical Bid Forms**
 - **Commercial Bid Forms for Manesar (Delhi/NCR)**
 - **Commercial Bid Forms for Bengaluru**
 - v.**Section V** - Schedule of Requirements
 - vi.**Section VI** – Appendices
 - a) Proforma for EMD Form (**Appendix A of Section VI**)
 - b) Proforma for Bank Guarantee for Contract Performance Guarantee Bond (**Appendix B of Section VI**)
 - c) Proforma Contract Form (**Appendix C of Section VI**)
 - d) Non Disclosure Agreement (**Appendix D of Section VI**)
 - e) Draft deed of Indemnity (**Appendix E of Section VI**)
 - vii.**Section VII** – Service Level Agreement (SLA).

- 3.2. The Bidder is expected to examine all instructions, forms, Terms & Conditions, and Schedule of Requirements in the Bid Document. **Failure to furnish all information required by the Bid Document or submission of a Bid not substantially responsive to the Bid Document in every respect will be at the Bidder's risk and may result in the rejection of the Bid.**

4. Clarification on Bid Document

- 4.1. A prospective Bidder requiring any clarification of the Bid Document may submit his queries to the Purchaser in writing at the Purchaser's mailing address indicated in **Clause 4 (C) of Section I**. The Purchaser will respond in writing, to any request for clarification to queries on the Bid Document, received not later than the dates prescribed by the Purchaser in **Clause 4(h) of Section I** of this Bid document. Written copies of the Purchaser's response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective Bidders who have either purchased the Bid Document from UIDAI or have sought clarification(s).

The queries must be submitted in the following format in **MS Excel**:

Sr. No.	Bidder Vendor/ OEM name	Section No. & Part No. Section No.	Table of Contents :Section No.	Table of Contents: Subsection No.	Page No.	Clarification Sought	Remarks

5. Amendment of Bid Document

- 5.1. At any time prior to the last date for receipt of Bids, the Purchaser, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid Document by an amendment/ corrigendum/ addendum.
- 5.2. The amendment will be notified in writing or by fax or e-mail to all the prospective Bidders who have either purchased the Bid Document from UIDAI or have sought clarification(s) and will be binding on them.
- 5.3. In order to provide prospective Bidders reasonable time in which to take the amendment/ corrigendum/ addendum into account in preparing their Bids, the Purchaser may, at its discretion, extend the last date for the receipt of Bids.
- 5.4. Purchaser may at any time during the bidding process request the Bidders to submit revised Technical / Commercial Bids and/or Supplementary Commercial Bids without thereby incurring any liability to the affected Bidder or Bidders.

6. Language of Bids

- 6.1. The Bids prepared by the Bidder and all correspondence and documents relating to the Bids exchanged by the Bidder and the Purchaser, shall be written in the **English**

language, provided that any printed literature furnished by the Bidder may be written in another language so long the same is accompanied by an English translation in which case, for purposes of interpretation of the Bid, the **English translation** shall govern.

7. Documents Comprising the Bids

The bids prepared by the Bidder shall comprise of the following components

7.1. The Pre-Qualification Bid should be comprising of the following:

- i. Bidder Profile (Section IV Part-1, Prequel 1)
- ii. Pre-Qualification Bid Letter (**Section-IV Part-1, Prequel 2**)
- iii. Bidder Pre-Qualification Criteria (**Section IV Part-1, Prequel 3**) - explicit documentary evidence in support of Pre-Qualification conditions prescribed in Clause 19.1 – Section II.
- iv. **Bid Document Fee** in the form of a Demand Draft drawn in favor of “**PAO, UIDAI, New Delhi**” and payable at **New Delhi** (refer to Clause 1.1 – Section II).
- v. EMD of the prescribed amount in the form of a Bank Guarantee (**refer Section VI, Appendix A**) and also certifying the period of validity of the Bids for **180 days** (validity as stipulated in Clause 13-, Section II.) **from the last date of submission of the Bid** .
- vi. Notarized **Power of Attorney** executed by the **Bidder** in favor of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this Bid.
- vii. Undertaking from the Bidder, confirming his unconditional **acceptance of full responsibility** for executing the ‘Scope of Work’ and meeting all obligations of this Bid.
- viii. **Non-Disclosure Agreement** executed by the bidder (Section VI, Appendix D)

7.2. The Technical Bid should be comprising of the following:

- i. Bidders Contact Information (Section IV Part-1, TECH 1)
- ii. Technical Bid Letter (Section IV Part-1, TECH 2)
- iii. Bidder Profile (Section IV Part-1, TECH 3)
- iv. Details of Bidders/Sub-Contractor (Section IV Part-1, TECH 3.1)
- v. Description of system design and solution architecture (Section IV Part-1, TECH 4)
- vi. Commercial Bid Format (Without Commercials), Section IV Part-1, TECH Tech 5,
- vii. Requirement Compliance (Section IV Part-1, TECH 6)
- viii. Project Plan for Work schedule (Section IV Part-1, TECH 7)
- ix. Summary of profiles of person to be deployed (Section IV Part-1, TECH 8)
- x. Details of Litigation (Section IV Part-1, TECH 9)
- xi. Statement of Deviations from Section V, Schedule of Requirements (Section IV Part-1, TECH 10)
- xii. Statement of Deviations from RFP Terms & Conditions, Sec-III-GCC and Section-VII, Service Level Agreement (Section IV Part-1, TECH 11)

- 7.3. **Commercial Bid** - The Commercial Bid shall comprise of the fully filled up Section IV – Part 2: Commercial Bid Submission Forms for Manesar (Delhi/NCR)/Section IV-Part 2: Commercial Bid submission Forms for Bengaluru

8. Bid Prices

- 8.1. The Bidder shall indicate in the proforma prescribed in **Section IV – Part 2: Commercial Bid Submission Forms for Manesar (Delhi/NCR)/Bengaluru.**, the unit prices and total Bid Prices of the facilities/services, it proposes to provide under the Contract.
- 8.2. It is mandatory that Unit rates should be indicated, where requested, in the Tables as per the Performa prescribed at Section IV – Part 2: Commercial Bid Submission Forms. The unit rates quoted in the above mentioned Performa shall be used to calculate the charges for 'change orders', through the validity of the contract, including extensions, if any. Procurement of items under "Change Order" shall not be a binding on the Purchaser, and may be exercised by the Purchaser if required, at any time during the contract period.
- 8.3. In the absence of above information, as requested in **Clause 8.1 and 8.2 of Section II**, a Bid **may be considered incomplete and summarily rejected**.
- 8.4. The prices quoted shall be inclusive of transportation charges and all other expenses including but not limited to those related with the visits of Bidder's Personnel to various site(s) of the Purchaser.
- 8.5. The Bidder shall prepare the Bid based on details provided in the Bid Documents. It must be clearly understood that the quantities, specifications and drawings are intended to give the Bidders an idea about the order and magnitude of the work and are not in any way exhaustive and guaranteed by Purchaser. Bidder shall carry out the design and detailed engineering of the facilities in accordance with the requirement of the Bid Document and it shall be the responsibility of the Bidder to fully meet all the requirements of the Bid Document and conceptual design to complete the Work duly operable and safe. If during detailed engineering any upward revisions of the specifications and sizes given in the Bid Document, specifications and drawings etc. are to be made to meet the requirement of Bid Documents and conceptual design; all such changes shall be carried out within the contract price without any impact to the Purchaser.

9. Firm Prices

- 9.1. Prices quoted must be firm and final and shall remain constant throughout the period of the contract and shall not be subject to any upward modifications, on any account whatsoever. The Bidder shall, therefore, indicate the prices in **Section IV – Part 2: Commercial Bid Submission Form for Manesar (Delhi/NCR) / Section IV-Part 2 Commercial Bid Submission Form for Bengaluru** enclosed with the commercial Bid. The Bid Prices shall be indicated in **Indian Rupees** (INR) only.
- 9.2. The Commercial Bid should clearly indicate the price to be charged without any qualifications whatsoever and should include all taxes, duties, fees, levies, works contract tax and other charges as may be applicable in relation to the activities proposed to be carried out. **It is mandatory that such charges wherever applicable/payable should to be indicated separately in Section IV – Part 2: Commercial Bid Submission Forms for Manesar (Delhi/NCR) /Bengaluru.**

- 9.3. The Purchaser reserves the right to review and negotiate the price payable, with the selected Bidder to incorporate downward revisions as applicable and necessary, at any time during the period of contract.

10. Discount

- 10.1. The Bidders are advised not to indicate any separate discount. Discount (if any) should be merged with the quoted prices. Discount of any type, indicated separately, will not be taken into account for evaluation purposes. However, in the event of such an offer, without considering discount, being found to be the best evaluated Bid, the Purchaser shall avail such discount at the time of award of contract.

11. Bidder Qualification

- 11.1. The "Bidder" as used in the Bid Documents shall mean the one who has signed the Bid Form. The Bidder may be either the **Principal Officer** or his duly **Authorized Representative**, in which case he/she shall submit a certificate of authority. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the representative and the Principal Officer.
- 11.2. It is further clarified that the individual signing the Bid or other documents in connection with the Bid must certify whether he/she signs as :
- i. Constituted attorney, if it is a company.

OR

- ii. The Principal Officer or his duly Authorized Representative,

The Bidder shall sign its Bid with the exact name of the firm/company to whom the contract is to be issued. The Bid shall be duly signed and sealed by an executive officer of the Bidder's organization. Each Bid shall be signed by a duly authorized officer and in case of a corporation the same shall be signed by the authorized signatory of the corporation appropriately executed under seal.

The Bidder shall clearly indicate their legal constitution and the person signing the Bid shall state his capacity and also source of his ability to bind the Bidder.

The power or authorization, or any other document consisting of adequate proof of the ability of the signatory to bind the Bidder shall be annexed to the Bid.

- 11.3. **Purchaser may reject outright any Bid not supported by adequate proof of the Signatory's Authority.**

12. Earnest Money Deposit (EMD)

- 12.1. The Bidder shall furnish, as part of its Bid, an EMD of the amount mentioned in Clause 2 of Section I.
- 12.2. The EMD is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the EMD's forfeiture, pursuant to **Clause 12.7**.
- 12.3. The EMD shall be denominated in Indian Rupees, and shall be in the form of a bank guarantee issued by a **Nationalized / Scheduled Bank**, in the proforma provided at **Appendix A of Section VI** in the Bid Document and shall be valid for 45 days beyond the validity of the Bid.
- 12.4. Bidders who are Government departments and Central Public Sector Undertakings are exempted from furnishing of EMD and tender fee. **Any Bid not secured in**

accordance with Clauses 12.1 and 12.3 will be rejected by the Purchaser as non-responsive.

- 12.5. Unsuccessful Bidder's EMD will be discharged/ returned as promptly as possible but not later than 30 days after the expiration of the period of Bid Validity prescribed by the Purchaser, pursuant to **Clause 33.3**.
- 12.6. The Successful Bidder's EMD will be discharged upon the Bidder executing the Contract, pursuant to **Clause 35** and furnishing the Performance Guarantee, pursuant to **Clause 36. No interest will be paid by the Purchaser on the EMD amount.**
- 12.7. The EMD may be forfeited:
 - i. if a Bidder withdraws its Bid during the period of Bid Validity specified by the Bidder in the Bid; or
 - ii. in the case of a Successful Bidder, if the Bidder fails;
 - a) To sign the Contract in accordance with **Clause 34** or
 - b) To furnish Performance Guarantee in accordance with **Clause 35**.

13. Period of Validity of Bids

- 13.1. Bids shall remain valid for **180 days** from the last date of submission of the Bid. **A Bid valid for a shorter period may be rejected by the Purchaser as non-responsive.**
- 13.2. In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the Period of Validity. The request and the responses thereto shall be made in writing (or by fax). The validity of EMD provided under **Clause 12** shall also be suitably extended. A Bidder may refuse the request without forfeiting its EMD. A Bidder granting the request will not be required nor permitted to modify its Bid.

14. Format and Signing of Bid

- 14.1. The Bidder shall prepare two copies the Bid, clearly marking each "Original", "First Copy" and "Second Copy" as appropriate in accordance with **Clause 1**. In the event of any discrepancy between them, the original shall govern.
- 14.2. The original and all copies of the Bid shall be typed or written in indelible ink. **The Original and All Copies** shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract in accordance with **Clause 11**. The authorization shall be indicated by written power-of-attorney accompanying the Bid. **All pages of the Bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the Bid.**
- 14.3. The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.
- 14.4. The Bidder shall duly sign and seal its Bid with the exact name of the Firm/Company to whom the contract is to be issued.
- 14.5. The Bidder shall seal and mark the original and the copy of each Bid strictly in accordance with **Clause 1**.
- 14.6. If the outer cover of the Bid is not sealed and marked as required by **Clause 1**, the Purchaser will assume no responsibility for the Bid's misplacement or premature opening.

15. Revelation of Prices

- 15.1. **Prices in any form or by any reason before opening of the Commercial Bids should not be revealed, failing which the offer shall be liable to be rejected.** If price change is envisaged due to any clarification, a revised Commercial Bid in a separate sealed cover shall be submitted with prior written permission of the Purchaser.

16. Terms & Conditions of Bidders

- 16.1. Printed Terms & Conditions (General Conditions) of the Bidders will not be considered as forming part of their Bids. In case the General Terms & Conditions of the Contract (**Section III**) applicable to this Invitation of Bid are not acceptable to any Bidder, he should clearly specify deviations, assumptions in his Technical Bid as per **TECH 11 of Section IV**).
- 16.2. Similarly, in case the Services being offered has deviations from the Schedule of Requirements laid down in **Section V**, the Bidder shall describe in what respects and to what extent the Services being offered differ/deviate from the Schedule of Requirements, even though the deviations may not be very material. Bidder must state categorically whether or not his offer conforms to Bid Schedule of Requirements and indicate deviations, if any, in his Technical Bid (**TECH 10 of Section IV**)

17. Local Conditions

- 17.1. It will be imperative on each Bidder to fully acquaint himself with the local conditions and factors at the respective Solar power plant site locations, which would have any effect on the performance of the contract and / or the cost.
- 17.2. The Bidder is expected to obtain for himself on his own responsibility all information that may be necessary for preparing the Bid and entering into contract. Obtaining such information shall be at Bidder's own cost.
- 17.3. Failure to obtain the information necessary for preparing the Bids and entering into contract will in no way relieve the Successful Bidder from furnishing any material, facility or performing any work in accordance with the Bidding Documents, as a lump sum turnkey contract.
- 17.4. It will be imperative for each Bidder to fully inform themselves of all legal conditions and factors which may have any effect on the execution of the contract as described in the Bidding Documents. The Purchaser shall not entertain any request for clarification from the Bidder regarding such local conditions.
- 17.5. It is the responsibility of the Bidder that such factors have properly been investigated and considered while submitting the Bid proposals and that no claim whatsoever including those for financial adjustment to the contract awarded under the Bidding Documents will be entertained by the Purchaser and that neither any change in the time schedule of the contract nor any financial adjustments arising thereof shall be permitted by the Purchaser on account of failure of the Bidder to appraise themselves of local laws / conditions.
- 17.6. The Bidder is expected to make a site visit to the proposed site facility to obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into contract. Obtaining such information shall be at Bidder's own cost.

18. Headings

- 18.1. The headings of conditions hereto shall not affect the construction thereof.

19. Minimum conditions for Pre-Qualification of Bidders

- 19.1. Pursuant to Clause 1.7 and Clause 7.1 of section II, the prospective Bidder shall have to enclose documentary evidence in support of following conditions, in the absence of which the **Bid will be rejected summarily at the Pre-qualification Stage**. Bidder should submit EMD of the prescribed amount and validity pursuant to **Clause 12**.

Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru		
S. N	Description	Proof
1	<p>a. The Bidder should be a Company registered in India under the Companies Act, 1956 and be in business for last five years as on 31/03/2013 and should have their registered offices in India.</p> <p>b. The company must be registered with appropriate authorities for all applicable statutory duties/taxes</p>	<p>a. Copy of the Certificate of incorporation and amendment if any thereof</p> <p>b. Valid documentary proof of:</p> <ul style="list-style-type: none"> Central Sales Tax/VAT number. Service Tax registration number. Income Tax registration/PAN number Income Tax returns for the last three assessment years viz.2011-12, 2012-13, and 2013-14.
2	The Bidder should have an annual average turnover of at least Rs 20 crore in last three financial years viz; 2010-11, 2011-12, 2012-13.	Copy of audited Financial Statements; balance sheets and profit and loss account statements for last three years viz; 2010-11, 2011-12, 2012-13.
3	The Bidder should be in business of Solar power generating plant related services for a minimum duration of three years as on 31/03/2013.	Self declaration certificate duly certified by CEO/CFO/MD/ Authorized Signatory of the Bidder's organization.
4	<p>The Bidder should have successfully implemented;</p> <p>a. At least two grid connected solar power generating plant projects, each of minimum cumulative 300 KWp or above at one single site in last three years as on date of opening of bid.</p> <p style="text-align: center;">OR</p> <p>b. At least one grid connected solar power generating plant project, minimum cumulative 600 KWp or above at one single site in last three years as on date of opening of bid.</p>	<ul style="list-style-type: none"> Site acceptance report duly signed by Bidder's customer or work completion certificate issued by the Customer. Copy of work order/contract/purchase order (contract price may be hide)

20. Sealing and Marking of Bids

- 20.1. The Bidders shall seal and mark the original and the duplicate copy of each Bid strictly in accordance with **Clause 1 of Section II**.
- 20.2. If the outer cover of the Bid is not sealed and marked as required by **Clause 1 of Section II**, the Purchaser will assume no responsibility for the Bid's misplacement or premature opening.

21. Last Date for Receipt of Bids

- 21.1. Bids will be received by the Purchaser at the address specified under **Clause 4(c) of Section I** not later than the time and date specified in **Clause 4(d) of Section I**. In the event of the specified date for the receipt of Bids being declared a holiday for the Purchaser, the Bids will be received up to the appointed time on the next working day.
- 21.2. The Purchaser may, at its discretion, extend the last date for the receipt of Bids by amending the Bid Document in accordance with **Clause 5 of Section II**, in which case all rights and obligations of the Purchaser and Bidders previously subject to the last date will thereafter be subject to the last date as extended.

22. Late Bids

- 22.1. Any Bid received by the Purchaser after the last date for receipt of Bids prescribed by the Purchaser, pursuant to **Clause 4(d) of Section I**, **will be rejected and/or returned unopened to the Bidder**.

23. Modification and Withdrawal of Bids

- 23.1. The Bidder may modify or withdraw its Bid after the Bid's submission, provided that written notice of the modification or withdrawal is received by the Purchaser prior to the last date prescribed for receipt of Bids.
- 23.2. The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of **Clause 1 of Section II**. A withdrawal notice may also be sent by fax but followed by a signed confirmation copy, post marked not later than the last date for receipt of Bids.
- 23.3. No Bid may be modified subsequent to the last date for receipt of Bids.
- 23.4. No Bid may be withdrawn in the interval between the last date for receipt of Bids and the expiry of the Bid Validity Period specified by the Bidder in the Bid. Withdrawal of a Bid during this interval may result in the Bidder's forfeiture of its EMD.

24. Address for Correspondence

- 24.1. The Bidder shall designate the official mailing address, place, fax number and email address to which all correspondence shall be sent by the Purchaser.

25. Opening of Bids by Purchaser

- 25.1. The Purchaser will open the **Pre-Qualification Bid**, in the presence of the representatives of the Bidders who choose to attend, at the time, date and place, as mentioned in **Clause 4 of Section I** of this Document.
- 25.2. On the basis of information furnished in the Pre-Qualification Bid pursuant to **Clause 19 of Section II and documents required as per clause 7.1 of Section II**, Bidders will be pre-qualified. The Bids of Bidders, who do not qualify at this stage, will not be taken up for further evaluation, and the sealed Technical and Commercial Bids of such Bidders will be returned unopened immediately.

- 25.3. Bids of only Pre-qualified Bidders will be taken up for further evaluation.
- 25.4. Post Pre-Qualification, the Purchaser will open the **Technical Bid**, in the presence of the representatives of the Bidders who choose to attend, at the time, date and place, as mentioned in **Clause 4 of Section I** of this Document.
- 25.5. On the basis of information furnished in the technical Bid the Bidders will be technically qualified. The Bids of Bidders, who do not qualify at this stage, will not be taken up for further evaluation, and the sealed Commercial Bids of such Bidders will be returned unopened immediately.
- 25.6. The Bidders' names, modifications, Bid withdrawals and the presence or absence of the requisite EMD and such other details as the Purchaser, at its discretion, may consider appropriate will be announced at the Bid opening.
- 25.7. The Purchaser will prepare minutes of the Bid opening.

26. Clarifications

- 26.1. When deemed necessary, the Purchaser may seek clarifications on any aspect from the Bidder. However, that would not entitle the Bidder to change or cause any change in the substance of the Bid submitted or price quoted.

27. Preliminary Examination

- 27.1. The Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required EMD has been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.
- 27.2. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. **If the Bidder does not accept the correction of the errors, its Bid will be rejected.** If there is a discrepancy between words and figures, the amount in words will prevail.
- 27.3. A Bid determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
- 27.4. The Purchaser may waive any minor informality or nonconformity or irregularity in a Bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

28. Contacting the Purchaser

- 28.1. No Bidder shall contact the Purchaser on any matter relating to its Bid, from the time of the Bid opening to the time the Contract is awarded.
- 28.2. Any effort by a Bidder to influence the Purchaser's Bid evaluation, Bid comparison or contract award decisions may result in the rejection of the Bidder's Bid.

29. Post Qualification

- 29.1. The Purchaser will determine to its satisfaction whether the Bidder selected as having submitted the best evaluated responsive Bid is qualified to satisfactorily perform the Contract.
- 29.2. This determination will take into account the Bidder's financial, technical, implementation and post-implementation capabilities. It will also include an

examination of the documentary evidence submitted by the Bidder pursuant to **Clause 19 of Section-II**, as well as such other information as the Purchaser deems necessary and appropriate.

- 29.3. An affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's Bid, in which event; the Purchaser will proceed to the next best evaluated Bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

30. Evaluation of Bids

- 30.1. The Bidder must possess the requisite experience, strength and capabilities in "Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for meeting the Purchaser's requirements, as described in the Bid Document. The Bidder must possess the technical know-how and the financial where withal that would be required to successfully commission, maintain the solar power plant and provide the services sought by the Purchaser, for the entire period of the contract. The Bidder's Bid must be complete in all respects and covering the entire Schedule of Requirements, minimum requirements as stipulated in the Bid Document.

- 30.2. The evaluation process of the Bid proposed to be adopted by the Purchaser is indicated under this clause. The purpose of this clause is only to provide the Bidder an idea of the evaluation process that the Purchaser may adopt. However, the Purchaser reserves the right to modify the evaluation process at any time during the Bid process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidder of any such change.

30.3. Preliminary Examination

- i. The Purchaser will examine the Bids to determine whether they are complete, whether the Bid format conforms to the Bid requirements, whether any computational errors have been made, whether required EMD has been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.
- ii. The Purchaser may waive any informality or nonconformity or irregularity in a Bid which does not constitute a material deviation according to the Purchaser, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

30.4. Evaluation of Eligibility Criteria

- i. An evaluation committee will be formed for evaluation of the bids. Decision of the committee would be final and binding upon all the Bidders.
- ii. In this part, the technical bid will be reviewed for determining the Compliance of the response to the Eligibility Criteria as mentioned in the **Clause 19**, Section-II of the RFP.
- iii. Before opening and evaluation of their technical proposals, bidders are required to meet the Eligibility Criteria as mentioned in the **Clause 19**, Section-II of the RFP
- iv. The bidder must possess the requisite experience, strength and capabilities in providing the services necessary to meet the requirements, as described in the tender document. The bidder must also possess the technical knowhow and the

financial wherewithal that would be required to successfully provide the solar power generating plant sought by UIDAI for the entire period of the contract. The bids must be complete in all respects and should cover the entire scope of work as stipulated in the RFP document. The invitation to the bids is open to all bidders who qualify the eligibility criteria mentioned in the **Clause 19**, Section-II of the RFP

Bidders failing to meet these criteria or not submitting requisite supporting documents / documentary evidence for supporting eligibility criteria are liable to be rejected summarily and will not qualify for technical evaluation.

30.5. Evaluation of Technical Bids

- i. An evaluation committee will be formed for evaluation of the bids. Decision of the committee would be final and binding upon all the Bidders. Committee will evaluate on the basis of technical bid submitted by Bidders with the technical presentation and discussion with the key personnel proposed for the Solar power project in the technical Bid
- ii. In this part, the technical bid will first be reviewed for determining the Compliance of the Technical bids with the Tender terms and conditions, service level requirements and the scope of work as defined in this tender.
- iii. Technical Bids will then be evaluated for the following broad parameters:

Technical Evaluation parameters		
Sr. No	Description	Maximum Score
A	<ul style="list-style-type: none"> Bidder should describe the overall solution architecture and approach in this section while submitting the details, the response should be specific and in line with the RFP requirement & solution proposed. In addition, Bidder should provide overall solution architecture snapshot in Power Point Presentation format and total length of PPT should not exceed 50 A4 pages and the presentation should be specific to the solution proposed by the Bidder and shall not include anything which is not proposed by the Bidder. This presentation shall be submitted along with the technical bid. 	60
B	Compliance to the technical specification and requirements mentioned in Clause no. 2.6 of section IV.	20
C	Bidder experience & profile w.r.t solar power plant installation and operation	20
Grand Total of Technical Evaluation Parameters		100

- iv. Technical Bids receiving a score greater than or equal to a cut-off score of 70 % ($100 \times 0.70 = 70$) will be eligible for consideration in the subsequent rounds. If required, the Purchaser may seek specific clarifications from any or all Bidder(s) at this stage. The Purchaser shall determine the Bidders that qualify for the next phase after reviewing the clarifications provided by the Bidders(s).

- v. Any bid found to be unsatisfactory in terms of any of the evaluated parameters as mentioned above be rejected and will not be considered for further evaluation. Bids that are technically qualified would only be taken up for commercial evaluation.

Bidders shall note that:

- i. Inputs for the above evaluation shall be derived from the respective responses to the Bid Document as specified in the RFP, as applicable.
- ii. The details provided in the response sheet as specified in Section IV, TECH 6.

30.6. Opening of Commercial Bids

The Purchaser will open the Commercial Bids of only Technically Qualified Bidders, in the presence of the representatives of the Bidders who choose to attend, at the time, date and place, as decided by the Purchaser and the same will be evaluated by a duly constituted Finance Evaluation Committee (UIDAI).

30.7. Evaluation of Commercial Bids

- i. The Commercial Bids shall be evaluated by the Purchaser for completeness and accuracy. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail.
- ii. The Commercial Bid shall contain the total cost of all services, comprising of all items as mentioned in Section IV – Part 2: Commercial Bid Submission Forms for Manesar (Delhi/NCR) /Section IV-Part 2; Commercial Bid Submission Forms for Bengaluru, proposed to be charged by the Bidder.
- iii. The overall Bid Price, computed by the Purchaser based on the rates quoted by the bidder, shall be used by the Purchaser for the purpose of commercial evaluation of Bids.
- iv. The Purchaser will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid (L1) in commercials (Total Bid Price ("P") = Total CAPEX +OPEX Section IV – Part 2: Commercial Bid Submission Forms for Manesar (Delhi/NCR)/Section IV-Part 2; Commercial Bid forms for Bengaluru provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily
- v. In the event the L1 bidder does not accept the contract, EMD of the bidder will be forfeited and the bidder of the next higher Total Bid Price ("P") (L2) will be selected for signing of the contract.
- vi. No enquiry shall be made by the bidder(s) during the course of evaluation of the tender, after opening of bid, till final decision is conveyed to the successful bidder. However, the Committee/its authorized representative and office of UIDAI can make any enquiry/seek clarification from the bidders, which the bidders must furnish within the stipulated time else bid of such defaulting bidders will be rejected.

31. Purchaser's Right to Vary Scope of Contract at the time of Award

- 31.1. The Purchaser may at any time, by a written order given to the Bidder pursuant to **Clause 36 of Section III**, make changes within the general scope of the Contract.
- 31.2. If any such change causes an increase or decrease in the cost of, or the time required for, the Bidder's performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract Price or Stipulated Time Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause must be asserted within thirty (30) days from the date of the Bidder's receipt of the Purchaser's changed order.

32. Purchaser's Right to Accept Any Bid and to Reject Any or All Bids

- 32.1. The Purchaser reserves the right to accept any Bid, and to annul the Bid process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

33. Notification of Award

- 33.1. Prior to the expiration of the period of Bid Validity, the Purchaser will notify the Successful Bidder in writing by registered letter or by fax, to be confirmed in writing by registered letter, that its Bid has been accepted.
- 33.2. The notification of award will constitute the formation of the Contract.
- 33.3. Upon the Successful Bidder's furnishing of performance bank guarantee pursuant to **Clause 35 of Section II**, the Purchaser will discharge EMD of Unsuccessful Bidders, pursuant to **Clause 12 of Section II**.

34. Signing of Contract

- 34.1. The purchaser shall send a formal intimation through a Letter of Intent to the successful Bidder. The successful Bidder shall confirm in writing to UIDAI on the receipt of the LOI and its acceptance to intimate the work within 1 Calendar week of date of the LOI
- 34.2. At the same time as the Purchaser notifies the Successful Bidder that its Bid has been accepted, the Purchaser will send the Bidder the Contract Form (**Appendix C of Section VI**) provided in the Bid Document, incorporating all agreements between the parties.
- 34.3. Within 15 days of receipt of the Contract Form, the Successful Bidder shall sign and date the Contract and return it to the Purchaser.

35. Performance Guarantee

- 35.1. Within 7 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Guarantee in accordance with the Conditions of Contract, in the Contract Performance Guarantee Bond prescribed at **Appendix B of Section VI. The Performance Guarantee will be 10% of the actual contract value.**
- 35.2. Failure of the Successful Bidder to comply with the requirement of **Clause 34 or Clause 35 of Section II** shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which event the Purchaser may award the Contract to the next Best Evaluated Bidder or call for new Bids.

36. Confidentiality of the Document

- 36.1. This Bid Document is confidential and the Bidder is required to furnish an undertaking that anything contained in this Bid Document shall not be disclosed in any manner, whatsoever.

37. Financial Model

- 37.1. The Bidders should note that in the event of selection it shall be their responsibility to offer a guaranteed service as per requirements of the Purchaser indicated within the Schedule of Requirements.
- 37.2. The entire investment for the Schedule of Requirements detailed in **Clause 2 of Section V** and Annexes thereon of the Bid Document, including but not limited to, all related ongoing services, statutory payments and insurance coverage etc., is required to be borne by the selected Bidder. The period of contract between the Purchaser and the selected Bidder will be for a period including Design phase, Implementation phase and O&M phase. The O&M phase is for Five (5) consecutive calendar years counted from the effective date (which will start after the successful completion of site acceptance test as per Project Timelines in Section V of the RFP). The period of contract may be further extended at the Terms & Conditions mutually agreed upon subject to the terms and conditions as specified in **Section III** of the Bid Document.
- 37.3. This Bid Document envisages the grid connected solar power generating plant requirements as specified under the Schedule of Requirements. However, it is likely that the grid connected solar power plant requirement covered as a part of scope may undergo a change during the process of implementation or at a later date. Such a change would be executed through a change order process. For this purpose it is mandatory that the Bidder is required to provide the applicable unit rates (**Section IV - COMM 4.3.3**) failing which the Bid will be considered as incomplete.

38. Bidder related conditions

- 38.1. The Bidder should confirm unconditional acceptance of full responsibility of completion of job and for executing the 'Schedule of Requirements' of this Bid. This confirmation should be submitted as part of the Technical Bid. The Bidder shall also be the sole point of contact for all purposes of the Contract.
- 38.2. The Bidder should not be involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract. The Bidder should not have been black-listed by any Central / State Government or Public Sector Undertakings. If at any stage of Bidding process or during the currency of the Contract, any suppression / falsification of such information is brought to the knowledge of the Purchaser, the Purchaser shall have the right to reject the Bid or terminate the contract, as the case may be, without any compensation to the Bidder.
- 38.3. The Bidders whose proposal for the purpose of this Bid involves technical collaboration / joint venture with foreign equity participation or payment of royalty and / or lump sum for technical know-how and wherever Government's approval is necessary, should submit a copy of Government's approval to the Purchaser, prior to the Date of Opening of Commercial Bid.
- 38.4. Bids fulfilling partial requirements would be summarily rejected.

39. Subcontracting related conditions

- 39.1. The Bidder should confirm unconditional acceptance of full responsibility for executing the 'Scope of Work' and meeting all obligations of this bid.
- 39.2. However, the bidder has the option to subcontract for the activities in the following areas for fulfillment of services wherever required.
- 39.3. Following points in the clause explain the key obligations of the SPPIA and sub-contractor and the procedures to be adopted for sub-contractor management.
- 39.4. All bidders and sub-contracted entities should have a registered office in India.
- 39.5. In the event that any one of the sub-contracted entities does not have a registered entity in India at the time of submission of the proposal, the Bidder and the respective sub-contracted entity should submit an undertaking as part of the Technical Bid to open a registered office in India prior to award of the contract.
- 39.6. The bidder shall disclose the name of all sub-contracting arrangements entered to at the time of submission of the bid. All subcontracting elements should be clearly stated in the Technical Bid Submission Form.

40. Rejection Criteria

Besides other Terms & Conditions highlighted in this Bid Document, following vital conditions should be strictly complied with, failing which the Bid may be rejected.

40.1. Technical Rejection Criteria

The following vital technical conditions should be strictly complied with failing which the Bid may be rejected:

- i. Only the Bids of Bidders, who quote for the complete Schedule of Requirements as stipulated in the Bid Document, addendum (if any) and any subsequent information given to the Bidder, shall be considered. Incomplete Bids may be rejected outright.
- ii. Failure to furnish all information required as per Bid Document or submission of Bid not substantially responsive to the Bid Document in every respect may lead to rejection of Bid.
- iii. The Bidder shall be deemed to have complied with all clauses in the Bid Document under all the sections/chapters of the Bid Document, including Bid Evaluation Criteria (BEC), Schedule of Requirements, Technical Specifications and General / Special Terms & Conditions unless otherwise stated in the deviation statement.
- iv. Bids must conform to the timelines stipulated in the Bid.
- v. The Technical Bid shall contain no commercial details/items/values.
- vi. Prices in any form or by any reason before opening the Commercial Bid should not be revealed.
- vii. The Bidder should confirm unconditional acceptance of full responsibility of providing services and facilities in accordance with the 'Schedule of Requirements' of this Bid.
- viii. Grid connected solar power plant offered should be state-of-art and the equipment/material to be supplied as under the Schedule of Requirements of this Bid should be new, unused and recently manufactured. The Solar Power

Generating Plant along with the required infrastructure/equipment/material should conform fully to the requirement and specifications as laid down in the Bid Document.

- ix. **Section V - Clause 2.0** and **Clause 3.0** which specify the “Schedule of Requirements” and “Technical Specification and Minimum Requirements” respectively, if not met may render the bid liable for rejection.

40.2. Commercial Rejection Criteria

- i. Incomplete Commercial Bid.
- ii. Bids which do not conform to Bid’s Commercial Bid format.
- iii. Bids where prices are not firm during the entire duration of the contract and / or with any qualifications.
- iv. If there is an arithmetic discrepancy in the Commercial Bid calculations the Purchaser shall rectify the same. If the Bidder does not accept the correction of the errors, its Bid may be rejected. The following vital commercial conditions should be strictly complied with failing with the Bid will be rejected.

40.3. General Rejection Criteria

- i. Bids submitted without or improper EMD.
- ii. Bids received through Fax/E-Mail.
- iii. Bids which do not conform to unconditional validity of the Bid as prescribed in the Bid.
- iv. If the information provided by the Bidder is found to be incorrect / misleading at any stage / time during the Bidding Process.
- v. Bids not submitted in Two Bid systems in two separate envelopes as prescribed in the Bid.
- vi. Bid received by the Purchaser after the time and date specified for receipt of Bids prescribed by the Purchaser, pursuant to **Clause 4 (d) of Section I**.
- vii. Bids without power of authorization or any other document consisting of adequate proof of the Signatory’s Authority

41. Consortium related conditions

- i. Consortium not allowed

Section III – General Conditions of Contract

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1. Definitions

In this Contract, the following terms shall be interpreted as indicated:

- I. **“Acceptance of Bid”** means the letter/fax or any memorandum communicating to the Bidder the acceptance of its Bids and includes an advance acceptance of its Bids.
- II. **“Business Day”** means any day that is not a Sunday or a public holiday (as per the official holidays observed by Unique Identification Authority of India).
- III. **“Confidential Information”** means any information disclosed to or by any Party to this Contract and includes any information in relation to the Parties, a third party or any information with regard to any taxpayer, or any other person who is covered within the ambit of any commercial taxes legislation including any such information that may come to the knowledge of the Parties hereto / Bidder’s Team by virtue of this Contract that:
 - a. is by its nature confidential or by the circumstances in which it is disclosed confidential; or
 - b. is designated by the disclosing Party as confidential or identified in terms connoting its confidentiality;but does not include information which is or becomes public knowledge other than by a breach of this Contract.
- IV. **“Contract”** means the Agreement entered into between the Purchaser and the SPPIA as recorded in the Contract form signed by the Purchaser and the SPPIA including all attachments and Annexes thereto, the Bid and all Annexes thereto and the agreed terms as set out in the Bid, all documents incorporated by reference therein and amendments and modifications to the above from time to time.
- V. **“Contract Term”**: means a period including Design phase, Implementation phase and O&M phase. The O&M phase is for Five (5) consecutive calendar years counted from the Effective Date (which will start after the successful completion of site acceptance test and handing over as per Project Timelines in Section V of the RFP).
- VI. **“Commissioning of Grid connected Solar Power Generating Plant ”** means making the required dedicated and exclusive Grid connected Solar Power Generating Plant, as described under Schedule of Requirements given in this Bid, available to Purchaser and getting the acceptance of the same from the Purchaser.
- VII. **“The Purchaser”** means the President of India acting through the Director General, Unique Identification Authority of India (UIDAI), Planning Commission.
- VIII. **“UIDAI”**, means the Director General, Unique Identification Authority of India or any other Authorized Representative.
- IX. **“Document”** means any embodiment of any text or image however recorded and includes any data, text, images, sound, voice, codes or and databases or microfilm or computer generated micro fiche.

- X. **“Effective Date”** means the date on which this Contract is signed and executed by the parties hereto. If this Contract is executed in parts, then the date on which the last of such Contracts is executed shall be construed to be the Effective Date.
- XI. **“Intellectual Property Rights”** means any patent, copyright, trademark, trade name, design, trade secret, permit, service marks, brands, propriety information, knowledge, technology, licenses, databases, computer programs, software, know how or other form of intellectual property right, title, benefits or interest whether arising before or after the execution of this Contract and the right to ownership and registration of these rights.
- XII. **“Kick Off Meeting”** means a meeting convened by the Purchaser to discuss and finalize the work execution plan and procedures with Contractor.
- XIII. The **“SPPIA (Solar Power Plant Implementing Agency)”** means the company with whom the order has been placed for providing Services as specified in this Bid/ Contract and shall be deemed to include the SPPIA's successors, representatives (approved by the Purchaser), heirs, executors, administrators and permitted assigns, as the case may be, unless excluded by the terms of the contract.
- XIV. **“SPPIA’s (Solar Power Plant Implementing Agency’s) Team”** means the successful Bidder members, who have to provide goods and services to the Purchaser under scope of the Bid/ Contract. This definition shall also include any and/or all of the employees of the SPPIA, authorized service providers/partners/agents and representatives or other personnel employed or engaged either directly or indirectly by the Solar Power Generating Plant Service Provider for the purposes of this Bid / Contract.
- XV. **“PMC”** means Project Management consultant, M/S Engineers India Limited (EIL), appointed by UIDAI on its behalf and who will coordinate with and monitor SPPIA for all functional and operational activity and respective approvals on behalf of UIDAI up to Completion of Work.
- XVI. **The “PMC Project Manager”** shall mean the project manager of Engineers India Limited or his successor or authorized nominee.
- XVII. **The “Engineer-in-Charge”** shall mean the authorized representative of EIL.
- XVIII. **“Parties”** means the Purchaser and the SPPIA and **“Party”** means either of the Parties.
- XIX. **“Purchase Officer”** means the officer signing the acceptance of Bid and includes any officer who has authority to execute the relevant contract on behalf of the Purchaser.
- XX. **“Purchaser’s Representative/Project Coordinator”** means the person or the persons appointed by the Purchaser from time to time to act on its behalf for overall co-ordination, supervision and project management.
- XXI. **“Service”** means facilities/services to be provided as per the requirements specified in this Bid Document and any other incidental services, such as installation, implementation, maintenance, provision of technical assistance and other such obligations of the SPPIA covered under the Contract.

- XXII. **“Service Specification”** means and include detailed description, statements to technical data, performance characteristics, and standards (Indian as well as International) as applicable and as specified in the Contract as well as those specifications relating to Industry standards and codes applicable to the performance of the work, work performance quality and the specifications affecting the works or any additional specification required to be produced by the Contractor to meet the design criteria.
- XXIII. **“Site”** means the Grid connected Solar Power Generating Plant space, Utility support Area, terrace Space and other Non-Solar Power Generating Plant terrace (Pergola) space, Landscape area and car parking area of Solar Power Generating Plant complex approved by the Purchaser for the purposes of the CONTRACT wherein the operations/services/facilities as specified in the Schedule of Requirements are to be provided/ carried out.
- XXIV. **“Sub-Contractor”** means any person or persons or firm/company or their legal representatives, successors, assignees to which part of contract has been Sublette by the Contractor after necessary consent of Purchaser.
- XXV. **“The Contract Price/Value”** means the price payable to the SPPIA under the Contract for the full and proper performance of its contractual obligations.

2. Interpretation

2.1 In this Contract unless a contrary intention is evident:

- i. The clause headings are for convenient reference only and do not form part of this Contract;
- ii. Unless otherwise specified a reference to a clause number is a reference to all of its sub-clauses;
- iii. Unless otherwise specified a reference to a clause, sub-clause or section is a reference to a clause, sub-clause or section of this Contract including any amendments or modifications to the same from time to time;
- iv. A word in the singular includes the plural and a word in the plural includes the singular;
- v. A word importing a gender includes any other gender;
- vi. A reference to a person includes a partnership and a body corporate;
- vii. A reference to legislation includes legislation repealing, replacing or amending that legislation;
- viii. Where a word or phrase is given a particular meaning it includes the appropriate grammatical forms of that word or phrase which have corresponding meanings;
- ix. In the event of an inconsistency between the terms of this Contract and terms of this bid, the terms hereof shall prevail.

3. Conditions Precedent

- 3.1. This Contract is subject to the fulfillment of the following conditions precedent by the SPPIA.

- i. Furnishing by SPPIA an unconditional and irrevocable and continuing contract performance bank guarantee of 10% of the total contract value within 15 days of the receipt of notification of award from Purchaser, in a form and manner acceptable to the Purchaser (Refer Clause 35 of Section II and Clause 33 of Section III) which would remain valid till completion of the five years of Operation and maintenance (T+110 days +5 years) from the date of submission of Bank Guarantee
- ii. Furnishing by SPPIA an unconditional and irrevocable and continuing contract performance bank guarantee of 10% of the total contract value) within 7 days of SAT, in a form and manner acceptable to the Purchaser (Refer Clause 35 of Section II and Clause 33 of Section III) which would remain valid till completion of the five years (E+5 Years) of Operation and maintenance from the date of submission of Bank Guarantee.
- iii. Execution of a Deed of Indemnity in terms of Clause 17 of Section III.
- iv. Obtaining of all statutory and other approvals required for the performance of the Services under this Contract.
- v. Furnishing of such other documents, including definitive documents as the Purchaser may specify.
- vi. Where the designated SPPIA is a subsidiary of a company or a member of a group of companies or is a joint venture company or is special purpose vehicle (SPV) [formed to execute the obligations under this Contract] and where the Purchaser may specify (on account of the SPPIA's failure to fulfill all selection criteria specified in the Bid), the parent or flagship company/ majority shareholder of such SPPIA having furnished an unconditional, irrevocable and continuing guarantee of an amount equivalent to Rs ____/- on behalf of the SPPIA in a form and manner acceptable to the Purchaser which would remain valid until such time, beyond the term of the Contract, as may be stipulated by the Purchaser.

The Purchaser reserves the right to waive any or all of the conditions specified in **Clause 3.1 of Section III** above in writing and no such waiver shall affect or impair any right, power or remedy that the Purchaser may otherwise have.

4. **Scope of the Contract**

- 4.1. Scope of the Contract shall be as defined in **Section V** of this Bid.
- 4.2. Purchaser has engaged the SPPIA for “**Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru**” which the Purchaser intends to perform all its business operations. The SPPIA is required to provide such services, support and infrastructure as the Purchaser may deem proper and necessary, during the term of this Contract, and includes all such processes and activities which are consistent with the proposals set forth in the Bid, the Bid and this Contract and are deemed necessary by the Purchaser, in order to meet its business requirements (hereinafter ‘Schedule of Requirements’).

5. **Key Performance Measurements**

- 5.1. Unless specified by the Purchaser to the contrary, the SPPIA shall perform the Services and carry out the Schedule of Requirements in accordance with the terms of

this Contract, Scheduled Requirements and the Service Specifications as laid down in Service Level Agreement (**Section VII**).

- 5.2. If the Contract, Scheduled Requirements, Service Specification includes more than one document, then unless the Purchaser specifies to the contrary, the later in time shall prevail over a document of earlier date to the extent of any inconsistency.
- 5.3. The Purchaser reserves the right to amend any of the terms and conditions in relation to the Contract / Service Specifications and may issue any such directions which are not necessarily stipulated therein if it deems necessary for the fulfillment of the Schedule of Requirements. The Purchaser reserves the right to amend any of the terms and conditions in relation to the Service Specifications and may issue any such directions which are not necessarily stipulated therein if it deems necessary for the fulfillment of the Schedule of Requirements.

6. Commencement and progress

- 6.1. The SPPIA shall subject to the fulfillment of the conditions precedent set out in **Clause 3 of Section III** above, commence the performance of its obligations in a manner as specified in the Contract/ Schedule of Requirements & Service Specifications on the Effective Date.
- 6.2. The SPPIA shall proceed to carry out the Services with diligence and expedition in accordance with any stipulation as to the time, manner, mode, and method of execution contained in this Contract.
- 6.3. The SPPIA shall be responsible for and shall ensure that all Services are performed in accordance with the Contract/ Schedule of Requirements & Service Specifications and that the SPPIA's Team complies with such Specifications and all other standards, terms and other stipulations/conditions set out hereunder.

7. Standards of Performance

The SPPIA shall perform the Services and carry out its obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used in the industry and with professional engineering and consulting standards recognized by international professional bodies and shall observe sound management, engineering and security practices. It shall employ appropriate advanced technology and engineering practices and safe and effective equipment, machinery, material and methods. The SPPIA shall always act, in respect of any matter relating to this Contract, as faithful advisors to the Purchaser and shall, at all times, support and safeguard the Purchaser's legitimate interests in any dealings with Third Parties.

8. Sub – Contract

- 8.1. The SPPIA will in the ordinary course be permitted to appoint any delegate/subcontractor to enable execution of the Schedule of Requirements as stipulated under the Contract. Any such sub-contract shall in no manner whatsoever relieve the SPPIA of its obligations and/ or liabilities, in respect of the services/ obligations so sub contracted, under this Contract. It is clarified that the SPPIA shall remain liable and responsible for any/ all acts, omissions or defaults of the sub-contract (s), and shall indemnify the Purchaser in respect thereof.
- 8.2. The SPPIA shall immediately upon execution of the contract(s) to be entered into with such delegate/sub-contractor provide a copy of the same to the Purchaser and shall

not review, amend, modify or terminate the terms of such contracts without the prior written consent of the Purchaser.

- 8.3. The SPPIA shall ensure that the delegate/subcontractor appointed is competent and professional and possess the requisite qualifications and experience appropriate to the tasks they will perform under this Contract.
- 8.4. Any change in the Sub-contractor(s) after the arrangement is firmed up, will be made by Contractor only with the prior written approval of the Purchaser which approval shall not be unreasonably withheld and only from amongst those sub-contractor(s) as proposed by the Contractor in his Bid and as are found technically acceptable.

The Purchaser's decision shall be notified to the contractor within fourteen (14) Working Days of receipt of request for such change along with all necessary documents in support of the requested change provided, however, that request for change is received at least one (1) month prior to the schedule start of the relevant activity.

- 8.5. The SPPIA shall be responsible and shall ensure the proper commissioning and performance of the solar power plant / services or tasks so delegated/sub-contracted and shall be liable for any non-performance or breach by such delegate/sub-contractor. The SPPIA indemnifies and shall keep indemnified Purchaser against any losses, damages, claims or such other implications arising from or out of the acts and omissions of such delegate/sub-contractor. The SPPIA shall be responsible for making all payments to the delegate/sub-contractor as may be necessary, in respect of any work performed or task executed, and the Purchaser shall not be responsible for any part or full payment which is to due to such delegate/sub-contractor.
- 8.6. All rights of use of any process, product, service or facility developed or any other task performed by the delegate/subcontractor for the SPPIA, under a subcontract/agreement would lie exclusively with the Purchaser in perpetuity free from all liens, encumbrances and other third party rights and the SPPIA shall, wherever required take all steps that may be necessary to ensure the transfer of such ownership in favour of the Purchaser.
- 8.7. Nothing in this Contract or any delegation/subcontract agreement hereunder shall relieve the SPPIA from its liabilities or obligations under this Contract to provide the Services in accordance with this Contract. However, the Purchaser reserves the right to hold the delegate/subcontractor and the SPPIA jointly and severally liable for any act/omission of any delegate/subcontractor.
- 8.8. Where the Purchaser deems necessary, it shall have the right to require replacement of any delegate/sub-contractor with another delegate/sub-contractor and the SPPIA shall in such case terminate forthwith all agreements/contracts other arrangements with such delegate/sub-contractor and find of the suitable replacement for such delegate/sub-contractor to the satisfaction of the Purchaser at no additional charge. Failure on the part of the SPPIA to find a suitable replacement and/or terminate all agreements/contracts with such member, shall amount to a breach of the terms hereof and the Purchaser in addition to all other rights, have the right to claim damages and recover from the SPPIA all losses/ or other damages that may have resulted from such failure. Further, in case the SPPIA terminates any contract/arrangement or agreement with a delegate/sub-contractor for any reason whatsoever, the SPPIA shall ensure the smooth continuation of Services by providing forthwith, a suitable replacement which is acceptable to the Purchaser at no additional charge.

- 8.9. In the event of termination of this Contract, the Purchaser reserves the right to require the continued performance or execution of all sub-contracts or contracts which the SPPIA had originally entered into with any delegate/sub-contractor, irrespective of whether the SPPIA continues to perform its designated role. The above obligation of the delegate/sub-contractor shall be in accordance with the Deed of Adherence and Undertaking provided by the delegate/sub-contractor to the SPPIA.

9. SPPIA's obligations

- 9.1. The SPPIA would be required to own, develop, maintain and manage the requisite Solar Power Generating Plant to enable the UIDAI to meet the operational requirements. It will be the SPPIA's responsibility to ensure compliance to the requirements of the Solar Power Generating Plant and continued operation of the Solar Power Generating Plant in accordance with and in strict adherence to the terms of his Bid, the Bid and this Contract.

- 9.2. In addition to the aforementioned, the SPPIA shall:

Perform the Services specified by the Purchaser and commission the necessary facilities as may be necessary and other 'Schedule of Requirements' as specified in the bid and changes thereof.

- 9.3. The SPPIA shall ensure that the SPPIA's Team is competent, professional and possesses the requisite qualifications and experience appropriate to the task they are required to perform under this Contract. The SPPIA shall ensure that the Services are performed through the efforts of the SPPIA's Team, in accordance with the terms hereof and to the satisfaction of the Purchaser. Nothing in this Contract relieves the SPPIA from its liabilities or obligations under this Contract to provide the Services in accordance with the Purchaser's directions and requirements and as stated in this Contract and the Bid to the extent accepted by the Purchaser and the SPPIA shall be liable for any non-performance, non-compliance, breach or other loss and damage resulting either directly or indirectly by or on account of its Team.

9.4. SPPIA's Representative

The SPPIA's representative shall have all the powers requisite for the performance of services under this contract. The SPPIA's Representative shall liaise with the Purchaser's Representative for the proper coordination and timely completion of the works and on any other matters pertaining to the works. He will extend full co-operation to Purchaser's representative in the manner required by them for supervision/inspection/observation of the Solar Power Generating Plant facilities, equipment/material, procedures, performance, reports and records pertaining to the works. He shall also have complete charge of the SPPIA's personnel engaged in the performance of the works and to ensure compliance of rules, regulations and safety practice. He shall also co-ordinate and co-operate with the other Service Providers/Vendors of the Purchaser working at the Site/ Offsite for activities related to planning execution of Schedule of Requirements and providing services under this Contract. Such SPPIA's representative shall be available to the Purchaser's Representative at each Site during the commissioning of the Grid connected Solar Power Generating Plant.

9.5. Access Rights to the Solar Power Generating Plant

The SPPIA shall provide to the Purchaser or Purchaser's authorized representative unrestricted access to the Solar Power Generating Plant on a 24X7X365 basis.

9.6. Installation/Relocation

- a) Prior to taking up installation of any major component of work at the Solar Power Generating Plant is likely to have an impact on the services offered to the Purchaser; the SPPIA shall submit to Purchaser his proposed procedures and obtain Purchaser's approval in writing. If no response is provided by the Purchaser to the SPPIA within 10 working days after receipt by the Purchaser, then the proposed procedure shall be deemed to be approved by the Purchaser.

9.7. Reporting Progress

SPPIA shall monitor progress of all the activities specified in the contract and submit a free of cost monthly progress report about the various aspects of the work to the Purchaser. The Purchaser on mutual agreement between both parties may change the periodicity of such reports. Extracts of the progress report to be termed, as "Executive Summary" shall be submitted in 3 copies, along with 3 copies of monthly progress report. The same is required to be submitted in soft copy as well. Formats for such reporting shall be discussed at the Kick-Off meeting.

The Grid connected Solar Power Generating Plant, materials and/or labour to be provided by the SPPIA under the Contract and the manner and speed of execution and maintenance of the work are to be conducted in a manner to the satisfaction of Purchaser's representative in accordance with the Contract. Should the rate of progress of the work, compliance to the requirements of the Grid connected Solar Power Generating Plant, or any part of them at any time fall behind the stipulated time for completion or is found to be too slow to ensure completion of the works or insufficient for satisfactory operation of the Grid connected Solar Power Generating Plant, the Purchaser's representative shall so notify the SPPIA in writing.

The SPPIA shall reply to the written notice giving details of the measures he proposes to take to expedite the progress so as to complete the works by the prescribed time. The SPPIA shall not be entitled to any additional payment for taking such steps. If at any time it should appear to the Purchaser or Purchaser's representative that the actual progress of work does not conform to the approved programme the SPPIA shall produce at the request of the Purchaser's representative a revised programme showing the modification to the approved programme necessary to ensure completion of the works within the time for completion or steps initiated to ensure compliance/improvement to the stipulated requirements.

The submission seeking an approval by the Purchaser or Purchaser's representative of such programme as the furnishing of such particulars shall not relieve the SPPIA of any of his duties or responsibilities under the Contract.

In case during commissioning of required Grid connected Solar Power Generating Plant, the progress falls behind schedule or does not meet the desired requirements, SPPIA shall deploy extra manpower, resources, infrastructure to make up the progress or to meet the requirements. Programme for deployment of extra man power/ resources/ infrastructure will be submitted to the Purchaser for its review and approval, which approval shall not be unreasonably withheld. All time and cost effect in this respect shall be borne, by the SPPIA unless otherwise expressly provided in the Contract.

9.8. Knowledge of site conditions

The SPPIA's undertaking of this Contract shall be deemed to mean that the SPPIA possesses the knowledge of all Grid connected Solar Power Generating Plant related requirements for Manesar (Delhi-NCR) site and Bangalore site as stipulated in the Bid Document including but not limited to environmental, demographic and physical conditions and all criteria required to meet the design of the Solar Power Generating Plants.

The SPPIA shall be deemed to have understood the requirements and have satisfied himself with the data contained in the Bidding Documents, the quantities and nature of the works and materials necessary for the completion of the works, etc., and in-general to have obtained himself all necessary information of all risks, contingencies and circumstances affecting his obligations and responsibilities therewith under the Contract and his ability to perform it. However, if during the process of commissioning of Grid connected Solar Power Generating Plant, as required by purchaser, SPPIA detects any obstructions affecting the work, the SPPIA shall take all measures to overcome them.

SPPIA shall be deemed to have satisfied himself as to the correctness and sufficiency of the Contract Price for the works. The consideration provided in the Contract for the SPPIA undertaking the works shall cover all the SPPIA's obligation and all matters and things necessary for proper execution and maintenance of the works in accordance with the Contract and for complying with any instructions which the Purchaser's Representative may issue in accordance with the connection therewith and of any proper and reasonable measures which the SPPIA takes in the absence of specific instructions from the Purchaser's Representative.

9.9. Programme of Work

Within fifteen days after the award of work under this Contract or prior to kick-off meeting whichever is earlier, the SPPIA shall submit to the Purchaser for its approval a detailed programme showing the sequence, procedure and method in which he proposes to carry out the works as stipulated in the Contract and shall, whenever reasonably required by the Purchaser's Representative furnish in writing the arrangements and methods proposed to be made for carrying out the works. The programme so submitted by the SPPIA shall conform to the duties and periods specified in the Contract. The Purchaser and the SPPIA shall discuss and agree upon the work procedures to be followed for effective execution of the works, which the SPPIA intends to deploy and shall be clearly specified. Approval by the Purchaser's Representative of a programme shall not relieve the SPPIA of any of his duties or responsibilities under the Contract.

If the SPPIA's work plans necessitate a disruption/ shutdown in Purchaser's operation, the plan shall be mutually discussed and developed so as to keep such disruption/shutdown to the barest unavoidable minimum. Any time and cost arising due to failure of the Bidder to develop/adhere such a work plan shall be to his account.

9.10. SPPIA's Organization

The SPPIA shall supply to the Purchaser 7 days prior to the effective date of commencement of works/services or kick-off meeting whichever is earlier, an organization chart showing the proposed organization/manpower to be established by the SPPIA for execution of the work/facilities including the identities and Curriculum-Vitae of the key personnel to be deployed. The SPPIA shall promptly inform the Purchaser in writing, of any revision or alteration of such organization charts.

The SPPIA shall provide necessary supervision during the commissioning of the Solar Power Generating Plant and as long thereafter as the Purchaser may consider necessary for the proper fulfillment of the SPPIA's obligations under the Contract. The SPPIA or his competent and authorized representative(s) shall be constantly present at the worksite whole time for supervision. The SPPIA shall authorize the Supervisor or his representative to receive directions and instructions from the Purchaser's Representative.

The SPPIA shall be responsible for the deployment, transportation, accommodation and other requirements of all its employees required for the execution of the work and for all costs/charges in connection thereof.

The SPPIA shall provide and deploy, on the Site for carrying out the work, only those engineers/technicians/assistants who are skilled and experienced in their respective trades and those foremen and leading hands who are competent to execute or manage/ supervise the work. Further, only those skilled, semiskilled and unskilled workmen who are necessary for the proper and timely execution of the work shall be deployed at site.

The Purchaser's Representative may at any time object to and require the SPPIA to remove forthwith from the site a supervisor or any other authorized representative or employee of the SPPIA or any person(s) deployed by SPPIA or his sub-contractor, if, in the opinion of the Purchaser's Representative the person in question has mis-conducted himself or his deployment is otherwise considered undesirable by the Purchaser's Representative the SPPIA shall forthwith remove and shall not again deploy the person in question of the work site without the written consent of the Purchaser's Representative.

The Purchaser's Representative may at any time request the SPPIA to remove from the work / Site the SPPIA's supervisor or any other authorized representative including any employee of the SPPIA or his sub-contractor or any person(s) deployed by SPPIA or his sub-contractor for professional incompetence or negligence or for being deployed for work for which he is not suited. The SPPIA shall consider the Purchaser's Representative request and may accede to or disregard it. The Purchaser's Representative, having made a request, as aforesaid in the case of any person, which the SPPIA has disregarded, may in the case of the same person at any time but on a different occasion, and for a different instance of one of the reasons referred to above in this Clause object to and require the SPPIA to remove that person from deployment on the work, which the SPPIA shall then forthwith do and shall not again deploy any person so objected to on the work or on the sort of work in question (as the case may be) without the written consent of the Purchaser's Representative.

The Purchaser's Representative shall state to the SPPIA in writing his reasons for any request or requirement pursuant to this clause.

The SPPIA shall promptly replace every person removed, pursuant to this section, with a competent substitute.

9.11. Adherence to safety procedures, rules regulations and restriction

SPPIA shall comply with the provision of all laws including labour laws, rules, regulations and notifications issued there under from time to time. All safety and labour laws enforced by statutory agencies and by Purchaser shall be applicable in the performance of this Contract and SPPIA shall abide by these laws.

SPPIA shall take all measures necessary or proper to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. Purchaser's employee also shall comply with safety procedures/policy.

The SPPIA shall report as soon as possible any evidence, which may indicate or is likely to lead to an abnormal or dangerous situation and shall take all necessary emergency control steps to avoid such abnormal situations.

SPPIA shall also adhere to all security requirement/regulations of the Purchaser during the execution of the work.

Access to the Purchaser's Solar Power Generating Plant should be strictly restricted in the following manner:

- No access to any person except one explicitly authorized by the Purchaser should be allowed entry. Even if granted, access should be restricted to the pertaining equipment of the Purchaser only and access to any other equipment must be strictly precluded by necessary means, locks, video surveillance, etc.
- No access to any person (even if authorized by the Department) should be allowed without being unaccompanied by a security staff of the SPPIA at all times during his/her presence in the Solar Power Generating Plant area and subject to recorded video surveillance. Records of such surveillance shall be maintained by the SPPIA for review by the Purchaser as and when required.
- No access to any employee of the SPPIA, except the essential staff who have genuine work-related need, should be given. All such access should be logged in a loss-free manner for permanent record with unique biometric identification of the employee to avoid misrepresentations or mistakes.
- The whole building should be well manned by security guards. Security guards should be able to respond constructively to any alarm generated by security system including fire. The guards should be sufficiently trained to provide onsite incidence management.

9.12. Statutory Requirements

During the tenure of this Contract nothing shall be done by the SPPIA in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof governing inter-alia customs, stowaways, foreign exchange etc. and shall keep Purchaser indemnified in this regard.

9.13. The SPPIA and their personnel/representative shall not alter / change / replace any hardware component proprietary to the Purchaser and/or under warranty or AMC of third party without prior consent of the Purchaser.

9.14. The SPPIA and their personnel/representative shall not without consent of the Purchaser install any hardware or software not purchased / owned by the Purchaser.

10. Contract administration

10.1. No variation or modification of the terms of the contract shall be made except by written amendment signed by the parties.

10.2. Either party may appoint any individual / organization as their authorized representative through a written notice to the other party. Each Representative shall have the authority to:

- i. Exercise all of the powers and functions of his/her Party under this Contract other than the power to amend this Contract and ensure the proper administration and performance of the terms hereof; and
 - ii. Bind his or her Party in relation to any matter arising out of or in connection with this Contract.
- 10.3. The SPPIA along with the members of Consortium and Sub-Contractors/third parties shall be bound by all undertakings and representations made by the authorized representative of the SPPIA and any covenants stipulated hereunder, with respect to this Contract, for and on their behalf.
- 10.4. For the purpose of execution or performance of the obligations under this Contract, the Purchaser's representative would act as an interface with the nominated representative of the SPPIA. The SPPIA shall comply with any instructions that are given by the Purchaser's representative during the course of this Contract in relation to the performance of its obligations under the terms of this Contract and the Bid.

11. Purchaser's Right of Inspection and Periodic Audit

- 11.1. The Purchaser reserves the right to inspect and monitor/assess the progress/performance/maintenance of the project/Solar Power Generating Plant at any time during the course of the Contract, after providing due notice to the SPPIA. The Purchaser may demand and upon such demand being made, the Purchaser shall be provided with any document, data, material or any other information which it may require, to enable it to assess the progress of the project.
- 11.2. The Purchaser shall also have the right to conduct, either itself or through another agency as it may deem fit, an audit to monitor the performance by the SPPIA of its obligations/functions in accordance with the standards committed to or required by the Purchaser and the SPPIA undertakes to cooperate with and provide to the Purchaser/ any other agency appointed by the Purchaser, all Documents and other details as may be required by them for this purpose. Any deviations or contravention identified as a result of such audit/assessment would need to be rectified by the SPPIA failing which the Purchaser may, without prejudice to any other rights that it may have issue a notice of default.

12. Purchaser's Obligations

- 12.1. The Purchaser's Representative shall interface with the SPPIA, to provide the required information, clarifications, and to resolve any issues as may arise during the execution of the Contract. Purchaser shall provide adequate cooperation in providing details, assisting with coordinating and obtaining of approvals from various governmental agencies, in cases, where the intervention of the Purchaser is proper and necessary.
- 12.2. Purchaser shall ensure that timely approval is provided to the SPPIA, where deemed necessary, which should include physical Grid connected Solar Power Generating Plant diagram/plans and all specifications related to equipment/material required to be provided as part of the Schedule of Requirements.
- 12.3. The Purchaser shall approve all such documents as per **Clause 12.2 of Section III.**

13. Payments

- 13.1. Purchaser shall make payments to the SPPIA at the times and in the manner set out in the Payment schedule as specified later in this document (Refer to **Clause 45 of**

Section III) to this Contract subject always to the fulfillment by the SPPIA of the obligations herein.

13.2. Payment shall be paid at the times and in the manner set out in the Payment schedule. According to the Finance Bill (No. 2) 2004, Circular No: 79/9/2004 – ST – Clause 13.2, Service tax would not be leviable on the Construction services provided for Government Buildings.

13.3. No invoice for extra work/charge order on account of change order will be Submitted by the SPPIA unless they said extra work /change order has been authorized/approved by the Purchaser in writing in accordance with Clause on Change order.

In case of change in duties/Taxes under change in law after award of contract, SPPIA shall absorb the impact/benefit /burden (If any).

13.4. In the event of Purchaser noticing at any time that any amount has been disbursed wrongly to the SPPIA or any other amount is due from the SPPIA to the Purchaser, the Purchaser may without prejudice to its rights to recover such amounts by other means after notifying the SPPIA or deduct such amount from any payment falling due to the SPPIA. The details of such recovery if any, will be intimated to the SPPIA. The SPPIA shall receive the payment of undisputed amount under Subsequent invoice for any amount that has been omitted in previous invoice by mistake on the part of the Purchaser or the SPPIA.

13.5. The Purchaser shall not be responsible/ obligated for making any payments or any other related obligations under this Contract to the SPPIA's sub-contractor/vendors. The SPPIA shall be fully liable and responsible for meeting all such obligations and all payments to be made to its sub-contractors/vendors and any other third party engaged by the SPPIA in any way connected with the discharge of the SPPIA's obligation under the Contract and in any manner whatsoever.

13.6. All payments agreed to be made by Purchaser to the SPPIA in accordance with the Bid shall be inclusive of all statutory levies, duties, taxes and other charges whenever levied/applicable including costs of maintenance and up gradation of systems, if any and Purchaser shall not be liable to pay any such levies/other charges under or in relation to this Contract and/or the Services.

13.7. Purchaser shall make all payments under this Contract, as set out in the Payment clause to the SPPIA and shall not be liable to make any payments to any other party including but not limited to the SPPIA's Team.

13.8. Deductions

All payments to the SPPIA shall be subject to the deductions of tax at source under Income Tax Act, and other taxes and deductions as provided for under any law, rule or regulation. All costs, damages or expenses which Purchaser may have paid or incurred, for which under the provisions of the Contract, the SPPIA is liable, the same shall be deducted by Purchaser from any dues to the SPPIA. All payments to the SPPIA shall be made after making necessary deductions as per terms of the Contract, including recovery of mobilization advance, if any, and recoveries towards facilities, if any, provided by the Purchaser to the SPPIA on chargeable basis.

13.9. Duties and Taxes and Statutory levies

The SPPIA shall bear all personnel taxes levied or imposed on its personnel, sub-contractor's personnel, Vendors, consultants etc. on account of payment received

under this Contract. The SPPIA shall bear all taxes, levied or imposed on the SPPIA on account of payments received by it from the Purchaser for the work done under this Contract.

SPPIA shall bear all taxes and duties etc. levied or imposed on the SPPIA under the Contract including but not limited to Customs duty, Excise duty and all Income Tax levied under Indian Income Tax Act – 1961 or any amendment thereof i.e., on account of payments received by him from the Purchaser for work done under the Contract. It shall be the responsibility of the SPPIA to submit to the concerned Indian authorities the returns and all other connected documents required for this purpose. The SPPIA shall also provide the Purchaser such information, as it may be required in regard to the SPPIA's details of payment made by the Purchaser under the Contract for proper assessment of taxes and duties. The SPPIA and his sub-contractor(s) or their personnel shall bear all the taxes if any, levied on the SPPIA's sub-contractors and vendor's personnel. The amount of tax withheld by the Purchaser shall at all times be in accordance with Indian Tax Law and the Purchaser shall promptly furnish to the SPPIA original certificates (Challans) for tax deduction at source and paid to the Tax Authorities.

SPPIA shall deposit the applicable amount of labour cess/construction worker cess to respective statutory authority and furnish the necessary documentary evidence for compliance of same else Purchaser reserves the right to deduct the applicable labour cess/construction worker cess amount from SPPIA RA bills (1% of the value of bill) and deposit the same to authority.

The SPPIA agrees that he and his sub-contractors(s) shall comply with the Indian Income Tax act in force from time to time and pay Indian Income Tax, as may be imposed/ levied on them by the Indian Income Tax Authorities, for the payments received by them for the works under the Contract.

Should the SPPIA fail to submit returns/pay taxes in times as stipulated under the Indian Income Tax Act and consequently any interest or penalty is imposed by the Indian Income Tax authority, the SPPIA shall pay the same. SPPIA shall indemnify Purchaser against any and all liabilities or claims arising out of this Contract for such taxes including interest and penalty any such Tax Authority may assess or levy against the Purchaser/SPPIA.

The Purchaser shall if so required by applicable laws in force, at the time of payment, deduct income tax payable by the SPPIA at the rates in force, from the amount due to the SPPIA and pay to the concerned tax authority directly.

14. Intellectual Property Rights

- 14.1. Purchaser shall own and have a right in perpetuity to use all Intellectual Property Rights which have arisen out of or in connection with the implementation of this Contract, including all processes, products, specifications, reports, drawings and other documents which have been developed by the SPPIA during the performance of Services and for the purposes of inter-alia use or sub-license of such Services under this Contract. The SPPIA undertakes to disclose all Intellectual Property Rights arising out of or in connection with the performance of the Services to the Purchaser and execute all such agreements/documents and file all relevant applications, effect transfers and obtain all permits and approvals that may be necessary in this regard to effectively transfer and conserve the Intellectual Property Rights of the Purchaser.

- 14.2. Further, if the Purchaser desires, the SPPIA shall be obliged to ensure that all approvals, registrations, licenses, permits and rights which are, inter-alia, necessary for use of the systems/ equipment installed by the SPPIA, the same shall be acquired in the name of the Purchaser, prior to termination of this Contract and which shall be assigned by the Purchaser to the SPPIA for the purpose of execution of any of its obligations under the terms of the Bid, Bid or this Contract. However, subsequent to the term of this Contract, such approvals etc. shall endure to the exclusive benefit of the Purchaser
- 14.3. The SPPIA shall ensure that while it uses any software, hardware, processes or material in the course of performing the Services, it does not infringe the Intellectual Property Rights of any person and the SPPIA shall keep the Purchaser indemnified against all costs, expenses and liabilities howsoever, arising out any illegal or unauthorized use (piracy) or in connection with any claim or proceedings relating to any breach or violation of any permission/license terms or infringement of any Intellectual Property Rights by the SPPIA or any sub-contractor during the course of performance of the Services.

14.4. Information Security

The SPPIA shall not carry and/ or transmit any written material, information, layouts, diagrams, storage media (hard disk/ tapes) or any other goods/ materials in physical or electronic form, which are proprietary to or owned by the Purchaser out of Solar Power Generating Plant premises without prior written permission from the Purchaser.

The SPPIA personnel shall follow Purchaser's Information Security policy and compliance to ISO 27001 standards.

SPPIA acknowledges that Purchaser's business data and other Purchaser proprietary information or materials, whether developed by Purchaser or being used by Purchaser pursuant to a license agreement with a third party (the foregoing collectively referred to herein as "proprietary information") are confidential and proprietary to Purchaser; and SPPIA agrees to use reasonable care to safeguard the proprietary information and to prevent the unauthorized use or disclosure thereof, which care shall not be less than that used by SPPIA to protect its own proprietary information. SPPIA recognizes that the goodwill of Purchaser depends, among other things, upon SPPIA keeping such proprietary information confidential and that unauthorized disclosure of the same by SPPIA could damage the Purchaser, by reason of SPPIA's duties hereunder. SPPIA may come into possession of such proprietary information, even though SPPIA does not take any direct part in or furnish the services performed for the creation of said proprietary information and shall limit access thereto to employees with a need to such access to perform the services required by this agreement. SPPIA shall use such information only for the purpose of performing the said services.

SPPIA shall, upon termination of this agreement for any reason, or upon demand by Purchaser, whichever is earliest, return any and all information provided to SPPIA by Purchaser, including any copies or reproductions, both hardcopy and electronic.

14.5. Records of Contract Documents

The SPPIA shall at all time make and keep sufficient copies of the Drawings, specifications and Contract documents for him to fulfill his duties under the Contract.

The SPPIA shall keep on each site at least three copies of each and every specification and contract document, in excess of his own requirement and those copies shall be

available at all times for use by the Purchaser's Representative and by any other person authorized by the Purchaser's Representative. Where one or more of SPPIA's offices are deployed in the works, all requirements of the Contract and SPPIA's obligation under the Contract shall apply equally at each office so deployed.

15. Ownership and Retention of Documents

- 15.1. The Purchaser shall own the Documents, prepared by or for the SPPIA arising out of or in connection with this Contract.
- 15.2. Forthwith upon expiry or earlier termination of this Contract and at any other time on demand by the Purchaser, the SPPIA shall deliver to the Purchaser all Documents provided by or originating from the Purchaser and all Documents produced by or from or for the SPPIA in the course of performing the Services, unless otherwise directed in writing by the Purchaser at no additional cost. The SPPIA shall not, without the prior written consent of the Purchaser store, copy, distribute or retain any such Documents.

16. Data and Hardware

The Purchaser has the sole ownership of and the right to use, all such data in perpetuity including any data or other information pertaining to the subscriber that may be in the possession of the SPPIA's Team in the course of performing the Services under this Contract.

17. Indemnity

- 17.1. The SPPIA shall execute and furnish to the Purchaser, a Deed of Indemnity (The draft deed of indemnity is attached as **Annexure A**) in favour of the Purchaser in a form and manner acceptable to the Purchaser, indemnifying the Purchaser from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:
 - i. Any negligence or wrongful act or omission by the SPPIA or the SPPIA's Team or any sub-contractor/ third party in connection with or incidental to this Contract; or
 - ii. Any breach of any of the terms of the SPPIA's Bid as agreed, the Bid and this Contract by the SPPIA, the SPPIA's Team or any sub-contractor/ third party.
- 17.2. The indemnity shall be to the extent of 100% in favor of the Purchaser and would be in conjunction to **Clause 44 of Section III**.

18. Representations and Warranties

- 18.1. In order to induce the Purchaser to enter into this Contract, the SPPIA hereby represents and warrants as of the date hereof, which representations and warranties shall survive the term and termination hereof, the following:
 - i. That the selected SPPIA is a company which has the requisite experience in providing services related to Solar Power Generating Plant, the technical know-how and the financial wherewithal, the power and the authority that would be required to successfully commission, maintain and manage the required Solar Power Generating Plant facility and to enter into this Contract and provide the Services sought by the Purchaser, for the purposes of this Contract.

- ii. That the SPPIA and its Sub-contractors are not involved in any major litigation, potential, threatened and existing, that may have an impact of affecting or compromising the delivery of Services of this Contract.
- iii. That the representations made by the SPPIA in its Bid are and shall continue to remain true and fulfill all the requirements as are necessary for executing the obligations and responsibilities as laid down in the Contract and the Bid and unless the Purchaser specifies to the contrary, the SPPIA shall be bound by all the terms of the Bid.
- iv. That the SPPIA has the professional skills, personnel, infrastructure and resources/authorizations that are necessary for providing all such services as are necessary to fulfill the Schedule of Requirements stipulated in the Bid and this Contract.
- v. That the SPPIA shall ensure that all assets including but not limited to equipment, licenses, etc. developed, procured, deployed and created during the term of this Contract are duly maintained and suitably updated, upgraded, replaced with regard to contemporary requirements.
- vi. That the SPPIA shall indemnify the Purchaser against any privilege, claim or assertion made by a third party with respect to right or interest in, ownership, mortgage or disposal of any asset, property, movable or immovable as mentioned in any Intellectual Property Rights, licenses and permits. The SPPIA shall also indemnify the Purchaser against all third-party claims of infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied Software and related services or any part thereof.
- vii. That the SPPIA shall use such assets of the Purchaser as the Purchaser may permit for the sole purpose of execution of its obligations under the terms of the Bid, Bid or this Contract. The SPPIA shall however, have no claim to any right, title, lien or other interest in any such property, and any possession of property for any duration whatsoever shall not create any right in equity or otherwise, merely by fact of such use or possession during or after the term hereof.
- viii. That during the term of this contract, the SPPIA shall procure insurance policies for all its present and future property and assets that are developed, procured and created for fulfillment of obligations under this Contract with financially sound and reputable insurers to the satisfaction of the Purchaser and shall pay all premium in relation thereto and shall ensure that nothing is done to make such insurance policies void or voidable. The SPPIA shall also furnish to the Purchaser a certificate evidencing such insurance, risks covered, names of beneficiaries, expiration dates, names of insurers and all other features of the insurance policy, both original and renewed and shall keep the same alive during the term of this Contract
- ix. That the SPPIA shall procure all the necessary permissions and adequate approvals and licenses for use of various software and any copyrighted process/product free from all claims, titles, interests and liens thereon and shall keep the Purchaser indemnified in relation thereto.
- x. That all the representations and warranties as have been made by the SPPIA with respect to its Bid, Bid and Contract, are true and correct, and shall continue to remain true and correct through the term of this Contract.
- xi. That the execution of the Services and the Schedule of Requirements herein is and shall be in accordance and in compliance with all applicable laws.

- xii. That it has not been initiated nor is it pending nor are there threatened any legal proceedings against any SPPIA or any sub contractor/third party or its Team which adversely affect/may affect performance under this Contract.
- xiii. That the SPPIA has the corporate power to execute, deliver and perform the terms and provisions of this Contract and has taken all necessary corporate action to authorize the execution, delivery and performance by it of the Contract.
- xiv. That all conditions precedent under the Contract have been satisfied.
- xv. That neither the execution and delivery by the SPPIA of the Contract nor the SPPIA's compliance with or performance of the terms and provisions of the Contract (i) will contravene any provision of any Applicable Law or any order, writ, injunction or decree of any court or Governmental Authority binding on the SPPIA, (ii) will conflict or be inconsistent with or result in any breach of any or the terms, covenants, conditions or provisions of, or constitute a default under any agreement, contract or instrument to which the SPPIA is a party or by which it or any of its property or assets is bound or to which it may be subject or (iii) will violate any provision of the Memorandum and Articles of Association of the SPPIA.
- xvi. That the SPPIA certifies that all registrations, recordings, filings and notarizations of the Contract and all payments of any tax or duty, including without limitation stamp duty, registration charges or similar amounts which are required to be effected or made by the SPPIA which is necessary to ensure the legality, validity, enforceability or admissibility in evidence of the Contract have been made.
- xvii. That the SPPIA confirms that there has not and shall not occur any execution, amendment or modification of any agreement/contract without the prior written consent of the Purchaser, which may directly or indirectly have a bearing on the Contract or the project.
- xviii. That the SPPIA owns or has good, legal or beneficial title, or other interest in, to the property, assets and revenues of the SPPIA on which it grants or purports to grant or create any interest pursuant to the Contract, in each case free and clear of any encumbrance and further confirms that such interests created or expressed to be created are valid and enforceable.
- xix. That the SPPIA owns, has license to use or otherwise has the right to use, free of any pending or threatened liens or other security or other interests all Intellectual Property Rights, which are required or desirable for the project and the SPPIA does not, in carrying on its business and operations, infringe any Intellectual Property Rights of any person. None of the Intellectual Property or Intellectual Property Rights owned or enjoyed by the SPPIA or which the SPPIA is licensed to use, which are material in the context of the SPPIA's business and operations are being infringed nor, so far as the SPPIA is aware, is there any infringement or threatened infringement of those Intellectual Property or Intellectual Property Rights licensed or provided to the SPPIA by any person. All Intellectual Property Rights (owned by the SPPIA or which the SPPIA is licensed to use) are valid and subsisting. All actions (including registration, payment of all registration and renewal fees) required to maintain the same in full force and effect have been taken thereon and shall keep the Purchaser indemnified in relation thereto.

19. Confidentiality

- 19.1. The SPPIA shall not use Confidential Information, the name or the logo of the Purchaser except for the purposes of providing the Services as specified under this Contract;
- 19.2. The SPPIA may only disclose Confidential Information in the following circumstances:
- i. with the prior written consent of the Purchaser;
 - ii. to a member of the SPPIA's Team ("Authorized Person") if:
 - a) The authorized Person needs the Confidential Information for the performance of obligations under this contract; and
 - b) The authorized Person is aware of the confidentiality of the Confidential Information and is obliged to use it only for the performance of obligations under this contract.
- 19.3. The SPPIA shall do everything reasonably possible to preserve the confidentiality of the Confidential Information including execution of a confidentiality agreement with the Consortium member, subcontractors and other members of SPPIA's Team to the satisfaction of the Purchaser.
- 19.4. The SPPIA shall notify the Purchaser promptly if it is aware of any disclosure of the Confidential Information otherwise than as permitted by this Contract or with the authority of the Purchaser.
- 19.5. The SPPIA shall be liable to fully recompense the Purchaser for any loss of revenue arising from breach of confidentiality. The Purchaser reserves the right to adopt legal proceedings, civil or criminal, against the SPPIA in relation to a dispute arising out of breach of obligation by the SPPIA under this clause.
- 19.6. The SPPIA shall execute a Non Disclosure Agreement (NDA), individually, in favour of the Purchaser as per proforma provided in Appendix D - Section VI of the Bid document

20. Events of Default by the SPPIA

- 20.1. The failure on the part of the SPPIA to perform any of its obligations or comply with any of the terms of this Contract shall constitute an Event of Default on the part of the SPPIA. The events of default as mentioned above may include inter-alia the following:
- i. the SPPIA has failed to perform any instructions or directives issued by the Purchaser which it deems proper and necessary to execute the Schedule of Requirements under the Contract, or
 - ii. the SPPIA has failed to adhere to any of the key performance indicators as laid down in the Key Performance Measurements/ Contract, or if the SPPIA has fallen short of matching such standards/targets as the Purchaser may have designated with respect to any task necessary for the execution of the Schedule of Requirements under this Contract. The above mentioned failure on the part of the SPPIA may be in terms of failure to adhere to timelines, specifications, requirements or any other criteria as defined by the Purchaser;

- iii. the SPPIA has failed to remedy a failure to perform its obligations in accordance with the specifications issued by the Purchaser, despite being served with a default notice which laid down the specific deviance on the part of the SPPIA to comply with any stipulations or standards as laid down by the Purchaser; or
- iv. the SPPIA/SPPIA's Team has failed to conform with any of the Service/Facility Specifications/standards as set out in the Schedule of Requirements of this Bid document or has failed to adhere to any amended direction, modification or clarification as issued by the Purchaser during the term of this Contract and which the Purchaser deems proper and necessary for the execution of the Schedule of Requirements under this Contract
- v. the SPPIA has failed to demonstrate or sustain any representation or warranty made by it in this Contract, with respect to any of the terms of its Bid, the Bid and this Contract
- vi. There is a proceeding for bankruptcy, insolvency, winding up or there is an appointment of receiver, liquidator, assignee, or similar official against or in relation to the SPPIA.
- vii. The SPPIA/SPPIA's Team has failed to comply with or is in breach or contravention of any applicable laws.

20.2. Where there has been an occurrence of such defaults inter alia as stated above, the Purchaser shall issue a notice of default to the SPPIA, setting out specific defaults / deviances / omissions and providing a notice of Sixty (60) days to enable such defaulting party to remedy the default committed.

20.3. Where despite the issuance of a default notice to the SPPIA by the Purchaser the SPPIA fails to remedy the default to the satisfaction of the SPPIA, the Purchaser may, where it deems fit, issue to the defaulting party another default notice or proceed to adopt such remedies as may be available to the Purchaser.

21. Consequences of Event of Default

Where an Event of Default subsists or remains uncured the Purchaser may/shall be entitled to:

- 21.1. Impose any such obligations and conditions and issue any clarifications as may be necessary to inter alia ensure smooth continuation of Services and the project which the SPPIA shall be obliged to comply with which may include unilateral re-determination of the consideration payable to the SPPIA hereunder. The SPPIA shall in addition take all available steps to minimize loss resulting from such event of default.
- 21.2. The Purchaser may, by a written notice of suspension to the SPPIA, suspend all payments to the SPPIA under the Contract, provided that such notice of suspension:
 - i. shall specify the nature of the failure; and
 - ii. shall request the SPPIA to remedy such failure within a specified period from the date of receipt of such notice of

suspension by the SPPIA

21.3. Require replacement of the SPPIA's Consortium member or any sub-contractors / vendors with another suitable member. The SPPIA shall in such case terminate forthwith all their agreements/contracts other arrangements with such member and find of the suitable replacement for such outgoing member with another member to the satisfaction of the Purchaser, who shall execute such Contracts with the Purchaser as the Purchaser may require. Failure on the part of the SPPIA to find a suitable replacement and/or terminate all agreements/contracts with such member, shall amount to a breach of the terms hereof and the Purchaser in addition to all other rights, have the right to claim damages and recover from the SPPIA all losses/ or other damages that may have resulted from such failure.

21.4. Terminate the Contract.

- i. Retain such amounts from the payment due and payable by the Purchaser to the SPPIA as may be required to offset any losses caused to the Purchaser as a result of such event of default and the SPPIA shall compensate the Purchaser for any such loss, damages or other costs, incurred by the Purchaser in this regard. Nothing herein shall effect the continued obligation of the subcontractor / other members of its Team to perform all their obligations and responsibilities under this Contract in an identical manner as were being performed before the occurrence of the default.
- ii. Invoke the Performance Bank Guarantee and other Guarantees furnished hereunder, enforce the Deed of Indemnity, recover such other costs/losses and other amounts from the SPPIA may have resulted from such default and pursue such other rights and/or remedies that may be available to the Purchaser under law.

22. Stipulated Time Schedule

22.1. The key milestone dates ("critical dates") as anticipated by the Purchaser are

S. No	Milestone (Design Phase)	Duration
1	Design Phase	
a)	Project Kick Off Date	T+ 0 day
b)	Design and Engineering Drawings Submission	T+ 30 Days
c)	Design and Engineering Drawings Review and Approval	T+ 45 Days
T - Contract Sign Date		
2	Implementation and Acceptance phase	
a)	Material Ordering	
b)	Data center, NDC & Utility Building terrace floor, open landscape, car parking space readiness (in scope of BCA)	D
c)	Material Delivery	D + 45 days
d)	Installation and Commissioning	D + 90 days

S. No	Milestone (Design Phase)	Duration
e)	System Acceptance Test (SAT)	E (D + 100 days)
f)	Approval certificate from Ministry of New Renewable Energy. & State Electricity Inspectorate.	G(E+20 Days)
3	Defects Liability Period for entire system inclusive of Panels and other related equipments shall be (G+60), However for PV array and inverters defect liability period shall be 25 years and 12 years respectively.	F(G+ 60 Months)
4	O&M Phase	
a)	Operations & Maintenance	F(G+ 60 Months) (5yrs)
<p>T- Contract Sign Date</p> <p>D- Date of DC, NDC and Utility Building terrace floor Open landscape space readiness</p> <p>E- SAT Completion Date</p> <p>Days-Calendar days</p> <p>Jan “ 2014” (Indicative) - The earliest readiness floor to be taken for INC of PV array)</p>		
<p><u>Note:-</u></p> <ul style="list-style-type: none"> • SPPIA, BCA,PMC,UIDAI will jointly review the status of building construction work at regular interval and mutually arrive on agreement for the Date of DC, NDC and Utility Building terrace floor Open landscape car parking space terrace Floors Readiness to start the Grid connected Solar Power Generating Plant Implementation work activity. • Bidders shall note that the work for implementation shall be started in advance as soon as the UIDAI formally intimates. This shall happen at least 1 months in advance or earlier prior to the space for Solar plant installation readiness. Thereafter, the bidder would get 120 calendar days to complete the implementation and acceptance phase including certification for construction From Govt Of India Ministry of New Renewable Energy Resources & State Electrical Inspectorate/ implementation 		

22.2. The SPPIA shall perform the Services and comply in all respects with the critical dates and the parties hereby agree that failure on part of the SPPIA to meet the critical dates without prejudice to any other rights that the Purchaser may have, may lead to the imposition of such obligations as are laid down in the Delay and Deterrent Mechanism

and/or levy of Liquidate Damages as set (**Clause 49 of Section III**) and/or termination of the Contract at the discretion of the Purchaser.

23. Term and Extension of the Contract

- 23.1. The term of this Contract shall include from the date of signing of this contract; the time period for Design, Implementation and a period of 5 calendar years for O&M services after successful completion of site acceptance test and handing over. Term for O&M services maybe extendable for a further period on mutual agreement.
- 23.2. The Purchaser shall have the sole right to grant any extension of the above mentioned term and shall notify the SPPIA in writing, at least 6 months before the expiration of the term of this contract, whether it will grant the SPPIA an extension of the term. The decision to grant or refuse the extension shall be at the sole discretion of the Purchaser.
- 23.3. Where the Purchaser is of the view that no further extension of the term be granted to the SPPIA, the Purchaser shall notify the SPPIA of its decision at least 6 (six) months prior to the expiry of the Term. Upon receipt of such notice, the SPPIA shall continue to perform all its obligations hereunder, until such reasonable time (3 months) beyond the Term of the Contract within which, the Purchaser shall either appoint an alternative agency/vendor or create its own infrastructure to operate such Services as are provided under this Contract. The Purchaser shall pay for the SPPIA's services for the period beyond the term of this contract as per the terms and conditions of this contract.

24. Termination

- 24.1. The Purchaser may, terminate this Contract in whole or in part by giving the SPPIA a prior and written notice indicating its intention to terminate the Contract under the following circumstances:
- i. Where the Purchaser is of the opinion that there has been such Event of Default on the part of the SPPIA which would make it proper and necessary to terminate this Contract and may include failure on the part of the SPPIA to respect any of its commitments with regard to any part of its obligations under its Bid, the Bid or under this Contract.
 - ii. Where it comes to the Purchaser's attention that the SPPIA (or the SPPIA's Team) is in a position of actual conflict of interest with the interests of the Purchaser, in relation to any of terms of the SPPIA's Bid, the Bid or this Contract.
 - iii. Where the SPPIA's ability to survive as an independent corporate entity is threatened or is lost owing to any reason whatsoever, including inter-alia the filing of any bankruptcy proceedings against the SPPIA , any failure by the SPPIA to pay any of its dues to its creditors, the institution of any winding up proceedings against the SPPIA or the happening of any such events that are adverse to the commercial viability of the SPPIA . In the event of the happening of any events of the above nature, the Purchaser shall reserve the right to take any steps as are necessary, to ensure the effective transition of the project to a successor agency/service provider, and to ensure business continuity.

- iv. **Termination for Insolvency:** The Purchaser may at any time terminate the Contract by giving written notice to the SPPIA, without compensation to the SPPIA, if the SPPIA / SPPIA's consortium member becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

25. Consequences of Termination

- 25.1. In the event of termination of this Contract due to any cause whatsoever, [whether consequent to the stipulated Term of the Contract or otherwise] the Purchaser shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the project which the SPPIA shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/breach, and further allow and provide all such assistance to the Purchaser and/ or the successor agency/ service provider, as may be required, to takeover the obligations of the SPPIA in relation to the execution/continued execution of the requirements of this Contract.
- 25.2. Where the termination of the Contract is prior to its stipulated term on account of a Default on the part of the SPPIA or due to the fact that the survival of the SPPIA as an independent corporate entity is threatened/has ceased, or for any other reason, whatsoever, the Purchaser, through unilateral re-determination of the consideration payable to the SPPIA, shall pay the SPPIA for that part of the Services which have been authorized by the Purchaser and satisfactorily performed by the SPPIA up to the date of termination. Without prejudice any other rights, the Purchaser may retain such amounts from the payment due and payable by the Purchaser to the SPPIA as may be required to offset any losses caused to the Purchaser as a result of any act/omissions of the SPPIA. In case of any loss or damage due to default on the part of the SPPIA in performing any of its obligations with regard to executing the Schedule of Requirements under this Contract, the SPPIA shall compensate the Purchaser for any such loss, damages or other costs, incurred by the Purchaser. Additionally, the subcontractor / other members of its team shall perform all its obligations and responsibilities under this Contract in an identical manner as were being performed before the collapse of the SPPIA as described above in order to execute an effective transition and to maintain business continuity. All third parties shall continue to perform all/any functions as stipulated by the Purchaser and as may be proper and necessary to execute the Schedule of Requirements under the Contract in terms of the SPPIA's Bid, the Bid and this Contract.
- 25.3. Nothing herein shall restrict the right of the Purchaser to invoke the Bank Guarantee and other Guarantees furnished hereunder, enforce the Deed of Indemnity and pursue such other rights and/or remedies that may be available to the Purchaser under law.
- 25.4. The termination hereof shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of this Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

26. Dispute Resolution

- 26.1. The Purchaser and the SPPIA shall make every effort to resolve amicably by direct informal negotiations, any disagreement or disputes, arising between them under or in connection with the Contract.

- 26.2. If, after Thirty (30) days from the commencement of such direct informal negotiations, the Purchaser and the SPPIA have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanism specified in **Clauses 26.3 and 26.4 of Section III.**
- 26.3. In the case of a dispute or difference arising between the Purchaser and the SPPIA relating to any matter arising out of or connected with this Contract, such dispute or difference shall be referred to the award of two Arbitrators, one Arbitrator to be nominated by the Purchaser and the other to be nominated by the SPPIA or in case of the said Arbitrators not agreeing, then to the award of an Umpire to be appointed by the Arbitrators in writing before proceeding with the reference, and in case the Arbitrators cannot agree to the Umpire, he may be nominated by the Secretary, Indian Council of Arbitration, New Delhi. The award of the Arbitrators, and in the event of their not agreeing, of the Umpire appointed by them or by the Secretary, Indian Council of Arbitration, New Delhi shall be final and binding on the parties.
- 26.4. The Arbitration and Conciliation Act 1996, the rules there under and any statutory modification or reenactments thereof, shall apply to the arbitration proceedings.
- 26.5. The venue of arbitration shall be Delhi, India.
- 26.6. The fees of the arbitrator shall be borne by the parties nominating them and the fee of the Umpire costs and other expanses incidental to the arbitration proceedings shall be borne equally by the parties.
- 26.7. The Purchaser may terminate this contract, by giving a written notice of termination of minimum 30 days, to the SPPIA, if the SPPIA fails to comply with any decision reached consequent upon arbitration proceedings pursuant to **Clause 26 of Section III.**
- 26.8. **Continuance of the Contract:**
- Notwithstanding the fact that settlement of dispute(s) (if any) under arbitration may be pending, the parties hereto shall continue to be governed by and perform the work in accordance with the provisions under this Contract.

27. Time is of the essence

- 27.1. Time shall be of the essence in respect of any date or period specified in this Contract or any notice, demand or other communication served under or pursuant to any provision of this Contract and in particular in respect of the completion of the Services by the SPPIA by the completion date.

28. Conflict of interest

- 28.1. The SPPIA shall disclose to the Purchaser in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the SPPIA or the SPPIA's Team) in the course of performing the Services as soon as practical after it becomes aware of that conflict.

29. Publicity

- 29.1. The SPPIA shall not make or permit to be made a public announcement or media release about any aspect of this Contract unless the Purchaser first gives the SPPIA its written consent.

30. Force Majeure

- 30.1. Force Majeure shall not include any events caused due to acts/omissions of such Party or result from a breach/contravention of any of the terms of the Contract, Bid and/or the Bid. It shall also not include any default on the part of a Party due to its negligence or failure to implement the stipulated/proposed precautions, as were required to be taken under the Contract.
- 30.2. The failure or occurrence of a delay in performance of any of the obligations of either party shall constitute a Force Majeure event only where such failure or delay could not have reasonably been foreseen, or where despite the presence of adequate and stipulated safeguards the failure to perform obligations has occurred. In such an event, the affected party shall inform the other party in writing within five days of the occurrence of such event. The Purchaser will make the payments due for Services rendered till the occurrence of Force Majeure. However, any failure or lapse on the part of the SPPIA in performing any obligation as is necessary and proper, to negate the damage due to projected force majeure events or to mitigate the damage that may be caused due to the abovementioned events or the failure to provide adequate disaster management/recovery or any failure in setting up a contingency mechanism would not constitute force majeure, as set out above.
- 30.3. In case of a Force Majeure, all Parties will endeavor to agree on an alternate mode of performance in order to ensure the continuity of service and implementation of the obligations of a party under the Contract and to minimize any adverse consequences of Force Majeure.

31. General

31.1. Relationship between the Parties

- i. Nothing in this Contract constitutes any fiduciary relationship between the Purchaser and SPPIA/SPPIA's Team or any relationship of employer employee, principal and agent, or partnership, between the Purchaser and SPPIA.
- ii. No Party has any authority to bind the other Party in any manner whatsoever except as agreed under the terms of this Contract.
- iii. The Purchaser has no obligations to the SPPIA's Team except as agreed under the terms of this Contract.

31.2. No Assignment

The SPPIA shall not transfer any interest, right, benefit or obligation under this Contract without the prior written consent of the Purchaser.

31.3. Survival

The provisions of the clauses of this Contract in relation to documents, data, processes, property, Intellectual Property Rights, indemnity, publicity and confidentiality and ownership survive the expiry or termination of this Contract and in relation to confidentiality, the obligations continue to apply unless the Purchaser notifies the SPPIA of its release from those obligations.

31.4. Entire Contract

The terms and conditions laid down in the Bid and all annexure thereto as also the Bid and any attachments/annexes thereto shall be read in consonance with and form

an integral part of this Contract. This Contract supersedes any prior Contract, understanding or representation of the Parties on the subject matter.

31.5. Governing Law

This Contract shall be governed in accordance with the laws of India.

31.6. Jurisdiction of Courts

The courts of India at Delhi have exclusive jurisdiction to determine any proceeding in relation to this Contract.

31.7. Compliance with Laws

The SPPIA shall comply with the laws in force in India in the course of performing this Contract.

31.8. Notices

- a) A “notice” means:
 - i. a notice; or
 - ii. a consent, approval or other communication required to be in writing under this Contract.

All notices, requests or consents provided for or permitted to be given under this Contract shall be in writing and shall be deemed effectively given when personally delivered or mailed by pre-paid certified/registered mail, return receipt requested, addressed as follows and shall be deemed received two days after mailing or on the date of delivery if personally delivered:

To Purchaser at:

<<Attn:
[Phone:]
[Fax:]>>

To SPPIA at:

Attn:
[Phone:]
[Fax:]

Any Party may change the address to which notices are to be directed to it by notice to the other parties in the manner specified above.

A notice served on a Representative is taken to be notice to that Representative's Party.

31.9. Waiver

- i. Any waiver of any provision of this Contract is ineffective unless it is in writing and signed by the Party waiving its rights.

- ii. A waiver by either Party in respect of a breach of a provision of this Contract by the other Party is not a waiver in respect of any other breach of that or any other provision.
- iii. The failure of either Party to enforce at any time any of the provisions of this Contract shall not be interpreted as a waiver of such provision.

31.10. Modification

Any modification of this Contract shall be in writing and signed by an authorized representative of each Party.

32. Application

- 32.1. These General Conditions shall apply to the extent that provisions in other parts of the Contract do not supersede them.

33. Performance Guarantee

- 33.1. Within 15 days after the receipt of notification of award of the Contract from the Purchaser, the successful Bidder shall furnish Performance Guarantee to the Purchaser, which shall be equal to **10%** of the value of the Contract and shall be in the form of a Bank Guarantee Bond from a Nationalized/ Scheduled Bank in the Proforma given at **Appendix B of Section VI**.

34. Technical Assistance

- 34.1. The SPPIA shall be capable of providing technical assistance, to the Purchaser or such other persons nominated by the Purchaser in relation to the commissioning, maintenance and management of the equipment and facilities within the Solar Power Generating Plant and related assistance if so desired by the Purchaser during the period of the contract as specified in **Section V** of the Bid document.

35. Currency of Payment

- 35.1. Payment shall be made in Indian Rupees only.

36. Change Orders/Alteration/Variation

The SPPIA agrees that the Solar Power Generating Plant requirements given in specifications of the Bidding Documents are minimum requirements and are in no way exhaustive and guaranteed by the Purchaser. It shall be the responsibility of the SPPIA to meet all the requirements of Design criteria contained in the Bidding Documents and any upward revisions and/or additions of quantities, specifications, sizes given in Specifications and drawings etc. of the Bidding Documents required to be made during commissioning of Solar Power Generating Plant shall not constitute a change order and shall be carried out without a change order and shall be carried out without any time and cost effect to Purchaser. Further upward revisions and or additions required to make SPPIA's selected Solar Power Generating Plant space, facilities, equipment and installation procedures to meet Bidding Documents requirements expressed and to make entire facilities safe, operable and as per specified codes and standards shall not constitute a change order and shall be carried out without any time and cost effect to Purchaser. Any upward revision and/or additions consequent to errors, omissions, ambiguities, discrepancies in the specification and Drawings etc. of the Bidding Documents which the SPPIA had not brought out to the Purchaser's notice in his Bid shall not constitute a change order and such upward revisions and/or addition shall be carried out by SPPIA without any time and cost effect to Purchaser.

36.1. Change Order

- i. The change order will be initiated only in case (i) the Purchaser directs in writing the SPPIA to include any addition to the Scheduled Requirements covered under this Contract or delete any part of the Schedule Requirements under the Contract, (ii) SPPIA requests to delete any part of the work which will not adversely affect the operational capabilities of the facilities and if the deletions proposed are agreed to by the Purchaser and for which cost and time benefits shall be passed on to the Purchaser, (iii) the Purchaser directs in writing the SPPIA to incorporate changes or additions to the Design Criteria requirements already covered in the Contract.
- ii. Any changes required by the Purchaser over and above the minimum requirements given in the specifications and drawings etc. included in the Bidding Documents before giving its approval to detailed design or Engineering for complying with design criteria and changes required to ensure systems compatibility and reliability for safe (As per codes, standards and recommended practices referred in the Bidding Documents) and trouble free operation shall not be construed to be change in the Schedule of Requirements under the Contract.
- iii. Any change order as stated in **Clause 36.1.a of Section III** comprising an alteration which involves change in the cost of the works (which sort of alteration is hereinafter called a "Variation") shall be the Subject of an amendment to the Contract by way of an increase or decrease in the Contract Price and adjustment of the implementation schedule if any.
- iv. If the Contract provides applicable rates for the valuation of the variation in question the Contract price shall subject to **Clause 36.1.e. of Section III** be increased or decreased in accordance with those rates.
- v. If parties agree that the Contract does not contain applicable rates or that the said rates are inappropriate or the said rates are not precisely applicable to the variation in question, then the parties shall negotiate a revision of the Contract Price which shall represent the change in cost of the works caused by the Variations. Any change order shall be duly approved by the Purchaser in writing.
- vi. If there is a different of opinion between the SPPIA and Purchaser's Representative whether a particular work or part of the work constitutes a change order or not, the matter shall be handled in accordance with the procedures set forth in **Clause 36.2.h. of Section III**
- vii. Within ten (10) working days of receiving the comments from the Purchaser or the drawings, specification, purchase requisitions and other documents submitted by the SPPIA for approval, the SPPIA shall respond in writing, which item(s) of the Comments is/are potential changes(s) in the "Scheduled Requirements" at **Section V** of the Bid Document covered in the Contract and shall advise a date by which change order (if applicable) will be submitted to the Purchaser.

36.2. Procedures for Change Order

- i. During detailed Engineering and subsequently, if the SPPIA observes that any new requirement which other than that required for meeting the design criteria is not specific or intended by the Contract has been stipulated by the Purchaser, while approving the specifications, calculations, purchase requisitions, other documents etc. he would verbally discuss the matter with Purchaser's Representative.
- ii. In case such requirement arises from the side of the SPPIA, he would also verbally discuss the matter with Purchaser's Representative giving reasons thereof.
- iii. In either of the two cases as explained in Clause 36.2 (a) and (b) of Section III above, the representatives of both the parties will discuss on the new requirement for better understanding and to mutually decide whether such requirement constitutes a change order or not.
- iv. If it is mutually agreed that such Requirement constitutes a "Change Order" then a joint memorandum will be prepared and signed by the SPPIA and Purchaser to confirm a "Change Order" and basic ideas of necessary agreed arrangement.
- v. SPPIA will study the work required in accordance with the joint memorandum under Clause 36.2. (d) of Section III and assess Subsequent schedule and cost effect, if any.
- vi. Upon completion of the study referred to above under Clause 36.2. (e) of Section III, the results of this study along with all relevant details including the estimated time and cost effect thereof with supporting documents would be submitted to the Purchaser to enable the Purchaser to give a final decision whether SPPIA should proceed with the change order or not in the best interest of the works.
- vii. The estimated cost and time impact indicated by SPPIA shall be considered as a ceiling limit and shall be provisionally considered for taking a decision to implement change order.
- viii. The time impact applicable to the Contract shall be mutually agreed, subsequently, on the basis of the detailed calculations supported with all relevant back up documents.
- ix. In case SPPIA fails to submit all necessary substantiation/calculations and back up documents, the decision of the Purchaser regarding time and cost impact shall be final and binding on the SPPIA.
- x. If Purchaser accepts the implementation of the change order under Clause 36.2 (f) of Section III above in writing, which would be considered as change order, then SPPIA shall commence to proceed with the relevant work stipulated in the change order pending final agreement between the parties with regard to adjustment of the Contract Price and the Construction Schedule.
- xi. In case, mutual agreement under Clause 36.2 (d) of Section III above, i.e. whether new requirement constitutes the change order or not, is not reached, then SPPIA in the interest of the works, shall take up the implementation of the work, if advised in writing to do so by Purchaser's Representative pending settlement between the two parties to the effect whether such

requirement constitutes a change order or not as per the terms and conditions of Contract documents. The time and cost effects in such a case shall be mutually verified and recorded. Should it establish that the said work constitutes a change order, the same shall be compensated taking into account the records kept in accordance with the Contract.

The SPPIA shall submit necessary back up documents for the change order showing the break-up of the various elements (e.g. Solar Power Generating Plant Space facilities provisioning, Engineering, Procurement, Development, Installation, etc.) constituting the change order for the Purchaser's review. If no agreement is reached between the Purchaser and SPPIA within 60 days after Purchaser's instruction in writing to carry out the change concerning the increase or decrease in the Contract price and all other matters described above, either party may refer the dispute to arbitration.

36.3. Change of Size/Quantities

The Purchaser will have the option to increase or decrease the size of the dedicated and exclusive Grid connected Solar Power Generating Plant and the quantities of equipment/material to be provisioned by the SPPIA as mentioned in the Contract, at any time during the contract period, provided that such increase or decrease shall not exceed twenty five per cent (25%) of the total Contract Price. In case the change required by the Purchaser exceeds 25% of the total Contract Price, the said change would be subject to the SPPIA providing his written consent to the Purchaser's request.

The written advice to this effect shall if so required be issued by the Purchaser upto 8 (eight) weeks prior to the due date of provisioning/supply of such space/facility/equipments/material to the SPPIA. In case of increase in size/quantity, the SPPIA agrees to carry out such additional quantity of work at the rate and terms and conditions as provided in the Contract except for the appropriate extension of time to be allowed for obtaining provisioning/delivery of such extra space/equipment. In case of decrease in size/quantities the SPPIA shall give a reduction in price at the rate given in the Contract corresponding to decrease of size/quantity. In case applicable rates for the increase/decrease in question are not available in the Contract then the rates as may be mutually agreed shall apply. The SPPIA shall not be entitled to any claim by way of change of price, damages, losses, etc. The SPPIA shall be compensated at actual for any cancellation charges provided the claim is duly supported by documentary evidence of having incurred cancellation charges, which results from Purchaser's action in reducing/canceling Schedule of Requirements.

36.4. Conditions for extra work/change order

The provisions of the Contract shall apply to extra work performed as if the Extra work / Change order has been included in the original Schedule of Requirements. However, the Contract Price shall increase / decrease and the Stipulated Time Schedule shall be adjusted on account of the Extra work / Change orders as may be mutually agreed in terms of provisions set forth in **Clause 36.1 to 36.4 of Section III** above. The SPPIA's obligations with respect to such work remain in accordance with the Contract.

37. Governing Language

- 37.1. The Agreement shall be written in English and Hindi language. Subject to **Clause 31.5 of Section III**, such language versions of the Agreement shall govern its interpretation. All correspondence and other documents pertaining to the Contract that are exchanged

by parties shall be written in either English or Hindi language. In the event of a conflict between the two versions, English version shall prevail.

38. “No Claim” Certificate

- 38.1. The SPPIA shall not be entitled to make any claim, after the end of the contract period whatsoever, against the Purchaser, under or by virtue of arising out of this Contract, nor shall the Purchaser entertain or consider any such claim, if made by the SPPIA after he shall have signed a “No Claim” Certificate in the name of the Purchaser in such forms as shall be required by the Purchaser after the services provided under the Contract are finally accepted.

39. SPPIA’s Personnel

- 39.1. The SPPIA shall employ and provide such qualified and experienced personnel as are required to perform the Services under the Contract.
- 39.2. The SPPIA or its subcontractors/ vendors shall not employ Purchaser’s serving Employees without prior permission. Also, the SPPIA shall not employ ex-personnel/ retired employees of the Purchaser or any Central/ State Government employees within the initial two years period after their retirement/resignation/severance from the service without specific permission of the Purchaser. Failure to comply with this provision may lead to violation of the condition of this Contract and shall be liable for invoking of appropriate penal provisions including termination of the Contract.

40. Project Manager & Engineer /Supervisor

- 40.1. The SPPIA shall ensure that at all times during the tenure of the Contract a Project Manager and Engineer /Supervisor acceptable to the Purchaser shall take charge of the Performance of the Contract

41. Completion of Contract

- 41.1. Unless terminated earlier, pursuant to **Clauses 14.2, 15, 18 and 24 of Section III**, the Contract shall terminate on the completion of term as specified in the Contract and only after the obligations mentioned in **Clause 25 of Section III** are fulfilled to the satisfaction of the Purchaser.

42. Responsibility of the Purchaser

- 42.1. The Purchaser may provide following inputs to the SPPIA for proper commissioning, maintenance and management of the Solar Power Generating Plants:
- i. UIDAI shall act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning certificates, etc. to the SPPIA.
 - ii. Purchaser may provide necessary particulars relating to specifications/ size/ weight, etc of the Servers/ Communication Equipment to be installed at respective spaces for proper planning, installation and maintenance/support of the same for which the SPPIA may have to coordinate at the respective site.
 - iii. Provide the SPPIA with details of the existing documentation wherever required as per terms of the Contract.

43. Insurance to be taken out by the SPPIA

- 43.1. The Goods supplied under this Contract shall be fully insured by the Bidder, against any loss or damage, till the acceptance by UIDAI. The Bidder shall submit to the

Purchaser, documentary evidence issued by the insurance company, indicating that such insurance has been taken.

- 43.2. All charges like transportation charges, octroi, etc. that may be applicable till the goods are delivered at the respective site of installation shall also be borne by the bidder.
- 43.3. Employer's liability and workers' compensation insurance in respect of the Personnel of the Bidder's Team, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate;
- 43.4. The Bidder during the term of this contract:
 - i. Shall take out and maintain, at his own cost but on terms and conditions approved by UIDAI, insurance with financially sound and reputable insurers against the risks, and for the coverage. Insurance against loss of or damage to
 - a) Equipment or assets procured or developed in whole or in part for fulfillment of obligations under this Contract
 - b) The Bidder's assets and property used in the performance of the Services, and
 - c) Any documents prepared by the Bidder in the performance of the Services.
 - ii. Shall pay all premium in relation thereto and shall ensure that nothing is done to make such insurance policies void or voidable
 - iii. At the Purchaser's request shall provide evidence to the Purchaser showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid.

44. Limitation of the SPPIA's Liability towards the Purchaser

- 44.1. Except in case of gross negligence or willful misconduct on the part of the SPPIA or on the part of any person or company acting on behalf of the SPPIA in carrying out the Services, the SPPIA shall not be liable to UIDAI.
 - i. For any indirect or consequential loss or damage; and
 - ii. For any direct loss or damage that exceeds (A) the total payments payable under his contract to the SPPIA hereunder, or (B) the proceeds the SPPIA may be entitled to receive from any insurance maintained by the SPPIA to cover such a liability, whichever of (A) or (B) is higher.

This limitation of liability shall not affect the SPPIA liability, if any, for damage to Third Parties caused by the SPPIA or any person or firm/company acting on behalf of the SPPIA in carrying out the Services.

45. Payment Schedule

- 45.1. Prices shall remain firm and shall not be subject to any upward revision on any account whatsoever throughout the period of contract.
- 45.2. Prior to delivery of equipments or any other component, SPPIA shall submit a detailed list of equipment with specifications and quantity to be deployed and obtain approval of PMC/UIDAI.
- 45.3. ON ACCOUNT PAYMENTS: The basis and terms of payment for various items of Schedule of Lump sum prices, without prejudice to any other mode of recovery available to OWNER, shall be as follows :The SPPIA shall submit further breakup for various activities of work for the purpose of billing for materials which will be reviewed and approved by Engineer in charge & UIDAI., based on the value assessment by Engineer-in-charge in the following manner after deductions of necessary dues payable by SPPIA to the OWNER in accordance with various provisions made elsewhere in this document.
- 45.4. Liquidated damages, if any, for the quarter shall be deducted before the payments are released to the SPPIA. Details of the liquated damages are provided in Section III – A: Service Level Agreements.
- 45.5. Any subsidy obtained by SPPIA from the government/agencies on account of solar power plant shall be passed on to the UIDAI.
- 45.6. Payment Terms

S.N	Milestone	Payment	Remarks	Documentary Proof
1.	Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru.			
a)	Supply of Material	30% of Total Material Supply Cost as per the material delivered on pro-rata basis as specified in Clause 45.3, Sec-III of the RFP	Upon Material Delivery during implementation phase	Materials delivery receipt proof certified by Engineer-In-Charge Submission of monthly running account bill certified by Engineer-In-Charge
b)	Successful completion of SAT and handing over	Balance amount of CAPEX upto 50% of the total CAPEX value	Upon Completion of SAT	SAT Completion approval and handing over certificate - approved by PMC/UIDAI Material delivery completion report-

				Approved by PMC/UIDAI
c)	Approval and Certification from Ministry of New Renewable energy (MNRE)	Balance 40% of total CAPEX value. The remaining 10% CAPEX value will be released against submission of performance bank guarantee (10% of the total contract Value) as per clause no. 3.1 (ii) of section III.	Upon completion of one month Performance Sustenance Period	Performance Sustenance Acceptance Report - Approved by PMC/UIDAI
2.	Service charges payable for 5 years (OPEX)			
a)	Service charges payable for 5 years (OPEX)	Equal Quarterly Installments of : Annual OPEX cost quoted by the bidder for O&M services for each applicable year respectively (Quarterly installment=Applicable year's O&M cost/4)	Upon completion of every applicable quarter	Quarterly O&M support services Acceptance Report - Approved by UIDAI or its designated agency Quarterly SLA Compliance Report-- Approved by UIDAI or its designated agency

46. Severance

- 46.1. In the event any provision of this Contract is held to be invalid or unenforceable under the applicable law, the remaining provisions of this Contract shall remain in full force and effect.

47. Firm Prices

- 47.1. Prices quoted must be firm and shall not be subject to any upward revision on any account whatsoever throughout the period of contract. Purchaser however reserves the right to review and negotiate the charges payable for the Solar Power Generating Plant Hire, its Facilities, Maintenance and Management at the beginning of the each year or

at any time at the request of Purchaser whichever is earlier to incorporate downward revisions as applicable and necessary.

- 47.2. SPPIA shall provide "Most Preferred Customer" status to the Purchaser. Accordingly, the prices payable for services relating to the Solar Power Generating Plant Hire, its Facilities, Maintenance and Management shall in no event exceed the lowest price at which the SPPIA offers similar services to any other customer during the currency of the contract.
- 47.3. If at any time during the period of contract, the SPPIA offers services similar in nature to any other customer, at prices lower than those chargeable under this contract, he shall notify the same to the Purchaser and extend such reduced prices to the Purchaser with immediate effect.

48. Suspension of Work

- 48.1. The SPPIA shall, if ordered in writing by the Purchaser/its Representative, temporarily suspend the works or any part thereof for such specified /ordered period and time. The SPPIA shall not be entitled to claim compensation for any loss or damage sustained by him by reason of such temporary suspension of the Works as aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid shall be granted to the SPPIA, if request for same is made and that the suspension was not consequent to any default or failure on the part of the SPPIA. In case the suspension of works, is not consequent to any default or failure on the part of the SPPIA, and lasts for a period of more than 2 months, the SPPIA shall have the option to request the Purchaser to terminate the Contract with mutual consent.

49. Liquidated Damages

- 49.1. if the SPPIA fails to complete the entire works before the scheduled completion date or the extended date or if SPPIA repudiates the Contract before completion of the Work, the Purchaser may without prejudice to any other right or remedy available to the Purchaser as under the Contract recover from the SPPIA, as liquidated damages, a sum equivalent to the 0.5 % per week (seven days) of the value of delayed milestone / activity to be performed, up to the maximum limit of 10% of Contract value. It is further clarified that the aggregate cap on the SLA penalties which UIDAI reserves a right to claim pursuant to this contract shall be capped to 10% of the total contract value.
- 49.2. The Purchaser may without prejudice to its right to effect recovery by any other method, deduct the amount of liquidated damages from any money belonging to the SPPIA in its hands (which includes the Purchaser's right to claim such amount against SPPIA's Bank Guarantee) or which may become due to the SPPIA. Any such recovery or liquidated damages shall not in any way relieve the SPPIA from any of its obligations to complete the Works or from any other obligations and liabilities under the Contract.
- 49.3. In event of any Purchaser Location not available for installation/commissioning due to any reason attributable to Purchaser, such Purchaser locations shall be excluded for the purpose of computing liquidated damages.
- 49.4. Delay not attributable to the SPPIA will be considered for exclusion for the purpose of computing liquidated damages.
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Section IV - Part 1 - Technical Bid Submission Forms

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Introduction

- a) Bidders are required to submit separate Prequalification, Technical and Commercial Bids for Manesar (Delhi/NCR) and Bengaluru in response to this Request for Proposal.
- b) This section provides the outline, content and the format that the bidders are required to follow in the preparation of their bids for both Manesar (Delhi/NCR) and Bengaluru locations. The format will be same for both locations Manesar (Delhi/NCR) and Bengaluru unless stated otherwise.

Proposal Submission Checklist

The Bidders are advised in their own interest to ensure that the following points/aspects in particular have been complied with in their bid.

- a) Please tick whichever is applicable and cross whichever is/are not applicable.
- b) Please sign each sheet.
- c) The checklist duly filled and signed must be returned along with the bid.

Checklist 1 – General Checklist

S. No.	Checklist item	Yes	No	Remarks/ Reference in the Bidders technical bid										
1	<p>Has a Bank Guarantee for the requisite Bid Security been enclosed with the bid?</p> <p>If yes, please provide the following details of the bank guarantee:</p> <table><tr><td>Name of the Bank</td><td></td></tr><tr><td>Value of Bank Guarantee</td><td></td></tr><tr><td>Bank Guarantee Number</td><td></td></tr><tr><td>Date of issue</td><td></td></tr><tr><td>Period of validity</td><td></td></tr></table>	Name of the Bank		Value of Bank Guarantee		Bank Guarantee Number		Date of issue		Period of validity				
Name of the Bank														
Value of Bank Guarantee														
Bank Guarantee Number														
Date of issue														
Period of validity														
2	Whether the period of validity of the bid is as required in bidding document?													
2.1	Has the Bank Guarantee for the EMD submitted at the RFP Stage been extended? If yes, whether the same has been enclosed.													
3	Has a copy of the Notarised Power of Attorney executed by the Bidder in favour of the Principal Officer or the duly Authorised Representative been attached with the Technical Bid?													
4	Has the bid been prepared in sufficient details/clarity so as to avoid post Bid opening clarifications/ amendments?													
5	Have 2copies (Original + 1 Copies) of the Technical and Commercial Bids been submitted with the covers duly sealed and super-scribed with Bid Number, Bid Submission Date and Bid opening date?													
6	Has it been ensured that there are no over-writings in the bid? Have corrections been properly attested by the person signing the bid?													
7	Has a CD-ROM comprising of all documents of the Technical Bid been included as part of Technical Bid?													

S. No.	Checklist item	Yes	No	Remarks/ Reference in the Bidders technical bid
8	Has a copy of the Commercial Bid format WITHOUT price details been included as part of the Technical Bid in MS-Excel format?			
9	Has a copy of the filled up responses to the Minimum Specifications been provided as part of the Technical Bid in MS-Excel format? The file should not be password protected.			
10	Has a correct reference to the Technical Bid section/page/chapter been provided for all responses to Technical Evaluation questions?			
11	Has a CD-ROM comprising of all documents of the Technical Bid been included as part of Technical Bid in MS-Word format?			
12	Have the rates, prices and totals, etc. been checked thoroughly before signing the Bid?			
13	Has it been ensured that no commercials have been indicated in the Technical Bid hard copy as it will lead to bidder disqualification?			
14	Have the soft copies of the Technical and Commercial bids been sealed along with respective hard copies?			
15	Has it been ensured that no commercial items / prices are included in the Technical Bid CD in any way by hiding the sheet, creating hidden documents or by using hidden files/characters?			
16	Has it been ensured that the sections adhere to the page length requirements where they have been explicitly specified?			

Checklist 2 – Pre-Qualification Bid Checklist

S. No.	Component of Pre-Qualification Document	Yes	No	Remarks/ Reference in Pre-Qualification Bid
1	Has Bidder Profile (Section IV Part-1, PREQUAL 1) been attached and duly filled and signed by the authorized signatory?			
2	Has a Pre-Qualification Bid Letter (Section IV Part-2, PREQUAL 2) been attached and duly filled and signed by the authorized signatory?			
3	Has Bidder Pre-Qualification Criteria document (Section IV Part-1, PREQUAL 3) been attached and duly filled and signed by the authorized signatory?			
4	Has an EMD of the prescribed amount and validity as stipulated in Clause 12 - Section II been attached and			

	signed by the authorized signatory?			
5	Has Bid Document Fee Demand draft of the prescribed amount and validity as stipulated in Clause 1.1 - Section II been attached and signed by the authorized signatory?			
6	Has the Notarized Power of Attorney executed by the Bidder in favour of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this Bid been attached and signed by the authorized signatory?			
7	Has the Undertaking from the Bidder, confirming his unconditional acceptance of full responsibility for executing the 'Scope of Work' and meeting all obligations of this Bid been attached and duly filled and signed by the authorized signatory?			
8	Has a Non-Disclosure Agreement executed by Bidder (Section VI, Appendix D) been attached and duly filled and signed by the authorized signatory?			

Checklist 3- Technical Bid Checklist

S. No.	Component of Technical Bid	Yes	No	Remarks/ Reference in SPPIA's Technical Bid
1	Has the bidder confirmed their undertaking confirming unconditional acceptance of full responsibility for executing the 'Schedule of Requirement'			
2	Have all details in TECH 1 – Bidder's Contact Information been filled?			
3	Has TECH 2 – Technical Bid Letter been signed by the Authorised Signatory?			
4	Has TECH 3 – Bidder profile been filled up and signed by the Authorised Signatory?			
4.1	Has TECH 3.1 – Bidder profile been filled up for all sub-contractors and signed by the Authorised Signatory?			
4.2	Has the scope of work assigned to each sub-contractor been clearly identified and filled up in TECH 3.1 – Bidder profile?			
4.3	Have you enclosed two Case Studies in the format provided for consideration for due diligence as part of evaluation?			
4.4	Have audited copies of annual financial statements for the last 3 years of the bidder and all its sub-contractors been attached along with response to Prequal 3 – Bidder profile?			

S. No.	Component of Technical Bid	Yes	No	Remarks/ Reference in SPPIA's Technical Bid
5	Has the overall solution architecture and approach as per Tech 4 been prepared and provided?			
6	Has a full list of OEMs whose solutions/products are proposed been provided?			
7	Have responses been provided as per the format specified in Section IV - Tech 4.4 - Response to minimum technical specifications?			
8	Has a filled up copy of Commercial Bid format WITHOUT commercial details as per Section IV-Tech 5 been enclosed as part of the Technical Bid response in MS-Excel format?			
9	Has the response been provided to all requirement specifications in the format specified in Section IV – Tech 4.7 - Requirements Compliance?			
10	Has the detailed work schedule been included as per format specified in Section IV – Tech 7 - Format for work schedule?			
11	Have the CVs of Key Staff been included in the format specified in Section IV – Tech 6 - Format for Curriculum Vitae of Key Staff?			
12	Has a summary been provided as per the format specified in Section IV – Tech 8 - Summary of profiles of Personnel to be deployed?			
13	Have the details been provided as per the format specified in Section IV – Tech 9 - Details of Litigation(s)?			
14	Have the details been provided as per the format specified in Section IV – Tech 10 - Statement of Deviations from Schedule of requirement (Sec V)?			
15	Have all the conditions in the Draft General Conditions of Contract been studied carefully? Have the details been provided as per the format specified in Section IV – Tech 11 - Statement of Deviations and Comments on Tender Terms and Conditions and Section III – Draft Conditions of Contract?			

Checklist 4 – Commercial bid checklist

S. No.	Component of Commercial Bid	Yes	No	Remarks/ Reference in SPPIA's Technical Bid
1	Has the Commercial Bid submission letter been signed and submitted in the format specified?			
2	Has it been ensured that no deviations are mentioned in Commercial Bid/Price document?			
3	Has the MS-Excel format specified for Commercial bid (Manesar(Delhi/NCR)/Bengaluru) been filled up and submitted as part of the Technical Bid?			
4	Has a soft copy of the filled up MS-Excel format been provided in the CD-ROM as part of the Commercial bid?			
5	Has it been doubly checked that not commercial or price			

	information been provided in the technical bid in any hidden form, hidden characters or hidden files?			
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(Signature of Bidder)

1 PRE - QUALIFICATION BID

1.1 PREQUAL 1: Bidder Profile

Bid Particulars for Tender no.....at.....(Specify Manesar (Delhi/NCR) or Bengaluru)

1	Name of the Bidder	
2	Address of the Bidder's Registered Office in India	
3	Year of establishment of organization	
4	Bid number and date	
5	Name of the person to whom all references shall be made regarding this bid	
6	Designation of the person to whom all references shall be made regarding this bid	
7	Mailing Address of the person to whom all references shall be made regarding this bid	
8	Telephone No. (with STD Code)	
9	E-Mail of the contact person:	
10	Fax No. (with STD Code)	
11	Address of the Proposed Data Center Location	

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

1.2 PREQUAL 2: Pre - Qualification Bid Letter

To,
The Director General and Mission Director
UIDAI, Planning Commission,
3rd Floor, Parliament Street
New Delhi – 110001

Sir,

Sub: “Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at..... (Specify Manesar (Delhi-NCR) or Bengaluru)

Ref: Bid No.:

1. We, the undersigned Bidder/s, having read and examined in detail all the bidding documents with respect to **“Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru..”** Do hereby propose to provide the services specified in the bid document.
2. **Earnest Money Deposit (EMD)**
We have enclosed an EMD in the Proforma as per the EMD form in the form of a bank guarantee for a sum of _____. This EMD is liable to be forfeited in accordance with the provisions of bid documents.
3. **DEVIATIONS**
We declare that all the services shall be performed strictly in accordance with the bid documents except for the variations and deviations, all of which have been detailed out exhaustively in the following statements, irrespective of whatever has been stated to the contrary anywhere else in our bid:
 - a. Statement of Deviations from General Terms and Conditions of the contract (**TECH 11**)
 - b. Statement of Deviations from Schedule of Requirements (**TECH 10**)

Further we agree that additional conditions, if any, found in the bid documents, other than those stated in deviation schedule, shall not be given effect to.
4. **QUALIFYING DATA**
We confirm having submitted the information as required by you in your Instruction to Bidders. This is enclosed in **TECH 2 to TECH 3.1, Section IV**. In case you require any other further information/documentary proof in this regard before evaluation of our bid, we agree to furnish the same in time to your satisfaction.
5. **CONTRACT PERFORMANCE GUARANTEE**
We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed at **Appendix B of Section VI** as specified in **Clause 33 of Section III**.
6. We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.
7. We understand that our bid is binding on us and that you are not bound to accept a Bid you receive.

Thanking you,

Yours faithfully,

Seal.
Date:
Place:
Business Address:

(Signature of the Bidder)
Printed Name:
Designation:

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

1.3 PREQUAL 3: Bidder Pre-Qualification Criteria

The prospective Bidder shall have to enclose along with the letter describing the Pre-qualifying Technical Competence, documentary evidence in support of following criteria,

S. N	Description	Proof
1	a. The Bidder should be a Company registered in India under the Companies Act, 1956 and be in business for last five years as on 31/03/2013 and should have their registered offices in India. b. The company must be registered with appropriate authorities for all applicable statutory duties/taxes	a. Copy of the Certificate of incorporation and amendment if any thereof b. Valid documentary proof of: <ul style="list-style-type: none">• Central Sales Tax/VAT number.• Service Tax registration number.• Income Tax registration/PAN number• Income Tax returns for the last three assessment year's viz.2011-12, 2012-13, and 2013-14.
2	The Bidder should have an annual average turn over of at least Rs 20 crore in last three financial years viz; 2010-11, 2011-12,2012-13.	Copy of audited Financial Statements; balance sheets and profit and loss account statements for last three years viz; 2010-11, 2011-12, 2012-13.
3	The Bidder should be in business of Solar power generating plant related services for a minimum duration of three years as on 31/03/2013.	Self declaration certificate duly certified by CEO/CFO/MD/ Authorized Signatory of the Bidder's organisation.
4	The Bidder should have successfully implemented; a. At least two solar power generating plant projects, each of minimum cumulative 300 KWp or above at one single site in last three years as on date of opening of bid. OR b. At least one solar power generating plant project, minimum cumulative 600 KWp or above at one single site in last three years as on date of opening of bid.	<ul style="list-style-type: none">• Site acceptance report duly signed by Bidder's customer or work completion certificate issued by the Customer.• Copy of work order/contract/purchase order (contract price may be hide)

1.4 PREQUAL 4: Bid Document Fee

Refer Clause 1.1 of Section II

1.5 PREQUAL 5: Earnest Money Deposit

EMD in the form of a Bank Guarantee (Section VI, Appendix A)

1.6 PREQUAL6: Power of Attorney

Refer Clause 7.1 (f) of Section II

1.7 PREQUAL 7: Letter of Undertaking from the Bidder

Refer Clause 7.1 (g) of Section II

1.8 PREQUAL 8: Non-disclosure of Agreement

Refer Clause 7.1 (h) of Section II

2 Technical Bid

- (i) **The bidders would need to submit a blank copy of the commercial bid along with the Technical Bid with the price column of the price bid format blanked out.** A tick mark shall be provided against each item of the commercial bid format to indicate that there is a quote against this item in the Commercial bid.
- (ii) Purchaser would evaluate the bids received on broad parameters like the solutions proposed, compliance to minimum technical specifications etc.
- (iii) The Purchaser reserves the rights to add, delete, or modify these parameters at any time during the bid process, without assigning any reasons whatsoever, in isolation to the bidders and without being required to intimate the bidders of any such change.

All deviations should be specified in the Technical Bid ONLY. No deviations or non-compliances whatsoever shall be specified in the Commercial Bid documents.

2.1 Tech 1: Bidder's Contact Information

1	Name of the Bidder	
2	Address of the Bidder	
3	Name of the person to whom all references shall be made regarding this tender	
4	Designation of the person to whom all references shall be made regarding this tender	
5	Address of the person to whom all references shall be made regarding this tender	
6	Telephone No. (with STD Code)	
7	E-Mail of the contact person:	
8	Fax No. (with STD Code)	

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

2.2 Tech 2: Technical Bid Letter

Technical Bid Letter

To

The Director General,
Unique Identification Authority of India (UIDAI),
Tower 2, Third Floor,
Jeevan Bharti Building, Connaught Place,
New Delhi 110001.

Sir,

Sub : **Appointment of Solar power plant Installation Agency ("SPPIA") for Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at(Specify Manesar (Delhi-NCR) or Bengaluru).**

Ref : Tender No. Dated

We, the undersigned Bidders, having read and examined in detail all the bidding documents in respect of Appointment of a Solar power plant Installation Agency ("SPPIA") for **Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru**, do hereby propose to provide services as specified in the bidding documents number _____.

2. BID SECURITY

We have enclosed a bid security in the Proforma as per the bid security form in the form of a bank guarantee for a sum of **Rs. XXXX (in words INR XXXX only)**. This bid security is liable to be forfeited in accordance with the provisions of bid documents.

3. DEVIATIONS

We declare that all the services shall be performed strictly in accordance with the bid documents except for the variations, assumptions and deviations, all of which have been detailed out exhaustively in the following statements, irrespective of whatever has been stated to the contrary anywhere else in our bid:

- (a) Statement of Deviations from Section V – Schedule of Requirement (**Tech 10**)
- (b) Statement of Deviations from RFP Terms and Conditions, Section III – General Conditions of Contracts and Section VII – Service Level Agreements (**Tech 11**)

Further we agree that additional conditions, assumptions if any, found in the bid documents, other than those stated in deviation schedule, shall not be given effect to.

4. QUALIFYING DATA

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our bid, we agree to furnish the same in time to your satisfaction.

5. CONTRACT PERFORMANCE SECURITY

We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed as in appendix B of section VI and specified under Clause 33 of Section III.

6. We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.
7. We understand that our bid is binding on us and that you are not bound to accept a Bid you receive.

Thanking you,

Yours faithfully,

(Signature of the Bidder)
Printed Name
Designation

Seal:

Date:

Place:
Business Address

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

2.3 Tech 3: Bidder Profile

The Bidder should fill this form for itself & all other sub-contracted members separately

Bidder / Sub-contracted Member Profile

1	Name of the Company	
2	Specify whether Bidder or Sub-contractor	
3	Year Established	
4	Role of the Bidder/Sub Contractor for this Bid	
5	Head Office Address	
6	Telephone No. (with STD Code)	
7	Fax No. (with STD Code)	
8	E-mail Address	
9	Details of the Key representative for this project	Name: Telephone No: Cell No: Fax:

As of this date the information furnished in all parts of this form is accurate and true to the best of my knowledge.

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

2.3.1 Tech 3.1 - Details of the Bidder /Subcontractor

General Instructions:

- (i) The Bidder should understand the Scope of work in detail as provided in the RFP document before filling up the below details
- (ii) Add more columns and rows wherever required

Instructions for points (i) to (ii)

- a. In case of a group company bidding for the project, please provide the details of the group Company and not the group as a whole.
- b. Add more columns and rows if required for all such tables

1. Details of the Bidder/Sub-Contractor(s) (Please provide details of services / products being provided by each of the members)

Specify Manesar(Delhi/NCR) or Bengaluru				
	Name	Responsibility 1	Responsibility 2	Responsibility 3
		Product	Service	Others (specify)
Bidder				
Sub-contractor 1				
Sub-contractor 2				
Sub-contractor 3				
Sub-contractor				

2.4 Tech 4: System design and solution architecture

Technical approach and methodology are key components of the Technical Proposal. Bidders are suggested to present their Technical Proposal in line with the below mentioned points

- a) **Solution Approach and Methodology:** This part of the tender should contain the following details:
- a) Understanding of Requirements and comprehensiveness of the solution w.r.to the requirements
 - b) Coverage, completeness, accuracy & adequacy of solution and design
 - c) Design Feasibility & Level of Details Captured in Solution Design
 - d) Additional parameters considered over and above parameters given in the RFP
 - e) Solution Compliance mentioned in clause no. 2.6 of Section IV-Part 1 against requirements as per template and Compliance to technical specifications
 - f) Quality of the End to End Solution Architecture, Concept and Approach

Technical Evaluation parameters							
S. N	Description					Maximum Score	
a	<ul style="list-style-type: none">Bidder should describe the overall solution architecture and approach in this section while submitting the details, the response should be specific and in line with the RFP requirement & solution proposed.In addition, Bidder should provide overall solution architecture snapshot in Power Point Presentation format and total length of PPT should not exceed 50 A4 pages and the presentation should be specific to the solution proposed by the Bidder and shall not include anything which is not proposed by the Bidder. This presentation shall be submitted along with the technical bid.					60	
b	Compliance to the technical specification and requirements mentioned in clause no. 2.6 of Section IV					20	
c	Bidder experience w.r.t solar power plant installation and operation. Bidder should provide the details as per following; <ul style="list-style-type: none">The details of total solar generating power plant successfully implemented by Bidder in India in last three years as on date of opening of bid.Details should be provided as per the Annexure-1 as provided below.					20	
Grand Total of Technical Evaluation Parameters						100	
Annexure-1 ; Bidder experience w.r.t solar power plant installation and operation							
Supporting document required;							
1. Self declaration certificate duly certified by CEO/CFO/MD/ Authorized Signatory of the Bidder's organization							
2. Work completion certificate (duly signed by its customer) shall be provided.							
S. N	Name of Customer	Customer Contact Person Name/Number	Project Location/ Address	Solar Power Generating Plant Total Capacity (kip) at one single site	Project Duration (Start and End Date) "DDMMYY"	Bidder's Scope - Implementation (Yes/No)	Bidder's Scope - O&M (Yes/No) Please specify duration period (Years)

							of O&M
1							
2							
3	Insert more rows if required						

2.5 Tech 5- Commercial Bid format (without commercials)

Instructions for filling up this section

- Bidder should attach an Exact Replica of the Filled up Commercial Bid Format (Section IV – Part 2 – Commercial Bid Submission Forms) without ***any price/commercial details***.
- A tick mark (✓) shall be provided against each item of this Price Quote in the Commercial bid.**
- Revelation of any commercial details in this format can lead to disqualification of the Bidder.**
- This sheet shall be validated as part of Technical Bid evaluation.

2.6 Tech 6 – Requirements Compliance

This table details the SPPIA solution compliance against the requirements mentioned in Section V– Schedule of requirement (Minimum design scope of requirement).

For each clause under consideration, if any sub-clause/sub-parameter is not complied with by the Bidder, the Bidder should mention "No" under the Compliance section, while details of the non-Compliance in the "remarks" column. The only response under the Compliance column may be "Yes" or "No". **Please do not leave the field blank or use terms such as "Partially Complied". Any such response shall be summarily treated as non-compliance.**

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
A	Civil			
1	Construction of RCC foundation RCC of M25 grade with bolt arrangement for the SPV array Module support structure	SPPIA scope with necessary approved foundation drawings and material. i) Indicative Total 1600 PV array modules foundation for Delhi/NCR, ii) Indicative Total 1200 PV array modules foundation for Bengaluru.		
2	Civil material tests	All material related to civil RCC, cement, fine, coarse aggregate, stone, water to be third party tested as per IS standards.		
3	Installation cable tray, support, suspenders, and cable raceways, conduits and necessary hardware	Design, Site specific SPPIA scope.		
4	Minimum Spacing between the PV array	Design, Site specific SPPIA scope.		
5	PV array should be free from obstruction and shadow.	Design, Site specific SPPIA scope.		
6	PV array installation on terrace should utilize maximum space.	Design, Site specific SPPIA scope.		
7	PV array should installed with necessary service clearance	Design, Site specific SPPIA scope.		
8	PV array foundation should of the minimum height from the terrace level	Less than 3Mtrs from the terrace ground level.		
9	Total uniform distributed load of the PV array and support structure with foundation.	Should be UDL<60kg/ Sq mtr		
10	Module alignment and tilt angle	Design specific		
11	Clearance from the ground level to module bottom	Should not be less than 500 mm.		

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
B	Mechanical			
1	Providing cable tray, support, suspenders, and cable raceways, conduits and necessary hardware	Site specific SPPIA scope. All support material environmental protective and of MS hot deep galvanized.		
2	Providing necessary hardware for the module support, inverter, ACDB, DCDB/combiner box	Yes, Module support should be MS hot deep galvanized		
3	All the PV array and its support structure and the hardware are necessary industrial type weather treatment.	Yes, MS hot deep galvanized, SS hardware.		
4	All the PV array module structure should with stand minimum wind speed load.	Wind speed loading up to 150 km/Hrs		
5	All the Module support structure should have minimum environmental withstanding life	Should have life of support at least 25 years of installation.		
6	All the ACDB, DCDB, Combiner box, Grid tie inverters should have minimum Ingress protection	Indoor installation with IP21 and outdoor installation with IP65.		
7	All the electrical and control cable should be laid though the flexible conduit and hard conduit.	PVC flexible conduit and Hard PVC or GI conduit pipes installed for, wherever necessary.		
8	Sensors for Solar radiation and environmental monitoring is to be installed on the tip of the building	The same be installed in the building with control room		
9	Support structure life	Min Period 25 years		
C	Electrical			
	General			
1	Main utility switchboard	Yes		
2	Surge suppression (SPD)	Yes		
3	PV module Insulation resistance	Should not be less than 50 M ohms @ 500 volt		
4	Cable routing	All the cable should be routed on to the dedicated raceways, cable trays, conduits with minimum stress on cables		
5	Ferruling	All the cables should be physically marked and necessary ferruling for identifications		
6	Junction box/combiner box	shall be dust proof, vermin and waterproof and made of FRP / Thermo Plastic, appropriate rating blocking diode		
7	Electrical panel identification	All Solar system panels should be marked with colour codes for identification		

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
	Electrical distribution			
1	PV array to power optimizer	Design specific		
2	Power optimizer to DCDB /combiner box	Design specific		
3	DCDB/combiner box to Inverters	Design and site specific		
4	Inverters to ACDB/ Combiner box	Design and site specific		
5	ACDB/combiner box to Main utility DB	Design and site specific		
6	DC drop across the circuit	Should not be more than equal to 2%		
	Protection			
1	All the PV array should be provided with Lightening arrestor and the earth fault protector	Yes		
2	Earthing to each PV array module,ACDB, Junction box, Utility panel, DCDB & Inverters	Yes, All earth should be equip-potentially connected.		
	Power quality			
1	THD	THD≤3%		
2	Voltage transient	≤3%		
	Grid Tie string Inverters			
	Inverter			
1	Inverter kVA	Connectivity in series. 3 Phase/415 volts Inverter with 50Hzs		
2	Total capacity Inverter sizing	As per estimated site installable capacity PV array 400kWp for Delhi/NCR and 300kWp for Bengaluru site.		
3	Total Number of Inverters	Design Specific		
4	Minimum & Maximum input DC voltage	650 Vdc. Minimum and 1000Vdc maximum		
5	Inverter Efficiency	Should not be less than 95%.		
6	Maximum output current.	..... amps		

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
7	Output AC voltage	Three phase 415Vac+/- 10% 50Hzs+/-1Hz.		
8	Open circuit fault condition	Inverter must stop or disconnect below 50 Vdc String voltage		
9	DC safe system	DC arc quenching capability.		
10	Earthing protection	Yes		
11	All inverters should be ground protection as per local or NEC standards and surge protective devices	Yes		
12	Type of earthing pits	Maintenance free Chemical Low resistance earthing < 1 ohms. Separate each for building		
13	Installation of Inverters	SPPIA should consider its part of solution offerings and design		
14	Test mode	Yes		
15	Emergency power off	Yes		
16	Output distribution ACDB	Yes, design specific		
17	Inverter Communication Interface	Inverter provide RS485 and SNMP ports with necessary Hardware and software support		
28	Inverter Alarm Input and outputs	Yes Potential free dry contacts		
19	Warranty	Minimum 12 Years.		
	Power Optimizer			
1	Protective enclosure	IP65 with necessary cabling		
2	Optimizer connectivity	Require One optimizer for per two modules		
3	Warranty	Minimum of 25 years		
	PV array module			
1	Type & manufacturer	Mono/Polycrystalline silicon.		
2	Physical size (Dimension and weight)	As per product data.		
3	Capacity per module	(should not be less than 100Wp).....Wp+/- 3 to 5% Avg power or +5Wp		
4	Module Voc	shall be minimum 21V		
5	Input DC voltage	should not be more than 1000 Vdc.		
6	Negative temp coefficient	Module NTC <=0.45%		
7	Module connectivity	Series and parallel.		
8	Fill factor	should not be less than 72%		
9	Photo/electrical conversion	should not be less than 14%		

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
10	Environmentally protected	Moisture, Harsh weather resistant with IP65 enclosure.		
11	Protective glass transitivity	Should not be less than 91%		
12	Lightening and earth fault protection	Yes		
13	PV electrical curve	IR curve to be provided by the SPPIA		
14	Junction box with Bypass diode	Yes		
15	Module service Warranty	Minimum 25 years		
16	Module capacity loss	10% after 10 years and 20% after 20 years Max		
17	Each module should be RFID tag for traceability	Yes		
18	Module should have electrical and physical parameters marked on it	Yes		
19	Providing Necessary earthing kit and Material	Yes		
	ACDB/combiner box	Design specific		
1	Panel bus bars	Three times the capacity of the solar plant		
2	Circuit breakers	MCB shall be provided as per Design specific		
3	Cable manager	Yes		
4	Provision of earth terminals	Yes		
5	Multifunction digital meter	Yes		
6	Spare breakers capacity	Min 20% spare breakers for future to be provided.		
	DCDB/combiner box/Junction box	Design specific		
1	Circuit breakers	Suitable MCB should be DC rated as per design spec		
2	IP Protections	Suitably protected with IP 65 enclosure		
	Equipment Maintenance			
1	Maintenance Staff	Onsite 24/7		
2	Preventative Maintenance	Comprehensive preventative, maintenance program		
3	Facility Training Programs	Comprehensive training program including manual operation procedures to be regularly imparted to maintenance staff		
4	Inventory	One set necessary approved spares and tools to be maintained at the site. Important spares list to be provided by SPPIA.		

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
5	Log book & documentation	Yes with all call reporting, call analysis, resolution service reports & procedures etc.		
6	Knowledge Management (Quarterly)	Knowledge management sessions to improve efficiency of staff so that recurrences are avoided. The sessions should include problems identified, methods developed to reduce problems, improve reliability, etc. shall be imparted both to UIDAI staff and the facility staff.		
	Digital Acquisition Center (DAS)			
1	Communication cable laying and interface hardware installation	Yes, Capable of interfacing all the module and devices connected.		
2	Interface activation	SPPIA scope		
3	Uploading DAS Software and up gradation etc.	SPPIA scope		
4	Communication interface	RS485 or SNMP		
5	System Integration with BMS system as DAS PC shall be installed in BMS room	Yes, SPPIA scope		
	Solar radiation and environmental monitoring system			
1	laying of interface cables	Yes SPPIA scope		
2	Installation of sensors	Yes, Temperature & Irradiance		
3	Testing and acceptance	SPPIA scope		
4	System integration with BMS system	Yes, SPPIA scope.		
	Acceptance system			
1	Acceptance test	Yes, All electrical and mechanical components		
2	Installation and commissioning test	Yes.		
3	Predicted performance ratio(PPR)and Performance ratio (PR) of the solar system	PPR≥0.9 and PR≥0.7		
4	Document and report submission	Yes, Handing over documents includes product manual, product lab test certificates, INC certificates with test reports Acceptance		

S. N.	Description	Minimum Requirement (SPPIA Scope of work)	Compliance (Yes/No)	Remarks
		test certificates. System procedure, Do's and Don'ts & O & M manuals etc.		
5	Compliance to General and Technical specifications/requirement as per Annexure....1... of section V	Yes		

Note:-

The above list is indicative and shall be enhanced by SPPIA to make the solution more effective and to include essential components as felt necessary

2.7 Tech 7: Format for work schedule

Instructions for filling up this section:

- (i) A **Detailed Project Plan** covering break-up of each phase into the key activities, along with the start and end dates must be provided as per the format given below.
- (ii) **The Bidder is required to provide “Activity-wise Timelines” for the data as per the format specified below.**

Activity-wise Timelines

S. No.	Item of Activity	Month wise Program					
		1	2	3	4	5	...
1	Activity 1						
1.1	Sub-Activity 1						
1.2	Sub-Activity 2						
2							
2.1							
2.2							
3							
3.1							
4							

Note: The above activity chart is for the purpose of illustration. Bidders are requested to provide detailed activity & phase wise timelines for executing the project with details of deliverables & milestones.

- (iii) In addition to the above, Bidder must also provide **Summary of key milestone timelines** proposed, as per format given below.
- (iv) **The Bidder is required to provide “Key Milestone Timelines” for the Solar power plant as per the format specified below.**

Key Milestone Timelines

<u>Activity</u>	<u>No of Calendar Days from release of LOI</u>

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

2.8 Tech 8 – Summary of profiles of personnel to be deployed

Bidder should provide details of resources which shall be deployed by Bidder during Design, Implementation and O&M phase.

S N	Name of the Resource	Phase- Design/Imple ment/O&M	Positio n assign ed in SPPIA' s team	Key responsibility in project	Date of Birth	Qualification	Total Experience
						Graduation/ Diploma	(in years)
1							
2							
3							

2.9 Tech 9 - Details of Litigation(s)

Details of litigation(s)

Details of litigation(s) in which the Bidder/ Sub-contractor(s) members is/are currently involved in, or has been involved in, for the last three years:

Party in dispute with:	
Year of initiation of dispute:	
Detailed description of dispute:	
Resolution / Arrangement arrived at (if concluded):	
Dispute Resolution Data (if concluded):	

Witness:**Signature** -----**Name** -----**Address** -----**Date** -----**Bidder:****Signature** -----**Name** -----**Designation** -----**Company** -----**Date** -----

2.10 Tech 10 - Statement of Deviations from Section V - SoR

Dear Sirs,

- (i) Following are the Technical deviations and variations from the Schedule of Requirement for the Appointment of a Solar power plant installation agency ("SPPIA") for **Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at(Specify Manesar (Delhi-NCR) and Bengaluru)-** against Tender No.dated
- (ii) These deviations, variations and assumptions are exhaustive.
- (iii) Except these deviations, assumptions and variations, the entire work shall be performed as per UIDAI RFP requirement as mentioned under Section V – Schedule of Requirement and Section IV Tech 6 Requirement compliance

S. No.	Section No.	Clause No.	Page No.	Deviation	Remarks

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

2.11 Tech 11 - Statement of Deviations from RFP Terms and Conditions,

Section III – Draft GCC and Section VII– Service Level Agreements

Dear Sirs,

Following are the deviations from Section III - Draft General Terms and Conditions and Section VII – Service Level Agreements against Tender document No:..... dated at(**Specify Delhi/NCR or Bengaluru**)

These deviations, assumptions and variations are exhaustive. Except these deviations, assumptions and variations, all other Terms and Conditions of the Tender are acceptable to us and are complied.

S. No.	Section No.	Clause No.	Page No.	Statement of deviations and variations.	Remarks

Witness:

Signature -----

Name -----

Address -----

Date -----

Bidder:

Signature -----

Name -----

Designation -----

Company -----

Date -----

Section IV - Part 2: Commercial Bid Submission Forms- Bengaluru	
INSTRUCTIONS TO BIDDERS	
1	Bidder should provide all prices, quantities as per the prescribed format in this section. No field should be left blank. In case the field is not applicable, Bidder must indicate "0.00" (Zero) in it.
2	All rates indicated in the schedules shall be inclusive of all taxes, Levies, duties etc. and any variation in taxes shall be borne by bidder.
3	Purchaser reserves the right to ask the selected Bidder to submit a proof of payment against any of the taxes, duties, levies at any point during the contract period.
4	Price should be quoted in Indian Rupees (INR). Price bids in any other currency shall be summarily rejected.
5	Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected . If there is a discrepancy between words and figures, the amount in words will prevail .
6	All software to be used by selected Bidder should be clearly identified as open-source or licensed. The price quoted for each software should be quoted separately giving the breakup of costs in accordance with the licensing policy proposed, wherever applicable.
7	While quoting for design/installation/hardware/software/infrastructure /O&M/ manpower allocation, the bidder should substantiate with the necessary information on volumes and workload analysis in the Technical Bid.
8	Bidder shall take into account - cost of all consumables such power connectors, cable lugs, MCB's, PV cells etc Out of Pocket expenses due to lodging, boarding and other related items for complete duration of contract till the O&M phase completion
9	Bidder shall take into account cost of all relevant statutory approvals as part of scope of work
10	Bidder shall take into account electricity expenses till successful completion of SAT (System acceptance test as per TOR, section V). Electricity expenses include the following but are not limited to: a. Power required for Solar power plant installation b. On Site systems commissioning test d. Site Performance Test e. Any other requirement which is in scope of SPPIA
11	The bidder may propose any additional equipments/systems/hardware/software components required to meet the solution.
12	For the purposes of evaluation of commercial Bids the Purchaser shall make appropriate assumptions to arrive at a common bid price for all the bidders. This however shall have no co-relation with the contract or actual payment to be made to bidders.
13	The Bidder is required to quote the commercials for the Solar power plant as per the format in the tab "Summary Table".

COMMERCIAL BID COVERING SHEET	
Particulars for Tender Number:-.....{Bidder to mention tender details} for the Design, Installation,Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Bangaluru	
Sr. No.	Item
1	Name of the Bidder
2	Address of the Bidder
3	Name of the person to whom all references shall be made regarding this Bid
4	Designation of the person to whom all references shall be made regarding this Bid
5	Address of the person to whom all references shall be made regarding this Bid
6	Telephone No. (with STD Code)
7	E-Mail ID of the contact person:
8	Fax No. (with STD Code)
Witness: Bidder:	
Signature	Signature
Name	Name
Address	(
	Company
Date	Date

COMMERCIAL PROPOSAL SUBMISSION LETTER

To _____

Sir/Madam,

Sub: Appointment of Solar power plant installation Agency ("SPPIA")for the Design,

Ref: Tender No. _____

We, the undersigned Bidder, having read and examined in detail all the bidding documents with respect to appointment of SPPIA for for the Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru, do hereby propose to provide services as specified in the bidding documents.

1. Price and Validity

1.1 All the prices mentioned in our bid are in accordance with the terms as specified in the bidding documents. All the prices and other terms and conditions of this bid are valid for a period of 180 calendar days from the date of opening of the bids.

1.2 We hereby confirm that our bid prices include all taxes.

1.3 We hereby declare that if any Income Tax, Surcharge on Income Tax, Professional or any other Corporate Tax is altered under the law, we shall pay the same.

2. Unit Rates

We have indicated in the relevant schedules enclosed, the unit rates for the purpose of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

3. Bid Pricing

We further confirm that the prices stated in our bid are in accordance with Section II - Instructions to Bidders and Section V - Schedule of Requirement, included in bidding documents.

Thanking You,

Yours faithfully,

Witness:**Bidder:****Signature** _____**Signature** _____**Name** _____**Name** _____**Address** _____**Designation** _____

Company _____**Date** _____**Date** _____

Summary Table

Summary Table - BREAK DOWN OF COST COMPONENTS																												
For the purpose of Commercial Bid Evaluation																												
Appointment of Solar power plant installation Agency ("SPPIA")for the Design, Installation,Commissioning and 5 years Operation & Maintenace of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Bengaluru)																												
S. No	Item Description		Reference	Total Value																								
CAPEX																												
1	Total Cost Equipment Supply	Value 1	Table B.1-Supply																									
2	Total Cost _Design,Installation, Commissioning, SAT and Handing Over	Value 2	Table B.2 Inst and Comm																									
	Total CAPEX (A)	Value 1+Value 2																										
OPEX																												
3	Total Cost of 5 yrs O&M including Manpower cost	Value 3	Table C - O&M																									
	Total OPEX (B)	Value 3																										
	Total Bid Price ("P") (In figures)	Total CAPEX (A) +Total OPEX (B)																										
	Total Bid Price ("P") (In words)	Total CAPEX (A) +Total OPEX (B)																										
<table border="0"> <tr> <td>Witness:</td> <td></td> <td>Bidder:</td> <td></td> </tr> <tr> <td>Signature _____</td> <td></td> <td>Signature _____</td> <td></td> </tr> <tr> <td>Name _____</td> <td></td> <td>Name _____</td> <td></td> </tr> <tr> <td>Address _____</td> <td></td> <td>Designation _____</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Company _____</td> <td></td> </tr> <tr> <td>Date _____</td> <td></td> <td>Date _____</td> <td></td> </tr> </table>					Witness:		Bidder:		Signature _____		Signature _____		Name _____		Name _____		Address _____		Designation _____				Company _____		Date _____		Date _____	
Witness:		Bidder:																										
Signature _____		Signature _____																										
Name _____		Name _____																										
Address _____		Designation _____																										
		Company _____																										
Date _____		Date _____																										

Table B.1-Supply

Note- If the Quantity (A) mentioned as "Lumpsum" Bidder to provide the "Total Value" of the items inclusive Tax. The price should be inclusive of Manpower resources, cost of an equipment and any other components/equipments/services which is not explicitly mentioned in below table but required as per the scope of work of RFP.							
Sub-Table B.1 - Equipment Supply (Solar power plant) (All Prices in Indian Rupees)							
S. No.	Item Description	Proposed Equipment Rating/Capacity--to be specify by the bidder	Product Make--to be specify by the bidder	Unit of measurement where applicable	Quantity	Base Rate Per Unit (Tax Inclusive)	Total Value (Tax Inclusive)
					(A)	(B)	(P= A*B)
Supply of 300KWp (Minimum) grid connected solar power plant at Bengaluru including junction box of appropriate standard with required							
1	Solar Photo Voltaic Modules -	Bidder to specify the capacity of each module & number of cell per module		No.	As per design requirement		
2	Power Optimizer - With MPPT Control, 1 per 1 panels			No.	As per design requirement		
3	Structure- Hot dip galvanised steel			Lumpsum	As per design requirement		
4	A/C, DC Cables			RM	As per design requirement		
5	Grid Tie String Inverter - .. KVA, 415V, 3ph AC output, with grid synchronization and data logging			No.	As per design requirement		
6	Field Junction Box -Dust and water proof			No.	As per # SPV strings		
7	Main Junction Box -Dust and water proof			No.	As per # SPV strings		
8	LT Distribution panel with multifunction digital meter as per design			1 set			
9	Ground Fault Protection			No.	At every inverter		
10	Lighting Arresters			No.	At every block		
11	Earthing			No.	At every block		
12	Data acquisition and environmental monitoring system complete with all necessary equipment such as communication cable, interface hardware PC and software			Set	1		
Total Cost		Equipment Supply (in Figures)=Value 1(1+2+3+4+5+6+7+8+9+10+11+12)					
Note -							
"Bidder should quote solution (Table B.1) as per the minimum capacity of 300 kWp for Bengaluru and in case Bidder proposes solution with higher capacity then the same can be quoted however for evaluation purpose, UIDAI will consider minimum capacity of 300 kWp for Bengaluru for all the bidders as benchmark for calculating the total prices quoted on arriving L1 bidder "							

Table B.2-Installation & Comm.

Sub-Table B.2 - Solar power plant Design,Installation, Commissioning,SAT and Handing Over (Solar power plant supply and Implementation phase) (All Prices in Indian Rupees)							
S. No.	Item Description	Proposed Equipment Rating/Capacity-to be specify by the bidder	Product Make-to be specify by the bidder	Unit of measurement where applicable	Quantity	Base Rate Per Unit (Tax Inclusive)	Total Value (Tax Inclusive)
					(A)	(B)	(P= A*B)
A	Supply of 300KWp (Minimum) grid connected solar power plant at Bengaluru including junction box of appropriate standard with required protection/isolation system, power conditioning units/string inverters of suitable capacity for each modules, interfacing computer aided data acquisition unit, interconnection with SPV modules, PCU Isolator switch etc. with suitable cable, LT power interfacing panel to evacuate power to LT bus bar though PCU with suitable circuit breakers indicators metering arrangement, selector switch, earthing the system etc. complete a required and as per specification						
1	Solar Photo Voltaic Modules -	Bidder to specify the capacity of each module & number of cell per module		No.	As per design requirement		
2	Power Optimizer - 600W With MPPT Control, 1 per 1 panels			No.	As per design requirement		
3	Structure- Hot dip galvanised steel			Lumpsum	As per design requirement		
4	A/C, DC Cables			RM	As per design requirement		
5	Grid Tie String Inverter --. KVA, 415V, 3ph AC output, with grid synchronization and data logging			No.	As per design requirement		
6	Field Junction Box -Dust and water proof			No.	As per # SPV strings		
7	Main Junction Box -Dust and water proof			No.	As per # SPV strings		
8	LT Distribution panel with multifunction digital meter as per design			1 set			
9	Ground Fault Protection			No.	At every inverter		
10	Lighting Arresters			No.	At every block		
11	Earthing			Set	1		
12	Data acquisition and environmental monitoring system complete with all necessary equipment such as communication cable, interface hardware PC and software						
13	Approval/Certificate from Ministry of New Renewable Energy (MNRE)			Set	1		
14	Any other certificate which may require	Bidder to specify type of certificate (if any)		Set	1		
Total Cost		Design,Installation, Commissioning, SAT and Handing Over (in Figures) ₹					
Note - Bidder should quote solution (Table B.2) as per the minimum capacity of 300 kWp for Bengaluru and in case Bidder proposes solution with higher capacity then the same can be quoted however for evaluation purpose, UIDAI will consider minimum capacity of 300 kWp for Bengaluru for all the bidders as benchmark for calculating the total prices quoted on arriving L1 bidder".							

Table C O&M

Sub-Table C.1 – Manpower Cost for 5 years (T + 5 calendar years, where T is the date of site acceptance and handing over									
Note: Payment shall be done on actual Man Month basis for the resource deployed on site									
Sr. No.	Profile/Position	Nos. as per UIDAI minimum requirements(indicative)	Required Deployment/Resource (in person month)	Year 1 Total Price P(Y1)= (A*B*Y1) Person Per Month (Y1) (Tax Inclusive)	Year 2 Total Price P(Y2)= (A*B*Y2) Person Per Month (Y2)	Year 3 Total Price P(Y3)= (A*B*Y3) Person Per Month (Y3)	Year 4 Total Price P(Y4)= (A*B*Y4) Person Per Month (Y4)	Year 5 Total Price P(Y5)= (A*B*Y5) Person Per Month (Y5)	Total Price P(Y1)+P(Y2)+P(Y3)+P(Y4)+P(Y5)
1	Manpower cost	3	12						
1.1	Plant Engineer								
Manpower cost - Total Price "P(Y1)+P(Y2)+P(Y3)+P(Y4)+P(Y5)" (Value A)									
Note: The prices should also be inclusive of a five year comprehensive warranty,consumables, and cost of any other components/equipments which is not									
S.No.	Item Description	Quantity (A)	Unit	Year 1 Total Price P(Y1) (Tax Inclusive)	Year 2 Total Price P(Y2) (Tax Inclusive)	Year 3 Total Price P(Y3) (Tax Inclusive)	Year 4 Total Price P(Y4) (Tax Inclusive)	Year 5 Total Price P(Y5) (Tax Inclusive)	Total Price P(Y1)+P(Y2)+P(Y3)+P(Y4)+P(Y5)
2	Solar Generating Power Plant Comprehensive 5Yrs O&M cost	1	Lumpsum						
Total 5 yrs O&M Cost (Value B)									
3	Total Cost of 5 yrs O&M including Manpower cost " Value 3= Value A+ Value B"								

Section IV - Part 2: Commercial Bid Submission Forms- Manesar	
INSTRUCTIONS TO BIDDERS	
1	Bidder should provide all prices, quantities as per the prescribed format in this section. No field should be left blank. In case the field is not applicable, Bidder must indicate "0.00" (Zero) in it.
2	All rates indicated in the schedules shall be inclusive of all taxes, Levies, duties etc. and any variation in taxes shall be borne by bidder.
3	Purchaser reserves the right to ask the selected Bidder to submit a proof of payment against any of the taxes, duties, levies at any point during the contract period.
4	Price should be quoted in Indian Rupees (INR). Price bids in any other currency shall be summarily rejected.
5	Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected . If there is a discrepancy between words and figures, the amount in words will prevail .
6	All software to be used by selected Bidder should be clearly identified as open-source or licensed. The price quoted for each software should be quoted separately giving the breakup of costs in accordance with the licensing policy proposed, wherever applicable.
7	While quoting for design/installation/hardware/software/infrastructure /O&M/ manpower allocation, the bidder should substantiate with the necessary information on volumes and workload analysis in the Technical Bid.
8	Bidder shall take into account - cost of all consumables such power connectors, cable lugs, MCB's, PV cells etc Out of Pocket expenses due to lodging, boarding and other related items for complete duration of contract till the O&M phase completion
9	Bidder shall take into account cost of all relevant statutory approvals as part of scope of work
10	Bidder shall take into account electricity expenses till successful completion of SAT (System acceptance test as per TOR, section V). Electricity expenses include the following but are not limited to: a. Power required for Solar power plant installation b. On Site systems commissioning test d. Site Performance Test e. Any other requirement which is in scope of SPPIA
11	The bidder may propose any additional equipments/systems/hardware/software components required to meet the solution.
12	For the purposes of evaluation of commercial Bids the Purchaser shall make appropriate assumptions to arrive at a common bid price for all the bidders. This however shall have no co-relation with the contract or actual payment to be made to bidders.
13	The Bidder is required to quote the commercials for the Solar power plant as per the format in the tab "Summary Table".

COMMERCIAL BID COVERING SHEET	
Particulars for Tender Number:- .....{Bidder to mention tender details} for the Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Bangalore	
Sr. No.	Item
1	Name of the Bidder
2	Address of the Bidder
3	Name of the person to whom all references shall be made regarding this Bid
4	Designation of the person to whom all references shall be made regarding this Bid
5	Address of the person to whom all references shall be made regarding this Bid
6	Telephone No. (with STD Code)
7	E-Mail ID of the contact person:
8	Fax No. (with STD Code)
Witness: Bidder:	
Signature	Signature
Name	Name
Address	(
	Company
Date	Date

COMMERCIAL PROPOSAL SUBMISSION LETTER

To _____

Sir/Madam,

Sub: Appointment of Solar power plant installation Agency ("SPPIA") for the Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar

Ref: Tender No. _____

We, the undersigned Bidder, having read and examined in detail all the bidding documents with respect to appointment of SPPIA for for the Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru, do hereby propose to provide services as specified in the bidding documents.

1. Price and Validity

1.1 All the prices mentioned in our bid are in accordance with the terms as specified in the bidding documents. All the prices and other terms and conditions of this bid are valid for a period of 180 calendar days from the date of opening of the bids.

1.2 We hereby confirm that our bid prices include all taxes.

1.3 We hereby declare that if any Income Tax, Surcharge on Income Tax, Professional or any other Corporate Tax is altered under the law, we shall pay the same.

2. Unit Rates

We have indicated in the relevant schedules enclosed, the unit rates for the purpose of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

3. Bid Pricing

We further confirm that the prices stated in our bid are in accordance with Section II - Instructions to Bidders and Section V - Schedule of Requirement, included in bidding documents.

Thanking You,

Yours faithfully,

Witness:**Bidder:****Signature** _____**Signature** _____**Name** _____**Name** _____**Address** _____**Designation** _____**Date** _____**Company** _____**Date** _____

Summary Table

Summary Table - BREAK DOWN OF COST COMPONENTS																
For the purpose of Commercial Bid Evaluation																
Appointment of Solar power plant installation Agency ("SPPIA")for the Design, Installation,Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar)																
S. No	Item Description	Reference	Total Value													
CAPEX																
1	Total Cost _ Equipment Supply	Value 1	Table B.1-Supply													
2	Total Cost _Design,Installation, Commissioning, SAT and Handing Over	Value 2	Table B.2 Inst and Comm													
	Total CAPEX (A)	Value 1+Value 2														
OPEX																
3	Total Cost of 5 yrs O&M including Manpower cost	Value 3	Table C - O&M													
	Total OPEX (B)	Value 3														
	Total Bid Price ("P") (In figures)	Total CAPEX (A) +Total OPEX (B)														
	Total Bid Price ("P") (In words)	Total CAPEX (A) +Total OPEX (B)														
<table border="0"> <tr> <td>Witness:</td> <td>Bidder:</td> </tr> <tr> <td>Signature _____</td> <td>Signature _____</td> </tr> <tr> <td>Name _____</td> <td>Name _____</td> </tr> <tr> <td>Address _____</td> <td>Designation _____</td> </tr> <tr> <td></td> <td>Company _____</td> </tr> <tr> <td>Date _____</td> <td>Date _____</td> </tr> </table>					Witness:	Bidder:	Signature _____	Signature _____	Name _____	Name _____	Address _____	Designation _____		Company _____	Date _____	Date _____
Witness:	Bidder:															
Signature _____	Signature _____															
Name _____	Name _____															
Address _____	Designation _____															
	Company _____															
Date _____	Date _____															

Table B.1-Supply

Note- If the Quantity (A) mentioned as "Lumpsum" Bidder to provide the "Total Value" of the items inclusive Tax. The price should be inclusive of Manpower resources, cost of an equipment and any other components/equipments/services which is not explicitly mentioned in below table but required as per the scope of work of RFP.							
Sub-Table B.1 - Equipment Supply (Solar power plant) (All Prices in Indian Rupees)							
S. No.	Item Description	Proposed Equipment Rating/Capacity--to be specify by the bidder	Product Make- to be specify by the bidder	Unit of measurement where applicable	Quantity	Base Rate Per Unit (Tax Inclusive) (B)	Total Value (Tax Inclusive) (P= A*B)
A	Supply of 400KWp (Minimum) grid connected solar power plant at Manesar including junction box of appropriate standard with required protection/isolation system, power conditioning units/string inverters of suitable capacity for each modules, interfacing computer aided data acquisition unit, interconnection with SPV modules, PCU Isolator switch etc. with suitable cable, LT power interfacing panel to evacuate power to LT bus bar through PCU with suitable circuit breakers isolators indicators metering arrangement, selector switch, earthing the system etc. complete a required and as per specification						
1	Solar Photo Voltaic Modules -	Bidder to specify the capacity of each module & number of cell per module		No.	As per design requirement		
2	Power Optimizer - With MPPT Control, 1 per 1 panels			No.	As per design requirement		
3	Structure- Hot dip galvanised steel			Lumpsum	As per design requirement		
4	A/C, DC Cables			RM	As per design requirement		
5	Grid Tie String Inverter - .. KVA, 415V, 3ph AC output, with grid synchronization and data logging			No.	As per design requirement		
6	Field Junction Box -Dust and water proof			No.	As per # SPV strings		
7	Main Junction Box -Dust and water proof			No.	As per # SPV strings		
8	LT Distribution panel with multifunction digital meter as per design			1 set			
9	Ground Fault Protection			No.	At every inverter		
10	Lighting Arresters			No.	At every block		
11	Earthing			No.	At every block		
12	Data acquisition and environmental monitoring system complete with all necessary equipment such as communication cable, interface hardware PC and software			Set	1		
Total Cost		Equipment Supply (in Figures)=Value 1(1+2+3+4+5+6+7+8+9+10+11+12)					
Note -							
"Bidder should quote solution (Table B.1) as per the minimum capacity of 400 kWp for Manesar and in case Bidder proposes solution with higher capacity then the same can be quoted however for evaluation purpose, UIDAI will consider minimum capacity of 400 kWp for Manesar for all the bidders as benchmark for calculating the total prices quoted on arriving L1 bidder".							

Table B.2-Installation & Comm.

Sub-Table B.2 - Solar power plant Design,Installation, Commissioning,SAT and Handing Over (Solar power plant supply and Implementation phase) (All Prices in Indian Rupees)							
S. No.	Item Description	Proposed Equipment Rating/Capacity-to be specify by the bidder	Product Make-to-be specify by the bidder	Unit of measurement where applicable	Quantity	Base Rate Per Unit (Tax Inclusive)	Total Value (Tax Inclusive)
(A)						(B)	(P= A*B)
A	Supply of 400KWp (Minimum) grid connected solar power plant at Manesar including junction box of appropriate standard with required protection/isolation system, power conditioning units/string inverters of suitable capacity for each modules, interfacing computer aided data acquisition unit, interconnection with SPV modules, PCU Isolator switch etc. with suitable cable, LT power interfacing panel to evacuate power to LT bus bar though PCU with suitable circuit breakers isolators metering arrangement, selector switch, earthing the system etc. complete a required and as per specification						
1	Solar Photo Voltaic Modules -	Bidder to specify the capacity of each module & number of cell per module		No.	As per design requirement		
2	Power Optimizer - 600W With MPPT Control, 1 per 1 panels			No.	As per design requirement		
3	Structure- Hot dip galvanised steel			Lumpsum	As per design requirement		
4	A/C, DC Cables			RM	As per design requirement		
5	Grid Tie String Inverter -.. KVA, 415V, 3ph AC output, with grid synchronization and data logging			No.	As per design requirement		
6	Field Junction Box -Dust and water proof			No.	As per # SPV strings		
7	Main Junction Box -Dust and water proof			No.	As per # SPV strings		
8	LT Distribution panel with multifunction digital meter as per design			1 set			
9	Ground Fault Protection			No.	At every inverter		
10	Lighting Arresters			No.	At every block		
11	Earthing			No.	At every block		
12	Data acquisition and environmental monitoring system complete with all necessary equipment such as communication cable, interface hardware PC and software			Set	1		
13	Approval/Certificate from Ministry of New Renewable Energy (MNRE)			Set	1		
14	Any other certificate which may require	Bidder to specify type of certificate (if any)		Set	1		
Total Cost Design,Installation, Commissioning,SAT and Handing Over (in Figures)=							
Note - *Bidder should quote solution (Table B.2) as per the minimum capacity of 400 kWp for Manesar and in case Bidder proposes solution with higher capacity then the same can be quoted however for evaluation purpose, UIDAI will consider minimum capacity of 400 kWp for Manesar for all the bidders as benchmark for calculating the total prices quoted on arriving L1 bidder" .							

Table C O&M

Sub-Table C.1 – Manpower Cost for 5 years (T + 5 calendar years, where T is the date of site acceptance and handing over)										
Sr. No.	Profile/Position	Nos. as per UIDAI minimum requirements(indicative)	Required Deployment/Resource (in person month)	Year 1 Total Price P(Y1)= (A*B*Y1) Person Per Month (Y1) (Tax Inclusive)	Year 2 Total Price P(Y2)= (A*B*Y2) Person Per Month (Y2)	Year 3 Total Price P(Y3)= (A*B*Y3) Person Per Month (Y3)	Year 4 Total Price P(Y4)= (A*B*Y4) Person Per Month (Y4)	Year 5 Total Price P(Y5)= (A*B*Y5) Person Per Month (Y5)	Total Price P(Y1)+P(Y2)+P(Y3)+P(Y4)+P(Y5)	
1	Manpower cost	3	12							
1.1	Part Engineer									
Manpower cost - Total Price "P(Y1)+P(Y2)+P(Y3)+P(Y4)+P(Y5)" (Value A)										
Note: The prices should also be inclusive of a five year comprehensive warranty,consumables, and cost of any other components/equipments which is not										
S.No.	Item Description	Quantity (A)	Unit	Year 1 Total Price P(Y1) (Tax Inclusive)	Year 2 Total Price P(Y2) (Tax Inclusive)	Year 3 Total Price P(Y3) (Tax Inclusive)	Year 4 Total Price P(Y4) (Tax Inclusive)	Year 5 Total Price P(Y5) (Tax Inclusive)	Total Price P(Y1)+P(Y2)+P(Y3)+P(Y4)+P(Y5)	
2	Solar Generating Power Plant Comprehensive 5Yrs O&M cost	1	Lumpsum							
Total 5 yrs O&M Cost (Value B)										
3	Total Cost of 5 yrs O&M including Manpower cost " Value 3= Value A+ Value B"									

Section V – Schedule of Requirement

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1 Introduction

1.1 About UIDAI / Aadhaar.

The Unique Identification Authority of India (UIDAI) has been created by the Government of India as an attached office under the Planning Commission. Its role is to develop and implement the necessary institutional, technical and legal infrastructure to issue Unique identity numbers to Indian residents. The Unique ID project is expected to lay the foundation for all future e-Governance projects in India in the coming decades. It is with this background that India's Unique ID initiative has been christened as "Aadhaar" (a Hindi word meaning "foundation").

2 Overview

- i. This Bid Document has been prepared solely for the purpose of enabling Unique Identification Authority of India (UIDAI) to select a Solar Power Plant Implementation Agency (SPPIA) for implement, Operation and Maintenance of UIDAI's own Grid connected Solar Power Generating Plant each Data centre Complexes at Delhi/NCR and Bengaluru Region.
- ii. The Bidder is required to bid for either one or both the locations (Delhi/NCR and/or Bengaluru region) and as a response to the RFP the Bidder should submit set of separate technical and commercial bids for each location. The RFP document details out the specifications for Delhi/NCR and Bengaluru Solar Power Plant location. Unless explicitly specified the requirements should be considered common for both the Data centre location.
- iii. The Bid Document is not a recommendation, offer or invitation to enter into a contract, agreement or any other arrangement, in respect of the services. The provision of the services is subject to observance of selection process and appropriate documentation being agreed between the UIDAI and any successful Bidder as identified by the UIDAI, after completion of the selection process as detailed in this document.
- iv. UIDAI invites proposal from Solar Power Plant Implementation Agency (SPPIA) for primarily undertaking inter-alia the activities for UIDAI in respect of design, implement, operation and maintenance of Data centre for each of the two locations at Delhi/NCR Region and Bengaluru Region as per the UIDAI requirement as defined in this section.
- v. UIDAI will at no point will bear any additional cost for Solar Power Plant Implementation Agency may have to incur on account of repair, upgrade, power, capacity enhancement, etc. to support UIDAI equipments unless UIDAI requests for any additional power requirements or brings in additional major equipments that would impact the infrastructure build for UIDAI by Solar Power Plant Implementation Agency for the period of the contract.
- vi. The Solar Power Plant Implementation Agency has to factor in the infrastructure for the UIDAI requirement. UIDAI will not accept any plea from the Solar Power Plant Implementation Agency for any additional costs.
- vii. The Solar Power Plant Implementation Agency should provide all necessary infrastructure components that would be necessary as per the defined requirements; manage and maintain the same throughout the period of the contract.
- viii. The Solar Power Plant Implementation Agency has to ensure that the desired objective of work assigned by UIDAI is completely met.
- ix. The Contract document is confidential must be strictly confined to contractors own use. (Except so far as confidential disclosure to sub-contractors or suppliers).

The Director General, UIDAI is inviting bids from eligible bidders (hereafter called as Solar Power Plant Implementation Agency (SPPIA) to develop State of art, Energy efficient, Solar generating Plant. UIDAI plans to develop its Grid connected Solar Power Generating Plant each at Delhi/NCR and Bengaluru.

SPPIA shall perform the site preparation, procurement, installation, maintenance and operation of the Grid connected Solar Power Generating Plant on a, Build & Operate basis for a period of five years after successful completion of final acceptance.

The overall broad Scope of Work (SoW) for the SPPIA includes the following:-

- i. Supply, Installation, Testing & Commissioning and setting up of the Grid connected Solar Power Generation Plant basic Infrastructure such as Solar Photo Voltaic Modules, SPV Module support structure, Solar Grid Tie string Inverters, Power Optimizer, Interconnection Power Cable, Control Cabling, Lightening arrestor, Earth fault Protection Earthing kit, Earthing Pits, Junction box, Electrical distribution panel, Data Acquisition system and Environment monitoring system, Communication Interface for remote monitoring, Etc.
- ii. Five years on-site maintenance of all the solar power generation plant and It's components supplied in setting up the basic infrastructure for the proposed Grid connected Solar Power Generating Plant.
- iii. Onsite support for Grid connected Solar Power Generating Plant Infrastructure Operations on Solar plant operating hours basis by qualified Engineers/ personnel for a period of five years to ensure at least 99.00% uptime on a monthly basis.
- iv. The bidder is expected to follow the Ministry of New & Renewable Energy (MNRE) best practices in design, build/ implement, run/ operations and support & well coordinated milestone plans to ensure timely successful completion of the said project. MNRE Design guidelines Refer Annexure-D

2.1 Project Phases

The project is divided in three phases as per following:-

- i. Phase-1 (Design and approval)
- ii. Phase-2 (Implementation and Acceptance)
 - a) Material Ordering
 - b) Material Delivery
 - c) Installation and Commissioning
 - d) System Acceptance Test (SAT)
 - e) Certification, Handover and Documentation
- iii. Phase-3 (O&M)

2.2 Work/Sub-Work Packages

- (i) SPPIA shall design, implement, operate & maintain the complete solar power generating power plant for the following Work Packages/ Sub-Packages as per RFP requirements and shall include all the statutory approvals as applicable.

S. N	Grid connected Solar Power generating plant work / sub work packages description
1	Electrical System Work Package
i	Design of Grid connected Solar Power Generating Plant.
a)	Providing Electrical, Mechanical, Electronic and Civil Design Engineering of the Plant
b)	Provide 'As built' of PV array site plan, Electrical line diagram, Support Structure installation drawings, Wiring and Earthing drawings.
2	Electrical Distribution/System Erection/Installation.
a)	Erection of Utility LT Distribution Panels- Distribution for lighting, HVAC Loads

S. N	Grid connected Solar Power generating plant work / sub work packages description
b)	Laying of Electrical Cables: Module Inter-Connection
c)	Laying of Electrical cable between power Optimizer to DC combiner box
d)	Laying of Electrical Cables : DC Combiner Box -Inverter
e)	Laying of Electrical Cables : Inverters to ACDB, LT Utility panels
f)	Erection of Power Optimiser, ACDB-LT Utility Panel
g)	Installation and Commissioning of Grid Tie String Inverters With Power Optimizer
h)	Providing Earthing Pits, Earthing Strips (Earthing Kit)
i)j)	Providing Array Junction Box / Combiner Box as per design.
j)	Distribution low side works-Cable tray, Tray support, Race ways, fixing accessories etc
k)	Installation of Lightening Arrester, Earth fault protector
l)	Data Acquisition system, Remote Monitoring System & Environmental monitoring System (System integration)
m)	Installation Kit.
3	Civil Low side Work
a)	Construction of RCC work bolted Foundation for Support Structure for SPV Modules. & Related finish work (Plastering, Skirting and Painting etc.)
b)	Sealing of all the openings provided for cables, Pipe openings etc.
c)	Providing Earth pit for each building block
4	Mechanical Low side work
a)	Fabrication of Hot deep galvanised MS metal support structure for SPV Modules.
b)	Foundation and Brackets and components including foundation bolts.
c)	Cable Trays, Suspenders, Brackets for suspending supporting cables if required.
d)	Anchor fasteners, Hardware's for the trays support system etc.
e)	Finishing work like Painting of all Environmentally exposed metal surface and Equipments.

S. N	Grid connected Solar Power generating plant work / sub work packages description
5	Others which is not explicitly mentioned above and required as per RFP requirement, solution design, specifications, certification from State Chief Electrical inspectorate, other statutory compliance certificate and scope of work.

- (ii) SPPIA shall provide all items that are required to make the equipment-set/ system operational whether specifically and explicitly mentioned or not. The equipment-set/ system and associated materials shall be in accordance with the intent or purpose of the guidelines and specifications and shall be considered to be in the scope of work of the contract to be furnished without any extra charge.
- (iii) The solution offered by SPPIA shall be complete to meet the intent of specification and guidelines and cover all the interfacing equipments/components irrespective the same is listed explicitly or not. Any omission later identified shall be provided by SPPIA without any additional cost to UIDAI.
- (iv) The above list is indicative and shall be enhanced by SPPIA to make the solution more effective and to include essential components as felt necessary.

2.3 Estimation and Sizing (Minimum)

Manesar Data Center and Bengaluru Data Centre Complex: The UIDAI has three building in each complex known as utility, Data centre (referred as DC Block) and Non-Data center (referred as NDC Block). Solar Photo Voltaic (referred as SPV) installation indicates areas identified and details provided in below tables.

The estimations have been arrived based on the respective location available on site for the Grid connected Solar Power Generating Plant sizing. Indicative Plant Space and sizing is tabulated as below.

Bengaluru	Indicative Xact	Indicative Yact	Minimum Power-KWp
	Meter	Meter	
DG Top Terrace	30	15	49
Utility-Terrace	30	15	39
NDC - Pergola	93	17	193
Car Park	27	5.5	19
Landscape	12	12	21
			300
Manesar-Delhi/NCR	Indicative Xact	Indicative Yact	Minimum Power-KWp
	Meter	Meter	
Utility-Terrace	45	14	35
DC – Terrace	65	46	94
NDC - Pergola	42	10	58
NDC - Terrace	50.4	8.4	32
Car Park - North	55	6	55
Car Park - East	6	35	35
Landscape			89
			398

DC- Data centre building, NDC- Non Data centre building. Utility-Utility building

Note: Bidder is expected to make a site visit to obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into contract. Obtaining such information shall be at bidder's own cost.

Refer Annexure-B for the Indicative site drawings for Delhi/NCR, and Bengaluru locations.

3 Scope of Work

The broad scope of work for the Solar Power Plant Implementation Agency (SPPIA) has been provided below. The work should be planned in three phases as Design, Implementation, and Operation & Maintenance:-

3.1 Phase-1 – Design

SPPIA shall design the Grid connected Solar Power Generating Plant and its support facility as per the Scope of supply & Work Packages/Sub-Packages as mentioned under clause 2.2, Section-V Schedule of Requirement

3.2 Scope of Services

Understand UIDAI's requirement and proceed for the following:-

- i. SPPIA shall visit and inspect the site to study the designated site submit the survey report, Design document and PVsyst simulation design to UIDAI. Please refer The Annexure-E, format for site survey report, however details asked in site survey report are indicative and bidder expected to enhance as per site condition and requirement.
- ii. Develop detailed design & drawings based on preliminary concepts & reports. Provide minimum 2 (two) valid & final Grid connected Solar Power Generating Plant layout options to UIDAI for consideration.
- iii. Develop conceptual design ensure highest energy efficiency. based on recommended Guidelines & NMRE guidelines, Refer Annexure-D.
- iv. Structural foundation details of equipment such as PV Array Support structure, LT System etc.
- v. Before proceeding with the work, SPPIA shall submit the general layout and assembly drawings and such additional assembly and subassembly detail drawings as may be necessary to demonstrate fully that all parts of the equipment-set/system to be furnished will conform to guidelines. SPPIA shall also submit catalogues and selections of the individual items in the equipment set/ system. Further, the equipment set/ system and material delivered to the site shall conform strictly to the specification and requirement as per RFP.
- vi. SPPIA to provide self approved schedule of Quantities/ Bill of material to UIDAI which should be as per UIDAI approved design drawings documents
- vii. SPPIA shall provide detailed designs for various proposed work packages and services.
- viii. Preparation of Package Design including Single Line Diagrams with Design data and typical installation detailing to specific equipments to clarify and guide the overall work package to its equipment level.
- ix. SPPIA shall coordinate with the architect (designated by UIDAI/PMC)) for space and other site infrastructure related requirement.

3.2.1 Design Guidelines

3.2.1.1 Grid connected Solar Power Generating Plant Standards

The bidders shall follow the industry best practices based on the following guidelines and Produce necessary compliance certificates:-

IEC : 60904-I (2006)	Photovoltaic Devices-Part-I: Measurement of Photovoltaic current –Voltage Characteristic
IS : 9000	Basic environmental testing procedure for Electronic and electrical items.
IEC 61723 Ed1.0	Safety Guidelines for grid connected photovoltaic systems mounted on the buildings

IEC 60364-7-712 (1997)	Electrical Installations of Buildings Part 7: requirements for special installations or locations Section, 712: Photovoltaic power supply systems.
IEC 60364-4-41	Protection against electric shock.
IEC 61730	PV Module Safety Qualification.
IEC 61701	Resistance to Salt mist and corrosion.
UL 1703	Comply with the National Electric Code (NEC), OSHA and National Fire Prevention Association.
Note: Latest version of the specification shall be referred to.	

3.2.1.2 Concept / Methodology

SPPIA to plan & consider the following concepts while designing the Grid connected Solar Power Generating Plant but not limited to:-

i. Solar energy for the Data Centre facility

Earth's surface temperature has risen by about one degree Fahrenheit (°F) in the past century, with accelerated warming occurring in the past three decades. There is substantial evidence that global warming over the past 50 years is directly attributable to human activities. In its endeavour to build a green Data Centre, UIDAI may require use of natural resource- Solar energy which is abundantly available in India for most of the time excluding monsoon months.

3.2.1.3 Environmental conditions

To maintain high availability levels, UIDAI Grid connected Solar Power Generating Plant requires to be designed with, an uptime of 99.00% with the optimum Energy generating capacity. The Tender document provides the minimum requirements for design of the Grid connected Solar Power Generating Plant. It is however expected that the SPPIA's design and services exceeds the minimal expectations, by following the global best practices keeping in mind that the conditions in India are different that those in other countries in terms of climate, atmospheric contaminants, power and the other general conditions.

3.2.1.4 Building Design

Data centres are highly energy intensive. With the increasing energy cost, the increase in operational cost is inevitable. UIDAI has therefore felt the need to plan for developing its Green Data Centres using innovative designs for energy efficiency by embracing the concept of Green IT. EIL has been mandated to provide a design based on LEED (Leadership in Energy & Environmental Design), a green building rating system which has been adopted as the national certification standard by green building councils in Canada, India, Italy, and several other countries and SPPIA shall provide the material, design, solution as per the green building LEED guidelines and practices.

3.2.1.5 Minimum Design scope of requirement

The proposed Grid connected Solar Power Generating Plant shall be compliant to minimum guidelines Refer clause 3.2.1.1 The SPPIA shall therefore adequately plan for high availability of equipments and build for the necessary operational support to maintain an uptime of 99.00% on annually basis. The SPPIA should also ensure that all the equipment in the Grid connected Solar Power Generating Plant is appropriately maintained and managed for a period of 5 years.

The minimum design requirements for the Grid connected Solar Power Generating Plant are detailed in the following sub-sections. While it is mandatory for the SPPIA to comply with

these minimum design requirements however SPPIA should provide basis for arriving at the solution being proposed as part of his bid.

While the UIDAI Grid connected Solar Power Generating Plant are expected to be designed, built and maintained as per MNRE standards and recommended as per Annexure-C

SPPIA shall follow / exceed the following minimum requirement but not limited to:-

S N	Description	Minimum Requirement (SPPIA Scope of Work)
1	Civil	
a)	Construction of RCC foundation (M-25) with bolt arrangement for the SPV array Module support structure	SPPIA scope with necessary approved foundation drawings and material. i) Indicative Total 1360 PV array modules foundation for Manesar (Delhi/NCR), ii) Indicative Total 1026 PV array modules foundation for Bengaluru.
b)	Civil material tests	All material related to civil RCC, cement, fine, coarse aggregate, stone, water to be third party tested as per IS standards.
c)	Installation cable tray, support, suspenders, and cable raceways, conduits and necessary hardware	Design, Site specific SPPIA scope.
d)	Minimum Spacing between the PV array	Design, Site specific SPPIA scope.
e)	PV array should be free from obstruction and shadow.	Design, Site specific SPPIA scope.
f)	PV array installation on terrace should utilise maximum space.	Design, Site specific SPPIA scope.
g)	PV array should installed with necessary service clearance	Design, Site specific SPPIA scope.
h)	PV array foundation should of the minimum height from the terrace level	Less than 3Mtrs from the terrace ground level.
i)	Total uniform distributed load of the PV array and support structure with foundation.	Should be UDL<60kg/ Sq mtr
j)	Mechanism for SPV Panels	Fixed Tilt
k)	Module alignment and tilt angle	Design specific
l)	Clearance from the ground level to module bottom	Should not be less than 500 mm.
m)	Clearance from parapet wall of terrace while considering the SPV installation area	Should not be less than 1 meter
n)	SPV structure can be raised above parapet wall height	Only 1 meter above
o)	In NDC block, Pergola structure is 3 meter above from the terrace floor, SPV allowed to raise from pergola for inclination (if any)	Only 0.5 meter from pergola
p)	Construction Power and Water	SPPIA scope
2	Mechanical	
a)	Providing cable tray, support, suspenders, and cable raceways, conduits and necessary hardware	Site specific SPPIA scope. All support material environmental protective and of MS hot deep galvanized.

S N	Description	Minimum Requirement (SPPIA Scope of Work)
b)	Providing necessary hardware for the module support, inverter, ACDB, DCDB/combiner box	Yes, Module support should be MS hot deep galvanized
c)	All the PV array and its support structure and the hardware are necessary industrial type weather treatment.	Yes, MS hot dip galvanized, SS hardware.
d)	All the PV array module structure should with stand minimum wind speed load.	Wind speed loading up to 150 km/Hrs
e)	All the Module support structure should have minimum environmental withstanding life	Should have life of support at least 25 years of installation.
f)	All the ACDB, DCDB, Combiner box, Grid tie inverters should have minimum Ingress protection	Indoor installation with IP21 and outdoor installation with IP65.
g)	All the electrical and control cable should be laid though the flexible conduit and hard conduit.	PVC flexible conduit and Hard PVC or GI conduit pipes installed for, wherever necessary.
h)	Sensors for Solar radiation and environmental monitoring is to be installed on the tip of the building	The same be installed in the building with control room
i)	Support structure life	Min Period 25 years
3	Electrical	
i	General	
a)	Main utility switchboard	Yes
b)	Surge suppression (SPD)	Yes
c)	PV module Insulation resistance	Should not be less than 50 M ohms @ 500 volt
d)	Cable routing	All the cable should be routed on to the dedicated raceways, cable trays, conduits with minimum stress on cables
e)	Ferruling	All the cables should be physically marked and necessary ferruling for identifications
f)	Junction box/combiner box	shall be dust proof, vermin and waterproof and made of FRP / Thermo Plastic, appropriate rating blocking diode
g)	Electrical panel identification	All Solar system panels should be marked with colour codes for identification
ii	Electrical distribution	
a)	PV array to power optimizer	Design Specific
b)	Power optimizer to DCDB /combiner box	Design Specific
c)	DCDB/combiner box to Inverters	Design and site specific
d)	Inverters to ACDB/ Combiner box	Design and site specific
e)	ACDB/combiner box to Main utility DB	Design and site specific
f)	DC drop across the circuit	Should not be more than equal to 2%
iii	Protection	
a)	All the PV array should be provided with Lightening arrestor and the earth fault protector	Yes

S N	Description	Minimum Requirement (SPPIA Scope of Work)
b)	Earthing to each PV array module ,ACDB, Junction box, Utility panel, DCDB & Inverters	Yes, All earth should be equip-potentially connected.
	All cable openings, conduits, pipes etc.	Sealed by Industrial sealants SPPIA scope.
Iv	Power quality	
a)	THD	THD≤3%
b)	Voltage transient	≤3%
V	Grid Tie string Inverters	
a)	Inverter	
▪	Inverter kVA	Connectivity in series. 3 Phase/415 volts Inverter with 50Hzs
▪	Total capacity Inverter sizing	As per estimated site installable capacity PV array 400kWp for Delhi/NCR and 300kWp for Bengaluru site.
▪	Total Number of Inverters	Design Specific
▪	Minimum & Maximum input DC voltage	650 Vdc. Minimum and 1000Vdc maximum
▪	Inverter Efficiency	Should not be less than 95%.
▪	Maximum output current.	..... amps
▪	Output AC voltage	Three phase 415Vac+/- 10% 50Hzs+/-1Hz.
▪	Open circuit fault condition	Inverter must stop or disconnect below 50 Vdc String voltage
▪	DC safe system	DC arc quenching capability.
▪	Earthing protection	Yes
▪	All inverters should be ground protection as per local or NEC standards and surge protective devices	Yes
▪	Type of earthing pits	Maintenance free Chemical Low resistance earthing < 1 ohms. Separate each for building
▪	Installation of Inverters	SPPIA should consider its part of solution offerings and design
▪	Test mode	Yes
▪	Emergency power off	Yes
▪	Output distribution ACDB	Yes, design specific
▪	Inverter Communication Interface	Inverter provide RS485 and SNMP ports with necessary Hardware and software support
▪	Inverter Alarm Input and outputs	Yes Potential free dry contacts
▪	Warranty	Minimum 12 Years.
Vi	Power Optimizer (MPPT Controller)	
a)	Protective enclosure	IP65 with necessary cabling
b)	Optimizer connectivity	Require One optimizer for per modules
c)	Warranty	Minimum of 25 years
vii	PV array module	
a)	Type & manufacturer	Mono/Polycrystalline silicon.
b)	Physical size (Dimension and weight)	As per product data.
c)	Capacity per module	(should not be less than 100Wp).....Wp+/- 3 to 5% Avg power or +5Wp

S N	Description	Minimum Requirement (SPPIA Scope of Work)
d)	Module Voc	shall be minimum 21V
e)	Input DC voltage	should not be more than 1000 Vdc.
f)	Negative temp coefficient	Module NTC <=0.45%
g)	Module connectivity	Series and parallel.
h)	Fill factor	should not be less than 72%
i)	Photo/electrical conversion	should not be less than 14%
j)	Environmentally protected	Moisture, Harsh weather resistant with IP65 enclosure.
k)	Protective glass transitivity	Should not be less than 91%
l)	Lightening and earth fault protection	Yes
m)	PV electrical curve	IR curve to be provided by the SPPIA
n)	Junction box with Bypass diode	Yes
o)	Module service Warranty	Minimum 25 years
p)	Module capacity loss	10% after 10 years and 20% after 20 years Max
q)	Each module should have RFID tag for traceability	Yes
r)	Module should have electrical and physical parameters marked on it	Yes
s)	Providing Necessary earthing kit and Material	Yes
4	ACDB/combiner box	Design specific
a)	Panel bus bars	Three times the capacity of the solar plant
b)	Circuit breakers	MCB shall be provided as per Design specific
c)	Cable manager	Yes
d)	Provision of earth terminals	Yes
e)	Multifunction digital meter	Yes
f)	Spare breakers capacity	Min 20% spare breakers for future to be provided.
5	DCDB/combiner box/Junction box	Design specific
a)	Circuit breakers	Suitable MCB should be DC rated as per design spec
b)	IP Protections	Suitably protected with IP 65 enclosure
6	Equipment Maintenance	
a)	Maintenance Staff	Onsite (Solar operating hours)
b)	Preventative Maintenance	Comprehensive preventative, maintenance program
c)	Facility Training Programs	Comprehensive training program including manual operation procedures to be regularly imparted to maintenance staff
d)	Inventory	One set necessary approved spares and tools to be maintained at the site. Important spares list to be provided by SPPIA.
e)	Log book & documentation	Yes with all call reporting, call analysis, resolution service reports & procedures etc.

S N	Description	Minimum Requirement (SPPIA Scope of Work)
f)	Knowledge Management (Quarterly)	Knowledge management sessions to improve efficiency of staff so that recurrences are avoided. The sessions should include problems identified, methods developed to reduce problems, improve reliability, etc. shall be imparted both to UIDAI staff and the facility staff.
7	Digital Acquisition System (DAS)	
a)	Communication cable laying and interface hardware installation	Yes, Capable of interfacing all the module and devices connected.
b)	Interface activation	SPPIA scope
c)	Uploading DAS Software and up gradation etc.	SPPIA scope
d)	Communication interface	RS485 or SNMP
e)	PC with DAS System uploaded. Software also to be provided for DAS system	SPPIA Scope
8	Solar radiation and environmental monitoring system	
a)	laying of interface cables	Yes SPPIA scope
b)	Installation of sensors	Yes, Temperature & Irradiance
c)	Testing and acceptance	SPPIA scope
d)	System integration with BMS system	Yes, SPPIA scope.
9	Acceptance system	
a)	Acceptance test	Yes, All electrical and mechanical components
b)	Installation and commissioning test	Yes.
c)	Predicted (PPR) and Performance ratio (PR) of the solar system	PPR \geq 0.9 and PR \geq 0.7
d)	Document and report submission	Yes, Handing over documents includes product manual, product lab test certificates, INC certificates with test reports Acceptance test certificates. System procedure, Do's and Don'ts & O & M manuals etc.

The above list is indicative and shall be enhanced by SPPIA to make the solution more effective and to include essential components as felt necessary.

3.2.3 Deliverable

SPPIA shall submit the following deliverables:-

- i. Schedule of quantities/ Bill of material document for all Work/Sub-Work Packages
- ii. Product Specification Document for all Work/ Sub Work Packages
- iii. Product Make/Model along with Capacity sizing calculation document for all work/ Sub-Work packages
- iv. Electrical SLD (Complete up to Utility load Level), Schematics, equipment design drawing document
- v. SPPIA shall provide necessary BMS points with interface cable to integrate the Solar system to building monitoring system.
- vi. Structural foundation details of equipment such as SPV Structure, LT panels Inverters etc.

- vii. All the above mentioned deliverables shall be for each Work packages/ Sub-Work Packages and document shall be submitted as each package wise.

SPPIA should submit three sets of Design Handing over Documentation (DHOD) neatly bound to corporate standards along with 4 copies in CD/ DVD media.

3.2.4 Completion criteria

Submission of the above listed deliverables and respective approval by PMC/ UIDAI constitutes the completion of this activity.

3.2.5 Completion timelines

Total time for completing the activity is One Months from the date of LOI issued by UIDAI.

SPPIA shall design, supply, install, commission and acceptance testing for Work Packages/ Sub-Packages as per clause 2.2, Section-V Schedule of Requirement.

Implementation phase is been divided into following stages:-

- i. Material Ordering
- ii. Material Delivery
- iii. Installation and Commissioning
- iv. System Acceptance Test (SAT), Handover and Documentation

3.2.6 Material Ordering and Inspection

3.2.6.1 Scope of Services

- i. This shall comprise of Ordering of material as per approved design
 - a) SPV Module
 - b) Electrical- Utility panel and AC DB/combiner box.
 - c) Junction Box /Array combiner box.
 - d) Power conditioning units (PCU)/Tie grid string Inverter.
 - e) Power optimizer
 - f) Lightning arrestor, Ground fault protector.
 - g) Earthing kits and Materials.
 - h) Cables and Hardware.
 - i) Data Acquisition System and Environmental monitoring system.
 - j) SPV Structure & Fittings, Cable trays, Cable raceways, Cable Tray, fasteners, conduits,
 - k) Cable tray suspenders and necessary SS hardware.
 - l) Cement, Fine and coarse aggregate, stone and TMT steel bars
- ii. SPPIA shall prepare & submit the equipment inspection checklist for UIDAI approval.
- iii. Based on readiness for inspection from OEM's, SPPIA shall issue inspection cal 15 days in advance for factory inspection by UIDAI/UIDAI's authorised entity before delivery of material at site
- iv. All expanses with respect to such visit(s) to the OEM's factory/teleconferencing/video conferencing the cost of travel, boarding and lodging of the UIDAI/PMC's inspection team (maximum three person) shall be borne by the bidder.
- v. The entire test as per relevant MNRE /IEC/BIS standards shall be performed on material/equipments provided by the Bidder and the cost shall be borne by the Bidder. Please refer Annexure- D for the MNRE Guidelines.

3.2.6.2 Deliverables

- i. Equipment/Product compliance test report and certificate of product proven track record of at least 3-years

3.2.6.3 Completion Criteria

Submission of the above listed deliverables and respective approval by PMC/ UIDAI constitutes the completion of this activity.

3.2.6.4 Completion Timelines

Material ordering and dispatch inspection should be completed before the date of Data center, Non Data Center complex Terrace, Utility building terrace and Landscape area readiness.

3.2.7 Material Delivery

Covers the delivery of approved components & equipments in line with the Bill of Materials and approved design drawings for respective Work/Sub-Work Packages

3.2.7.1 Scope of Services

- i. Check and facilitate the readiness of site to receive the equipments at site
- ii. Procure all material and equipments for complete work packages
- iii. Intimate the expected delivery date & time of material reaching at site after the inspection of material is completed & accepted by UIDAI.
- iv. Co-ordinate for Delivery of Materials as per the final Bill of Materials in line with final approved design by UIDAI
- v. SPPIA shall build its project office if required using temporary material and storage space on site on its own cost and risk.
- vi. The Scope Matrix tabulated format Refer Clause No. 3 Scope of work

3.2.7.2 Deliverables

On-Site Material Delivery Receipt Report document as per schedule of quantities/ bill of material. Deliverables shall be for each Work packages/ Sub-Work Packages and Document shall be Submitted package wise.

3.2.7.3 Completion Criteria

Submission of the above listed deliverables and respective approval by PMC/ UIDAI constitutes the completion of this activity.

3.2.7.4 Completion Timelines

Delivery of required materials as per on-site project requirement should be completed within 30 days from the date of Data centre, Non Data centre complex, Utility building, and Landscape area Terrace floor readiness.

3.2.8 Installation and Commissioning

3.2.8.1 Scope of Services

- i. Initiate the installation of Grid connected Solar Power Generating Plant Work Packages as per the detailed project schedule.
- ii. Weekly Review Meeting with Project/programme Management Team from UIDAI.
- iii. Reporting of Project status to UIDIA on weekly basis,
- iv. Regular supervision & checking of the project work at site as per the Project Management Plan.
- v. SPPIA shall co-ordinate the installation of work package and services in line with the respective Work Package, Drawing & Specifications.
- vi. SPPIA shall perform testing on installed package component / equipment / set of equipment to form a sub-system.
- vii. SPPIA shall co-ordinate between different agencies for smooth progress of Installation especially for interdependencies between different agencies deployed on Site.
- viii. SPPIA shall co-ordinate for the System Test covering the Solar Power Generation Plant subsystems and record the results.

- ix. SPPIA shall coordinate for necessary Certification for installation and commissioning as recommended by State electricity Inspectorate and Certificate from Ministry of New renewable energy and statutory compliances if any. Timelines include time required for coordination with the respective agency for obtaining the required said certification. SPPIA shall plan the activity in such a way that time required for obtaining certification is minimised and completed within the scheduled timelines.
- x. The installation shall be done by the supplier/manufacturer that is responsible for its performance and direction of installation & ensures structural stability. The supplier shall conduct a detailed site assessment. The PV installer shall obtain data specific to the site, rather than relying on general data. While making foundation design, due consideration shall be given to weight of the module assembly, maximum wind speed at the site etc.
- xi. The SPV panel shall have a provision for directional and angular adjustment of the mounting structure to get maximum utilization of incident sunlight. It shall be mounted facing south & tilted to an angle equal to the latitude where being used for optimum performance.
- xii. The construction Power and Water required for this project shall be arranged by SPPIA at his own cost. No cost reimbursement will be made by UIDAI.
- xiii. Solar panel supporting structure shall be hot dip galvanized MS frame/Aluminium.
- xiv. The supporting structure incorporates corrosion resistant hardware for all external connections.

3.2.8.2 Deliverables

Installation Report & Equipment Test Report document for each Work packages/Sub-Work Packages and document shall be submitted package wise. The Test Report shall be filled during the INC as format Refer **Annexure-A**

3.2.8.3 Completion Criteria

Submission of the above listed deliverables and respective approval by UIDAI/ PMC constitutes the completion of this activity.

3.2.8.4 Completion Timelines

The activity should be completed within 90 calendar days from the date of DC, Non Data Center complex, Utility Building Terrace floor, Landscape, parking area floor readiness.

3.2.9 System Acceptance Test (SAT)

Each Deliverable Item will be accepted in accordance with the following procedures:

I - Inspection. This procedure involves the visual inspection of the item to ensure that it Conforms to the Specifications.

D - Demonstration. This procedure involves a demonstration of the functions provided by the item to ensure that it conforms to the Specifications.

A - Analysis. This procedure involves the use of analytical techniques, such as sampling, to ensure that the item conforms to the Specifications.

T - Test. This procedure involves the testing of the item in accordance with an agreed upon test plan to ensure conformance to the Specifications.

3.2.9.1 Acceptance Test Plan

Acceptance Test Plan sets out the process and criteria to determine that the Materials to be accepted by the test procedure and the System meet the specifications.

Acceptance Test Plan shall be documented by SPPIA and submitted for approval to PMC/ UIDAI. The Materials and the System will be accepted by the UIDAI after the functions and features to be tested meet the acceptance criteria specified in the Acceptance Test Plan. During the performance test, a log of all items failing to meet the completion criteria will be maintained by SPPIA for taking corrective action and re-approval by PMC/ UIDAI.

3.2.9.2 User Acceptance Testing

- i. The objective of User Acceptance Testing is to demonstrate the capabilities of the system in the end-user's environment and obtain their approval of the system. Key criteria for successful end-user acceptance tests will be developed by SPPIA & submitted for PMC/ UIDAI approval
- ii. The equipment-set/ system shall be tested as per RFP guidelines. Routine and type tests for the various items of equipment-set/ system shall be performed at the work site and SPPIA shall furnish test certificates for the same. After the installation Completion, SPPIA shall perform all such tests and inspections as required by PMC/ UIDAI to determine whether or not full intent of the guidelines has been fulfilled.
- iii. In case the work does not meet the full intent of the guidelines, further tests as necessary will be carried out by SPPIA on its own cost.
- iv. All calibrated instruments required for tests shall be of the required accuracy and shall be furnished by SPPIA at no extra cost.
- v. All the test as per relevant IS standards shall be performed on material/equipments provided by the Bidder and the cost shall be borne by the Bidder
- vi. SPPIA shall carry out site performance tests. In case SPPIA fails to carry out the performance test, the Defects Liability Period shall stand extended until completion of such tests subject to performance of the equipment-set/system as per the RFP Guidelines.

a) Method of Testing:

▪ Visual Inspection:

Each module shall be carefully inspected under an illumination of not less than 1000 LUX for the following conditions & checklist prepared:

SI No.	Inspection checklist -SPV Module	Remarks
1	Racked, bent, misaligned or torn external surfaces.	
2	Broken/ cracked cells	
3	Faulty interconnections or joints	
4	Cells touching one another or the frame	
5	Failure of adhesive bonds; bubbles or delimitations forming a continuous path	
7	Between a cell & edge of the module	
8	Faulty terminations, exposed live electrical parts	
9	Junction box bypass diode for preventing hot spot problem	
10	PV Module not exhibits any open circuit or ground fault	
11	PV module insulation resistance not less than 50M-ohm at 500V DC.	
12	Degradation of module performance may not be exceeding 5% after each single test or 8% after the whole sequence.	

b) Performance at STC : (IEC 61215 Ed 2 or latest)

- Performance of PV-Module shall be generally evaluated at standard-Test-conditions (STC) as defined in IEC 60904 standards: at a specific set of irradiance & temp conditions. It will be preferred that these tests are carried out in presence of the representative of the UIDAI/Consultant. However, if it is not becoming possible, the supplier will have to produce test certificate from a Govt. / Govt. recognized laboratory. However, all routine tests are required to be witnessed by UIDAI/Consultant.

SI No.	Performance checklist -SPV Module	Remarks
1	Cell Temp.	
2	Incident solar irradiance of 100 w/m ²	

3	Spectral distribution of light spectrum with an air mass AM=1.5	
4	All PV modules supplied shall be accompanied with I-V curves, tested in manufacturing unit, clearly indicating the serial number, batch no. date and country of origin.	

3.2.9.3 Acceptance Criteria

The SPPIA should provide all the details and submit test reports as part of the acceptance criteria.

- i. Performance Ratio (PR), Ratio between Measured power by DAS to the Installed (STC) Kwp Peak power. PR of the system to be measured and reported for minimum three readings on three different days. The PR should be greater than 70%. Test format refer Annexure-F to be submitted by SPPIA.
- ii. Predicted Performance ratio (PPR), Ratio of Measured system power output by DAS to predicted power of the system at least 90%. The Predicted Power is obtained from the PVsyst simulation data. Test format refer Annexure-F to be submitted by SPPIA.
- iii. Automatic shutdown of the inverter upon grid failure to be demonstrated.
- iv. The Grid connected Solar Power Generating Plant basic system operation demonstration on display monitor and training to be imparted to UIDAI and Facility staff.
- v. This training should include a physical walkthrough of the entire system, explanation of procedures. Inverter operation should also be reviewed, including any display screens and status lights.
- vi. Web based System demonstration system alarms, events and logs.
- vii. Verification of the documents as per the tests observations carried out.
- viii. Modules used in solar panels shall have examination the impact of mechanical, thermal & electrical stress on power output. The bidder shall submit appropriate type approval certificate for the offered solar modules from IEC approved laboratories

3.2.9.4 Scope of Services

- i. Preparation of Integrated System acceptance plan & checklist as per OEM requirements.
- ii. SPPIA shall develop test cases for functional and integration test as per the Site Acceptance Test Criteria
- iii. Conduct the testing at site and compare the real time data with respect to the expected results.
- iv. Submission of project documentation.
- v. SPPIA shall provide on-the-job training session to the support staff of UIDAI on various work packages listed and installed.
- vi. Obtain Necessary certification from State electricity Inspectorate and statute compliance certificates for Grid connected solar power generating plant Construction.

3.2.9.5 Deliverables

- i. Post acceptance testing of the equipment along with accessories in total, SPPIA shall submit three sets of Handing over Documentation (HOD) neatly bound to corporate standards along with 4 copies in CD/ DVD media. The following are to be included in the Handing over documents
- ii. No modification whatsoever should be made in drawings once it has been approved, without prior consent in writing. SPPIA shall also arrange to furnish complete set of drawings for assembly, erection, maintenance, repair and operation of the equipment-set/system. All parts in the drawings can be suitably numbered for identification. Two set of relevant drawing, general layout/ arrangement drawing of A0 size to be laminated and kept at site for reference.
- iii. SSPIA shall furnish and install a neatly typed set of operating instructions laminated and securely framed in the plant room.
- iv. SPPIA shall submit the following deliverables:-
 - a) Certification for Grid connected Solar Power Generating Plant Construction compliance from statutory body.
 - b) As Built Drawing

- c) Site Performance Acceptance Testing Report
- d) Installation and Commissioning Report
- e) Solar Power environmental Test Report
- f) Specifications Sheet
- g) Final Schedule of quantities/ Bill of material
- h) Product brochures for respective equipments for individual work packages
- i) Test Readings/ Reports. (Installation testing and commissioning Report)
- j) Spare Part List
- k) Maintenance Schedule
- l) OEM Operating Manual
- m) Service Escalation Matrix
- n) Do's & Don'ts
- o) Warranty Certificate
- p) Factory test Report
- q) Approved Acceptance Test Plan
- r) Emergency operation details.
- s) Log book/ Service record.
- t) Emergency contact of list with Phone/ Residential phone/ Mobile/ Fax/ E-mail/ Etc.
- u) The final BOQ as executed with each item its rate, quantity, amount and its total cost shall be furnished.

3.2.9.6 Completion Criteria

Submission of the above listed deliverables and respective approval by UIDAI constitutes the completion of this activity.

3.2.9.7 Completion Timelines

The activity should be completed within 100 calendar days from the date of DC, Non Data Center complex, Utility Building Terrace floor, Landscape area readiness

3.2.10 Defects Liability period

The Defects liability period of the Grid connected Solar Power Generating Plant equipment and supporting components shall be 60 months from the date of successful Installation, Commissioning and Acceptance. This period would serve as a check to vet the quality of the work and equipment supplied by the SPPIA. The mechanical structures, electrical works including power conditioners/ inverters/ charge controllers/ maximum power point tracker units/distribution boards/digital meters/ switchgear ,etc. and overall workmanship of the SPV power plants/ systems must be warranted against any manufacturing/ design/ installation defects, except PV array with service warranty of 25 years and inverters of 12 Years.

Failures and malfunctioning of the equipment shall be closely monitored and in case it is found that the faults/ number of failures/ downtime for any equipment is abnormal, it would entail that the support period would liable to be extended apart from the penalties to be imposed as per the Penalty clause SLM compliance requirement. The duration of extension would be from 3 months to 12 months depending upon the rate of failures.

3.2.11 Project Quality Policy

The quality policy refers to conforming to the preset standards that are mutually agreed along with the respective package RFP for individual product / group of product to form a subsystem / overall package. Achieving quality means that the project achieved the standard that it is supposed to. Quality Management covers:

3.2.11.1 Quality Planning

Quality planning is the preparation, checking and recording of actions which are necessary to achieve the standard of the product / set of products to form a subsystem / overall package that is required to meet.

3.2.11.2 Quality Control

Quality Control form the set of processes for planning and monitoring the project to facilitate that the quality is being achieved.

3.2.11.3 Quality Assurance

Quality Assurance is the set of processes and procedures that are required to demonstrate.

3.2.12 Completion Timelines

The table below illustrates the time schedule for complete project life cycle for respective phases:-

S. No	Milestone (Design Phase)	Duration
1	Design Phase	
a	Project Kick Off Date	T+ 0 day
b	Design and Engineering Drawings Submission	T+ 30 Days
c	Design and Engineering Drawings Review and Approval	T+ 45 Days
T - Contract Sign Date		
2	Implementation and Acceptance phase	
a	Material Ordering	
b	Data center, NDC & Utility Building terrace floor, open landscape, car parking space readiness (in scope of BCA)	D
c	Material Delivery	D + 45 days
d	Installation and Commissioning	D + 90 days
e	System Acceptance Test (SAT)	E (D + 100 days)
f	Approval certificate from Ministry of New Renewable Energy. & State Electricity Inspectorate.	G(E+20 Days)
3	Defects Liability Period for entire system inclusive of Panels and other related equipments shall be (G+60), However for PV array and inverters defect liability period shall be 25 years and 12 years respectively.	F(G+ 60 Months)
4	O&M Phase	
a	Operations & Maintenance	F(G+ 60 Months) (5yrs)
<p>T- Contract Sign Date</p> <p>D- Date of DC, NDC and Utility Building terrace floor Open landscape space readiness</p>		

S. No	Milestone (Design Phase)	Duration
	–Jan “2014” (Indicative) (The earliest readiness floor to be taken for INC of PV array)	
	E- SAT Completion Date Days-Calendar days	
	<u>Note:-</u> <ul style="list-style-type: none"> • SPPIA, BCA,PMC,UIDAI will jointly review the status of building construction work at regular interval and mutually arrive on agreement for the Date of DC, NDC and Utility Building terrace floor Open landscape car parking space terrace Floors Readiness to start the Grid connected Solar Power Generating Plant Implementation work activity. • Bidders shall note that the work for implementation shall be started in advance as soon as the UIDAI formally intimates. This shall happen at least 1 months in advance or earlier prior to the space for Solar plant installation readiness. Thereafter, the bidder would get 120 calendar days to complete the implementation and acceptance phase including certification for construction From Govt Of India Ministry of New Renewable Energy Resources & State Electrical Inspectorate/ implementation 	

3.3 Phase 3 – Solar Power Plant Operation and Maintenance for five years

SPPIA shall maintain the system during the defect liability period as per contractual agreement for the Work packages/Sub-Work Packages (as per clause 2.2, Section V) and other equipments as supplied by SPPIA

Under the scope of system maintenance services, SPPIA shall undertake monitoring, administration, management and maintenance of the entire Solar system design, supplied, installed and commissioned by the SPPIA.

3.3.1 Scope of Services

- i. On-site maintenance of all the equipments and their components supplied in setting up the proposed Solar Power Generating Plant.
- ii. Onsite support for Grid connected Solar Power Generating Plant Infrastructure Operations on Solar operating hour's basis.
- iii. Proactive, reactive maintenance, repair and replacement of defective components which is installed by SPPIA. The cost of repair and replacement shall borne by the SPPIA.
- iv. Provide & Maintain necessary documents on daily, weekly, fortnightly and monthly basis, SPPIA to ensure timely services, spares & AMC contract services.
- v. Adequate onsite & offsite spare parts/ component must be maintained by the SPPIA to ensure that the uptime commitment as per SLA is met to provide the services. It is important for the SPPIA to have back-to-back arrangement with OEMs. The SPPIA would be required to provide a copy of the respective SLA signed with the respective OEMs.
- vi. Providing Tools, tackles, spares, skilled resources, safety arrangement, consumables, Fire Safety equipments, and maintenance for entire contract period shall be the responsibility of SPPIA.
- vii. Repair and planned maintenance including periodic, preventive & breakdown maintenance of all kind of equipment appliances of all capacities.
- viii. Day to day operation such as system routine health check up, continuous monitoring, cleaning, preventive maintenance, etc
- ix. Any part, component or equipment found defective within 5yrs O&M period shall be repaired or replaced immediately for good working condition free of cost by the SPPIA.
- x. Adherence to environmental Health and Safety Practices
- xi. The operations shall be managed as per solar operating hours.

- xii. All aspects of would follow a continual improvement cyclic process:-
- xiii. Measurement→ Reporting→ Improvement→Measurement
- xiv. Daily log shall be maintained for all activities for the Grid connected Solar Power Generating Plant
- xv. Monthly review meeting would be held between UIDAI and SPPIA.
- xvi. The works executed shall be of the highest standard both as regard its design and workmanship. Modern tools and latest techniques shall be employed for its execution.
- xvii. Any damage done to the existing properties/facilities during the execution of the works by the SPPIA's representative shall be responsibility of the SPPIA and it shall be made good by SPPIA at its own cost to the entire satisfaction of the UIDAI-In-Charge.
- xviii. Special tools/instruments if required for the maintenance/ checking the parameters shall be arranged by the SPPIA
- xix. The SPPIA shall ensure that the persons deployed have the requisite knowledge/qualification/ experience and license required for carrying out the job contract, entrusted to him. The SPPIA shall be responsible for the satisfactory and quality completion of the jobs and services.
- xx. All faults that have been identified would need to be isolated and rectified appropriately. The Root Cause analysis report shall include resolution measures undertaken by the SPPIA and results produced accordingly
- xxi. SPPIA shall maintain sufficient spares inventory for maintenance at their own cost
- xxii. Day to day monitoring and upkeep of the Data acquisition and solar radiation environmental monitoring system which includes Monitoring ambient temperature, solar Irradiance wind load, wind direction Electrical . Parameters, Physical checks etc.
- xxiii. Functions of the SPPIA team shall include but not limited to the following:-
 - a) Call logging / allocation / monitoring / follow up and closure of call/s.
 - b) Regular performance analysis and measurement with respect to agreed SLAs
 - c) Periodic reporting as defined and mutually agreed
 - d) Monthly call analysis
 - e) Follow formal dress code, shift timings, punctuality.
 - f) Report all fault immediately and log the same in a log book
- xxiv. Other Responsibilities of the SPPIA team shall include but not limited to the following:-
 - a) The site will be managed for Operation 24 x 7
 - b) Weekly reporting
 - c) Provide duty roster on monthly basis.
 - d) Operator should be Punctual & Well Dressed.
 - e) Maintain the Shift Schedule.
 - f) Weekly Report of all Systems.
 - g) Monthly reports to concerned officer as per the requirement.

UIDAI has right to review the operations at any stage and if found unsatisfactory would proceed towards taking suitable actions as defined in the RFP.

3.3.1.1 Access to the premises

SPPIA will ensure that SPPIA Personnel assigned to work on UIDAI's premises will:

- i. Participate in a pre-employment criminal background check covering the countries in which the person was employed or resided for the past seven years (or longer as required by State legislation), and inform UIDAI of any negative findings;
- ii. Maintain a current and complete list of the persons names, address & other relevant details
- iii. Obtain a valid identification badge for each person from UIDAI and ensure that it is prominently displayed to gain access to and while in UIDAI's premises (it is UIDAI's policy to deactivate any such badge if not used for one month)
- iv. Maintain a signed acknowledgment that each person will comply with UIDAI's Safety & Security Guidelines
- v. At UIDAI's demand, remove a person from UIDAI's project/ operations and ensure that he/ she is not reassigned back (UIDAI is not required to provide a reason for such request).
- vi. UIDAI will not allow its premises to be used for the accommodation shed for the labour or SPPIA shall make his own arrangement at his cost for accommodation, medical aid, and treatment of his staff.

3.3.1.2 General Business Activity Restrictions

SPPIA will ensure that its officials assigned to work in UIDAI's premises:-

- vii. will not conduct any non-UIDAI related business activities (such as interviews, hiring, dismissals or personal solicitations) on UIDAI premises;
- viii. will not conduct SPPIA's Personnel training in UIDAI premises except for on-the-job training;
- ix. will not attempt to participate in UIDAI benefit plans or activities;
- x. will not send or receive non-UIDAI related mail through UIDAI mail systems; and
- xi. will not sell, advertise or market any products or distribute printed, written or graphic materials.

3.3.1.3 UIDAI's Safety and Security Guidelines

SPPIA will ensure that its officials assigned to work in UIDAI's premises:

- i. are provided with Health & Accident Insurance
- ii. do not carry weapons of any kind onto UIDAI's premises;
- iii. do not manufacture, sell, distribute, possess, use or be under the influence of drugs or any such controlled substances or alcoholic beverages while on UIDAI's premises;
- iv. do not have in their possession hazardous materials of any kind on UIDAI's premises without UIDAI's prior authorisation;
- v. acknowledge that all persons, property, and vehicles entering or leaving UIDAI's premises are subject to search; and
- vi. Remain in authorised areas only (limited to the work locations, cafeterias, rest rooms and, in the event of a medical emergency). SPPIA will promptly notify UIDAI of any accident or security incidents involving loss of or misuse or damage to UIDAI's intellectual or physical assets; physical altercations; assaults; or harassment and provide UIDAI with a copy of any accident or incident report involving the above. SPPIA must coordinate with UIDAI during non-regular working hour

3.3.1.4 Environment Health, Safety and Policy

SPPIA shall follow the Environment, Health and Safety Program in line with the local guidelines as applicable in India in line with the following.

- i. Safety
- ii. Emissions
- iii. Telecommunication
- iv. Environmental

The above is applicable throughout the life cycle of the Project from its Initiation till the Closeout and Handing over.

3.4 Audit services

3.4.1 Introduction

Appropriate internal governance and management of risk and compliance is one of the key responsibilities of the SPPIA apart from the scope of work. Audit services will form a key aspect of SPPIA's governance. This section outlines key responsibilities of the SPPIA with respect to its internal audit procedures and also external/third party audits that may be conducted by UIDAI or an agency appointed by UIDAI.

3.4.2 Scope of services

- i. Three types of audits are proposed to be carried out on the Grid connected Solar Power Generating Plant facility and the Operation and Maintenance Services offered by the SPPIA. These three types of audit are as follows:
 - a) Mandatory internal audits
 - b) External audits and
 - c) On-demand audits

- ii. Mandatory internal audits: The key internal audit responsibilities of the SPPIA shall cover the following:-
- iii. System audits covering all aspects of the Grid connected Solar Power Generating Plant Facility and O&M Services
- iv. Service Level audits based on automated tools. These audit results shall be verified by a third party.
- v. Asset audits covering all physical infrastructure components procured by the SPPIA on behalf of UIDAI
- vi. Yearly Energy Assessment Audit.
- vii. External audits: Operations of the Solar system shall be subject to audit guidelines as may be prescribed by the Government of India from time to time. SPPIA is expected to provide full and unconditional cooperation in conduct of such audits.
- viii. On-Demand audits: In addition to the above, UIDAI may initiate optional audits on a need basis of the Grid connected Solar Power Generating Plant. These could include systems, special security audits; cost audits, energy efficiency audits etc.
- ix. SPPIA on the written instructions of UIDAI shall give full and complete access to all assets including data to any third party or authorised representative appointed by UIDAI for the purpose of audit. However, UIDAI shall have all the rights to access and request for information and data pertaining to all aspects of Solar System.

3.4.3 Deliverables

- i. Annual system audit reports covering all aspects of the Grid connected Solar Power Generating Plant and implementation of recommendations
- ii. Quarterly SLA audit report delivered using automated SLA reporting tools and implementation of recommendations.
- iii. Annual asset audit report and implementation plan for audit recommendations
- iv. Annual Energy Assessment Report
- v. Remediation report of audit findings and recommendations for changes in process, policies, systems and procedures

4 Building details housing the proposed Grid connected Solar Power Generating Plant

The following paragraphs elaborate the requirement of the building which would house the UIDAI Grid connected Solar Power Generating Plant. Geographic Location of the building

- i. Bangalore Region (Rajiv Gandhi Nagar, KODIGEHALI, Bengaluru)
- ii. Delhi/ NCR Region (Plot-1, Sector-M2, IMT Manesar)

4.1 Building Land Plan Drawing (Delhi/NCR and Bengaluru)

SPPIA shall refer to the **Annexure-C** for Delhi/NCR building drawings and Bengaluru building drawings. Indicative DC Terrace and NDC Terrace and Landscape, car parking area to be used for erection of PV Array is shown in the drawing.

Note- The drawings accompanying the RFP document are of indicative nature for general guidance of the bidder to enable him to visualize the type of work and/ or supplies contemplated under the contract and are issued for bidding purpose only. Purpose of these drawing is to enable the bidder to make an offer in line with the requirements of the UIDAI. However no extra claim whatsoever shall be entertained for interpretation/ misinterpretation of or variation in the "Approved for Construction" and "RFP document drawings" regarding any changes/units.

5 Stakeholders:

- i. Solar Power Plant Implementation Agency(SPPIA)- It is proposed to appoint Solar Power Plant Implementation Agency (SPPIA's) to design ,implement and manage the Grid connected Solar Power Generating Plant at both Delhi/NCR and Bengaluru with the following broad roles and responsibilities:-

- a) Design, Implement, Operate and Manage the Grid connected Solar Power Generating Plant
 - b) Manage the existing contracts, Service levels and transition in a time-bound manner by maintaining the continuity of services.
 - c) Based on the macro level inputs from UIDAI on upgrade/ any expansion of Grid connected Solar Power Generating Plant Infrastructure, undertake a modelling exercise by incorporating application/ design level inputs and provision augmentation
 - d) Provide recommendations to the UIDAI and Review Board for technology refresh and periodic augmentation of systems.
 - e) Implement the recommendations of third party audits including system audit, Energy Assessment audit and Service Level
 - f) Manage the enhancement, development and maintenance of the service.
- ii. **Building Construction Agency (BCA)**- UIDAI has appointed Engineers India Ltd (EIL) as the Project Management Consultant for its own Data Centre Facility and EIL on its behalf will further appoint Agency for Building construction work and which will perform the following:-
- a) Development of UIDAI's proposed Green Data Centre complex (excluding Data Centre design, supply, installation and commissioning of actual equipment within the Data Centre area which would be done by Data Centre Development Agency {DCDA})
 - b) Construction of Non-Data centre buildings (Staff building, Cafeteria, Security room, Rest Rooms, Staff quarters, Guest house, and all associated facilities such as Workstation area, Cabins with all necessary facilities, in the same complex.
 - c) Civil, structural & architectural works
 - d) External development (landscaping, secured perimeter, roads, drainage, water harvesting, Effluent treatment plants, etc.)
- iii. **Project Management Consultant(PMC)**- UIDAI appointed Engineers India Ltd (EIL) as the Project Management Consultant for its own Captive Data Centre implementation work and will perform the following:-
- a) Monitor the progress of work associated and report to UIDAI.
 - b) Help resolve project issues, work with the UIDAI Executive Sponsor, and participate in the escalation process as required.
 - c) Conduct regular meetings and/or updates with other project members.
 - d) Escalate major project issues and problems to the UIDAI Steering Committee.
 - e) Review the contract and team responsibilities and resolve deviations, if any, from the contract with the UIDAI.
 - f) Measure and evaluate progress against the plans and schedules.
- iv. **Data Center Development authority: DCDA:**
- Data Centre Development Agencies (DCDAs) to design, implement and manage the CIDR at both Delhi/NCR and Bengaluru with the following broad roles and responsibilities:-
- Design, Implement, Operate and Manage the Captive Data Centre physical infrastructure (Non-IT) to support CIDR IT Infrastructure.
 - Manage the existing contracts, Service levels and transition in a time-bound manner by maintaining the continuity of services.
 - Based on the macro level inputs from UIDAI on upgrade/ any expansion of IT Infrastructure, undertake a modelling exercise by incorporating application/ design level inputs and provision augmentation and scaling of Physical(Non-IT) infrastructure.
 - Provide recommendations to the UIDAI and Architecture Review Board for technology refresh and periodic augmentation of Physical infrastructure (Non-IT) systems.
 - Implement the recommendations of third party audits including system audit, Energy
 - Assessment audit and Service Level audit, etc.

- Manage overall Non-IT systems of CIDR and SLA and MIS reporting to the UIDAI agency.
- Manage the enhancement, development and maintenance of the services.
- Facilitate and coordinate with the Managed Service Providers (MSP) for smooth deployment of IT infrastructure during transition, Migration & transformation of CIDR System & Operations from Data Centre Service Provider (DCSP) facility to Captive Data Centre Facility.
- Provide the required Infrastructure (Non-IT) system as per the MSP/UIDAI requirements.
- Manage the enhancement, development and maintenance of the current UID Application ("UID-APP") by bringing out next level version releases.
- Manage the IT systems and other requirements of regional offices

v. **Principle Consultant and Programme Management Agency (PC & PM)**

UIDAI appointed M/s Ernst & Young LLP (EY) as the Principal Consultant and programme management agency for its own Captive Data Centre implementation work and will perform the following:

- a) Organizing and Coordinating review meetings between various agencies
- b) Review Project plan created by various agencies
- c) Conduct Site visits to monitor physical progress
- d) Attending respective Site meetings
- e) Assist UIDAI to revisit project plans / financial estimates (if required)

6 Responsibility Matrix among different stakeholders

Stakeholder's responsibilities, illustrative organizational structure for the design, implementation phase and O&M phase is given below,

6.1 Roles and Responsibility-

Various stakeholders identified for this Project are as below:

- i. SPPIA-Solar Power Plant Implementation Agency(Bidder)
- ii. BCA- Building Construction Agency (EIL to appoint the agency duly approved by UIDAI)
- iii. PMC- Project Management Consultant (EIL as appointed by UIDAI)
- iv. DCDA- Data center Development authority(Wipro Limited)
- v. PC& PM : Principal Consultant and Programme Management Agency(Ernst and Young LLP as appointed by UIDAI)
- vi. UIDAI- The Unique Identification Authority of India (Owner)

Responsibilities are shown using RACI Matrix which splits projects tasks down to four participatory responsibility types then are assigned to different stakeholders in the project.

R Responsible - those who do the work to achieve the task

A Approve - The Stakeholders that ultimately approves the task

C Consulted - Those whose opinion is sought (2 way communications)

I Informed - those that are kept up-to-date on progress (1 way communication)

S.N o	Phase	Activity Description	UIDAI	PMC	SPPIA	DCDA	PC & PM

S.No	Phase	Activity Description	UIDAI	PMC	SPPIA	DCDA	PC & PM
1	Phase-1 (Design)	Grid connected Solar Power Generating Plant Concept ,Layout and Drawings	A/I	A,C	R	I/C	I/C
2	Phase-2 (Implementation)						
a)		Design, Engineering, Construction Drawings	A/I	A,C	R	I/C	I/C
b)		Material Ordering	A/I	A,C	R	I/C	I/C
c)		Material Delivery	A/I	A,C	R	I/C	I/C
d)		Installation and Commissioning	A/I	A,C	R	I/C	I/C
e)		System Acceptance Test (SAT) Handover and Documentation	A/I	A,C	R	I/C	I/C
3	Phase-3 (O&M)	Operation and Maintenance	A/I/C	NA	R	I/C	I/C

6.2 Work Responsibility Matrix

An indicative work responsibility matrix as per the table below illustrates the segregation of the services at a broad level amongst UIDAI and SPPIA however it does not cover the SPPIA's complete scope of work exhaustively. The work responsibility matrix is defined for design and implementation phases. O&M shall be in scope of the agency which has supplied and installed respective equipment.

SPPIA shall refer to this RFP requirement for detailed scope of work.

S.N	Line Items	SPPIA (Yes/No)	UIDAI (Yes/No)
1	Preliminary engineering, Basic engineering & Detailed Engineering.	Yes	No
2	Supply & Installation and commissioning of solar panel	Yes	No
3	Supply & Erection of solar panels, Support structure for with Interconnection	Yes	No
4	Solar Panel Mounting and Supply and laying DC (Copper) Cable laying	Yes	No
5	Supply & Erection of Power/Control Cables with Cable, conduits & Trays	Yes	No

S.N	Line Items	SPPIA (Yes/No)	UIDAI (Yes/No)
6	Supply & Erection of Solar Inverter & and Power Optimizer	Yes	No
7	Supply & erection AC distribution board & junction box/combiner box Supply & Erection of Remote Monitoring System	Yes	No
8	Laying of data cable from solar system to nearest control room Supply & Erection AC Distribution Board & Junction Box/Combiner box	Yes	No
9	Supply & erection of required earthing kit (Double Earthing Must) Strip, separate earthing pits for each building Laying of data cable from Solar System to nearest IT room	Yes	No
10	All DC Cables Cu-Cable Supply & Erection of Data acquisition system, Environmental monitoring system.	Yes	No
11	Supply & Installation of lightning arrestor, SPD, earth fault protector. Supply & Erection of required Earthing Kit (Double Earthing Must) & Strips	Yes	No
12	Installation, Testing & Commissioning of Solar Power Plant Supply & Erection of Lightning Arrestors	Yes	No
13	Generation Report showing: Daily Generation Data; Peak Generation Data & Graphs.	Yes	No
14	Necessary arrangements (Shelter or Room) to house the wall mounted Inverters near PV arrays.	Yes	No
15	Construction Power, water and other material-	Yes	No
16	Full fledged Training at site	Yes	No
17	Safety equipments for Workers-	Yes	No
18	Transportation Installation review prior to commissioning	Yes	No
19	Adequate Insurance & Risk coverage of all items, Transit insurance up to site of Supply equipment is	Yes	No

S.N	Line Items	SPPIA (Yes/No)	UIDAI (Yes/No)
	essential		
20	RCC Structural foundation/mounting structure for the PV array Module support/panels	Yes	No
21	Integration from the Solar LT/utility panel to UIDAI panels for power distribution purpose, inclusive of cable, termination and all required support	Yes	No
22	Unloading at site of Supply equipment	Yes	No
23	Material supply, storage and Erection & commissioning insurance.	Yes	No

6.3 Approval Process

SPPIA shall prepare the required deliverables and will coordinate with BCA, UIDAI and other agency for design related requirement including any other project dependency.

- SPPIA shall be solely responsible for preparing and delivering the required deliverables and shall submit multiple design options for review and approval by PMC.
- SPPIA shall incorporate the changes as suggested by PMC and will resubmit the modified deliverables till it is approved by PMC.
- The SPPIA shall submit the deliverables to UIDAI's reference & final approval, after having the approval in place from PMC.
- Approval of the drawings will not relieve SPPIA of the obligation to meet all the requirements of the contract. SPPIA shall be wholly responsible for all alterations in the work due to discrepancies or omissions in the drawings (or other particulars) submitted by SPPIA, whether such drawings have been approved or not.

7 Resource Staffing Plan

SPPIA shall plan the deployment of resources as per the following details:-

7.1 Resource Requirement –Implementation Phase

SPPIA shall deploy sufficient manpower/team comprising of project manager, project engineer etc for overall project management and the project team shall be responsible for the Installation, testing and commissioning, handing over of the solar system and shall directly report to UIDAI/ PMC appointed Manager.

Indicative Minimum Manpower Requirement (Implementation Phase)				
Role	Total Position per site	Shift	Experience	Minimum Qualification

Project-Manager	1	General Shift (9 A.M. to 6 P.M.)		
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The Project Manager and team shall be responsible for day-day coordination among different sub-contractors and deliverable as per contract and agreement.

7.2 Resource Requirement –O&M Phase

Grid connected Solar Power Generating Plant O&M delivery team shall be responsible for management and delivery of all physical infrastructure services. This team shall be responsible for proactive monitoring and reporting of KPIs (Key performance indicators) as well as compliance to Service Level Agreement.

Indicative Minimum Manpower Requirement (O & M Phase)					
Sr No.	Role	Total Position per site	Shift	Experience	Minimum Qualification
1	Plant Engineer	3	2 shifts 8 hrs each	More than Three years hands on experience in Grid connected power Generating plant	Diploma in Electrical Engineering.

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Annexures

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1 Foreword

This non- conventional source of energy will reduce the burden on conventional sources. It is, therefore, prudent to provide Grid connected solar power Generating system to generate electricity from solar system to meet the electrical load requirement of the building whilst remaining connected to the electrical network. A grid connected system will run in parallel to grid (LT Bus) rather than separate to it, will supplement the electric energy generated from Solar during sunny days thus saves the conventional energy.

2 Scope

This specification covers the general and technical requirements for preliminary survey & demarcation of the activity area, preparation of plan, design, manufacture, supply, installation, testing & commissioning of Grid connected solar generating system to be provided at Manesar and Bengaluru site.

3 General Requirements

- i. Each Plant shall consist of SPV Modules, SPV module structure, String/Array combiner boxes, DC cabling, DC distribution box, Tie grid string Inverters, AC cabling, AC distribution box Plant AC Energy meter, Load energy manager and Data acquisition system.
- ii. The SPV modules Arrays shall be installed on the designated roof top Terrace and Landscape area with suitable support structure.
- iii. Solar Power Generating Plant shall share electrical load of building at LT Bus. System shall however cater the necessary provision of supplying generated power back to grid, which can be implemented at a later stage.
- iv. The PV systems shall reduce the power drawn on the LT grid/ Bus and prevent Voltage drop which is generally experienced at the time of Switching ON of large Inductive loads. The system shall supply power close to unity power factor, thereby improving the grid quality and increasing its capacity.
- v. Solar panels shall be installed on the shadow free roof while the PCU/ Tie Grid String Inverters and Distribution boards etc shall be housed at the designated area in the building.
- vi. SPV panels and all electrical equipments such as PCU/ Tie Grid String Inverters etc. Shall be grounded properly using adequate number of earthing kits.
- vii. Suitable marking shall be provided on the bus for easy identification of Solar Power.
- viii. The successful tenderer shall submit Conceptual plan after topographical survey and geo technical investigation, Architectural / Structural design & drawings indicating all the associated equipment along with ratings, Bill of Quantities and obtain approval from client before taking up the physical work at site
- ix. All the material received at site will be suitably inspected by the PMC's Engineer in charge.
- x. For all types of work shall conform to relevant Indian standards Codes of practices(COP)
- xi. All the materials used for this project shall be of ISI make and shall be brand new and is of design rated, operational requirement and suitable to withstand harsh environment of the site.
- xii. For all the works relevant safety code of conducts to be followed.
- xiii. The operating life of the solar plant PV array should be minimum 25 years.

4 Technical Requirements

- i. The DC output from the modules shall be fed to Array junction box & the strings are paralleled at sub Main & Main junction boxes. Then PCU/ Tie Grid String Inverters shall convert DC Energy produced by the solar array to AC energy. The AC power output of the inverter shall be fed to the AC distribution board. The ACDB shall have the Multifunction digital meter for the measurement of electrical parameters. The ACDB should be capable of interfacing solar power with Grid power and DG power and to dedicated load also, if desired.
- ii. The system shall automatically wake-up in the morning & export power provided there

- a. Sufficient solar energy and grid voltage & frequency are in the range.
- iii. System offered to cater the following: - When the grid voltage and/or frequency goes out of preset range, the inverter shall be immediately disconnected from the grid. The inverter will reconnect after a pre-determined time when the grid is back in the range.
- iv. Array to inverter voltage drop shall be less than 2% at the maximum current output of the array.
- v. Adequate space & ventilation shall be provided to inverter.
- vi. For safety reasons, PV inverter system shall be disconnected from the network following the fault shall comprise of the following main components.
- vii. The performance & generation data shall be recorded using a data logger. The Monitoring system shall comprise of the following main components.
- viii. PCU will log the inverter performance data & transmit the same to the data logger
 - a) **Data logger** shall gather information & monitor the performance of the inverter. It shall also support measurements from the external sensors. This can be acquired remotely via a modem.
 - b) **PC Data logging software** shall automatic long-term storage of measured Data from plant. It shall allow visualization, monitoring, commissioning & Service of the installation.
- ix. Communication interface- The entire system shall be operated & monitored via several interfaces (RS232/RS485 Telephone modem, GSM modem, optional; Wi / Fi), in addition to the information indicated on the operator panel.
- x. There should be Proposal for the one solar radiation and environmental monitoring system to be installed on the building along with the PV Power plant.

5 System Descriptions

Solar Photo Voltaic (SPV) system shall consist of mainly the following:-

- i. SPV Modules/Array
- ii. Module mounting structure
- iii. Junction boxes/Array combiner Box
- iv. Earthing kit & Material.
- v. Lightning Arrestors
- vi. Power conditioning unit (PCU) / Tie grid String Invertors with Power optimizer.
- vii. Metering(Monitoring Devices)
- viii. Cable and other accessories

5.1 System Concept:

The PV array converts the light energy of the sun to DC power. The module mounting Structure shall be used to hold module in position. The DC power shall be converted to AC to Supply the electrical loads connected like computers, lights, HVAC Load etc. within the UIDAI Data center premises. The system offered should be capable to export excess power to the grid in Future, if required. At present Solar panels shall be integrated within the Data center premises, LT power Supply bus fed from electricity authority/DG Set. DC distribution board shall be provided in between solar array and PCU/Tie grid string Inverters with proper rating DC cabling. It shall have Multi function digital meters for measuring the array voltage and array current. AC distribution board shall be provided in between PCU and loads depending on capacity. It shall have common Multi function digital energy meter. No electrical storage batteries shall be required as electricity generated by the solar panels will be fed to supply building utility load.

The Individual Array junction box (combiner box) and DC cabling shall be installed on suitable places of the building.

5.1.1 SPV Module

- i. Only indigenous modules shall be used for the project. Individual Solar PV module should be of capacity not less than 100 Wp at Standard Temperature Conditions (STC) with module Voc 21 volts. confirming to IEC: 61215 Ed 2 or latest-Edition II, IEC 61701, IEC: 61730-I: 2007, IEC: 61730-:2007-I & II for safety qualification testing, UL 1703 certified, manufactured in India in a plant certified under ISO 9001: 2008 & ISO 14001 and also type tested by any one of the three accredited test laboratories under Ministry of New &

Renewable energy, Govt. of India. Solar PV module should be Mono / polycrystalline Si cell of appropriate size and number so as to accommodate the minimum space of Rooftop area.

- ii. SPV modules of similar output with not more than +/- 3% tolerance in single string shall be employed to avoid array mismatch losses.
- iii. SPV module shall contain mono/polycrystalline high power silicon solar cells. The solar cell shall have surface anti-reflective coating to help to absorb more light in all weather conditions.
- iv. Photo/electrical conversion efficiency of SPV module shall not be less than 14% .Fill factor of the module shall not be less than 72%.
- v. Each module shall have low iron tempered glass front for strength & superior light transmission. It shall also have touch multi-layered polymer back sheet for Environmental protection against moisture & provide high voltage electrical Insulation. Transitivity of glass shall be not less than 91%.
- vi. Module junction box (weather resistant) shall be designed for long life outdoor Operation in harsh environment.
- vii. The PV modules shall be suitable for continuous outdoor use.
- viii. The bidder shall provide the sample solar PV module electrical characteristics Including current-voltage (I-V) performance curves and temperature Coefficients of power, voltage and current. However, the tabulated document with all the relevant data like voltage, current, power output for all the modules also to be provided.
- ix. The PV modules shall be provided with junction box equipped with of min 3 no's bypass diode (MC4 type) with necessary standard fittings and gland entry, to minimize power drop caused by shade.
- x. SPV module shall be highly reliable, light weight and shall have a service life of more than 25 years. SPV modules shall have a limited power loss of not more than 10% of nominal output at the end of 10 years and of not more than 20% of nominal output at the end of 25 years.
- xi. The rated output of any supplied module shall not vary more than 3-5% from the average power rating of all ratings. Each modules, therefore, has to be tested and rating displayed.
- xii. Whenever more than one module is required, identical modules shall be used. Positive tolerance in the range of +3%. The Negative temperature coefficient of Power for PV module should not be less than equal to 0.45% per deg C.
- xiii. The solar modules shall have suitable encapsulation & sealing arrangements to protect the silicon cells from complete moisture proofing (IP 65) for the entire life of solar modules.
- xiv. The terminal box on the module should have a provision for opening for replacing the cable, if required.
- xv. The array structure shall be grounded properly using maintenance free earthing kit as per IS: 3043 – 1987, tested & certified by authority.
- xvi. Maximum DC output voltage of the array shall not exceed 1000V.
- xvii. Suitable number of SPV shall be connected in a series string. A suitable number of series strings shall be connected in parallel to formulate a series-parallel array.
- xviii. The PV string and array shall be designed to match the inverter input specification.
- xix. The peak power rating of the Solar PV array under STC shall be equal to the peak power rating of the individual plant.
- xx. Each SPV module should have RF Identification tag (RFID) for traceability requirement.
- xxi. Markings on the SPV modules:

Each module shall carry the following clear and indelible markings:-

- Name, monogram or symbol of manufacture;
- Type or model number;
- Serial number;
- Polarity of terminals or leads (color coding is permissible);
- Open- circuit voltage
- Operating voltage
- Maximum system voltage for which the module is suitable;
- Operating current
- Short circuit current
- Date & place of manufacturer;
- Weight of the module

-

- a) All the SPV modules shall be certified by NABL/IECQ accredited test center. The bidder shall submit appropriate certificates.
- b) PV modules must also qualify Salt Mist Corrosion Testing as per IEC61701/IS61701.
- c) PV Module shall warranted minimum up to 25 years.

5.1.2 Module Mounting Structure:

- i. PV modules frames that are to be installed on roof terrace top Fixed RCC block, the supporting structure shall be bolted into the embedded bolts of the blocks without disturbing the waterproofing work slab.
- ii. PV modules to be installed on non puncturing sheets with utmost care without damaging its internal construction.
- iii. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from SPV panels.
- iv. The structure shall be designed to allow easy replacement of any module & shall be in line with the site requirements.
- v. The array structure should be fabricated out of hot dipped galvanized MS angles (120 micron)/Aluminum channel of suitable size angle not less than 50 x 50 x 5 & strength. However the metallic portion exposed after cutting/ drilling may be treated with cold zinc paint to prevent rusting at those locations.
- vi. The foundation for module mounting structure shall be preferably 1:2:4: RCC. Construction or any other combination based on the local site condition requirement for which design details shall be submitted. The Foundation RCC components such as cement, fine, coarse aggregate and water need to be suitable tested as per quality plan in accordance with site procedure.
- vii. The support structure design & foundation shall be designed to withstand wind speed up to 150 kmph.
- viii. The clearance of the lowest part of the module structure & the developed ground level shall not be less than 500 mm.
- ix. The module alignment & tilt angle shall be calculated to provide the maximum annual energy output. This shall be decided based on the location of array installation.
- x. All fasteners shall be of stainless steel of grade SS 304.
- xi. The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.
- xii. Design drawing with material selected shall be submitted for prior approval of client.

5.1.3 Junction Boxes / Array Combiner Box

- i. The array junction boxes shall be dust, vermin & waterproof & made of FRP/ABS plastic. Each solar shall be provided with fuses/DC string circuit breakers, DC array disconnect switch of adequate rating to protect the solar arrays from accidental short circuit.
- ii. MOVs shall be used at the terminals of array junction boxes for external over voltage protection.
- iii. The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming & outgoing cables.
- iv. Suitable markings are provided on the bus bar for easy identification & cable Ferrules shall be fitted at the cable termination points for identification.
- v. The array junction box should be preferably having maximum 08 inputs and 01 output with MOV and terminal block.
- vi. The Individual Array junction box (combiner box) and DC cabling shall be installed on suitable places of the building.

5.1.4 Earthing Kit and Materials:-

- i. Earthing (IS 3043) is essential for the protection of the equipment & manpower. Two main grounds used in the power equipments are:
 - a) System earth
 - b) Equipment earth
- ii. System earth is earth which is used to ground one leg of the circuit. For example in AC

- iii. circuits the Neutral is earthed while in DC supply +ve is earthed.
- iv. The equipment body metal parts are bonded Together and connected to earth to prevent shock to the man power & also the Protection of the equipment in case of any accidental contact.
- v. To prevent the damage due to lightning the one terminal of the lightning protection arrangement is to be earthed.
- vi. In case the SPV Array cannot be installed close to the equipment to be powered & a separate earth has been provided for SPV System, It shall be ensured that all the earth's are bonded together to prevent the development of potential difference between the two earths.
- vii. Earth resistance shall not be more than 1 ohms. It shall be ensured that all the earths
- viii. are bonded together to make them at the same potential.
- ix. The earthing conductor shall be rated for the maximum short circuit current & shall be
 - a) 1.56 times the short circuit current. The area of cross-section shall not be less than 1.6
 - b) Sq mm in any case.
- x. The array structure of the PV modules shall be grounded properly using adequate numbers of earthing pits. All metal casing/ shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

5.1.4.1 Lightning Arrestor

All the Solar PV arrays block should be provided with lightening arrestor ground fault protector and surge protection.

5.1.4.2 Power Conditioning Unit (PCU)/Grid Tie String Inverters with power optimizer.

PCU shall supply the DC energy produced by array to DC bus for inverting to AC Voltage using its Power optimizer MPPT (Maximum Power Point Tracking) control to extract maximum energy from solar array and produce 415 V AC, 3 phases , 50 Hz to synchronize with the local grid. Reputed PCU make / manufacturers Inverters & Power Optimizer required to be used.

- i. The Power optimizer (MPPT) Solar charge controller, inverter and associated control and protection devices Etc all shall be integrated into PCU.
- ii. PCU shall continuously monitor the condition of the grid and in the event of grid failure; the inverter automatically switches to off-grid supply within 20-50 milliseconds. The solar system is resynchronized with the grid within two minutes after the restoration of grid or DG set.
- iii. Voltage shall also be continuously monitored and in the event of voltage going below a preset value and above a preset value, the solar system shall be disconnected from the grid within the set time. Both over voltage and under voltage relays shall have adjustable voltage (preferably +/- 15%) and time settings (preferably 0 to 5 seconds).
- iv. Metal Oxide Varistors (MOVs) shall also be provided on DC and AC side of the PCU.
- v. The PCU shall be so designed so as to operate the PV system near its maximum
- vi. Power Point (MPP), the operating point where the combined values of the current and
- vii. voltage of the solar modules results in a maximum power output.
- viii. Each Power Optimizer (MPPT controller) must drop open circuit voltage automatically. If string voltage below 50VDC due to any serious failure such as grid fault, fire, Load disconnect)
- ix. Individual Panel level MPPT and monitoring is must and monitored at central location.
- x. Individual Panel level Monitoring is must at central location.
- xi. Warranty of the MPPT controller -25 Years.
- xii. PCU shall provide 3 phase, 415 +10/+20% V, 50+/- 0.5 Hz supply on AC side with THD≤ 3%.DC voltage ripple content shall not be more than 3%. Maximum DC Input voltage shall be 1000V.
- xiii. Inverter Efficiency of PCU shall not be less than 95%.
- xiv. Degree of protection: IP-21 or IP 65 in case of outdoor mounting strings inverters.
- xv. It shall have protection features such as over voltage, short circuit, over temperature etc.

- xvi. The inverter shall be efficient based on PWM with IGBT/MOSFET reliable power based design. The KVA ratings for various PV system should be chosen as per the PV system wattage.
- xvii. The PCU shall be capable of complete automatic operation, including wake-up, synchronization & shut down. All the equipments/ hardware's /software's for comply the same will be in bidder's scope.
- xviii. PCU shall have facility to display its basic parameters of the system
- xix. PCU shall be capable to synchronize independently & automatically/to be phase locked with POWER SUPPLY AUTHORITY grid power line frequency to attain Synchronization & export power generated by the solar panel to POWER SUPPLY AUTHORITY grid in addition to supply power to the loads.
- xx. Built-in with data logging to monitor plant performance through external PC shall be provided.
- xxi. Inverter shall be tested for islanding protection performance.
- xxii. Only isolated inverters shall be grounded on DC side.
- xxiii. Typical failure analysis report of PCUs and recommended list of critical components shall be provided by bidder.
- xxiv. Indications (through LEDs & LCD display)
 - a) Inverter ON
 - b) Grid ON
 - c) Inverter under voltage/over voltage
 - d) Inverter over load
 - e) Inverter over temperature.
- xxv. Protections:
 - a) Over voltage both at input & output
 - b) Over current both at input & output
 - c) Over/under grid frequency
 - d) Over temperature
 - e) Short circuit
 - f) Protection against lightening
 - g) Surge voltage induced at output due to external source.
- xxvi. w) Inverters shall carry warranty minimum 12 years.

5.1.4.3 Cables and hardware's

- i. All Cables are Multi strand, annealed high conductivity Cu conductor of appropriate size to be used in the system shall have the following characteristics;
 - a) Temp. Range -10 ° C to + 120 ° C.
 - b) Voltage rating 600/ 11000 V grade.
 - c) Excellent resistance to heat, cold, water, oil, abrasion, UV radiation, ozone & weathering
 - d) Halogen-free, low smoke, low toxicity
 - e) Flame retardant
 - f) Flexible
 - g) Fulfills IEC 60332-1, IEC 69947 BIS std, IS694, IS 1554 requirements
 - h) Conductor class IEC 60228 class 5
 - i) Cable should carry current density of Min 1.2 Amps/Sq.mm. for Cu and 0.8 for AL cables.
- ii. Cabling on DC side of the system shall be as short as possible to minimize the voltage drop in the wiring. Conduits/concealed cable trays shall be provided for all DC cabling on the terrace/roof top.
- iii. Components and hardware shall be vandal and theft resistant. All parts shall be Corrosion-resistant.
- iv. The DC and AC cable type shall be PVC type A/XLPE insulated, suitably armored, multi stranded copper conductor, with appropriate color coding shall be used. The same is secured with conduit and concealed trays.
- v. The supplier/manufacturer shall submit the detail design of the complete solar generating system by using their software to optimize the combination of modules considering the specific location, isolation, nature of lad etc.
- vi. Permissible voltage drop from the SPV Generator to the PCU shall not be more than 2% of peak power voltage of the SPV power source (generating system). In the light of this fact

the cross-sectional area of the cable chosen is such that the voltage drop introduced by it shall be within 2% of the system voltage at peak power. Total AC cables losses shall be maximum 1% of the plant AC output, at ambient temperature.

- vii. All connections should be properly terminated, soldered and/or sealed from outdoor and indoor elements. Relevant codes and operating manuals must be followed. Extensive wiring and terminations (connection points) for all PV components is needed along with electrical connection to Utility & lighting loads.
- viii. The DC cables from array combiner box on the terrace to Dc distribution box in the control room shall be laid inside cable duct or trays.
- ix. AC DB shall incorporate disconnect switch, lightening surge protector, any other protection equipment with train relief cable glands.
- x. All the conduit shall be PVC/GI/HDPE type. All the cable trays should be powder coated steel and or GI or equivalent.

5.1.4.4 Electrical Power Quality requirements:

- i. **DC Injection into the grid:** The injection of DC power into the grid shall be avoided by using an isolation transformer or other suitable means at the output of the inverter. It is proposed to limit DC injection within 1% of the rated current of the inverter as per IEC 61727.
- ii. **Harmonics on AC side**
 - a) The limits for harmonics shall preferably be as stipulated in the CEA Regulations on grid connectivity.
 - b) Voltage Unbalance-The Voltage Unbalance in the grid shall not exceed the permissible limits.
- iii. **Voltage Transient response.**
 - a) The permissible limit of voltage variations for step changes which may occur repetitively is 1.5%. For occasional variations other than step changes the maximum permissible limits is 3%.

5.1.4.5 AC Distribution board (ACDB):-

The ACDB must have the following features:

- i. Bus Bar minimum 3 times capacity of Solar Power plant.
- ii. Input Grid Line should come from such Distribution Board of client so that Solar Power can feed the load or (feed power to the grid at later stage) even when grid fails (DG Runs) in day time and Solar Isolation is available.
- iii. The Solar Power should be exported to the bus bar inside the ACDB through a LCD multi function Energy Meter with modbus and SNMP interface output.
- iv. The Designated Load should be routed through ACDB and an Energy Meter to register the Load Energy Consumption from Solar & Grid during Week Days and Holiday.
- v. This feature will enable UIDAI to highlight GREEN POWERED ZONE in a building which will help them in long Run to Get LEED Rating for that building.

5.1.5 Civil Requirement:

- i. PV array shall be installed in the terrace space free from any obstruction and/or shadows.
- ii. PV array shall be installed utilizing maximum terrace space to minimize the effect of shadows due to adjacent PV panel rows.
- iii. Adequate spacing shall be provided between two panels frames and rows of panel to facilitate personnel protection ease of installation, replacement, cleaning of panels and electrical maintenance.
- iv. All the PV arrays to be installed with necessary site clearance to the site specific.

5.1.6 Mechanical Requirement

- i. The minimum clearance between lower edge of PV panel and terrace ground level shall be 500 mm(to allow ventilation for cooling, also ease of cleaning and maintenance of panels as well as cleaning of terrace).
- ii. The height of each PV panel structure shall not exceed 3 M above the terrace ground level.

- iii. The PV array structure design shall be appropriate with a factor of safety of min 1.5 mtrs.
- iv. Each PV panel structure shall incorporate one bird repellent spike at an elevation higher than the panel upper edge. The location of the spike should be selected for minimum shadow effect.
- v. Array support, fasteners are primarily of stainless steel to resist corrosion.
- vi. No additional hole to the PV modules frames.
- vii. Support structure should withstand wind loading up to 200km/hrs.
- viii. The structure should be designed to withstand operating environmental conditions for period of minimum 25 years.
- ix. The support structure should be for each building and site will requires approval from UIDAI/ Consultant/PMC.
- x. The total load of the structure on the terrace should be less than 60 kg/m². Approved structural engineer should certify after the building inspection confirming the safe load PV array and structure.

5.1.7 Data Acquisition System (DAS):

- i. DAS shall be provided for each solar PV plant.
- ii. Computerised DC string/Array monitoring and AC output Monitoring shall be provided as part of the Inverter and/or string/array combiner box or separately.
- iii. The real time Electrical parameter monitoring algorithm to be included, such as voltage, current, frequency, AC power (Active reactive and Apparent), PF AC energy cumulative etc.
- iv. The Data shall be recorded in a common work sheet chronologically data wise. The data shall be recorded in a common work sheet chronologically data wise, tabular and graphical form.
- v. The DAS should have DATA backup of one year round the clock, Should have internal battery backup. The Instantaneous data should be shown on the screen.
- vi. The DAS should also monitor and capture real time data of EVENT LOG, ALARMS, and respective electrical parameters.
- vii. The software should be provided for USB download and analysis of DC and AC parametric data for individual plant.
- viii. The DAS should be remotely monitored along with solar radiation & environmental monitoring. And should be Web based software.
- ix. Solar Radiation and environmental monitoring system shall be installed one of the building
- x. Interfaced with sensors, signal conditioners data acquisitions LCD display and remote monitoring.
- xi. Global and diffuse beam solar radiation in the Plane of Array (POA) shall be monitored continuous basis.
- xii. Real time ambient temperature and relative humidity near PV array, control room temperature, Wind speed and win direction at the level of Array plane shall be monitored on continuous basis.
- xiii. Simultaneous monitoring electrical parameters with co relation with environmental data to be provided.
- xiv. The Data capturing interval should be less than 15 Min.(20 sample of data should be recorded for one hour.)
- xv. The historical data shall be available for USB download and analysis. The system should be web based for the remote access.

Annexure-A: INC Test Report.

The Technical parameters to be submitted during the Installation and commissioning User acceptance test and During the Performance sustenance test. The List of parameters recorded as follows:

Test Report-1

Test Report		Manesar				Bengaluru			
Sl. No	Description	PV Block-A	PV Block-B	PV Block-C	PV Block-D	PV Block-A	PV Block-B	PV Block-C	PV Block-D
1	Proposed KWpeak								
i	Make of Module								
ii	No. of Modules								
iii	Type of PV module								
iv	Module orientation - 5 deg / 10 deg / 13 deg etc								
2	Estimated unit generation								
i	Unit generation per kwp								
ii	Unit generation								
3	Guaranteed unit generation								
i	Unit generation per kwp								
ii	Unit generation								
4	Performance Ratio as per design								
5	Type & capacity of inverter								
6	Remote monitoring System with RS485 com port								
7	Type of structure proposed with GI thickness								
i	Material								
ii	Galvanizing thickness in microns								
8	Type of pedestal system to take care of panel uplift								
9	Dimension of the Foundation								
10	Weight of the system per Sq.mt including structure & foundation								
11	Wind speed considered								
12	Module certification compliance								

Test Report		Manesar				Bengaluru			
Sl. No	Description	PV Block-A	PV Block-B	PV Block-C	PV Block-D	PV Block-A	PV Block-B	PV Block-C	PV Block-D
i	61215 - for charateristic								
ii	60701 - For salt spray testing								
iii	61730 - For Safety								
13	Type of DC PV cable / sourced from / Make								
14	Type of AC cable / Make / it should be strip armoured type								
15	ACDB								
16	Type of Cable tray								
17	Supporting arrangement for Cables/ cable trays & water pipes.								
18	Make of connectors								
19	Earthing pit for DC system grounding								
20	Warranty for PCU Components								
21	Warranty on BOS Components								

Note:

- 1) Provide data for each independent PV block section at each site
- 2) Block Represents Building structure.
- 3) Bidder shall fill above said table during the INC & acceptance test.

Test report-2

Sl No.	Parameters	Measured Units
1	DC output of PV Array (KWp)	
2	Area required (square feet)	
3	No. of cells in one PV module	
4	DC rating of one module (WP)	
5	Connection configuration	
6	Rated DC current of one module	
7	Rated DC voltage of one module (Vmpp)	
8	No. of PV module in one array (all in series)	
9	Max. DC output voltage of Array (Volt)	
10	No. of Arrays	
11	Rating of inverter(KVA)	
12	Nominal AC output voltage(volt)	
13	Variation In Output Voltage	
14	Nominal frequency(Hz)	

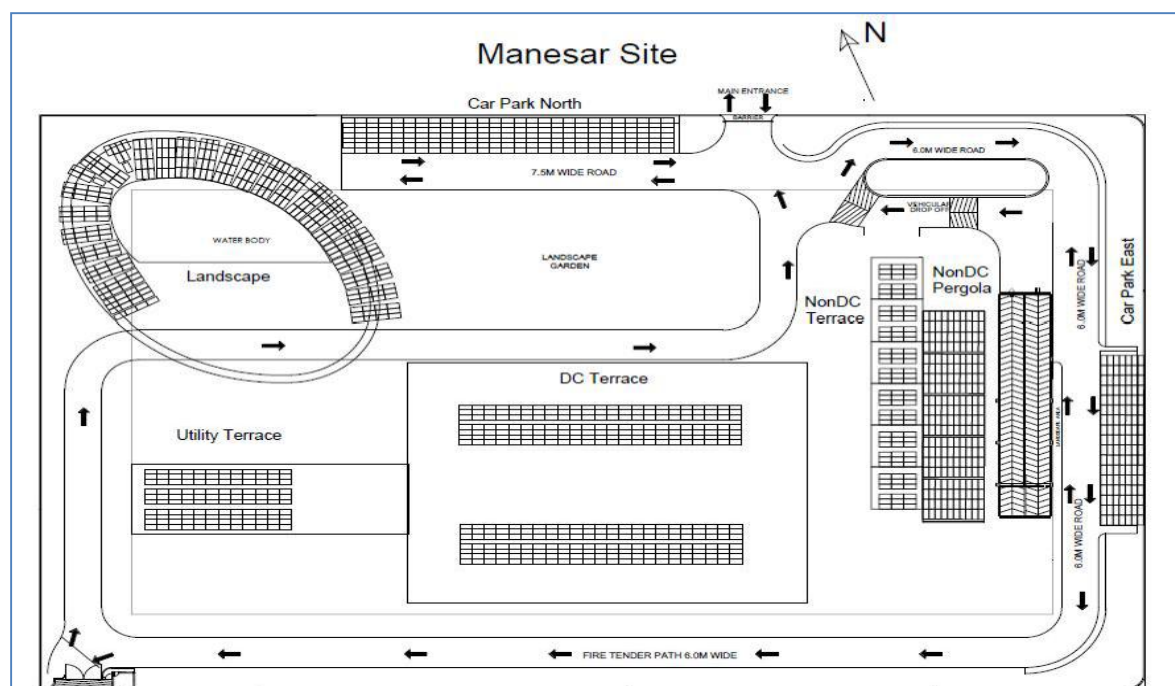
SI No.	Parameters	Measured Units
15	Grid Frequency variation	
16	No. of phases/ wire	
17	AC output voltage range(Grid)	
18	Power Factor Range	
19	Minimum Efficiency of Inverter (%)	
20	No load Losses of Inverter(max)	
21	DC Injection into Grid(max)	
22	Ripple content on DC side	
23	Total Voltage harmonic Distortion(AC side)	
24	Individual Voltage harmonic Distortion(AC side)	
25	Total Current harmonic Distortion(AC side)	

Note:

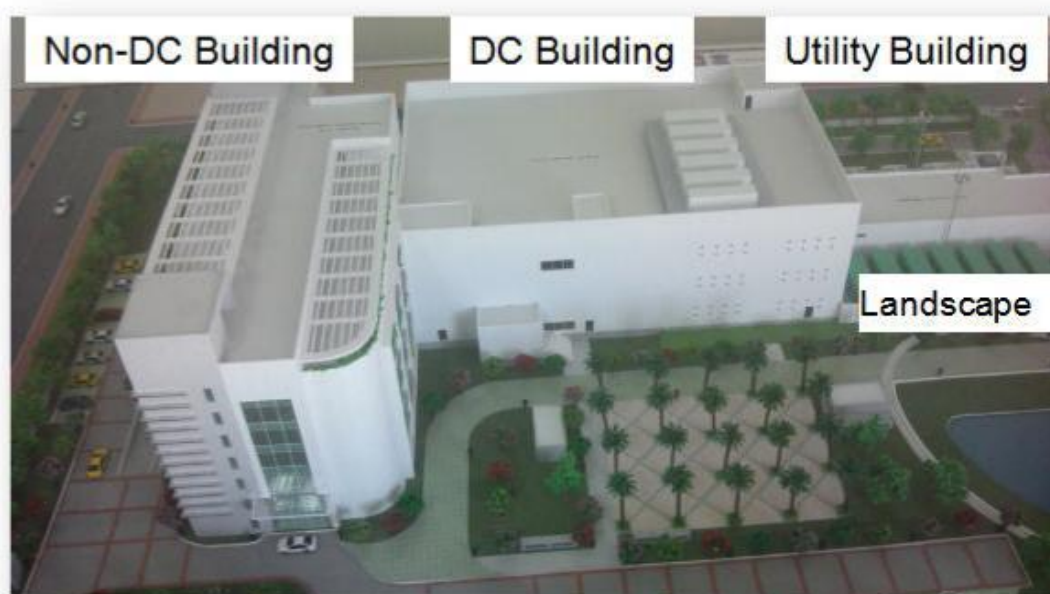
- 1) Provide data for each independent PV block section at each site
- 2) Block Represents Building structure.
- 3) Bidder shall fill above said table during the INC & acceptance test.

Annexure-B: Indicative Site Drawings

Site Drawings: Delhi/NCR



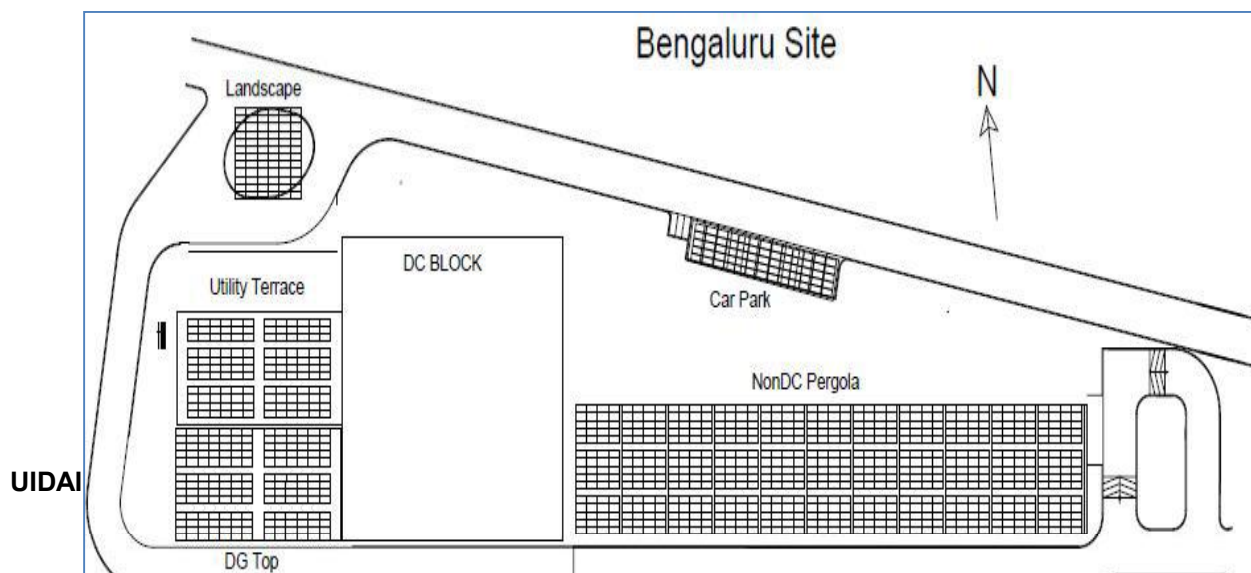
Site Picture- Manesar (Building is in construction stage and below picture are illustrative only)

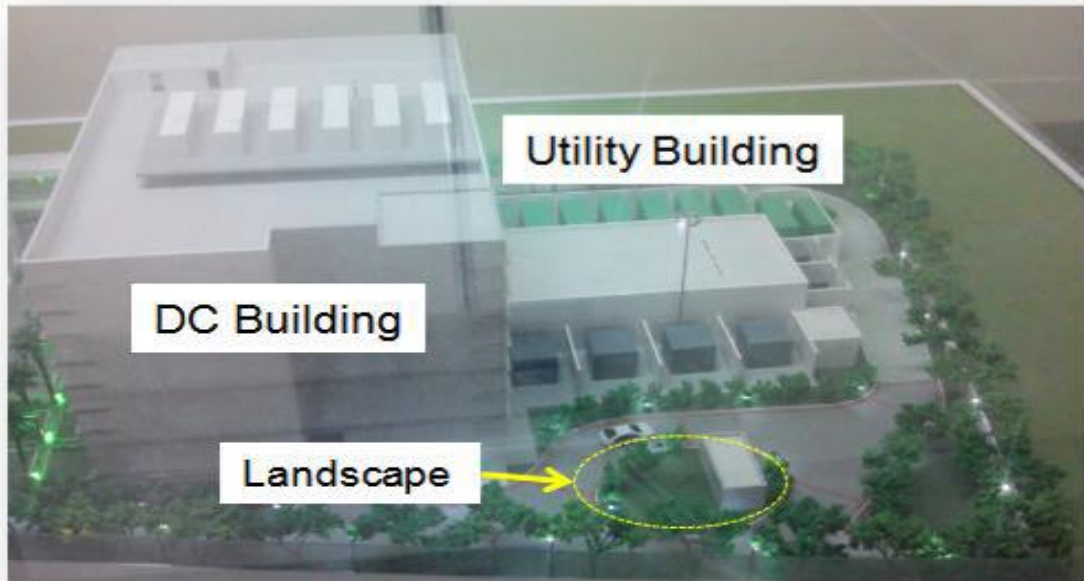




Bengaluru:

Site Picture- Bengaluru (Building is in construction stage and below picture are illustrative only)





Annexure-C: Ministry of New and Renewable Energy (MNRE)

Bidder shall follow the guidelines Minimal technical requirement as explained below.

1. PV MODULES:

The PV modules must conform to the latest edition of any of the following IEC / equivalent BIS Standards for PV module design qualification and type approval:

Crystalline Silicon Terrestrial PV Modules IEC 61215 / IS14286 Thin Film Terrestrial PV Modules IEC 61646 / Equivalent IS (Under Dev.) Concentrator PV Modules & Assemblies IEC 62108

1.2 In addition, the modules must conform to IEC 61730 Part 1- requirements for construction & Part 2 - requirements for testing, for safety qualification or Equivalent IS (Under Dev.)

1.3 PV modules to be used in a highly corrosive atmosphere (coastal areas,etc.) must qualify Salt Mist Corrosion Testing as per IEC 61701 / IS 61701.

1.4 IDENTIFICATION AND TRACEABILITY

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

- a) Name of the manufacturer of PV Module
- b) Name of the Manufacturer of Solar cells
- c) Month and year of the manufacture (separately for solar cells and module)
- d) Country of origin (separately for solar cells and module)
- e) I-V curve for the module
- f) Peak Wattage, I_m , V_m and FF for the module
- g) Unique Serial No and Model No of the module
- h) Date and year of obtaining IEC PV module qualification certificate
- i) Name of the test lab issuing IEC certificate
- j) Other relevant information on traceability of solar cells and module as per ISO 9000 series.

From 1st April 2013 onwards; RFID shall be mandatorily placed inside the module laminate

VALIDITY:

Validity of the certificates shall be checked and renewed as per rules and regulation of MNRE.

AUTHORIZED TESTING LABORATORIES/ CENTERS

- a) PV modules must qualify (enclose test reports/ certificate from IEC/NABL accredited laboratory) as per relevant IEC standard. Additionally the performance of PV modules at STC conditions must be tested and approved by one of the IEC / NABL Accredited
- b) Testing Laboratories including Solar Energy Centre. For small capacity PV modules upto 50Wp capacity STC performance as above will be sufficient. However, qualification certificate from IEC/NABL accredited laboratory as per relevant standard for any of the higher wattage regular module should be accompanied with the STC report/ certificate.

While applying for Testing, the Manufacturer has to give the following details:

- a) A copy of registration of the company particularly for the relevant product/ component/ PV system to be tested
- b) An adequate proof from the manufacturer, actually showing that they are manufacturing product by way production, testing and other facilities - Certification as per JNNSM standards for other brought out items used in the system without above proof test centers are advised not to accept the samples.

WARRANTY

PV modules used in solar power plants/ systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.

-BALANCE OF SYSTEM (BOS) ITEMS/ COMPONENTS:

- 2.1 The BOS items / components of the SPV power plants/ systems deployed under the Mission must conform to the latest edition of IEC/ Equivalent BIS Standards/ MNRE specifications / as specified below:

BOS Item / System Applicable BIS /Equivalent IEC Standard Or MNRE Specifications

AUTHORIZED TESTING LABORATORIES/ CENTERS

Test certificates / reports for the BoS items/ components can be from any of the NABL/ IEC. Accredited Testing Laboratories or MNRE approved test centers. The list of MNRE approved test centers will be reviewed and updated from time to time.

BoS item/component	Applicable IEC/equivalent BIS Standard	
	Standard Description	Standard Number
Power Conditioners/Inverters*	Efficiency Measurements Environmental Testing	IEC61683 IEC60068-2 (6,21,27,30,75,78)
Charge controller/MPPT units*	Design Qualification Environmental Testing	IEC62093 IEC 60068 2 (6,21,27,30,75,78)
Storage Batteries	General Requirements & Methods of Test Tubular Lead Acid General Test and Measuring Methods PVC	IEC61427 IS 1651/IS 133369
Cables	insulated cables for working Voltages up to and including 1100 VDo-, UV resistant for outdoor installation	IEC 60189 IS 694/ IS 1554 IS/IEC 69947
Switches/ Circuit Breakers/Connectors	General Requirements Connectors safety	IS/IEC 60947 part I,II,III EN 50521
Junction Boxes/Enclosures	General Requirements	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
SPV System Design	PV Stand-alone System design verification	IEC 62124
Installation Practices	Electrical installation of buildings Requirements for SPV power supply systems	IEC 60364-7-712

WARRANTY

The mechanical structures, electrical works including power conditioners/inverters/ charge controllers/ maximum power point tracker units/distribution boards/digital meters/ switchgear/ storage batteries, etc. and overall workmanship of the SPV power plants/ systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years.

***Beyond 10KVA self certification by the manufactures is acceptable.**

Annexure-D : Site Survey Report,

Bidder shall fill the form during the site survey.

Site Survey Report									
Parameter	Data to be considered for simulation	Manesar				Bengaluru			
		PV Block-A	PV Block-B	PV Block-C	PV Block-D	PV Block-A	PV Block-B	PV Block-C	PV Block-D
Project location									
Proposed Capacity	In Kw peak								
Global incident in collection plane	Depends on the orientation								
Near shadings	Please send shadow analysis report for each building								
IAM factor on global	To be considered based on module data sheet								
PV loss due to irradiance level	To be considered based on the orientation & near by shadow								
PV loss due to temperature	NOCT Value should ≥ 45 Deg C								
Array soiling loss	please consider as appropriate								
Module quality loss	Should be 0.1								
Module mismatch loss	Should be as per module details								
DC Cable size in Sqmm	Specify cable size considered								
Ohmic wiring loss									
Inverter loss during operation	Should be as per spec								
AC Cable size in Sqmm	Indicate the total length considered								
AC ohmic loss	Please consider as per layout								
PR(Performance Ratio)									
Note:- 1) Provide Technical data for each independent PV block section at each site									
2) Bidder shall fill above said table during the acceptance test.									
3) Block Represents the building structure.									

Annexure-E : Performance Ratio (PR), Predicted Performance Ratio (PPR)

PERFORMANCE RATIO MEASUREMENT		Manesar				Bengaluru			
SI No.s	Description	PV Block-A	PV Block-B	PV Block-C	PV Block-D	PV Block-A	PV Block-B	PV Block-C	PV Block-D
1	Reading 1 - Time/Day/Month/Year								
a	No. of Inverters								
b	STC Wp per Module								
c	No of Modules								
d	Installed (STC) Kwp								
e	Predicted Watts (AC)								
f	Measured Watts (AC)								
g	PPR=Measured/Predicted power(AC)[PPR=f/e]								
h	PR= Measured Power(AC) /Installed (STC) kwp [PR=f/d]								
2	Reading 2 - Time/Day/Month/Year								
a	No. of Inverters								
b	STC Wp per Module								
c	No of Modules								
d	Installed (STC) Kwp								
e	Predicted Watts (AC)								
f	Measured Watts (AC)								
g	PPR=Measured/Predicted power(AC)[PPR=f/e]								

h	PR= Measured Power(AC) /Installed (STC) kwp [PR=f/d]								
3	Reading 3 - Time/Day/Month/Year								
a	No. of Inverters								
b	STC Wp per Module								
c	No of Modules								
d	Installed (STC) Kwp								
e	Predicted Watts (AC)								
f	Measured Watts (AC)								
g	PPR=Measured/Predicted power(AC)[PPR=f/e]								
h	PR= Measured Power(AC) /Installed (STC) kwp [PR=f/d]								
Note: 1) STC: Standard Temperature Condition, PPR=Predicted Performance Ratio (Min 0.9), PR: Output to Input Performance Ratio(Min 0.7).									
2) Bidder Shall fill the above said format and submit the same during the acceptance test.									
3) Provide Technical data for each independent PV block section at each site									
4) Block Represents the building structure.									
5) Predicted Watts (AC) Is the stimulated data arrived at from the Pvsyst simulation software									
6) Measured Watts (AC) is the actual measured parameters by Digital acquisition system.									

Bill of Materials:

The below list is indicative and shall be enhanced by SPPIA to make the solution more effective and to include essential components as felt necessary

Sr. No.	Supply Component Description	Capacity	Quantity	Remarks
1	Mono/Poly Solar Photo Voltaic C-Si Module	1) Minimum Installable capacity 400kWp for Delhi/NCR. 2) Minimum Installable capacity 300kWp for Bengaluru.	1).....modules for Delhi/NCR. 2).....modules for Bengaluru.	No. of Module & Peak Watt (Wp) to be decided by bidder
2	Module MS Galvanized Mounting Structure & Interconnection	MS Hot Deep Galvanized (120 micron).	1 Set per site	
3	Grid Tie String Inverter	.....KVA, 415V, 3Ph+N /50 Hz	1) Nos. for Delhi/NCR 2) .....Nos. for Bengaluru	Capacity KVA & No.s to be decided by bidder
4	Power Optimizer per 1 panels	.....Watts	1) .....No.s for Delhi/NCR. 2) Nos for Bengaluru.	Capacity W & No.s to be decided by bidder
5	Electrical Cables : Module Inter-Connection	.... Core, sq mm Double Sheathed Cu Cable	Design & Site specific	
6	Electrical Cables : String Inverter-AC Combiner Box	Design specific	Site specific	
7	Electrical Cables : AC Combiner Box-ACDB	Design specific	Site specific	
8	ACDB-LT Panel	Design specific	As per Design	
9	Data acquisition system and Environmental monitoring system.	Design specific	1 Set per site	
10	Array Junction Box / Combiner Box	Design specific	1 Set per site	

Sr. No.	Supply Component Description	Capacity	Quantity	Remarks
11	Electrical accessory including Cable Trays with Cover, Clampers & Flexible conduits	Design specific	1 Set per site	
12	Lightning Arrestor & Earth fault protector	Design specific	1 Per Building/site	
13	Earthing Kit, Earthing Strip & Earth pits	Design specific	1 Per Building/site	
14	Installation Kit	Design specific	1 Set	

Section VI – Appendices

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1. Appendix A: Earnest Money Deposit (EMD) Form

(Please see **Clause 12 of Section II - Instructions to Bidders**)

EARNEST MONEY DEPOSIT FORM

Whereas _____ (hereinafter called 'the Bidder') has submitted its bid dated _____ for "**Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and /or Bengaluru.**" (hereinafter called "the Bid") to Unique Identification Authority of India (UIDAI).

KNOW ALL MEN by these presents that WE _____ of _____ having our registered office at _____ (hereinafter called "the Bank") are bound unto the Deputy Director General of Unique Identification Authority of India (hereinafter called "Purchaser") to the sum of _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 2013.

THE CONDITIONS of this obligation are:

1. If the Bidder, having withdrawn its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity.
 - (a) Fails or refuses to execute the Contract Form, if required; or
 - (b) Fails or refuses to furnish the Performance Security, in accordance with the instructions to Bidders;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

Notwithstanding anything contained herein above our liability under this bank guarantee shall not exceed Rs _____/- (Rupees _____ only).

This bank guarantee shall be valid up to _____

We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only if you serve upon us a written claim or demand (and which should be received by us), on or before _____ before 14.30 hours (Indian Standard Time) where after it ceases to be in effect in all, respects whether or not the original bank guarantee is returned to us.

This guarantee will remain in force up to and including 45 days after the period of bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Authorized Signatory of the Bank)

2. Appendix B: Proforma of Bank Guarantee

(Please see Clause 35 of Section II- Instructions to Bidders)

PROFORMA OF BANK GUARANTEE

For Contract Performance Guarantee Bond

Ref: _____

Date _____

Bank Guarantee No. _____

To

Deputy Director General
Unique Identification Authority of India (UIDAI),
Planning Commission, Govt. of India (Gol),
3rd Floor, Tower II, Jeevan Bharati Building,
Connaught Circus,
New Delhi – 110001

1. Against contract vide Advance Acceptance of the Bid No. _____ dated _____ covering **“Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and/or Bengaluru.”** ” (hereinafter called "the Bid") to Unique Identification Authority of India (UIDAI) (hereinafter called the said 'contract') entered into between the Deputy Director General of Unique Identification Authority of India (hereinafter called "Purchaser") and _____ (hereinafter called the **Solar Power Plant Implementation Agency(SPPIA)**) this is to certify that at the request of the SPPIA we _____ Bank Ltd., are holding in trust in favor of the Purchaser, the amount of _____ (write the sum here in words) to indemnify and keep indemnified the Purchaser against any loss or damage that may be caused to or suffered by the Purchaser by reason of any breach by the SPPIA of any of the terms and conditions of the said contract and/or in the performance thereof. We agree that the decision of the Purchaser, whether any breach of any of the terms and conditions of the said contract and/or in the performance thereof has been committed by the SPPIA and the amount of loss or damage that has been caused or suffered by the Purchaser shall be final and binding on us and the amount of the said loss or damage shall be paid by us forthwith on demand and without demur to the Purchaser.
2. We _____ Bank Ltd, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for satisfactory performance and fulfillment in all respects of the said contract by the SPPIA i.e. till _____ hereinafter called the said date and that if any claim accrues or arises against us _____ Bank Ltd, by virtue of this guarantee before the said date, the same shall be enforceable against us _____ Bank Ltd, notwithstanding the fact that the same is enforced within six months after the said date, provided that notice of any such claim has been given to us _____ Bank Ltd, by the Purchaser before the said date. Payment under this letter of guarantee shall be made promptly upon our receipt of notice to that effect from the Purchaser.

3. It is fully understood that this guarantee is effective from the date of the said contract and that we _____ Bank Ltd, undertake not to revoke this guarantee during its currency without the consent in writing of the Purchaser.
4. We undertake to pay to the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the SPPIA in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present bond being absolute and unequivocal.

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

5. We _____ Bank Ltd, further agree that the Purchaser shall have the fullest liberty, without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the SPPIA from time to time or to postpone for any time of from time to time any of the powers exercisable by the Purchaser against the said SPPIA and to forebear or enforce any of the terms and conditions relating to the said contract and we, _____ Bank Ltd., shall not be released from our liability under this guarantee by reason of any such variation or extension being granted to the said SPPIA or for any forbearance by the Purchaser to the said SPPIA or for any forbearance and or omission on the part of the Purchaser or any other matter or thing whatsoever, which under the law relating to sureties, would, but for this provision have the effect of so releasing us from our liability under this guarantee.
6. Notwithstanding anything contained herein above, our liability under this bank guarantee shall not exceed Rs _____/- (Rupees _____ only). This bank guarantee shall be valid up to -----. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only if you serve upon us a written claim or demand (and which should be received by us), on or before -----before 14.30 hours (Indian Standard Time) where after it ceases to be in effect in all respects whether or not the original bank guarantee is returned to us.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the SPPIA.

Date _____

Place _____

Witness _____

Signature _____

Printed name _____

(Bank's common seal)

3. Appendix C: Contract Form

(Please see **Clause 34** of **Section II - Instructions to Bidders**)

CONTRACT FORM

THIS AGREEMENT made the _____ day of _____ 2011

BETWEEN

The **President of India** acting through the Director General, Unique Identification Authority of India (UIDAI) (hereinafter referred to as Purchaser) which expression shall unless repugnant to the context or meaning thereof mean and be deemed to include its authorized agents, representatives and permitted assigns of the One Part.

AND

The Party _____ (hereinafter referred to as **Solar Power Plant Implementation Agency or "SPPIA"**) which expression shall unless repugnant to the context or meaning thereof mean and be deemed to include their successors and permitted assigns having its registered office at _____ (in case where the SPPIA is an individual party) of the Other Part.

WHEREAS

- (a) The Purchaser had invited bids vide their Bid _____ (hereinafter referred to as 'Bid') for **"Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and /or Bengaluru."**
- (b) The SPPIA had submitted its proposal dated _____ (hereinafter referred to as the 'Bid') for the provision of such services in accordance with its proposal as set out in its Bid and in accordance with the terms and conditions of the Bid and this Contract.
- (c) The Purchaser has agreed to appoint the SPPIA for the provision of such services and the SPPIA has agreed to provide services as are represented in the Bid, including the terms of this Contract, the Annexure and Schedules attached hereto and in accordance with the terms of the Bid, and in terms of the discussions, negotiations and clarifications in relation to the implementation of the scope of work and the contract.
- (d) In consideration of the foregoing and the mutual covenants and promises contained herein and other good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the parties intending to be bound legally, for implementation of this contract.

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 General Conditions of Contract referred to.
- 2. The following documents shall be deemed to form and be read and construed as

part of this Agreement viz:

- (a) The Scope of Work
 - (b) The General Conditions of Contract:
 - (c) The Purchaser's Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the SPPIA as hereinafter mentioned, the SPPIA hereby covenants with the Purchaser to provide the 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 SPPIA in consideration of the provision of the 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.

Brief particulars of the goods and / or services which shall be supplied/ provided by the SPPIA along with cost/charges thereof are as under:

S. No.	Particulars of Goods/Services	Cost/Charges
..		
..		

SCHEDULE FOR Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and Bengaluru.”

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

**Signed, Sealed and Delivered for
& on behalf of M/s**

**Signed
Name:**

Designation:

Date:

Place: New Delhi

**Signed, Sealed and Delivered for and
on behalf of the President of India
acting through the Director General,
Unique Identification Authority of
India.**

**Signed
Name:**

Designation:

Date:

Place: New Delhi

In the presence of: _____

**Signed
Name:**

Designation:

Date:

Place: New Delhi

In the presence of: _____

**Signed
Name:**

Designation: _____

Date:

Place: New Delhi

4. Appendix D: Non – Disclosure Agreement

(Please see **Clause 7 of Section II - Instructions to Bidders**)

NON-DISCLOSURE AGREEMENT

WHEREAS, _____ we _____ the _____ undersigned _____ Bidder, _____, having our principal place of business/ registered office at _____, hereinafter referred to as the **BIDDER**, are desirous of bidding for Bid No. _____ dated _____ covering **“Design, Installation, Commissioning and 5 years Operation & Maintenance of Grid connected Solar Power Generating Plant for Unique Identification Authority of India at Manesar (Delhi-NCR) and /or Bengaluru.”** ” (hereinafter called "the Bid") to the Deputy Director General of Unique Identification Authority of India (UIDAI) and,

WHEREAS, the BIDDER is aware and confirms that the Purchasers business, operations, information in the Bid documents during the bidding process and thereafter, or otherwise (**confidential information** for short) is privileged and strictly confidential and/or proprietary to UIDAI.

NOW THEREFORE, in consideration of the foregoing, the BIDDER agrees to all of the following conditions, in order to induce UIDAI to grant the BIDDER specific access to UIDAI's confidential information, property, information systems, network, databases and other data.

IT IS HEREBY AGREED AS UNDER:

- a) The BIDDER agrees to hold in trust any confidential information received by the BIDDER, as part of the Biding process or otherwise, and the BIDDER shall maintain strictest of confidence in respect of such confidential information. The BIDDER also agrees:
 - (i) To maintain and use the confidential information only for the purposes of bidding for this Bid and thereafter only as permitted herein;
 - (ii) To only make copies as specifically authorized by the prior written consent of UIDAI and with the same confidential or proprietary notices as may be printed or displayed on the original;
 - (iii) To restrict access and disclosure of confidential information to such of their employees, agents, consultants and representatives strictly on a "need to know" basis, to maintain confidentiality of the confidential information disclosed to them in accordance with this clause; and
 - (iv) To treat confidential information as confidential unless and until UIDAI notifies the Bidder of release of its obligations in relation to the said confidential information.
- b) Confidential information does not include information which:
 - (i) The BIDDER knew or had in its possession, prior to disclosure, without limitation on its confidentiality;
 - (ii) Is independently developed by the BIDDER without breach of conditions under this Bid;
 - (iii) Information in the public domain as a matter of law;

- (iv) Is received from a third party not subject to the obligation of confidentiality with respect to such information;
- (v) Is released from confidentiality with the written consent of UIDAI.

The BIDDER shall have the burden of proving hereinabove are applicable to the information in the possession of the BIDDER.

- c) Notwithstanding the foregoing, the BIDDER acknowledges that the nature of activities to be performed as part of the Bidding process or thereafter may require the BIDDER's personnel to be present on premises of UIDAI or may require the BIDDER's personnel to have access to software, hardware, computer networks, databases and storage media of UIDAI while on or off premises of UIDAI. It is understood that it would be impractical for UIDAI to monitor all information made available to the BIDDER's personnel under such circumstances and to provide notice to the BIDDER of the confidentiality of all such information. Therefore, the BIDDER agrees that any technical or business or other information of UIDAI that the BIDDER's personnel, representatives or agents acquire while on UIDAI premises, or through access to UIDAI computer systems or databases while on or off UIDAI premises, shall be deemed confidential information.
- d) Confidential information shall at all times remain the sole and exclusive property of UIDAI. Upon completion of the Bidding process and/or termination of the contract, confidential information shall be returned to UIDAI or destroyed, if incapable of return. The destruction shall be witnessed and so recorded, in writing, by an authorized representative of UIDAI. Nothing contained herein shall in any manner impair rights of UIDAI in respect of the confidential information.
- e) In the event that the BIDDER hereto becomes legally compelled to disclose any confidential information, the BIDDER shall give sufficient notice to UIDAI to enable UIDAI to prevent or minimize to the extent possible, such disclosure. BIDDER shall not disclose to a third party any confidential information or the contents of this Bid without the prior written consent of UIDAI. The obligations of this Clause shall be satisfied by handling Confidential Information with the same degree of care, which the BIDDER applies to its own similar confidential information but in no event less than reasonable care.
- f) The obligations herein shall survive the completion or cancellation of the Bidding process.

For and on behalf of: _____ (BIDDER)

Authorized Signatory

Name: _____

Designation: _____

Office Seal: _____

Place: _____

Date: _____

5. Appendix E: Draft Deed of Indemnity

Proforma for Deed of Indemnity

* To be executed on a Non-Judicial Stamp Paper of the denomination of Rs. 100/-

THIS DEED OF INDEMNITY (the "Deed") is made at New Delhi on this the ____ Day of 20__ and amongst:

_____[SPPIA], a company incorporated under the Companies Act, 1956 and having its registered office at _____(hereinafter referred to as the "Company", which expression shall, unless it be repugnant to the subject or context thereof, include its agents/ successors and permitted assigns) of the **FIRST PART**.

AND

The Unique Identification Authority of India (UIDAI), with its office at _
Unique Identification Authority of India (UIDAI),
Planning Commission, Govt. of India (Gol),
3rd Floor, Tower II , Jeevan Bharati Building,
Connaught Circus,
New Delhi – 110001

(hereinafter referred to as "**Disclosing Party**") of the **SECOND PART**;

Each individually referred to as the "Party" and collectively as "Parties"

NOW WHEREAS, the _____ (name of Company) is a company, duly registered under the provisions of the Companies Act 1956, and established, *inter-alia* with the objectives of _____.

AND WHEREAS, the Unique Identification Authority of India (UIDAI) (hereinafter referred to as the "Purchaser" and the Company are entering into a Agreement (hereinafter referred to as "Contract"), whereby Purchaser has granted to the Company the right to undertake its Project (as defined there under), and the Company has agreed to undertake the Project on the terms and conditions contained therein.

AND WHEREAS this Deed sets forth the detailed mandates, terms and conditions for indemnity under the Contract.

NOW, THEREFORE, in consideration of the premises contained herein, the Parties hereto agree as follows:

1. Definitions

For the purposes of this Agreement, unless the context otherwise requires, terms shall have the meaning set forth in the Contract.

- a. "Contract" means the agreement, between the Company and the UIDAI and the Appendices / Annexure attached thereto and made a part thereof and include any amendments made thereto.
- b. "UIDAI" means the Unique Identification Authority of India.

2. Interpretation

In this Agreement unless the context otherwise requires:

- i. The headings of the Clause/ Appendices/ Schedules/ Attachments and Annexure in this Agreement are inserted for convenient reference only and shall not affect the meaning and/ or interpretation of this Agreement;
- ii. Unless otherwise specified a reference to a clause number is a reference to all of its sub-clauses;
- iii. A reference to the singular includes the plural and vice-versa;
- iv. A reference to a gender shall include any other gender;
- v. The word "include" or "including" shall be deemed to be followed by "without limitation" or "but not limited to" whether or not they are followed by such phrases;
- vi. Unless categorically specified, reference to a Section/ Clause/ sub-clause/ Appendix/ Schedule/ Attachment or Annexure shall be to a Section/ Clause/ Sub-clause/ Appendix/ Schedule/ Attachment or Annexure of this Agreement, including any amendments or modifications to the same from time to time;
- vii. Any/ all Appendices/ Schedules/ Annexures and Attachments form an integral part of this Agreement. In an event of conflict between any provision

of the Clause and any provision of the Appendix/ Schedule/ Attachment or Annexure, the provision of the Clause shall prevail;

- viii. A reference to a person includes a partnership and a body corporate;
- ix. A reference to any legislation/ regulation having force of law includes legislation/ regulation time to time repealing, replacing, modifying, supplementing or amending that legislation;
- x. Where a word or phrase is given a particular meaning it includes the appropriate grammatical forms of that word or phrase which have corresponding meanings;
- xi. Any reference to time shall, except where the context otherwise requires and specifies, be construed as a reference to the time in India. Any reference to the Calendar shall be construed as reference to the Gregorian Calendar;
- xii. Unless the context otherwise requires, any period of time referred to shall be deemed to expire at the end of the last day of such period;
- xiii. The rule of construction, if any, that a contract should be interpreted against the parties responsible for drafting and preparation thereof, shall not apply.

3. Undertaking of the Company

3.1 The Company undertakes to:

- i. indemnify the Purchaser from and against any liability, cost, loss, or expense of any kind whatsoever;
- ii. hold the Purchaser harmless and save it from any liability, cost, loss, or expense of any kind whatsoever; and
- iii. defend any suit or proceeding against the Purchaser, arising out of or based on any claim, demand, or action arising out of any claims whatsoever and including but not restricted to claims under torts, infringement of any Intellectual Property Right conferred by contract or by common law or by any law in force within the state of India or any State, breach of any licenses owned by the Company (including licenses for which the purchaser has signed the license agreements, but of which the Company is the owner), alleged to have occurred because of any product, good, service, data, or Confidential Information provided or work performed by the Indemnitor.

3.2 Provided, however, that this indemnity shall not apply unless the Company claiming indemnification notifies the other promptly of any matters in respect of which the foregoing indemnity may apply and of which the notifying Company has knowledge and gives the other full opportunity to control the response thereto and defence thereof, including, without limitation any agreement relating to the settlement thereof.

4. The Company shall pay any/ all costs/ damages/ or awards of settlement, including court costs (including any/ all attorney fees, Court fee), arising out of any claim, demand, or action, provided that the conditions as laid down in Clause 3 hereinabove are satisfied. The Company will indemnify if the claim of infringement/ breach of terms/ misuse is caused by:

- i. The Company 's misuse or modification of the Goods and Services; and/ or
- ii. any negligence or wrongful act or omission by the Company or the Company 's Team or anyone affiliated to Company or any sub contractor of the Company or any of their employees or servants or agents in connection with or incidental thereto; or
- iii. Failure to take any/ all requisite actions (including registration, payment of all registration and renewal fees) required to maintain any Intellectual Property Right/ General Public Licence/ Open Source Licence etc. in full force and effect.

5. Undertaking in view of Indemnification:

5.1 Intellectual Property Right

5.1.1 In the event that the Company or anyone affiliated to/ with the Company or any of its sub contractor or any of their employees or servants or agents, are held in such a suit or proceeding for infringement of any Intellectual Property Right conferred by contract or by common law or by any law in force within the state of India alleged to have occurred because of any product, good, service or data, then the Company shall, at its sole expense:

- i. Procure for the Purchaser the right to continue using such product, good, service or data or information or portion thereof;
 - ii. Replace the same with non-infringing product, Good, service or data or information of equivalent functions and efficiency, compatible with the existing technology; or
 - iii. Modify the product, Good, service or data or information such that it no longer infringes the third-Party intellectual property right within the State of India or any State.
- 5.1.2 In the event the Company is unable to accomplish any of the three undertakings set forth above in Clause 5.1.1, the Company shall be liable to pay to the Purchaser amount as would be calculated by the Purchaser keeping in view the damage/ cost/ harm/ injury and/ or harassment caused to it.
- 5.1.3 Non-Indian Infringement:
In the event of any claim, demand, or action alleging that the Company or anyone affiliated to Company or any sub contractor of Company or any of their employees or servants or agents, infringed any Intellectual Property Right conferred by contract or by common law or by any law in force Outside India because of any product, good, service, data, then the Company shall cooperate with the Purchaser in the Purchaser's defence of such claim and, if requested by the Purchaser, undertake to replace the allegedly infringing product, Good, service or data or information with non-infringing product, Good, service or data or information of equivalent functions and efficiency or modify the allegedly infringing product, good, service or data or information so that it no longer infringes. The Company shall be liable to pay to the Purchaser amount as would be calculated by the Purchaser keeping in view the damage/ costs/ loss/ harm/ injury and/ or harassment caused to it.
- 5.2 Licences:
- 5.2.1 In the event that the Company or anyone affiliated to/ with the Company or any of its sub- contractor or any of their employees or servants or agents, are held in such a suit or proceeding for breaching the terms of any license (s) conferred by an Agreement/ contract or by any law in force within the State of India to have occurred because of any non compliance of any terms therein, then the Company shall, at its sole expense:
 - i. Procure for the Purchaser the right to continue using such product, good, service or data or information or portion thereof;
 - ii. Replace the same with non-infringing product, Good, service or data or information of equivalent functions and efficiency, compatible with the existing technology; or
 - iii. Take such steps as will be required to ensure that the product, good, service or data or information no longer infringes the terms of license within the state of India or any state.
- 5.2.2 In the event the Company is unable to accomplish any of the three undertakings set forth above in Clause 5.2.1, the Company shall be liable to pay to the Purchaser amount as would be calculated by the Purchaser keeping in view the expenses/ damage/ loss/ harm/ injury and/ or harassment caused to it.
- 5.2.3 Non-Indian Infringement:
In the event of any claim, demand, or action alleging that the Company or anyone affiliated to Company or any sub contractor of Company or any of their employees or servants or agents, breach any/ the terms of license (s) conferred by contract or by any law in force Outside India because of any product, good, service, data, then Company shall cooperate with the Purchaser in the Purchaser's defence of such claim and, if requested by the Purchaser, take such steps as will be required to ensure that the product, Good, service or data or information no longer infringes the terms of license within the state of India or any state or replace such license products, good, service or data or information with ones having equivalent functions and efficiency. The Company shall be liable to pay to the Purchaser amount as would be calculated by the Purchaser keeping in view the expenses/ damage/ harm/ injury and/ or harassment caused to it.
- 5.3 General Public Licences/ Open Source Licences:

- 5.3.1 The Company shall be at liberty to use any/ all such General Public Licences (GPL)/ Open Source Licences or Software (OSL) provided that the Company has obtained a prior written approval for the same from the Purchaser and adheres to all the provisions of such GPL/ OSL.
- 5.3.2 In the event that the Company or anyone affiliated to/ with the Company or any of their employees or servants or agents, are held in such a suit or proceeding for breaching the terms of any General Public License (s)/ Open Source Licences or Software conferred by an Agreement/ contract/ Licence or by common law or by any law in force within the state of India or any State alleged to have occurred because of any non compliance of any terms therein, then the Company shall, at its sole expense:
- i. Procure for the Purchaser the right to continue using such product, good, service or data or information or portion thereof;
 - ii. Replace the same with non-infringing product, good, service or data or information of equivalent functions and efficiency, compatible with the existing technology; or
 - iii. Take such steps as will be required to ensure that the product, good, service or data or information no longer infringes the terms of license within the State of India or any State.
- 5.3.3 In the event the Company is unable to accomplish any of the three undertakings set forth hereinabove in Clause 5.3.2, the Company shall be liable to pay to the Purchaser amount as would be calculated by the Purchaser keeping in view the expenses/ damage/ loss/ harm/ injury and/ or harassment caused to it.
- 5.4 The Purchaser's Infringement Responsibilities:
To receive the foregoing indemnity, the Purchaser must notify the Company in writing of a claim/ suit or any other proceedings promptly and provide all reasonable cooperation (at the Company's expense) and full authority to defend and settle the claim/ suit or any other proceedings. The Company shall not have any obligation to indemnify the Purchaser under any settlement made without Company's consent.

IN WITNESS WHEREOF the Company has caused its Seal to be affixed hereto and to a duplicate hereof on the date first above written and the *UIDAI* have caused the same to be executed by the hand of an authorised official, in the presence of each other and at the above written date.

The Seal and signature
of the authorised representative
of the [SPPIA] has been
Affixed pursuant to the resolution
Of its Board of Directors

Signature of the
Authorised Official
Of the UIDAI

Dated the _____ day ,
Which has hereunto been affixed in the presence of:

Shri _____,
Directors who have signed
these presents in token thereof
and countersigned by
Shri _____,
the authorised officer /
Company Secretary.

Section VII - Service Level Agreement

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1 Introduction

4.1. Overview

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the SPPIA to UIDAI for the duration of this contract.

4.2. Benefits of SLA

The benefits of SLA are as follows:-

- i. To be process oriented with a quality approach for managing Grid connected Solar Power Generating Plant Services.
- ii. To obtain satisfactory level of services for UIDAI's Grid connected Solar Power Generating Plant.
- iii. To reduce the risk of not meeting the business requirements.
- iv. Helps UIDAI control the levels and performance of Grid connected Solar Power Generating Plant services.
- v. Makes explicit the expectations that UIDAI has for performance.
- vi. Triggers a process that applies UIDAI and the Grid connected Solar Power Generating Plant management attention to aspect of performance when that aspect drops below an agreed upon threshold, or target.
- vii. To improve communication and information flow between Data Centre operations staff, UIDAI officials & the other stakeholders.
- viii. To provide guidance on processes, standards and guidance to UIDAI & Management staff.
- ix. To increase productivity through better use of skills and experience.

UIDAI shall regularly review the performance of the services being provided by the Grid connected Solar Power Generating Plant and the effectiveness of these SLAs. It would also form a baseline for UIDAI to compute payments as applicable.

This Service Level Agreement is between the Solar Power Plant Implementation Agency (SPPIA) and UIDAI.

2 Definitions

For purpose of the Service Level compliance, the definitions and terms as specified in the contract along with the following terms shall have the meanings set forth below:

- i. **"Availability"** shall mean the time for which the services and facilities offered by the Grid connected Solar Power Generating Plant are available for conducting UIDAI operations from the equipment hosted in the Data Centre.
- ii. **"Downtime"** is the time the services and facilities are not available to UIDAI and excludes the scheduled outages planned in advance for the Data Centre.
- iii. **"Incident"** refers to any event / abnormalities in the functioning of the Grid connected Solar Power Generating Plant Equipment / Services that may lead to disruption in normal operations of the Solar Power Plant services.
- iv. **"Service Window"** shall mean the duration for which the facilities and services shall be available at the Data centre. Service window base shall be all throughout the year- 24 hours a day, 7 days a week for all the 365 days in a year (24 x 7 x 365).

3 Description of Services Provided

The SPPIA will provide following services for Site Preparation & Supply, Installation, Maintenance and Operations of basic Infrastructure for the establishment of UIDAI's Grid connected Solar Power Generating Plant at the proposed site.

- i. Site Preparation of the proposed Grid connected Solar Power Generating Plant in terms of the electrical, civil and mechanical work required for the Grid connected Solar Power Generating Plant.
- ii. Supply, installation and setting up of the necessary basic Infrastructure (state of Art Grid Tie Inverters, Power Optimiser, PV arrays, Electrical panel and distribution system, etc.).

- iii. Five years on-site maintenance of all the equipments and their components supplied in setting up the basic infrastructure in the proposed Grid connected Solar Power Generating Plant.
- iv. Onsite support for Grid connected Solar Power Generating Plant operations on Solar plant Operating hours basis by qualified engineers/ personnel for a period of five years to ensure minimum 99% availability.

The scope and boundaries of services provided as part of this Contract Agreement are detailed in Section V – Schedule of Requirements and other requirements therein of this tender.

4 SLA Coverage

The coverage of the SLAs is as follows:-

- i. Grid connected Solar Power Generating Plant Handing Over (Pre-O&M)
 - a) Design, Supply, Installation, commissioning and acceptance testing, Handing over for the System.
- ii. Grid connected Solar Power Generating Plant O&M Management
 - a) Grid connected Solar Power Generating Plant availability up to 99%.
 - b) Grid connected Solar Power Generating Plant Power generation.
- iii. Data acquisition system and Environmental Monitoring System.
 - a) Remote Monitor and track performance of system components.
 - b) To track real-time statistics information of the energy harvest.
 - c) Track and record Real time Environmental data.

5 Service Levels & Targets

SLAs provide for minimum level of services required as per contractual obligations based on performance indicators and measurements thereof. SPPIA shall ensure provisioning of all required services while monitoring the performance and complying with the performance levels. UIDAI shall check performance of SPPIA on a monthly basis for the contractual period. This includes:-

- i. Considering key issues of the past period's performance including deviations, statistics, minor/ major incidents, service trends, etc.
- ii. Discussing escalated problems, new issues and outstanding matters for resolution.
- iii. Review of statistics related to rectification of outstanding faults and agreed changes.
- iv. Obtain suggestions for changes to improve the service levels.

UIDAI may initiate an interim review to check the performance and the obligations of the SPPIA. The SLA may be reviewed and revised in accordance to the procedures detailed in “**SLA Change Process**”, **Clause 8.2 of Section VII**.

6 Performance measurements & Targets

Measurement of Service Levels has been segregated in the following categories:

- i. Performance Related Service Levels
- ii. Compliance & Reporting Procedures
- iii. Periodic Facility Audits

The following measurements/ targets shall be used to track/ report performance on regular periodic basis.

6.1 Grid connected Solar Power Generating Plant Implementation, related Performance Levels

Activity to be performed	Coverage	Target to be achieved	Penalty for non-compliance
Receipt of Acceptance' after Placement of the Lol/ by UIDAI on the selected bidder	The prospective SPPIA shall communicate in writing to UIDAI on the receipt of the LOI and its acceptance to initiate the work	Acceptance within one (1) calendar week from date of LOI	a) No Penalty, b) Thereafter 0.05% of total order value (Total Value (P)=CAPEX(A)+OPEX (B)-as per commercial bid form) as penalty per calendar week of delay. c) Delay in acceptance beyond two (2) Calendar weeks would lead to cancellation of work LOI ,as applicable
Design completion	The Grid connected Solar Power Generating Plant design shall be completed after seeking the requirements from UIDAI.	Completion of Design inclusive of approval on design and drawings within 45 from Date of Lol	After the stipulated time of one(1)Calendar months: a) For up to 2 weeks of delay: 0.1% * (Value 1+Value 2) of total CAPEX Value (as per commercial Bid Form) as penalty per week of delay in submission of the final design b) From 4th Week of delay onwards: 0.5% * (Value 1+Value 2) of total CAPEX Value (as per commercial Bid Form) as penalty per week of delay in submission of the final design after the stipulated time of one Calendar months plus three weeks of delay (point (a)-as mentioned above).
System acceptance test (SAT) & Handing over documents.	The Grid connected Solar Power Generating Plant shall be designed, implemented to the satisfaction of UIDAI as per the defined scope of work in section V. This shall include Site Preparation, installation, integration, testing of all components / equipments / devices / software applications etc required for the system after a comprehensive Grid connected Solar Power Generating Plant testing to the satisfaction of UIDAI and conforming to	Period 10 days from Date of successful completion INC.	0.75% *(Value 1+Value 2) of total CAPEX Value (as per commercial Bid Form) as penalty for every one week of delay of any of the Milestone beyond the stipulated time frame as per the Clause-3.2.11, Completion Timelines of Section-V 'Schedule of Requirement'

Activity to be performed	Coverage	Target to be achieved	Penalty for non-compliance
	the defined Service Levels		

6.2 O&M phase related Performance Levels

Measurement	Definition	Measurement Interval	Target	Impact	Penalty
System Availability (Uptime)	Solar system should be in fully working condition and generate the power Solar Power shall be measured on Data acquisition system (DAS).	Quarterly Basis	Up to 99%		No Penalty
			<99%		5 % of the applicable quarter's O&M charges
Solar Power Generation Guarantee	As per PV Syst Simulation submitted (Excess units generated will be carry forwarded up to next one year)	Annual Basis	90%	No Impact on Power Generation	No Penalty
			<90%	Less Numbers of units generated	Penalty equivalent to EB Units charges on applicable year

Activity to be performed	Coverage	Target to be achieved	Penalty for non-compliance
Deployment of Grid connected Solar Power Generating Plant Site O&M Team.	The Prospective SPPIA shall mobilise Deploy O&M Team.	Deployment of O&M Team within 7 Calendar days from date of signing the contract/Lol.	0.5% * (value 3)of the applicable quarter's O&M charges, (as per commercial Bid Form) As a penalty per calendar week after completion of one (1) week period provided to begin the work. Delay in deployment beyond 4 calendar weeks would lead to cancellation of work order/ termination of contract, as applicable

6.3 Solar power generating plant reports and reporting procedures

Measurement	Definition	Measurement Interval	Target	Penalty
Reporting of incidents	Any failure/ incident on any part of the Solar Power Plant and its system shall be communicated to UIDAI with details of system affected, downtime, etc as applicable.	Whenever there is an occurrence	100% incidents to be reported to UIDAI within 30 minutes with the details of services affected, cause, action and remedy.	No Penalty
			Reporting of incident beyond 30 minutes	0.5 % * (Value 3) of applicable quarter's O & M charge (as per commercial Bid Form) , for every non-compliance on incremental basis.
Scheduled Maintenance	Measures timely maintenance of the equipment installed of the Solar Power Plant. SPPIA shall provide a detailed equipment maintenance plan/ schedule on commencement of the project.	Monthly	100 % of scheduled maintenance to be carried out as per maintenance plan submitted by the SPPIA, intimated to UIDAI at least 3 working days in advance.	0.5 % * (Value 3) of applicable quarter's O & M charges (as per commercial Bid Form) , for every non-compliance on incremental basis.
Unscheduled Maintenance	Measures unforeseen maintenance required on an urgent basis depending upon the equipment and criticality	Unspecified	Any unforeseen maintenance affecting the Generation of the Solar Power Plant shall be done on an immediate basis by the SPPIA whether or not the problem affects the uptime requirements	0.5 % * (Value 3) of applicable quarter's O & M charges (as per commercial Bid Form) , for every non-compliance on incremental basis.
Maintenance of Inventory	The SPPIA shall maintain an inventory of all items that will be required on an ongoing basis.	Inventory	100% as per the inventory log maintained by SPPIA. If necessary, UIDAI may consider enhancing the inventory based on its advisors	0.5 % * (Value 3) of applicable quarter's O & M charges (as per commercial Bid Form) , for every non-compliance on incremental

Measurement	Definition	Measurement Interval	Target	Penalty
			inputs or audit recommendations	basis.

6.4 Solar power plant & allied services Audit

UIDAI may consider appointing auditors and other qualified professionals who would conduct, both scheduled and unscheduled (random & surprise) audits for the UIDAI Solar Power Plant. These professionals would conduct periodic audits as per the schedule on a half yearly basis and at a random date and on multiple occasions, on a surprise basis, to confirm the SPPIA compliance to the requirement spelt in the scope of work. Any non-compliance to the specifications would qualify for a penalty on the SPPIA.

For every instance of non-compliance, including repetitions, penalty shall be applicable. The penalty would be levied on an additive basis and the accumulated total would be deducted from the payment due to the SPPIA in the subsequent month.

The penalty shall be levied on an additive basis and the accumulated total would be deducted from the payment due to the SPPIA in the month in which the audit/ surprise checks were conducted.

Requirement	Measurement	Penalty
Solar Power Generation during Defect liability period and O & M	UIDAI or its appointed auditors/ professionals shall review a randomly selected records or the entire recording of measured Parameters/ data. The SPPIA should be able to produce required records based on demand at any time of the year, month, day, and hour or second.	0.5% * (Value 3) of the applicable quarter's O & M Charges OPEX Value (as per commercial Bid Form) for every missing record/non compliance in any of the chosen or randomly selected sample on incremental basis.

7 Issue Management

7.1 General

The process provides for an appropriate process towards orderly consideration and resolution of business and operational issues in the event of a desired consensus not reached between UIDAI and SPPIA.

Implementing such a process at the commencement of services shall significantly improve the probability of successful issue resolution. It is expected that this pre-defined process will only be used on an exception basis, if issues are not resolved at operational levels.

7.2 Issue Management Procedures

- i. SPPIA is expected to resolve problems on an immediate basis based on self detection, instrument indication or on the basis of UIDAI complaints.
- ii. Whenever a problem is detected, it is the SPPIA's responsibility to fix the problem based on the defined Service Level Agreement process and procedures.
- iii. In case of a business or technology related problem for which a consensus is not arrived at, either UIDAI or SPPIA may raise an issue by documenting the problem, covering a reasonably objective summary of both points of view, identifying the specific point/s of disagreement with possible solutions.
- iv. UIDAI and SPPIA will determine which committee or executive level should logically be involved in resolution. Management escalation is defined in Clause 9 of this document.
- v. A meeting or conference call will be conducted to resolve the issue in a timely manner, depending upon the type of problem. The documented issues will be distributed to the participants at least one day prior to the discussion if the issue is not an emergency requiring immediate attention.
- vi. UIDAI and SPPIA shall develop an interim solution, if required, and subsequently the permanent solution for the problem at hand. SPPIA shall then communicate the resolution to all concerned stakeholders.
- vii. In case any problem/ issues still remain unresolved, the arbitration procedures described in the Contract shall be applicable.

8 Contractual Service Levels and its Change Control

8.1 General

SPPIA shall note that the Contractual Service Levels would undergo changes based on UIDAI's business needs. Such changes may even be required in the negotiation stages and before the actual signing of the contract as well as during the contractual period. SPPIA shall therefore note and comply with these change requests, if any, at the appropriate stage/ periods. The following procedures are stipulated in managing the changes:

- i. A process for negotiating changes to the SLA.
- ii. An issue management process for documenting and resolving difficult issues.
- iii. UIDAI and SPPIA management escalation process to be used in the event that an issue is not being resolved in a timely manner by the lowest possible level of management.

Any changes to the levels of service provided during the term of this Agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this SLA and, subsequently, the Contract.

If there is any conflict or lack of understanding between this document and the Contract, the Tender and its addenda, the terms stated in the Contract would supersede.

8.2 SLA Change Process

The parties may amend this SLA through mutual agreement in accordance with terms of this contract. Changes can be proposed by either party. **SPPIA can initiate an SLA review with the UIDAI.**

The forum for negotiating SLA changes will be monthly reviews; however a separate review for SLA content can be planned based on mutually agreed timelines.

Unresolved issues will be addressed using the issue management procedure described in **Clause 7 of Section VII**. SPPIA shall maintain and distribute current copies of the SLA document as stipulated by UIDAI. Additional copies of the current SLA will be made available at all times to authorized parties.

8.3 Version Control

All negotiated SLA changes will require re-versioning. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

9 Responsibilities of the Parties

9.1 SPPIA

SPPIA shall be responsible for completion of desired scope of work including design, executing the contract and delivering the services, while maintaining the specified performance targets on an ongoing basis. The SPPIA is also responsible for:

- i. Management and Compliance of the Service Levels on an ongoing basis
- ii. Reporting problems to UIDAI within the stipulated time
- iii. Providing early warning of any organisational, functional or technical changes that might affect SPPIA's ability to deliver the services.
- iv. Assisting UIDAI to address and resolve issues on an ongoing basis.
- v. SPPIA shall take immediate action to identify problems and follow up with appropriate action to fix them as quickly as possible

9.2 UIDAI

UIDAI shall be responsible for:

- i. Reporting defects and problems to the SPPIA as soon as possible
- ii. Assisting SPPIA in management of the Service Levels
- iii. Providing early warning of any organizational, functional or technical changes that might affect SPPIA's ability to deliver the services
- iv. Assisting SPPIA to address and resolve issues from time to time

10 Penalties

Penalties would be applicable on the cost as stated in Clause 6, Section VII along with the following:

- i. Two quarterly deductions in a year is a case of alarm that the services are not up to the mark.
- ii. Two consecutive quarterly deductions equal to or more than 10 % of the applicable fee on account of any reason will be deemed to be an event of default. Hence, UIDAI shall apply clauses of termination as per Section III - GCC. The consequences as provided in Section III - GCC shall follow.

11 Management Escalation Procedures

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lower management level. Implementing this procedure would mean that UIDAI and SPPIA management are communicating at appropriate levels.

11.1 SPPIA Contact detail for information

Location	Position	UIDAI representative with designation & contact details	SPPIA representative with designation & contact details
..... . (Specify site – Delhi/NCR or Bengaluru)	{MD/ CEO/ Director or equivalent}	Name:- Designation:- Office Tel. No.:- Mobile Tel. No.:- Email ID:-	Name:- Designation:- Office Tel. No.:- Mobile Tel. No.:- Email ID:-
	{Project Manager, Senior Manager or equivalent}	Name:- Designation:- Office Tel. No.:- Mobile Tel. No.:- Email ID:-	Name:- Designation:- Office Tel. No.:- Mobile Tel. No.:- Email ID:-

11.2 Escalation Procedure

Escalation shall be required on an exception basis and only if the issue resolution cannot be successfully achieved within a reasonable time frame.

- Either UIDAI or SPPIA can initiate the procedure; the one who initiates it would be the 'Initiating Party'.
- The 'Initiating Party' shall notify the other party on the management escalation and furnish the necessary details to the Receiving Party.
- Management escalation will be defined as documented in the contact map.
- Escalation will begin at Level 1 and then to be taken to the next level till resolution to the problem is achieved.
- The contact map shall be as follows:-

Escalation Level	Position to whom escalated	SPPIA representative with contact Details
Level 1	Project Manager	
Level 2	Project Director	
Level 3	Steering Committee	

12 Acceptance of SLA terms and its compliance

In Witness whereof, the parties hereto have caused this Service Level Management vide Tender No. **UIDAI/**_____ to be accepted and executed by their respective authorized representatives on ____ (day) of ____ (month), 2011.

For and on behalf of:

SPPIA

Place: _____

Date: _____

Name: _____

Title: _____

Office Seal: _____

For and on behalf of:

Unique Identification Authority of India

Place: _____

Date: _____

Name: _____

Title: _____

Office Seal: _____

MAIN SOLAR LT PANEL

