



ASSAM POWER DISTRIBUTION COMPANY LTD.

(A Successor Company of Assam State Electricity Board)

O/o the Chief General Manager (NRE),
Bijulee Bhawan, Paltanbazar, Guwahati-1

E-mail: cgm.nre@apdcl.org

Web: www.apdcl.org

E-Tender Document
For
Implementation of On-Grid and Off-Grid Solar Power Plants at different
PM-SHRI Schools
Under
Samagra Shiksha, Assam

RfS No. 1: APDCL/CGM (NRE)/NRE-148/2024-25/232/Package-I: LAR Date: 12/01/2024

RfS No. 2: APDCL/CGM (NRE)/NRE-148/2024-25/232/Package-II: CAR Date: 12/01/2024

RfS No. 3: APDCL/CGM (NRE)/NRE-148/2024-25/232/Package-III: UAR Date: 12/01/2024

NB: *The Bidder can submit the bid in one package only and put tick mark (✓) against the Package No. as Quoted.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

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**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

DISCLAIMER

1. Though adequate care has been taken while preparing the RfS document, the bidders shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. **If no intimation is received from any Bidder within seven (7) days from the date of notification of RfS/Issue of the RfS documents, it shall be considered that the RfS document is complete in all respects and has been received by the bidder.**
2. Assam Power Distribution Company Limited (APDCL) reserves the right to cancel/ withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision
3. APDCL reserves the right to modify, amend or supplement this document.
4. While this RfS has been prepared in good faith, neither APDCL nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RfS, even if any loss or damage is caused by any act or omission on their part.

Place: Guwahati

Date: 12/01/2024



PART - I

INVITATION FOR BIDS (IFB) & BID DETAILS

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

**INVITATION FOR BIDS (IFB)
FOR
Implementation of On-Grid and Off-Grid Solar Power Plants at different
PM-SHRI Schools under Samagra Shiksha, Assam**

**(SINGLE STAGE TWO ENVELOPE BIDDING)
Under E-Procurement**

Date of Issuance of IFB: 12/01/2024

- 1.0 Pradhan Mantri Schools for Rising India (**PM SHRI**) is Centrally Sponsored Scheme under which 14500 Schools across the country are being facilitated, supported and monitored by Govt. of India to develop and upgrade as exemplar schools. There are 264 Govt. Schools in Assam under the PM SHRI Scheme. Further, 99 PM SHRI Schools in 26 Districts in the State have been approved by Ministry of Education, Govt. of India under PM SHRI School Scheme for the year 2023-24 for installation of Solar Power Plants.
- 2.0 In furtherance of the objective of MNRE to promote On-grid Solar as well as Off-Grid Solar to achieve 500 GW renewable energy capacity and 50 per cent of the country's energy requirements from renewable energy by 2030, APDCL invites for Request for Selection (RfS) for Selection of Developer for Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam in the State of Assam.
- 3.0 For the purpose of all procurement activities related to the said works, Assam Power Distribution Company Limited (hereinafter referred to as 'APDCL') shall be referred to as 'Employer'.
- 4.0 APDCL, therefore, invites sealed bids from eligible bidders to participate in Request for Selection (RfS) for Site Survey, Design, Manufacture, Supply, Erection, Testing and Commissioning and Operation & Maintenance of **217 kW** aggregate capacities of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam on turnkey mode for the following packages:

Sl. No	Package No.	Specification No.	No. of Schools	Total Solar Plant Capacity (On-grid & off grid solar)	Estimated Package Value excluding GST (Rs.)	Bid submitted for* (Tick mark (√))
1	Package No-I: Lower Assam Region (LAR)	APDCL/CGM (NRE)/NRE-148/2024-25/232(I) Date: 12/01/2024	30	71	70,86,642.00	
2	Package No-II: Central Assam Region (CAR)	APDCL/CGM (NRE)/NRE-148/2024-25/232(II) Date: 12/01/2024	46	92	96,99,664.00	
3	Package No-III: Upper Assam Region (UAR)	APDCL/CGM (NRE)/NRE-148/2024-25/232(III) Date: 12/01/2024	23	54	53,85,732.00	
		Total	99	217	2,21,72,038.00	

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

NB: *The Bidder can submit the bid in one package only and put Tick mark (√) against the Package No. as above.

- 5.0 For the implementation of above mentioned work, Bidders should submit their bid proposal both online and offline complete in all respect on or before Last date of Bid Submission as mentioned on the Bid Information Sheet.
- 6.0 **Bidder shall submit bid along with non-refundable Tender Processing Fee and refundable Bid Security (EMD) complete in all respect as per the Bid Information Sheet.**
- 7.0 Techno- Commercial bids will be opened as per the Bid Information Sheet in online & offline mode in presence of authorized representatives of bidders who wish to be present. **Bid proposals received without the prescribed bid fees and Bid Security (EMD) will be rejected. However the bidder must deposit online non-refundable tender processing fee and EMD shall also be submitted online while submission of tenders in <https://assamtenders.gov.in>.** In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.
- 8.0 Bid documents which include Eligibility Criteria, Technical Specifications, various conditions of contract, formats etc. can be downloaded from the official website of APDCL www.apdcl.org or from <https://www.assamtenders.gov.in>. It is mandatory to download official copy of RfS document from <https://www.assamtenders.gov.in> in order to participate in the tender. Any amendment (s) / corrigendum / clarification (s) with respect to this Bid shall be uploaded on <https://www.assamtenders.gov.in> only. The Bidder should regularly check for any Amendment (s) / Corrigendum / Clarification (s) on the above website only.
- 9.0 **The bidding process for all three packages under this RfS is for 217 kWp aggregate capacities of On-Grid and Off-Grid Solar Power Plants in CAPEX Model comprising of plant capacity from 1 kW to 5 kW. However, the bidder can submit their bid in only one package only. If the bidder submitted their bids in more than one package, then all submitted bids shall be cancelled.**

10.0 Quoted Capacity of the Bidders

- The quote capacities against each Package/Region shall be as follows:

Sl. No.	Region	Total On-Grid Solar Plant Capacity (kW)	Total Off-Grid Solar Plant Capacity (kW)	Aggregate Quoted Capacity (kW)
1	Lower Assam Region (Package-I)	63	8	71
2	Central Assam Region (Package-II)	71	21	92
3	Upper Assam Region (Package-III)	48	6	54
	Total Capacity	182	35	217

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

11.0 It is mandatory for the bidder to quote both the project categories i.e. On-Grid and Off-Grid in the same package; otherwise all the proposals in which the bidder has participated will be disqualified.

12.0 The detailed scope of work includes:

- Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil works, Erection, Testing & Commissioning of On-Grid and Off-Grid Solar Power Plants including Operation and Maintenance (O&M) of the project for a period of 5 years after commissioning of project.
- Visit to the respective sites and check the feasibility of space for installation of allotted capacity in consultation with respective site in-charge / owner. Successful bidders need to submit site feasibility report to the O/o the CGM (NRE), APDCL for each location prior to execution of the project for necessary approval.

13.0 Tender Processing Fee and Bid Security/EMD shall be submitted online and the techno-commercial bid shall be submitted both online & offline in the office of APDCL.

14.0 PBG amount shall be furnished by the successful bidder after issuance of LOA by APDCL.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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BID INFORMATION SHEET

The Bid Information Sheet is provided below:

Particulars	Description			
Document Description	Bid document for Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam			
RfS No. and Date	APDCL/CGM (NRE)/NRE-148/2024-25/232/Package-I: LAR APDCL/CGM (NRE)/NRE-148/2024-25/232/Package-II: CAR APDCL/CGM (NRE)/NRE-148/2024-25/232/Package-III: UAR Date: 12/01/2024			
Estimated Cost of the project including applicable taxes	Sl. No	Package No	Estimated Cost excluding GST (Rs.)	
	1	Package No. I (LAR)	70,86,642.00	
	2	Package No. II (CAR)	96,99,664.00	
	3	Package No. III (UAR)	53,85,732.00	
List of Project Location along with respective Solar Plant Capacity and Type	Please refer Annexure-A			
Package wise total solar plant capacity	Sl. No	Package No	No. of Schools	Total Solar Plant Capacity (kW)
	1	Package No. I (LAR)	30	71
	2	Package No. II (CAR)	46	92
	3	Package No. III (UAR)	23	54
		Total	99	217
Downloading of Bidding Document	The Bidding Document can be downloaded online only from www.apdcl.org and https://www.assamtenders.gov.in website of Government of India from 12.01.2024 at 17:00 Hrs			
Period of work	4 (Four) Months from the date of issuance of LOA			
Last Date of Submission of Query	19.01.2024 upto 15.00 HRS			
Pre-bid Meeting	20.01.2024 at 12:30 Hrs at Conference Room, O/o the CGM (NRE), APDCL, Bijulee Bhawan, Paltan Bazar, Guwahati-1. All the prospective developers are requested to visit official website of APDCL (www.apdcl.org) or https://assamtenders.gov.in for referring updates, if any, on the pre-bid meeting.			
Bid Submission Start Date	23.01.2024			
Last date & time for submission of online bids and hard copy submission of offline bids	31.01.2024 upto 15:00 HRS			
Address for submission of Techno-Commercial Bid (Hard Copies)	Chief General Manager (NRE) Assam Power Distribution Company Limited, Bijulee Bhawan , Annex Building, Paltanbazar, Guwahati. Dist.: Kamrup (M), Pin: 781001, Assam, India. Contact No: 8399883941			

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

	E-mail: cgm.nre@apdcl.org												
Online Bid Opening (Techno-Commercial)	01.02.2024 at 12:00 Hrs												
Price Bid Opening	To be intimated through online notification subsequent to techno – commercially responsive bidders												
Cost of RfS (Non-refundable applicable for the Bidder)	<p>The package wise cost of RfS is as under:</p> <table><tr><th>Sl. No</th><th>Package No.</th><th>Cost of RfS (Rs.)</th></tr><tr><td>1</td><td>Package No. I (LAR)</td><td>1180.00</td></tr><tr><td>2</td><td>Package No. II (CAR)</td><td>2360.00</td></tr><tr><td>3</td><td>Package No. III (UAR)</td><td>1180.00</td></tr></table> <p>The cost of RfS to be submitted online by the bidder during submission of tenders in https://assamtenders.gov.in.</p>	Sl. No	Package No.	Cost of RfS (Rs.)	1	Package No. I (LAR)	1180.00	2	Package No. II (CAR)	2360.00	3	Package No. III (UAR)	1180.00
Sl. No	Package No.	Cost of RfS (Rs.)											
1	Package No. I (LAR)	1180.00											
2	Package No. II (CAR)	2360.00											
3	Package No. III (UAR)	1180.00											
Bid Security (EMD) applicable for the Bidder	<p>The Package wise EMD is as under:</p> <table><tr><th>Sl. No</th><th>Package No</th><th>Cost of RfS (Rs.)</th></tr><tr><td>1</td><td>Package No. I (LAR)</td><td>2,00,000.00</td></tr><tr><td>2</td><td>Package No. II (CAR)</td><td>2,00,000.00</td></tr><tr><td>3</td><td>Package No. III (UAR)</td><td>2,00,000.00</td></tr></table> <p>The EMD to be submitted by the Bidder online while submission of tenders in https://assamtenders.gov.in.</p>	Sl. No	Package No	Cost of RfS (Rs.)	1	Package No. I (LAR)	2,00,000.00	2	Package No. II (CAR)	2,00,000.00	3	Package No. III (UAR)	2,00,000.00
Sl. No	Package No	Cost of RfS (Rs.)											
1	Package No. I (LAR)	2,00,000.00											
2	Package No. II (CAR)	2,00,000.00											
3	Package No. III (UAR)	2,00,000.00											
Performance Security / Contract Performance Guarantee (CPG) to be submitted by successful bidders	Amount: 10% of contract value as awarded by APDCL and shall be submitted in the form of Bank Guarantee in favour of “Chief General Manager (NRE), APDCL” payable at Guwahati.												
Consortium	Allowed												
Details of persons to be contacted in case of any assistance required	<ol style="list-style-type: none">1. Dipesh Ch. Das GM (NRE), APDCL M. No: 9954110254 (Office hour only)2. Arnab Ghosh AGM (NRE), APDCL M. No: 7002231686 (Office hour only)3. Baishali Talukdar DM (NRE), APDCL M. No: 8638898504 (Office hour only)												

Important Note:

1. Prospective Bidders are requested to remain updated for any or all notices, amendments, corrigendum, clarifications etc. to the Bidding Document published through the websites <https://www.assamtenders.gov.in>. No separate notifications shall be issued for such notices, amendments, corrigendum, clarifications etc. in the print media or individually to the prospective Bidders and in no case APDCL shall be held responsible for any loss of information to the Bidders.
2. Intimation regarding notification on the above shall be updated and the details shall be only available from <https://www.assamtenders.gov.in>.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

-S/d-

Chief General Manager (NRE)
APDCL, Bijulee Bhawan (Annex Building),
Paltanbazar, Guwahati-1

Memo No.: APDCL/CGM (NRE)/NRE-148/2024-25/232

Date: 12/01/2024

Copy to:-

1. **The OSD to the Chairman, APDCL**, for kind appraisal of the Chairman, APDCL.
2. **P.S. to the Managing Director, APDCL**, Bijulee Bhawan, Paltanbazar, Guwahati-1, for kind appraisal of the Managing Director.
3. **P.S. to the Mission Director, Samagra Shiksha-Assam**, Kahilipara, Guwahati – 19 for kind appraisal of the Mission Director.
4. **APDCL-IT Wing**, for uploading in APDCL Website.
5. **Office File.**

-S/d-

Chief General Manager (NRE)
APDCL, Bijulee Bhawan (Annex Building),
Paltanbazar, Guwahati-1

----- End of (IFB) -----

PART - II

INSTRUCTIONS TO BIDDERS (ITB) & BID DETAILS

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

DEFINITION

In this RfS, unless the context otherwise requires, capitalized terms shall have the meaning given to them in the table below:

Affiliate	<p>“Affiliate” shall mean a company that either directly or indirectly</p> <ol style="list-style-type: none"> controls or is controlled by or is under common control with <p>Bidding Company and “control” means ownership by one company of at least twenty six percent (26%) of the voting rights of the other company.</p>
APDCL	Means Assam Power Distribution Company Limited
AERC	Means Assam Electricity Regulatory Commission
BIS	Means specifications of Bureau of Indian Standards (BIS).
BID	Means the Techno Commercial and Price Bid submitted by the Bidder along with all documents/credentials/attachments annexure etc., in response to this RfS, in accordance with the terms and conditions hereof
Bidder/Bidding Company	Means Bidding Company submitting the Bid. Any reference to the Bidder includes Bidding Company / including its successors, executors and permitted assigns as the context may require
Bid Deadline	Mean the last date and time for submission of Biding response to this RfS as specified in Bid information Sheet
Bid Capacity	Means package wise capacity under this bidding document
CEA	Means Central Electricity Authority
Chartered Accountant	Means a person practicing in India or affirm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949
Commissioning	Means Successful operation of the Project / Works by the Contractor, for the purpose of carrying out Performance Test(s) as defined in RfS
Company	Means a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto.
Capacity Utilization Factor” (CUF)	Means the ratio of the annual output of the plant in kWh versus installed plant capacity for number of days. CUF = plant output in kWh / (installed plant capacity in kWp (DC side) * 365X24).
IEC	Means specifications of International Electro-Technical Commission
kWp	Means Kilo-Watt Peak under STC
O&M	Means Operation & Comprehensive Maintenance of Rooftop Solar PV system.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

Project Cost / Project Price	Shall mean the price offered by the Bidder for the Scope of work as per RfS document
Qualified Bidder	Means the Bidder(s) who, after evaluation of their Techno Commercial Bid stand qualified for opening and evaluation of their Price Bid.
RfS	Means Request for Selection (RfS)/Bid document/Tender document.
Sector	Means Residential, Social & Institutional buildings
Successful Bidder(s) /Turnkey Contractor/	Means the Bidder(s) selected by APDCL pursuant to this RfS, , and to whom Letter of Award has been issued
Tendered Capacity	Means the total aggregate capacity in the Package as indicated in this RfS, proposed to be allocated by APDCL to the Successful Bidder(s) through this bidding process as per terms and conditions specified therein

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

SECTION I:

A. INTRODUCTION, BID DETAILS AND INSTRUCTIONS TO THE BIDDERS

1.0 INTRODUCTION

- 1.1.** Pradhan Mantri Schools for Rising India (**PM SHRI**) is Centrally Sponsored Scheme under which 14500 Schools across the country are being facilitated, supported and monitored by Govt. of India to develop and upgrade as exemplar schools. There are 264 Govt. Schools in Assam under the PM SHRI Scheme. Further, 99 PM SHRI Schools in 26 Districts in the State have been approved by Ministry of Education, Govt. of India under PM SHRI School Scheme for the year 2023-24 for installation of Solar Power Plants.
- 1.2.** In furtherance of the objective of MNRE to promote On-grid Solar as well as Off-Grid Solar to achieve 500 GW renewable energy capacity and 50 per cent of the country's energy requirements from renewable energy by 2030, APDCL invites for Request for Selection (RfS) for Selection of Developer for Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam in the State of Assam.
- 1.3.** The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the bid document must be furnished. Failure to provide the information and / or documents as required may render the bid technically unacceptable.
- 1.4.** The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect the carrying out of the works in line with the scope of work specified elsewhere in the document at the offered rates and to have satisfied himself to the sufficiency of his bid. The bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labor involved, wage structures and as to what all works he has to complete in accordance with the bid documents irrespective of any defects, omissions or errors that may be found in the bid documents.

2.0 BID DETAILS

- 2.1.** APDCL invites sealed bids from eligible bidders to participate in Request for Selection (RfS) for Site Survey, Design, Manufacture, Supply, Erection, Testing and Commissioning and Operation & Maintenance of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha throughout the State of Assam against the following packages:

Sl. No.	Region (Packages)	Total On-Grid Solar Plant Capacity (kW)	Total Off-Grid Solar Plant Capacity (kW)	Aggregate Quoted Capacity (kW)
1	Lower Assam Region (Package-I)	63	8	71
2	Central Assam Region (Package-II)	71	21	92
3	Upper Assam Region (Package-III)	48	6	54
	Total Capacity	182	35	217

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

- The bidders shall quote the bid capacity as per the set limit against each region/package.
- 2.2.** The bidding capacity for all three packages under this RfS is **217 kWp** aggregate capacities of On-Grid and Off-Grid Solar Power Plants in CAPEX Model comprising of plant capacity from 1 kW to 5 kW.
- 2.3.** A Bidder shall submit bid in only one package in the same tendering process, either as an individual bidder or as a partner of a consortium. A Bidder who submits or participates in, more than one package will cause all of the proposals in which the Bidder has participated to be disqualified.
- 2.4.** Based on the price quoted by the bidders, APDCL shall list the developers in the ascending order i.e. L1, L2, L3, _ _ _ (L1 being the lowest quoted bidder) for each package. **L1 bidders in each package shall be awarded the work.**
- 2.5. SIZE OF THE PROJECTS:**
- **On-Grid Solar Project:** The size of each project shall be in the range from 1 kWp to 5 kWp.
 - **Off-Grid Solar Project:** The size of each project shall be in the range from 1 kWp to 2 kWp.

APDCL reserves the Right to increase/decrease the individual plant capacity as well as transfer location from one site to another site as per requirement of the project.

2.6. BID CAPACITY:

- **Bidders who quote cumulative capacity less than the notified tendered capacity against each package shall be out rightly rejected.**
- It is mandatory for the bidder to quote both the categories (i.e. On-Grid and Off-Grid Capacity) in the same tendering process, otherwise all of the proposals in which the bidder has participated will be disqualified.

3.0 INSTRUCTIONS TO THE BIDDERS

- 3.1.** Bidder must meet the eligibility criteria independently as Bidding Company. Bidder will be declared as a Qualified Bidder based on meeting the eligibility criteria and as demonstrated based on documentary evidence submitted by the Bidder in the Bid.

In case of a Bidding Consortium, the Financial Eligibility criteria like MAAT & Net worth as indicated in the RfS shall be fulfilled by the Lead Member while the Technical Eligibility Criteria shall be fulfilled by consortium member. In case bidder is a consortium, a Consortium Agreement as per the format prescribed in this RfS shall be furnished along with the bid.

- i. Bidding Consortium with a maximum of two (2) members shall be allowed in this RfS.
- ii. Financial Consortium is not allowed in this Bidding Process. Consortium is only permitted for Technical Partnership. **Financial Eligibility criteria like MAAT & Net worth as**

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indicated in the RfS shall be fulfilled by the Lead Member while the Technical Eligibility Criteria shall be fulfilled by consortium member

- iii. **All members of the consortium should be registered as a Company/ Partnership firms/ Limited Liability Partnership (LLP)/ Limited Liability Company (LLC).**
- iv. A Bidder and all partners constituting the Bidder shall submit only one package in the same tendering process, either individually as a Bidder or as a partner of a Consortium. A Bidder who submits or participates in, more than one package will cause all of the proposals in which the Bidder has participated to be disqualified. No Bidder can be a subcontractor while submitting a tender individually or as a partner of a Consortium in the same tendering process.

NB: If the bidder's submitted information is found to be false declaration or misrepresentation, the bidder(s) shall be out rightly rejected or debarred or blacklisted from APDCL's future tenders.

3.2. ELIGIBILITY CRITERIA

3.2.1 GENERAL ELIGIBILITY CRITERIA

- (a) The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto or Partnership firms/ Sole Proprietorship Firm / Limited Liability Partnership (LLP)/ Limited Liability Company (LLC). In case, Bidder is a Consortium, all members of the Consortium should be registered individually as a Company/ Partnership firms/ Sole Proprietorship Firm / Limited Liability Partnership (LLP)/ Limited Liability Company (LLC).

A copy of certificate of incorporation/registration shall be furnished along with the bid in support of above.

- i. A Bidder may be from any country, either a single entity or any combination of entities. In the case of a Consortium, all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms; and the Consortium shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the Consortium during the tendering process and, in the event the Consortium is awarded the Contract, during contract execution.
- ii. APDCL/Any Central/State Government department or Public Sector Undertaking/ Other Government Entity or local body must not have banned business with the Bidder (including individual members in case of Consortium) as on the date of Bid submission.
- iii. Also, no work of the Bidder must have been rescinded/ terminated by APDCL/ any Central or State Govt. Department/ Public Sector Undertaking/ Other Govt. entity or local body after award of contract during last 3 Financial Years due to

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non-performance of the Bidder. The Bidder should submit undertaking to this effect as per the format prescribed in this RfS (**Format-12**). If the bidder's submitted information is found to be false declaration or misrepresentation, the bidder(s) shall be out rightly rejected or debarred or blacklisted from APDCL's future tenders.

- iv. Bidder (any member in case of consortium) must not have suffered bankruptcy/ insolvency during the last 5 years. The Bidder should submit undertaking to this effect as per the format prescribed in this RfS (**Format-14**).
- v. The bidder should have valid GST registration certificate & PAN (*Copy to be furnished in support*).

GENERAL ELIGIBILITY CRITERIA FOR CONSORTIUM:

The Bidder can also participate as Bidding Consortium with one of the members acting as the Lead Member of the Bidding Consortium. In case bidder is a consortium, a Consortium Agreement as per the format prescribed in this RfS (**Format-10**) shall be furnished along with the bid.

- i. Bidding Consortium with a maximum of two (2) members shall be allowed in this bid.
- ii. All members of the consortium should be registered as a Company/ Partnership firms/ Sole Proprietorship Firm / Limited Liability Partnership (LLP)/ Limited Liability Company (LLC). A copy of certificate of incorporation/registration shall be furnished along with the bid in support the same.
- iii. GST Registration Certificate & PAN of all the members of the consortium shall be furnished along with the bid.
- iv. **A Bidder and all partners constituting the Bidder shall submit only one package in the same tendering process, either individually as a Bidder or as a partner of a Consortium. A Bidder who submits or participates in, more than one package will cause all of the proposals in which the Bidder has participated to be disqualified.**
- v. **Financial Eligibility criteria like MAAT & Net worth etc. as indicated in the RfS shall be fulfilled by the Lead Member while the Technical Eligibility Criteria shall be fulfilled by consortium member.**

3.2.2 TECHNICAL ELIGIBILITY CRITERIA

Technical experience of design, supply, erection, testing and commissioning of On-Grid Solar PV Power Plants/Off-Grid Solar PV Power Plants in last 3 years whose package-wise minimum aggregate capacity shall be as mentioned below:

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Sl. No	Region (Packages)	Minimum Aggregate On-Grid / Off Grid Solar Power Plant Capacity (kW) in last 3 calendar years
1	Lower Assam Region (Package-I)	36
2	Central Assam Region (Package-II)	46
3	Upper Assam Region (Package-III)	27

The list of projects commissioned indicating type of project (On-Grid Solar PV Power Plants/Off-Grid Solar PV Power Plants) along with a copy of Work Completion Certificate and Work order from the Client/Issuing Authority shall be submitted in support of the same. Technical experience shall be considered only from Government Organizations.

In the case of Consortium, the technical criteria as indicated above shall be fulfilled by another Partner of the Consortium (Other than lead partner of the consortium).

Note:

- The work order & work completion certificate in support of technical eligibility criteria furnished from any private organization shall not be considered for evaluation.
- Government Organization means any entity which is either directly controlled by the Central or State Government or is under the administrative control of Central or State Government or a Central Public Sector Enterprise (CPSE)/ Central Public Sector Undertaking (CPSU)/State PSU etc.***
- Subcontractor experience shall not be considered for evaluation.

3.2.3 FINANCIAL ELIGIBILITY CRITERIA

The Bidder should have an Annual Turnover **AND** Net Worth as indicated below:

I. Minimum Average Annual Turnover (MAAT):

The package-wise Minimum Average Annual Turnover (MAAT) of the bidder in the last three audited financial years (i.e. FY 2020-2021, 2021-2022 and 2022-2023) shall be as mentioned below:

Sl. No	Package No	Region	Minimum Aggregate Annual Turnover (MAAT) in last 3 Audited FY (Rs.)
1	Package-I	Lower Assam Region	21,25,993.00
2	Package-II	Central Assam Region	29,09,900.00
3	Package-III	Upper Assam Region	16,15,720.00

This must be the individual Company's turnover and not that of any group of Companies. **A summarized sheet of Average Annual Turnover certified by Registered Chartered**

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Accountant with his stamp and signature in original should be compulsorily enclosed along with corresponding annual accounts.

II. Net-Worth:

- The Net-Worth of Bidder during last audited financial year shall be positive.

A summarized sheet of MAAT & Net-worth value certified by Registered Chartered Accountant with his stamp and signature in original should be compulsorily enclosed along with corresponding annual accounts. "Net Worth" of the Bidder shall be calculated as per Companies Act, 2013.

- **Financial data for latest last 3 (three) audited financial years has to be submitted by the Bidder in the formats as prescribed in this RfS along with audited balance sheets.** The financial data in the prescribed format shall be certified by Registered Chartered Accountant with his stamp and signature in original. In case audited balance sheet of the last financial year is not made available by the bidder, **he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'.** In such case, the financial data of previous '2' audited financial years will be taken into consideration for evaluation. **If audited balance sheet of any of these 2 years other than the last three (3) years is not submitted, the tender will be considered as non-responsive. But in case the company is operative for less than 3 years, it still can be considered provided its financial standing meets the tender requirement based on available audited balance sheets.**

Note:

- **In case of Consortium, the Financial Eligibility criteria like MAAT or Net-worth as indicated in the clause no. 3.2.3 (I) & (II) of RfS shall be fulfilled by the lead member of Consortium.**

3.3. BID SUBMISSION BY THE BIDDER

3.3.1 The information and/or documents shall be submitted by the Bidder as per the formats specified in the RfS document.

3.3.2 Strict adherence to the formats wherever specified, is required. Wherever, information has been sought in specified formats, the Bidder shall refrain from referring to brochures/pamphlets. Non-adherence to formats and/or submission of incomplete information may be a ground for declaring the Bid as non-responsive. Each format has to be duly signed and stamped by the authorized signatory of the Bidder.

3.3.3 The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.2.1, 3.2.2 and 3.2.3 to fulfill the compliance of the bidding document.

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3.4. BID SUBMITTED BY A BIDDING COMPANY

3.4.1 The Bidder shall submit a duly **notarized written Power of Attorney (POA)** authorizing the signatory(ies) of the Tender to commit the Bidder. In case of consortium each member of the partnership, consortium along with **copy of Board Resolution/authorization in favor of signatory to POA.**

3.4.2 Each Bidder (each member in the case of consortium) is required to confirm and declare with his Tender that no agent, middleman or any intermediary has been, or will be, engaged to provide any services, or any other item or work related to the award and performance of this Contract and declare that no agency commission or any payment which may be construed as an agency commission has been, or will be, paid and that the tender price will not include any such amount. To fulfill this requirement, the Bidder (each member in case of Consortium) has to sign the declaration given as prescribed in this RfS. If the Employer subsequently finds to the contrary, the Employer reserves the right to declare the Bidder as non-compliant, and declare any Contract if already awarded to the Bidder to be null and void.

3.5. CLARIFICATIONS AND PRE-BID MEETING

3.5.1 APDCL will not enter into any correspondence with the Bidders, except to furnish clarifications on RfS Documents, if necessary. The Bidders may seek clarifications or suggest amendments to RfS online, also soft copy by e-mail to reach APDCL at the address, date and time mentioned in Bid Information Sheet.

3.5.2 The Bidder(s) or their authorized representative(s) is/are invited to attend pre-bid meeting(s), which will take place on date(s) as specified in Bid Information Sheet, or any such other date as notified by APDCL .

3.5.3 The purpose of the pre-bid meeting will be to clarify any issues regarding the RfS including in particular, issues raised in writing and submitted by the Bidders.

3.5.4 APDCL is not under any obligation to entertain/respond to suggestions made or to incorporate modifications sought by the bidder.

3.5.5 A prospective Bidder requiring any clarification of the Bid Documents may contact Chief General Manager (NRE), APDCL in writing or by E- mailing at cgm.nre@apdcl.org

3.6. AMENDMENTS TO RfS BY APDCL

3.6.1 At any time prior to the deadline for submission of Bids, APDCL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RfS document by issuing clarification(s) and/or amendment(s).

3.6.2 The clarification(s)/ amendment(s) (if any) shall be notified on <https://www.assamtenders.gov.in> at least three (3) days before the proposed date of submission of the Bid. If any amendment is required to be notified within three (3) days of the

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proposed date of submission of the Bid, the Bid Deadline may be extended for a suitable period of time.

3.6.3 APDCL will not bear any responsibility or liability arising out of non-receipt of the information regarding Amendments in time or otherwise. Bidders must check the website for any such amendment before submitting their Bid.

3.6.4 In case any amendment is notified after due date of submission of the Bid (prior to the opening of Techno-Commercial Bid), time shall be extended and it will be for the Bidders to submit fresh bids/supplementary bids as the date notified by the APDCL for the purpose.

3.6.5 All the notices related to this Bid which are required to be publicized shall be uploaded on <https://www.assamtenders.gov.in>.

3.7. BIDDING PROCESS

3.7.1 OFFLINE BID FOR SUBMISSION OF HARDCOPIES

The Bid in response to this RfS shall be submitted by the Bidder in the manner provided in the RfS. The Bid shall comprise of the following in the Techno – Commercial Bid:

A. **ENVELOPE-I: COVERING LETTER**

- i. Covering Letter as per prescribed **Format-1**
- ii. Copy of Bid Submission Confirmation regarding Online Submission of Tender Processing Fee & EMD generated from e-Procurement System Government of Assam (Assam Tenders)

B. **ENVELOPE- II: TECHNO-COMMERCIAL DOCUMENTS**

- I. General Information about the Bidder as per prescribed **Format –A**. Following needs to be submitted by the bidder (**or by each member in case of Consortium**)
 - Certificate of Incorporation for Public/Private Limited Company/Limited Liability Partnership / Limited Liability Company.
 - Registration Certificate/Partnership Deed in case of Sole Proprietorship/ Partnership Firms.
 - Memorandum & Article of Association in case of Public / Private Limited Company.
 - GST Registration Certificate & PAN.
- II. General particulars of bidders as per **Format-2**
- III. **Power of Attorney** issued by the Bidding Company in favor of the authorized person signing the Bid, in the form attached hereto as **Format-5** or standard power of attorney in favor of authorized person signing the Bid.

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(Power of Attorney must be supplemented by Board Resolution to above effect for the company incorporated under Company Act 1956 or Company Act 2013).

However, Employer may accept general Power of Attorney executed in favour of Authorized signatory of the Bidder, if it shall conclusively establish that the signatory has been authorized by the Board of Directors to execute all documents on behalf of the Bidding Company.

- IV. Details for meeting General Eligibility Criteria as per Clause no. 3.2.1 with documentary evidence for the same.
- V. Details for meeting Technical Eligibility Criteria as per Clause no. 3.2.2 in the prescribed **Format-7** along with documentary evidence for the same.
- VI. Details for meeting Financial Eligibility Criteria as per Clause no. 3.2.3 in the prescribed **Format-6 & Format 9** along with documentary evidence for the same.
- VII. **Format 10** Signed Copy of Consortium Agreement (In case of bidder participated as a Consortium)
- VIII. All required formats like **Format-11, Format-12, Format-13, Format -14 & Format-15.**
- IX. Details of the proposed items as per prescribed format '**Format-16**' along with following supporting documents:
 - ❖ Test report/certificate of **Solar PV Module** from IEC/NABL accredited laboratory as per relevant IEC standard (IEC 61215 edition II / IS 14286 and IEC 61730 Part 1- requirements for construction & Part 2 – requirements for testing, for safety qualification.
 - ❖ Enclose test reports/ certificate of **proposed PCU** from IEC/NABL accredited laboratory to comply following IEC standard:
 - IEC 62116 (Anti-islanding protection)
 - IEC 62109-1, IEC 62109-2 (Safety compliance)
 - IEC 60068-2 (1, 2, 14, 30) (Environmental Testing)
 - IS/IEC 61683 (Efficiency Measurement Procedure)
 - ❖ Enclose test reports/certificate of **proposed battery** from accredited laboratory as per relevant IEC standard or latest BIS standard.
 - ❖ Enclose test reports/certificate of **proposed Cable** from IEC/NABL accredited laboratory/manufacturer technical data sheet to comply following IEC standard:
 - IEC 60227/ IS 694, IEC 60502 / IS 554 Std

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- ❖ Enclose test reports/certificate of **proposed Junction Box** from IEC/NABL accredited laboratory/manufacturer technical data sheet to comply following IEC standard:
 - IP 65 and IEC 62208
- ❖ Enclose test reports/certificate of **proposed ACDB** from IEC/NABL accredited laboratory/manufacturer technical data sheet to comply following IEC standard:
 - IEC 60947, Part I, II and III/ IS 60947 Part I, II and III

X. Signed and stamped Copy of RfS Documents including amendments & clarifications by Authorized signatory on each page.

Please note that, the price bid should not be submitted in the techno-commercial bid. If the price bid is submitted as a part of technical bid submission, all the quoted bids will be rejected.

3.7.2 ONLINE BID FOR SUBMISSION OF TECHNO-COMMERCIAL BID AND PRICE BID

A. TECHNO- COMMERCIAL BIDS

The Techno-Commercial Bid shall **contain the scanned copy of the documents & online submission of tender processing fee & EMD** set out below, in a sequential manner:

- I. Covering Letter as per prescribed **Format-1**
- II. Non- Refundable Tender Processing fee to be submitted online while online submission of tender in <https://assamtenders.gov.in>
- III. Bid Security/EMD, to be submitted online while online submission of tender in <https://assamtenders.gov.in>
- IV. General Information about the Bidder as per prescribed **Format -A**. Following needs to be submitted by the bidder (by each member in case of Consortium):
 - Certificate of Incorporation for Public/Private Limited company/Limited Liability Partnership / Limited Liability Company.
 - Registration Certificate/Partnership Deed in case of Sole Proprietorship/ Partnership Firms
 - Memorandum & Article of Association in case of Public / Private Limited Company
 - GST Registration Certificate & PAN

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V. General particulars of bidders as per **Format-2**

VI. **Power of Attorney** issued by the Bidding Company in favor of the authorized person signing the Bid, in the form attached hereto as **Format-5** or standard power of attorney in favor of authorized person signing the Bid.

(Power of Attorney must be supplemented by Board Resolution to above effect for the company incorporated under Company Act 1956 or Company Act 2013). However, Employer may accept general Power of Attorney executed in favour of Authorized signatory of the Bidder, if it shall conclusively establish that the signatory has been authorized by the Board of Directors to execute all documents on behalf of the Bidding Company.

VII. Details for meeting General Eligibility Criteria as per Clause no. 3.2.1 with documentary evidence for the same.

VIII. Details for meeting Technical Eligibility Criteria as per Clause no. 3.2.2 in the prescribed **Format-7** along with documentary evidence for the same.

IX. Details for meeting Financial Eligibility Criteria as per Clause no. 3.2.3 in the prescribed **Format-6 & Format 9** along with documentary evidence for the same.

X. **Format 10** Signed Copy of Consortium Agreement (In case of bidder participated as a Consortium)

XI. All required formats like **Format-11, Format-12, Format-13, Format -14 & Format-15.**

XII. Details of the proposed items as per prescribed format '**Format-16**' along with following supporting documents:

- ❖ Test report/certificate of **Solar PV Module** from IEC/NABL accredited laboratory as per relevant IEC standard (IEC 61215 edition II / IS 14286 and IEC 61730 Part 1- requirements for construction & Part 2 – requirements for testing, for safety qualification)
- ❖ Enclose test reports/ certificate of **proposed PCU** from IEC/NABL accredited laboratory to comply following IEC standard:
 - IEC 62116 (Anti-islanding protection)
 - IEC 62109-1, IEC 62109-2 (Safety compliance)
 - IEC 60068-2 (1, 2, 14, 30) (Environmental Testing)
 - IS/IEC 61683 (Efficiency Measurement Procedure)
- ❖ Enclose test reports/ certificate of **proposed battery** from accredited laboratory as per relevant IEC standard or latest BIS standard.

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- ❖ Enclose test reports/ certificate of **proposed Cable** from IEC/NABL accredited laboratory / manufacturer technical data sheet to comply following IEC standard:
 - IEC 60227/ IS 694, IEC 60502 / IS 554 Std
- ❖ Enclose test reports/ certificate of **proposed Junction Box** from IEC/NABL accredited laboratory / manufacturer technical data sheet to comply following IEC standard:
 - IP 65 and IEC 62208
- ❖ Enclose test reports/ certificate of **proposed ACDB** from IEC/NABL accredited laboratory / manufacturer technical data sheet to comply following IEC standard:
 - IEC 60947, Part I, II and III/ IS 60947 Part I, II and III

XIII. Signed and stamped Copy of RfS Documents including amendments & clarifications by Authorized signatory on each page.

B. **PRICE BIDS**

- a) **Financial Bid shall be submitted only through online mode with due encryption.** The Bidder shall submit its Financial Bid for both On-Grid Solar Project and Off-Grid Solar Project against each Package, **online only in the format [Format B(I)/ Format B(II)/Format B(III)] uploaded in the <https://www.assamtenders.gov.in>** portal of GOI.
- b) **The scanned copy of price breakup of various items shall be submitted by bidder through online only during price bid submission as per the format prescribed in this RfS (Format-B1).**

Please note that, the price bid should not be uploaded in the technical bid submission. If the price bid is submitted as a part of technical bid submission, all the quoted bids will be rejected.

Note: Any bidder quoting above the estimated cost shall be considered as non-responsive and the EMD shall be returned without forfeiture.

3.8. TENDER DUE DATE

The Bidder should submit the Bids so as to reach the address indicated below at the date and time mentioned in the Bid Information Sheet.

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Chief General Manager (NRE)

Assam Power Distribution Company Limited,

2nd Floor, Bijulee Bhawan (Annex Building), Paltanbazar, Guwahati-01

Dist. Kamrup (Metro), Pin: 781001, Assam, India.

Official Contact No. 8399883941

E-mail: cgm.nre@apdcl.org

3.9. VALIDITY OF TENDER

3.9.1 The Tender shall be valid for a period of **90 days** from the latest Date of Submission of Tender, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting letter of award, APDCL shall forfeit the EMD furnished by him. **Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.**

3.9.2 In exceptional circumstances when letter of award (LOA) is not issued, APDCL may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made through e-mail. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

3.10. COST OF BIDDING

The bidder shall bear all the costs associated with the preparation and submission of his offer, and APDCL will in no case be responsible or liable for those costs, under any conditions. The Bidder shall not be entitled to claim any costs, charges and expenses of and incidental to or incurred by him through or in connection with his submission of bid even though APDCL may elect to modify / withdraw the invitation of Bid.

3.11. BID SECURITY/EMD

The Bidder shall furnish Interest free Bid Security as mentioned below and shall be submitted online while online submission of tender in <https://assamtenders.gov.in>. The package-wise Bid Security (EMD) shall be as follows:

Package No.	Bid Security (EMD) (Rs.)
Package-I	Rs. 2,00,000.00
Package-II	Rs. 2,00,000.00
Package-III	Rs. 2,00,000.00

- The Bid Security/EMD of bidders who fail in technical evaluation shall be returned after opening of financial package.
- The Bid Security/EMD of the unsuccessful bidders in financial bid opening shall be released after unconditional acceptance of the Letter of Award (LOA) and submission of PBG by the successful bidders.

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- The Bid Security of successful bidders shall be returned after award of work and submission of Performance BG and after the receipt of confirmation of their PBG's from their respective banker.

In case of a consortium, the EMD / Bid Security is to be submitted in the name of the Lead Member of consortium.

No clarification shall be sought from the bidders regarding bid security.

The Bid Security/EMD shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to APDCL:

- a. If a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner during the period of Bid Validity specified in the RfS document.
- b. If the Successful Bidder fails to unconditionally accept the Letter of Award (LOA) within **three (3) days** from the date of its issue.
- c. If the Successful Bidder fails to furnish the "Performance Bank Guarantee (PBG)" within **ten (10) days** from the date of issue of LOA.

3.12. PERFORMANCE SECURITY/PERFORMANCE BANK GUARANTEE (PBG)

3.12.1 Within **ten (10) days** from the date of issue of Letter of Award (LOA), Successful Bidders shall furnish the **Performance Security/PBG at the rate of 10% of total work order value**. The PBG shall be furnished in the form of Bank Guarantee (BG) in favour of "**Chief General Manager (NRE), APDCL**" payable at Guwahati.

3.12.2 The Performance Security shall be valid for **a minimum period of 5 years and 4 months from the date of issuance of Letter of Award (LOA)** and shall be renewed/extended till the completion of 5 years of O&M period, if situation arises. The Performance security shall be released after 5 years from the date of commissioning of the project with the compliance of entire obligations in the contract. The date of commissioning will be the last date of commissioning of the last executed plant.

NB: In case the successful bidder is not able to furnish the PBG for 5 years of validity, then PBG with initial validity period of 1 year may also be accepted by APDCL provided the successful bidder shall renew/extend the PBG, thirty (30) days prior to the expiry of the same. **If the successful bidder does not extend the PBG, the same shall be forfeited by APDCL.**

3.12.3 The PBG shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to APDCL:

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- a) If the Successful Bidder is not able to not execute the work to the satisfaction of APDCL, PBG amount pro-rata to the capacity for which the Successful Bidder is not able to execute the Projects.
- b) If the Successful Bidder is not able to commission the projects to the satisfaction of APDCL, PBG amount pro-rata to the capacity not commissioned by the Successful Bidder.
- c) If the Successful Bidder does not attend and address the O&M issues/complaints till completion of 5 years CMC period from the date of commissioning even after intimation from APDCL.

3.12.4 In case, the bidder qualified as a successful bidder and fails to furnish the Performance Bank Guarantee (PBG) within due date, then APDCL have the right to blacklist the bidder for a period of 5 years and same shall be intimated to all the concerned Department of Govt. of Assam / India. No clarification shall be sought from the bidders regarding submission of PBG.

3.12.5 **If Bidder fails to fulfill to provide O&M service of the installed systems, it may lead to the encashment of Performance Bank Guarantee and subsequently debarring and blacklisting from the future State/Central Government Tender.**

3.13. OPENING OF BIDS

3.13.1 Technical bid (Envelope I and Envelope II) of the Bidder shall be opened on the date and time at the venue mentioned as indicated in Bid Information Sheet of this RfS, in the presence of one representative from each of the Bidder who wish to be present.

3.13.2 The bid documents shall be opened by the TEC (Tender Evaluation Committee) on due date and time of tender opening. On opening of the Tender, APDCL will first check the tender processing fee and EMD submitted by the bidders.

3.13.3 The Financial Bids will be opened on a subsequent date after evaluation of techno-commercial bids. **Financial bids of only those bidders whose technical bid submissions are found substantially responsive and technically compliant will be opened.** The time of opening of financial bids shall be informed separately to only the Bidders who have qualified during Technical evaluation stage and bidders can be present to witness opening of financial bids.

3.14. RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID

3.14.1 This RfS may be withdrawn or cancelled by APDCL at any time without assigning any reasons thereof. APDCL further reserves the right, at its complete discretion, to reject any or all of the Bids without assigning any reasons whatsoever and without incurring any liability on any account.

3.14.2 APDCL reserves the right to interpret the Bid submitted by the Bidder in accordance with the provisions of the RfS and make its own judgment regarding the interpretation of the same. In this regard, APDCL shall have no liability towards any Bidder and no Bidder shall have any recourse to APDCL with respect to the selection process. APDCL shall evaluate the Bids using

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the evaluation process specified in this RfS, at its sole discretion. APDCL decision in this regard shall be final and binding on the Bidders.

- 3.14.3 APDCL reserves its right to vary, modify, revise, amend or change any of the terms and conditions of the Bid before submission. The decision regarding acceptance or rejection of bid by APDCL will be full and final.

3.15. EXAMINATION OF BID DOCUMENT

- 3.15.1 The Bidder is required to carefully examine the Technical Specifications, terms and Conditions of Contract, and other details relating to supplies as given in the Bid Document.
- 3.15.2 The Bidder shall be deemed to have examined the bid document including the agreement/contract, to have obtained information on all matters whatsoever that might affect to execute the project activity and to have satisfied himself as to the adequacy of his bid. The bidder shall be deemed to have known the scope, nature and magnitude of the supplies and the requirements of material and labour involved etc. and as to all supplies and erection that he has to complete in accordance with the Bid document.
- 3.15.3 Bidder is advised to submit the bid on the basis of conditions stipulated in the Bid Document. Bidder's standard terms and conditions if any will not be considered.
- 3.15.4 **Bid not submitted as per the INSTRUCTIONS TO BIDDERS (IFB) is liable to be rejected. Bidder shall confirm in all respects with requirements and conditions referred in this bid document.**



PART - III

EVALUATION CRITERIA

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

EVALUATION, AWARD CRITERIA, COMPLETION OF PROJECT & SCOPE OF WORK

4.0 BID EVALUATION

4.1 The evaluation process comprises of the following four steps:

Step I	Responsiveness Check of Techno-Commercial Bid
Step II	Evaluation of Bidder's fulfilment of Eligibility Criteria
Step III	Evaluation of Price Bid
Step IV	Selection of Successful Bidder(s)

STEP – I: RESPONSIVENESS CHECK OF TECHNO-COMMERCIAL BID

The Techno Commercial Bid submitted by Bidders shall be scrutinized to check responsiveness to the requirements laid down in the RfS subject to Clause 3.2.1, Clause 3.2.2 and Clause 3.2.3. Any of the following may cause the bid to be considered “**Non-responsive**” at the sole discretion of APDCL:

- i. Bids that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, power of attorney supported by a board resolution, applicable undertakings, format for disclosure, valid Bid Security etc;
- ii. Bids not signed by authorized signatory and/or stamped in the manner indicated in this RfS;
- iii. Material inconsistencies in the information/documents submitted by the Bidder, affecting the Eligibility Criteria;
- iv. Information not submitted in the formats specified in this RfS;
- v. Bids being conditional in nature;
- vi. Bids (Both ONLINE & OFFLINE) not received within the Bid Submission Deadline;
- vii. Bids having Conflict of Interest;
- viii. Bidder delaying in submission of additional information or clarifications sought by APDCL as applicable;
- ix. Bidder makes any misrepresentation;

Each Bid shall be checked for compliance with the submission requirements set forth in this RfS before the evaluation of Bidder's fulfilment of Eligibility Criteria is taken up. In case of any non-conformity, the tender shall be disqualified and rejected.

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STEP – II: EVALUATION OF BIDDER’S FULFILMENT OF ELIGIBILITY CRITERIA

EVALUATION OF ELIGIBILITY:

- a. Evaluation of Bidder’s Eligibility will be carried out based on the information furnished by the Bidder as per the prescribed Formats and related documentary evidences in support of meeting the Eligibility Criteria as specified in this RfS. Non-availability of information and related documentary evidences for the satisfaction of Eligibility Criteria may cause the Bid to be non-responsive.
- b. Tenders not considered substantially responsive and non-fulfilment of the requirements of the tender document as evaluated as per clause 4.1 shall be rejected by APDCL and shall not be allowed subsequently to be made responsive by correction or withdrawal of the non-conforming deviation or reservation.
- c. If any tender is rejected, pursuant to paragraph (b) above, the Financial Bid of such bidder shall not be opened.
- d. The decision of APDCL as to which of the tenders are not substantially responsive shall be final.

STEP – III: EVALUATION OF PRICE BID

- a. All techno-commercially responsive bidders will be eligible for opening of their financial proposals. APDCL shall notify all technically qualified Bidders to attend the opening of the financial proposal. The financial proposal will then be opened in front of attending Bidders.
- b. Evaluation of financial offer will be based on rates quoted in prescribed format of Price Bid. Any alteration in Price Bid will not be given any cognizance. The rates are inclusive of all applicable taxes, duties, installation & commissioning, CMC for 5 years, transportation & insurance etc.
- c. Any bidder quoting above the estimated cost shall be considered as non-responsive and the EMD shall be returned without forfeiture. Further it is to clarify that:

Quoted price \leq Estimated cost shall be considered as responsive

STEP –IV: SELECTION OF SUCCESSFUL BIDDER(S)

- a. Based on the quoted price by the bidders, APDCL shall arrange the bids **Package-wise** in the ascending order of ranking i.e. L1, L2, L3, _ _ _ (L1 being the lowest quoted bidder). The L1 bidder shall be recommended for issuance of Letter of Award (LOA).

In case of tie in the quoted price among two or more bidders, then the ranking of the bidder shall be arranged according to their MAAT value:

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For example:

Package No.	Bidders	Quoted Price (Rs.)	MAAT (Rs. Lakh)	Ranking
Package-I	B1	65000.00	100	L1
	B2	65000.00	90	L2
	B3	65000.00	80	L3

5.0 NOTIFICATION TO SUCCESSFUL BIDDERS

- 5.1 Prior to the expiry of the period of tender validity prescribed by APDCL, APDCL will notify the successful Bidder by e-mail that his tender has been accepted (hereinafter and in the Conditions of Contract called 'the Letter of Award'). The "Letter of Award" will be issued under signature of CGM (NRE), APDCL. The successful Bidder has to submit a copy of the 'Letter of Award' to APDCL duly acknowledged and signed by the authorized signatory, within one week of receipt of the same by him. No correspondence will be entertained by APDCL for the unsuccessful Bidders.

6.0 AWARD CAPACITY (PACKAGE-WISE)

- 6.1 The Package-Wise aggregate capacity for both On-Grid and Off-Grid Solar Power Plants will be awarded to the corresponding L1 bidder.

7.0 LIQUIDATED DAMAGES (LD) FOR DELAY IN PROJECT IMPLEMENTATION

- 7.1 APDCL will issue the Letter of Award (LOA) for the Project(s). The Bidder shall complete the site survey, design, engineering, supply, storage, civil works, erection, testing & commissioning of project **within 4 months from the date of issuance of LOA.**

If the contractor fails to execute the works within the time period specified in the contract, APDCL shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damages, a sum equivalent to 1% of the price of the unperformed works/services for each week of delay until actual performance up to a maximum deduction of 10% of the delayed services. **If the contractor fails to complete the works beyond the 10 weeks of delay period, the work order will be treated as cancelled and 10% security money deposit will be forfeited.** Once the maximum of the penalty is reached, APDCL may consider termination of the contract/blacklisting of the contractor for non-execution of the awarded works or non -performance of the contractor.

The contractor shall have to comply with all the rules, regulations, laws and by-laws for the time being in force and the instructions if any, of the organization, in whose premises the work has to be done. APDCL shall have no liability in this regard.

- 7.2 The Contractor may apply for an extension of the time for project completion if the Work is or will be delayed by any of the following causes:

a) "Force Majeure"

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- b) The Contractor's work is held up for not being given possession of or access to the site for a considerable period.
- c) Concerned authority to suspend the works and the Contractor not being in default as to reasons of suspension.

8.0 TIME OF COMPLETION OF PROJECT

- 8.1 APDCL will issue the LOA for the Project(s). The Bidder shall complete the site survey, design, engineering, supply, storage, civil works, erection, testing & commissioning of awarded project(s) **within 4 months from the date of issuance of LOA**. In case of delay beyond scheduled commissioning period, the bidder shall be liable for Liquidated Damages (LD) as per Clause 7.1.

9.0 INSPECTION AND AUDIT BY APDCL

The Successful bidder shall permit APDCL or their authorized agency to inspect the Successful bidder's site, accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by APDCL, if so required by APDCL any time.

10.0 SCOPE OF WORK

- 10.1 **DESIGN, SUPPLY, ERECTION AND COMMISSIONING:** The scope of work for the bidder includes site survey of the proposed locations, obtaining technical feasibility report from APDCL through online application at www.rodalee.com (in case of on-grid solar power plants only), complete design, engineering, manufacture, supply, storage, civil works, erection, testing & commissioning of the on-grid and off-grid solar power plants including operation and maintenance (O&M) of the plant for a period of 5 years after commissioning of the plants as per APDCL's acceptance.

- Detailed planning of time bound smooth execution of Project;
- The successful bidder shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, wherever appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit;
- Supplier shall be responsible for delivering all the equipment at store of district head quarter under his own arrangement within the stipulated time frame.
- The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture of acquisition, transportation, storage at site and delivery to site during the construction period by the supplier at his own cost;
- Comprehensive O&M of the Project for 5 (five) years to assure faultless operation, and inventory maintenance;
- After sales service through service center/s;

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- Coverage of risk liability of all personnel associated with implementation and realization of the Project;
- The successful bidder shall train the user about the day to day care and maintenance of the system;
- The Successful Bidder shall maintain sufficient inventory of the spare parts to ensure that the Project is functional during the warranty period;
- Comprehensive O&M of the Project at each location, from the date of the Commissioning of Project shall have to be carried out by the Successful Bidder. Comprehensive O&M of the Project shall be for five (5) years from the date of Commissioning;
- Performance or supervision of the on-site assembly and/or start-up of the supplied Goods;
- Furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and

The Successful Bidder(s) shall be obligated to perform the following Scope of Work, but not limited to, in relation to the development of the power plant:

- A. Design, develop, procure, construct and commission on-grid & off-grid ground-mounted solar photovoltaic power plants (rooftop solar photovoltaic power plant if in case ground-mounted solar plant is not feasible), which includes, but is not limited to the following:**
- a) Solar PV modules
 - b) Mounting frames, structures, array foundation (grouting on terrace), earthing grid design, and module inter-connection
 - c) All System Junction boxes
 - d) Power Conditioning Units (PCU)
 - e) MPPT – Max power point tracking built in the PCU
 - f) Battery
 - g) Power and Control Cables
 - h) Earthing system for PV Array, DC power system, lightning protection system
 - i) Transportation, unloading, and loading of all equipment at Site
 - j) Project Management including adherence to all requisite safety practices
 - k) Fire fighting and fire detection systems
- B. INSTALLATION AND COMMISSIONING OF ON-GRID and OFF-GRID GROUND-MOUNTED/ ROOFTOP SOLAR PHOTOVOLTAIC POWER PLANTS, WHICH INCLUDES:**
- a) Design and construction of foundations or grouting for holding module mounting structures without puncturing the roof; maintaining proper drainage of rain water over terrace through the installation area; cable routings through PVC pipes not obstructing the movement on the terrace

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- b) **Both On-Grid and Off-Grid Solar Power Plants shall be ground-mounted; rooftop solar plant shall be considered only if ground-mounted solar plant will not be feasible at the specific location. In such case, the successful bidder shall be required to take project specific approval from APDCL for rooftop solar plants prior to execution of the project.**
- c) Before commencement of work, the successful bidder shall obtain approvals for all related drawings from the relevant and concerned building authorities
- d) All drawings shall conform to relevant IS/ IEC standards
- e) Special care to be taken while designing all structures for modules to cater to heavy rainfall, strong winds and earthquake that may be prevalent in the area

C. COMPREHENSIVE OPERATION AND MAINTENANCE:

The comprehensive operation & maintenance of the plant would include wear, tear, overhauling, machine breakdown, insurance, replacement of defective modules, invertors, PCU's, spares, consumables & other parts for a period of 5 (five) years. This shall also include operation and maintenance of the evacuation infrastructure, as well.

The Selected Bidder shall be responsible for following activities:

- Regular operation and maintenance of the plant.
- Daily monitoring of plant performance and supply of all technical, production/operation data and information through a monthly report. Daily Plant Generation data shall be made available to the primary beneficiary with a copy of such report to the Chief General Manager (NRE), APDCL and respective Primary Beneficiaries.
- Prepare and submit a detailed report on the operation and maintenance requirement, if any to the respective Primary Beneficiaries on half-yearly basis. A copy of such report shall also be submitted to the Chief General Manager (NRE), APDCL.
- Undertake day to day checks and maintenance activities on round the clock basis, required to be carried out, as a recommended practice by the manufacturer of the equipment, on all the components of the power plant to minimize breakdowns and to ensure smooth and trouble free operation of the plant and to get maximum output from the panels. The supplier shall be responsible to carry out routine and preventive maintenance and replacement of each and every component / equipment of the power plant and he shall provide all labor, material, consumables etc. for routine and preventive maintenance at his own cost.
- Carry out maintenance activities as a result of sudden failure/breakdown of any particular component or equipment. It shall be responsible to carry out breakdown maintenance of each and every component of the power plant and shall provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance at his own cost irrespective of the reasons of the breakdown/failure.
- Prepare and maintain records on daily basis towards maintenance of the plant, electricity generation, etc.
- The Selected Bidder should not misuse the area and/or assign responsibility for the safety of machinery within the premises.

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- The Selected Bidder shall be responsible for undertaking the operation and maintenance of the plant for a term of five (5) years from the date of entering into handover agreement of the plant to respective Primary Beneficiaries.
- The term for operation and maintenance of the plant may be extended for another five (5) years on mutually agreed terms and conditions and charges as quoted by the Selected Bidder.

The successful bidder should supply and install a signboard of size 4ft. X 3ft. made of Aluminium sheet and MS set up at a suitable location at the site of each project location as per direction of the officials of APDCL. The signboard should be written as follows:

Name of Project Location: _____
Name of the scheme: **Solar PV Power Project under PM-SHRI Scheme of Samagra Shiksha, Assam**
Capacity of On-Grid/Off-Grid Solar PV Power Plant: _____
Installed & Commissioned by: _____
Date of Installation: _____
Name of the Implementing Agency: **APDCL, Bijulee Bhawan, Paltanbazar, Guwahati-1**
Address of the service center: _____
Name of Contact Person (Service Centre): _____
Service Center Contact Number: _____

10.2 The detailed work would involve (include but not limited to) the following major activities:

10.2.1 Bidder shall submit following **project sanction documents** to CGM (NRE), APDCL as mentioned below to get go ahead for the project:

- Site survey report against each location as per attached format prescribed in this RfS to the CGM (NRE), APDCL (**Annexure -I**).
- In case of On-grid Solar Power Plant: Apply to www.rodalee.com on behalf of consumer/beneficiary & submit the copy of online submitted application form generated from www.rodalee.com including Copy of Technical Feasibility report against each consumer generated from www.rodalee.com
- GTP & PERT Chart against each project location.
- **In case ground-mounted solar plant (On-Grid/Off-Grid) is not feasible at any specific location, the successful bidder has to submit site survey report along with photographs of the site to the CGM (NRE), APDCL for getting approval for execution rooftop solar plant at the particular location.**

10.2.2 Bidder shall prepare route profile drawing along with electrical connection to consumer(s)

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- 10.2.3 Bill of material shall include PV module, inverter, distribution boards (AC and DC), cable, combiner box, battery (for off-grid solar power plant) and associated works including protection and monitoring arrangements etc.
- 10.2.4 The Bidder shall have to take all permits, approvals and licenses, insurance etc., provide training to the users and such other items & services required to complete the scope of work mentioned above.
- 10.2.5 **EXIM Metering:** Export-Import (EXIM) metering and grid connectivity of the On-Grid Solar PV Power Plants under this scheme would be in accordance with the prevailing guidelines of APDCL and/or Central Electricity Authority (CEA)/Assam Electricity Regulatory Commission (AERC). **The costs of EXIM-meters shall be borne by the successful bidders. Also, facilitation for the same i.e. submission of application in concerned APDCL's office, follow-up & liaisoning etc. shall be in the scope of successful bidders.**
- 10.2.6 The Bidder shall provide Technical Manual, User Manual and Operation and Maintenance (O&M) Manual of the plant to the beneficiary in English and Assamese language.
- 10.2.7 The Bidder shall provide training (General/ Technical/ Safety) to the beneficiary's nominated persons for daily operation, cleaning, monitoring and maintenance of power plant. Bidder shall provide maintenance schedule of the plant to beneficiary.
- 10.2.8 Any other works though not specifically mentioned but are required to complete the project in all respects for its safe, reliable, efficient and trouble free operation shall also be included and the same shall be supplied and installed by the Bidder without any extra cost.
- 10.2.9 Clean up: Upon completion of the Works, the bidder shall remove from the vicinity of the work all residues, building rubbish, unused materials, concrete forms and other like materials belonging to him or under his direction during construction to the satisfaction of beneficiary and in the event of his failure to do so within 15 days from the date of commissioning. The cost on account of clean up shall be included in the quoted rate and no additional extra claim shall be entertained.
- 10.3 Scope of Comprehensive O&M Activities (Quarterly): The Comprehensive quarterly O&M schedule shall include (but not limited to) the following mentioned activities:

Solar Modules:

- Visual inspection of modules and mounting clamps
- Washing and cleaning of modules and structures
- Check modules for any broken glass/ discolouration, misaligned modules

Module mounting structure:

- Visual inspection of mounting structures, screws and fasteners
- Tightening of screws and fasteners as needed

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Junction Box:

- Checking and tightening of solar inter connections
- Visual inspection of junction boxes and wiring
- Tightening of any interconnections as needed

Inverters:

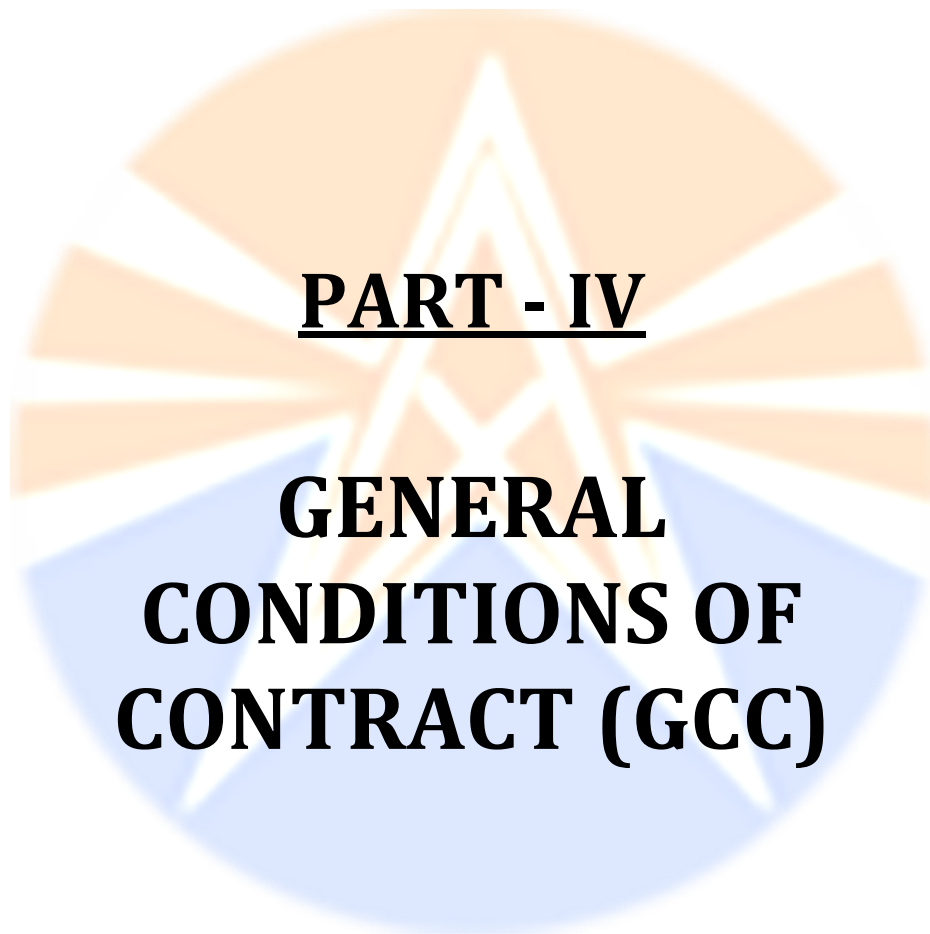
- General Cleaning
- Check LCD displays of inverters
- Check integrity of wiring
- Visual inspection of mechanical fixings of inverters

Cables:

- Visual inspection of DC and AC cables
- Replacement of cables if damaged

Remote Monitoring:

- SCADA daily production data recorded
- Physical verification of RS485 communication cables between equipment and server
- Ensure communication between weather station, (Temperature sensor, Wind speed, solar radiation), Inverter output, String monitoring if supplied
- Internet connectivity, configuration (Remote connectivity HW) Check the data reports like graphs



PART - IV

GENERAL CONDITIONS OF CONTRACT (GCC)

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11.1 INSURANCE

- The Bidder shall be responsible and take an Insurance Policy for transit-cum-storage-cum-erection of all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, erection, testing and commissioning. **The bidder shall also take appropriate insurance during O&M period.**
- The Bidder shall also take insurance for Third Party Liability covering loss of human life, engineers and workmen and also covering the risks of damage to the third party/material/equipment/properties during execution of the Contract including O&M period covering structural damages & fire hazard. Before commencement of the work, the Bidder will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of bidder.

11.2 WARRANTIES AND GUARANTEES

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

11.3 TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP

- The design, engineering, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards as detailed in the Part-V (Technical specifications) of the bid document. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.
- The specifications of the components should meet the technical specifications mentioned in Part-V.
- Any supplies which have not been specifically mentioned in this Contract but which are necessary for the design, engineering, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

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11.4 PROGRESS REPORT

The bidder shall submit the progress report fortnightly (15 days) to APDCL. APDCL will have the right to depute its representatives to ascertain the progress of contract at the premises of works of the bidder.

11.5 PROJECT INSPECTION

The project progress will be monitored by APDCL and the projects will be inspected for quality at any time during commissioning or after completion of the project either by officer(s) from APDCL or any authorized agency/experts.

APDCL may depute a technical person(s) for inspection, third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufacturers' facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required.

- Duly authorized representative of APDCL shall have at all reasonable times access to the premises of the bidder's firm or works and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture.
- **The Bidder shall give 15 days written notice of any material being ready for inspection and testing to APDCL. It shall be mandatory that such notice should reach APDCL within 10 days of placement of supply order.** Such tests shall be on the Bidder's accounts/expenses. If APDCL wants to inspect the material other than its works/factory (specified in the bid) than the whole expenses of the inspector shall be borne by the contractor. **APDCL reserves the full rights, to waive off inspection of material, if required based on exigency of the project.**
- The Bidder is required to get the entire lot of the ordered material inspected at one time, before the supply of the materials. In case the Bidder fails to get the entire lot inspected at one time, the total expenses of the further inspection will be borne by the Bidder.
- The inspection by APDCL and issue of dispatch instruction thereon shall in no way limit the liabilities and responsibilities of the Bidder in respect of the agreed quality assurance program forming a part of the contract.

11.6 SUBMISSION OF PROJECT COMPLETION REPORT (PCR)

The bidder shall submit the Project Completion Report (both in soft copy and signed hard copy) after commissioning of the project as per the Scope of RfS to APDCL as per the Format prescribed by APDCL (Format-19). Non-submission of the report shall be considered as "Breach of Contract" and shall attract punitive actions as per the relevant provisions of the Contract including non-release of payment. However, the decision of CGM (NRE), APDCL shall be final in this regard.

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11.7 APPLICABLE LAW

The Contract shall be interpreted in accordance with the laws of the Union of India. The station of APDCL Headquarter in **Guwahati shall have exclusive jurisdiction** in all matters arising under this contract.

11.8 SETTLEMENT OF DISPUTE

- 11.8.1 If any dispute of any kind whatsoever arises between APDCL and Successful bidder in connection with or arising out of the contract including without prejudice to the generality of the foregoing, any question regarding the existence, validity or termination, the parties shall seek to resolve any such dispute or difference by mutual consent.
- 11.8.2 If the parties fail to resolve, such a dispute or difference by mutual consent, within 60 days of its arising, then the dispute shall be referred by either party by giving notice to the other party in writing of its intention to refer to arbitration as hereafter provided regarding matter under dispute. No arbitration proceedings will commence unless such notice is given. Any dispute in respect of which a notice of intention to commence arbitration has been given in accordance with Sub Clause 10.8.1, shall be finally settled by arbitration.
- 11.8.3 Any dispute submitted by a party to arbitration shall be heard by an arbitration panel composed of three arbitrators, in accordance with the provisions set forth below:
- APDCL and the Turn-key Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within thirty (30) days after the later of the two arbitrators has been appointed, the third arbitrator shall, at the request of either party, be appointed by the Appointing Authority for third arbitrator.
 - If one party fails to appoint its arbitrator within thirty (30) days after the other party has named its arbitrator, the party which has named an arbitrator may request the Appointing Authority to appoint the second arbitrator.
 - Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue of arbitration shall be Guwahati.
 - The decision of a majority of the arbitrators (or of the third arbitrator chairing the arbitration panel, if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction as decree of the court. The parties thereby waive any objections to or claims of immunity from such enforcement.
 - The arbitrator(s) shall give reasoned award

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- Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless they otherwise agree
- Cost of arbitration shall be equally shared between the Successful bidder or Contractor and APDCL

11.9 FORCE MAJEURE

11.9.1 Notwithstanding the provisions of clauses contained in this RfS document; APDCL shall not (a) Forfeit Security deposit for delay and (b) Terminate the contract; if Contractor is unable to fulfill his obligation under this contract due to force majeure conditions.

11.9.2 For purpose of this clause, "Force Majeure" means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, terrorist attacks, quarantine restrictions and fright embargoes etc.

Whether a "Force majeure" situation exists or not, shall be decided by APDCL and its decision shall be final and binding on the contractor and all other concerned.

11.9.3 In the event that the contractor is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond three months, APDCL has the right to terminate the contract in which case, the security deposit shall be refunded to him.

11.9.4 If a force majeure situation arises, the contractor shall notify APDCL in writing promptly, not later than 7 days from the date such situation arises. The contractor shall also notify APDCL not later than 3 days of cessation of force majeure conditions. After examining the cases, APDCL shall decide and grant suitable additional time for the completion of the work, if required.

As per the relevant law, in event of a disagreement between parties on existence of force majeure event, arbitration shall decide.

11.10 LANGUAGE

All documents, drawings, instructions, design data, calculations, operation, maintenance and safety manuals, reports, labels and any other data shall be in English Language. The contract agreement and all correspondence between APDCL and the bidder shall be in English language.

11.11 OTHER CONDITIONS

- i) The Successful bidder shall not transfer, assign or sub-let the work under this contract or any substantial part thereof to any other party without the prior consent of APDCL in writing.

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- ii) The Successful bidder or its sub-contractors shall not display the photographs of the work and not take advantage through publicity of the work without written permission of APDCL.
- iii) The Successful bidder or its sub-contractors shall not make any other use of any of the documents or information of this contract, except for the purposes of performing the contract.
- iv) APDCL will not be bound by any Power of Attorney granted/issued by the Successful bidder or its sub-contractors or by any change in the composition of the firm made during or subsequent to the execution of the contract. However recognition to such Power of Attorney and change (if any) may be given by APDCL after obtaining proper legal advice, the cost of which will be chargeable to the Successful bidder concerned.
- v) Applicant requiring any Techno-Commercial clarification of the bid documents may contact APDCL in writing or by e-mail. Verbal clarifications and information given by APDCL or its employees or its Representatives shall not be in any way entertained.

11.12 CONSIGNEE:

The material shall be dispatched to the bidder's own store established in Assam/local associate at Assam. The material will be verified by CEO of Concerned Electrical Circle, APDCL at the bidder's store & will be handed over to the bidder again for installation & commissioning at site.

11.13 PAYMENT TERMS:

The total contract value shall be calculated as follows:

The total contract value = [Supply Cost + Cost of Installation & Commissioning + Cost of CMC for 5 years]

All progressive payments shall be released on validity of Contract Performance Security. The invoice of the contractor shall be verified by SDE of concerned Electrical Sub-Division-APDCL, passed by AGM of concerned Electrical Division-APDCL, countersigned by CEO of Concerned Electrical Circle-APDCL and payment shall be made by CGM (NRE), APDCL.

11.13.1 SUPPLY OF WORK COMPONENT:

A.1: First Installment (80%): Eighty percent (80%) payments including 100% GST of the complete system shall be paid against completion of supply & erection of 100% awarded quantity. The said amount shall be paid on submission of the following documents indicated herein under:

- i) Copy of unconditional acceptance of the Letter of Award (LOA) and signing of contract agreement.
- ii) Copy of Detailed Project Execution Plan/PERT chart and its approval by APDCL.

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- iii) Copy of Guaranteed Technical Particulars (GTP) and drawing approved by APDCL.
- iv) Material Dispatch Clearance Certificate (MDCC) / Dispatch Instructions (DI) for dispatch of materials from the manufacturer's works. MDCC/DI shall be issued by authorized officer of APDCL along with relevant e-way bills.
- v) Submission of the certificate by the CEO of Concerned Electrical Circle, APDCL that the 100% of the billable item(s) have been verified and delivered to site i.e., MICC (Material Inspection & Clearance Certificate) issued by the authorized official of APDCL.
- vi) Installation & Commissioning and Site Hand-over certificate (Format-18) duly signed by the Consumer, SDE of concerned Electrical Sub-Division, APDCL and the successful bidder along with a Work Completion Report from the concerned CEO, APDCL.
- vii) Contractor's detailed invoice & Warrantee Certificate of each system.
- viii) Coloured photographs (both signed hard copies and soft copies) of installed systems verified by concerned SDE of Electrical Sub-Division, APDCL.

NOTE:

- Total 1 (one) no. of bill shall be allowed.

A.2: Second Installment (20%): The balance twenty (20%) percent payments against completion of supply & erection of 100% awarded quantity shall be paid after 6 (six) months successful functioning of the installed systems. The said amount shall be paid on submission of following documentary evidence:

- a. Contractor's detailed invoice
- b. Submission of the certificate by the authorized officer of APDCL (CEO of concerned Electrical Circle, APDCL) that the 100% of the installed systems have been inspected and are functioning satisfactorily.
- c. Coloured photographs (both signed hard copies and soft copies) of installed systems verified by concerned SDE of Electrical Sub-Division, APDCL.

NOTE:

- Total 1 (one) no. of bill shall be allowed.

11.13.2 PAYMENT AGAINST CMC (COMPREHENSIVE MAINTENANCE CONTRACT)

CMC Value shall be paid in 5 (five) installments, as mentioned below against submission of System Maintenance Log Book regarding satisfactory performance report of the system from the authorized signatory of the end user (**As per Format-19 and Schedule-1**)

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Sl. No	Milestone	Percentage to be released
1	Completion of first year of successful Operation and Maintenance by the bidder	20% of CMC amount
2	Completion of second year of successful Operation and Maintenance by the bidder	20% of CMC amount
3	Completion of third year of successful Operation and Maintenance by the bidder	20% of CMC amount
4	Completion of fourth year of successful Operation and Maintenance by the bidder	20% of CMC amount
5	Completion of fifth year of successful Operation and Maintenance by the bidder	20% of CMC amount

Note: All payments shall be made subject to the receipt & availability of fund from the concerned Government organization, Govt. of Assam.

11.14 TAXES AND DUTIES:

The quoted price shall be exclusive of all applicable taxes and duties. The bidder's firm shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government norms will be payable by the contractor. **If any new tax/duty is levied during the contract period, the same will be borne by the firm exclusively.** TDS, labour cess etc will be deducted from the payment of the contractor as per the prevalent laws and rules of Government of India and Government of Assam in this regard.

11.15 TRANSPORTATION:

The Bidder is required under the contract to deliver the goods to the site. (The storage/handling etc shall be sole responsibility of the contractor till the commissioning/ handover of the system).

11.16 TERMINATION FOR INSOLVENCY:

APDCL may at any time terminate the contract by giving written notice to the contractor without compensation to the contractor, if it 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 APDCL.

11.17 TERMINATION FOR CONNIVANCE:

The APDCL, may by written notice sent to the Bidder, terminate the contract, in whole or in part at any time for its connivance. The notice of termination shall specify that termination is for the bidder's connivance in the interest of APDCL



PART - V

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

The proposed project shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancellation of Letter of Award & Competent Authority's decision will be final and binding on the bidder.

12.0 DEFINITION

On-Grid Solar PV system shall consist of following equipments/components:

- ✓ Solar PV modules consisting of required number of crystalline PV modules
- ✓ Grid interactive Power Conditioning Unit with Remote Monitoring System
- ✓ Mounting structures
- ✓ Junction Boxes
- ✓ Earthing and lightning protections
- ✓ IR/UV protected FRLS/FRLSOH (for underground) Cables, pipes and accessories
- ✓ Metering & associated equipments

Off-Grid Solar PV system shall consist of following equipments/components:

- ✓ Solar PV modules consisting of required number of crystalline PV modules
- ✓ Grid interactive Power Conditioning Unit with Remote Monitoring System
- ✓ Tubular Gel VRLA Battery
- ✓ Mounting structures
- ✓ Junction Boxes
- ✓ Earthing and lightning protections
- ✓ IR/UV protected FRLS/FRLSOH (for underground) Cables, pipes and accessories
- ✓ Metering & associated equipments

12.1 SOLAR PV MODULE

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

- a) For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701
- b) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 250 Wp and above wattage. Module capacity less than minimum 250 Wp shall not be accepted.
- c) PV modules must be tested and approved by one of the IEC authorized test centers.
- d) The module frame shall be made of corrosion resistant materials, preferably having anodized aluminium.

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- e) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid.

12.1.1 Modules deployed must use a RF (Radio frequency) identification tag. The following information must be mentioned in the RFID used on each module (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).

- a) Name of the manufacturer of the PV module
- b) Name of the manufacturer of Solar Cells
- c) Month & year of the manufacture (separate for solar cells and modules)
- d) Country of origin (separately for solar cells and module)
- e) I-V curve for the module Wattage, I_{max} , V_{max} and FF (Fill Factor) for the module
- f) Unique Serial No and Model No of the module
- g) Date and year of obtaining IEC PV module qualification certificate.
- h) Name of the test lab issuing IEC certificate.
- i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

12.1.2 WARRANTIES OF SOLAR PV MODULE

a) Materials Warranty

- ii. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than twenty five (25) years from the date of sale to the original customer ("Customer")
- iii. Defects and/or failures due to manufacturing,
- iv. Defects and/or failures due to quality of materials,
- v. Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option

b) Performance Warranty

The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% after first ten years period of the full rated original output

13.0 ARRAY MOUNTING STRUCTURE

- a) Hot dip galvanized MS / **anodized aluminum of size not less than 50 mm x 50 mm x 6 mm size** shall be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum irradiation. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.

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- b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (like Assam-basic wind speed of 180km/hour). **It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to APDCL in compliance to standards governing, as on date like IS-875, NBC etc.** Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed.
- c) The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759
- d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Necessary protection towards rusting need to be provided either by coating or ionization
- e) The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels. Installation of solar structure should not damage the roof in any way. If any concrete or foundation is required, it should be pre cast type
- f) **Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof**

14.0 JUNCTION BOXES (JBs)

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

15.0 AC DISTRIBUTION PANEL BOARD (ACDB)

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- a) AC Distribution Panel Board (ACDB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g) Cable alley design needs to be compatible to allow easy access depending upon the number of AC Cables into the panel. Minimum width of cable alley shall be 300 mm. Location of bus bars should be such so as to avoid any overlapping/looping of cables in the panels.
- h) Connections of cable with the bus bars should be properly tightened & check nuts must be provided to avoid any possibility of loosening of connections.
- i) Bare/exposed portion of terminal/cables should be covered with appropriate sleeves instead of wrapping insulating tape.
- j) Should conform to Indian Electricity Act and rules (till last amendment).
- k) All the 415 Volt AC or 230 volts devices / equipment like bus support insulators, circuit breakers, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

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

16.0 DC DISTRIBUTION BOARD (DCDB)

DC Distribution panel board shall be provided to receive the DC output from the array field, with analog measurement panel for voltage, current and power from different MJBs so as to check any failure in the array field. DC DPBs shall have enclosure of dust & vermin proof. The bus bars shall be made of copper of desired size. Suitable capacity MCBs along with necessary surge arrestors shall be provided for controlling the DC power output to the PCU/Inverter. DCDB shall be fabricated by FRP / ABS plastic to comply with IP 65 protection.

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17.0 PCU/ARRAY SIZE RATIO

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

18.0 PCU/INVERTER

18.1 Power Conditioning Unit/Inverter (Applicable for On-Grid Solar Power Plant)

- a) As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the “Power Conditioning Unit (PCU)”. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the inverter. The PCU should also have provision of the charge controller in case of system. If necessary, inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:
 - Switching devices: IGBT/MOSFET
 - Control Microprocessor /DSP
 - Nominal AC output voltage and frequency: 415V, 3 Phase, 50 Hz **(In case single phase inverters are offered, suitable arrangement for balancing the phases must be made.)**
 - Output frequency: 50 Hz
 - Grid Frequency Synchronization range: + 3 Hz or more
 - Ambient temperature considered: -20o C to 50o C
 - Humidity: 95 % Non-condensing
 - Protection of Enclosure: IP-20(Minimum) for indoor: IP-65(Minimum) for outdoor.
 - Grid Frequency Tolerance range: + 3 or more
 - Grid Voltage tolerance: - 20% & + 15 %
 - Inverter efficiency (minimum): >93% (In case of 10kWp)
 - THD: < 3%
 - PF: > 0.9
- b) Single /Three phase PCU/ inverter shall be used as required
- c) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- d) The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power; inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.

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- e) Built-in meter and data logger to monitor Project performance retrievable through external computer shall be provided.
- f) The power conditioning units/inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068- 2(1,2,14,30)/Equivalent BIS Std.
- g) The charge controller (if any) / MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS standard. The junction boxes/ enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.
- h) The PCU/ inverters should be tested from the MNRE approved test centres/NABL/BIS/IEC accredited testing calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

18.2 Grid interactive Power Conditioning Unit (Applicable for Off-Grid Solar Power Plant)

The power conditioner unit/ central inverter should be provided to convert DC power produced by SPV modules, in to AC power. **The power conditioning unit/inverter should be grid interactive and have battery backup features.** Typical technical features of the inverter shall be as follows:

A	GRID CHARGER	
1	Grid Voltage Sync Range (%)	+10% to - 20%
2	Grid Frequency Sync Range	+5% to - 5%
3	Max Grid Import Power (kW)	Same as inverter Rating
4	Max Battery Amps during Grid charging (Amps)	Shall be 40% of solar charging capacity but clamped to 20% of the solar charging capacity
B	SOLAR CHARGE CONTROLLER (SCC)	
1	Charge Controller Type	MPPT
2	PV Nominal Capacity (Total) (kWp)	Same rating as the Inverter Rating
3	No of MPPT Channels	Min 1
4	Battery Type Supported	VRLA
5	Min. Battery AH Required (AH)	As per Clause No. 34.0
6	Min Charging Efficiency (%)	94%
C	SOLAR INVERTER	
1	Switching Element	IGBT
2	Battery backup Capacity	As per design
3	Nominal Battery Voltage (VDC)	As per Inverter Manufacturer
4	Nominal Capacity (KW)	Inverter Rated capacity shall be at 0.8 PF
5	Voltage Regulation (in Standalone Mode) (%)	±2%
6	Frequency Regulation (in Standalone Mode) (Hz)	±0.5Hz
7	THD (%)	< than 5%
8	Efficiency: Peak/100% Load/20% Load (%)	>88 / >85 / >80
9	Load Power Factor	0.8 lag to unity

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10	Over Loads: 60 secs/50 secs/5 secs (%)	110 / 125 / 150
11	M in Phase imbalance capability (%)	30
12	Auto Bypass Feature	To be provided
13	Power Export to Grid Facility	To be provided
14	Galvanic Isolation	Through Isolation Transformer
15	Zero export to Grid facility	To be provided
16	Anti Islanding from Grid	To be provided
D	INDICATION & PROTECTION	
1	Type of User Interface with Key PAD	LCD based UI interface with Alphnumeric indications
2	Display Parameters	Battery voltage/current
		Solar Panel Voltage/current/Power
		Grid voltage/Current/frequency/power/power factor
		Emergency Load voltage/current/power
		System fault including temperature and active faults
		Solar power generated in day/till the time
3	Communication with other system	Wi-Fi or GSM in built in the inverter
4	Online monitoring	on-line monitoring on cloud platform shall be provided
E	ISOLATING SWITCHES	
1	Grid side disconnection	To be provided
2	Load side disconnection	To be provided
3	Battery side disconnection	To be provided
4	PV side disconnection	To be provided
F	CERTIFICATION	
1	Inverter Efficiency as per IEC 61683	Test Certificates to be provided
2	MPPT efficiency as per EN50530	Test Certificates to be provided
3	Grid Parallel operation as per IEC 61727	Test Certificates to be provided
4	Inverter Islanding as per IEC 62116	Test Certificates to be provided
G	Operational Requirements	
1	Charging the battery from Solar and Grid (Solar priority)	
2	Cater to Priority load and other load through solar energy first and balance energy from Grid as per the load and battery charging state	
3	In absence of Grid power supply non availability; the grid connection shall be isolated from the grid and battery shall supply the energy to Priority load	
4	If grid and solar power is available and battery is fully charged, then the self consumption load shall be fully catered by the solar and balance power to be taken from grid if required. And in any case no power will be exported to the Grid.	

- The PCU/Inverters should be tested from NABL/BIS accredited testing- calibration laboratories.
- In case of imported power conditioning units, these should be approved by international test houses.

19.0 INTEGRATION OF PV POWER WITH GRID

For better grid interaction and functioning of Project, the following arrangement shall be ensured by Developer:

- a) Project should have appropriate instruments installed at solar panel output, inverter and load to facilitate minute-wise recording and storage of monthly data (voltage, current, generation, consumption and grid injection) for twelve (12) Months of energy flow at various nodes.
- b) In case of network failure, or low or high voltage, Project shall go under islanding mode but not be out of synchronization so far as its operation with connected load is concerned. The supply from Project to the load points would be resumed, once the DG set comes into service, Project shall again be synchronised with DG supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.
- c) The Project commissioned under the regulatory framework issued by AERC and as amended from time to time, shall be provided with reverse protection relays in order to prevent reverse flow of active power into the Grid. The relay and devices used for such arrangement shall be of relevant standards

20.0 DATA ACQUISITION SYSTEM / PLANT MONITORING

- a) Data Acquisition System shall be provided for each of the solar PV Project (Applicable for the Plant capacity above 1 kW)
- b) Data Logging Provision for Project control and monitoring, time and date stamped system data logs for analysis computer for data monitoring, metering and instrumentation for display of systems parameters and status indication to be provided.
- c) The following parameters should be accessible via the operating interface display in real time separately for Project:
 - AC Voltage
 - AC Output current.
 - Output Power
 - Power factor
 - DC Input Voltage
 - DC Input Current
 - Time Active
 - Time disabled
 - Time Idle
 - Power produced
 - Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
 - Frequency

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- d) All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a Year and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
- e) String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
- f) The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- g) All instantaneous data should be available through RMS.
- h) Software shall be provided for USB download and analysis of DC and AC parametric data for individual Project.
- i) Provision for Internet monitoring and download of data shall be necessarily incorporated for projects.
- j) Remote Monitoring and data acquisition through Remote Monitoring System software with latest software/hardware configuration and service connectivity for online / real time data monitoring/control complete to be supplied and Comprehensive O &M/control to be ensured by the supplier.

21.0 POWER CONSUMPTION

Regarding the generated power consumption, priority needs to be given for internal consumption first and thereafter any excess power can be exported to the distribution licensee network

22.0 METERING

- a) Metering panel shall be installed as near as possible, to the point of evacuation of power to grid.
- b) The bidirectional electronic energy meter shall be installed by the officials of APDCL for the measurement of import/Export of energy as per their specification.
- c) An additional unidirectional electronic multifunctional meter (Solar Meter), displaying parameter details like energy, power, voltage, current and power factor etc shall be installed in solar ACDB having a spare RS485 port for APDCL use.

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- d) The bidder must take approval from APDCL for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to CGM (NRE), APDCL before commissioning of SPV plant.

23.0 PROTECTIONS

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

LIGHTNING PROTECTION

The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standards. The protection against induced high-voltages shall be provided by the use of metal oxide arrestors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

SURGE PROTECTION

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

EARTHING PROTECTION

Each array structure of the PV yard should be grounded/ earthed properly as per IS: 3043-1987. In addition the lightning arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of APDCL as and when required after earthing by calibrated earth tester. PCU and ACDB should also be earthed properly

Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential

GRID ISLANDING

In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands."

Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided

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A manual disconnect 4 pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

24.0 CABLES

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

- Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- Temp. Range: -10oC to +80oC.
- Voltage rating 660/1000V
- Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- Flexible
- Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire Project to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
- Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified
- The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. twenty five (25) Operational Years.
- The ratings given are approximately, Power Producer to indicate size and length as per system design requirement. All the cables required for the Project provided by the Power Producer. All cable schedules/layout drawings approved prior to installation.
- Multi Strand, Annealed high conductivity copper/aluminium conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below: BOS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V ,UV resistant for outdoor installation IS /IEC 69947.
- The size of each type of DC cable selected shall be based on minimum voltage drop.
- The size of each type of AC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2%.
- All such external electrical works shall be required to be done as per DISCOMs SOR

25.0 CONNECTIVITY

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time. Following criteria have to be followed for selection of voltage level in the distribution licensee's network for ready reference of the solar suppliers. The work should be done in compliance with respective regulations and policy.

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Plant Capacity	Connecting voltage
As per allotted capacity	240 V-single phase or 415 V-three phase as per existing connection of the consumer

26.0 TOOLS & TACKLES AND SPARES

- After completion of installation & commissioning of the power plant, necessary tools & tackles shall be maintained by the bidder for maintenance purpose.
- A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc. along with spare set of PV modules be indicated, which shall be maintained. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished

27.0 DANGER BOARDS AND SIGNAGES

Danger boards should be provided as and where necessary as per IE Act. /IE Rules as amended up to date. Three signages shall be provided one each at control room, solar array area and main entry in to the area. Text of the signages may be finalized in consultation with APDCL

28.0 FIRE EXTINGUISHERS

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

- Portable fire extinguishers in the control room for fire caused by electrical short circuits
- The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed

29.0 DRAWINGS & MANUALS

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

30.0 PLANNING AND DESIGNING

Developer will engage proof consultant for checking of all Structural, Electrical and all other drawings and designs relating to this solar power project

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- a) The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labor.
- b) APDCL reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements
- c) Prior to submission of drawings to APDCL, Developer will engage third party agency (proof consultant / Chartered engineer) for checking of all Structural, Electrical and all other drawings and designs relating to this solar power project
- d) The same third party agency will have to verify the installation after completion, whether it is safe and is as per the design approved
- e) The third party agency employed by the developer should have earlier experience of such works
- f) The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder shall submit three sets and soft copy in CD of final drawing for formal approval to proceed with construction work

31.0 DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT

The Contractor shall furnish the following drawings after Award/Intent and obtain approval

- a) General arrangement and dimensioned layout
- b) Schematic drawing showing the requirement of SPV panel, Power conditioning. Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc
- c) Structural drawing along with foundation details for the structure
- d) Itemized bill of material for complete SPV plant covering all the components and associated accessories
- e) Layout of solar Power Array
- f) Shadow analysis of the area
- g) Guaranteed Technical Particular (GTP) of Solar PV modules, inverters, Remote monitoring system, DC cables, AC cables, Junction Box

32.0 SOLAR PV SYSTEM FOR MEETING THE ANNUAL ENERGY REQUIREMENT

The Solar PV system at the selected buildings will be installed for meeting the maximum energy requirements depending upon the area available, the remaining energy requirement of the buildings will be met by drawing power from grid.

33.0 SAFETY MEASURES

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

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

34.0 BATTERY

- T-Gel VRLA type
- The size of the battery bank shall be as follows:

Sl. No	Capacity of Off Grid Solar Power Plant	Size of Battery Bank
1	1 kWp	24 V – 200 Ah
2	2 kWp	24 V – 400 Ah

- However, the voltage of battery may be selected according to the PCU design.
- 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.
- Battery should conform to the latest BIS/ International standards. **A copy of the relevant test certificates for the battery should be furnished.**
- **The battery should be warranted for minimum 5 years.**
- The battery should be installed inside the premises of consumers on a Battery rack of acid resistant material to bear the required battery load. The non-reactive acid proof mat should be provided around the floor space of battery bank.

35.0 FENCING OF THE SOLAR YARD

Supplying, fitting and fixing galvanised barbed wire fencing with seven strands of barbed wire 12 S. W. G. x 2plies x 4 points at 75mm apart with angle iron intermediate fencing posts not more than 1800 mm apart and straining and end post etc. as necessary to be fitted with straining eye bolts and staples etc complete as directed, specification of the angle iron post as given below:

- (a) Intermediate post 35mm x 35mm x 5mm x 1800mm long bottom torched and duly slotted
- (b) Straining post 65mm x 65mm x 6mm x 1820mm long with 2 stays of 35mm x 35mm x 1520mm long and 3 base plates 200mm x 200mm x 5mm, duly slotted to take eye bolts etc.
- (c) Corner posts 65mm x 65mm x 6mm x 1820mm long with 2 stays of 35mm x 35mm x 5mm x 1670 mm and 3 base plates 200mm x 200mm x 5mm, duly slotted to take eye bolts etc.
- (d) Straining or end posts 65mm x 65mm x 6mm x 1820mm long with 1 stays of 35mm x 35mm x 5mm x 1820 mm long with base plates 200 mm x 200mm x 5mm, duly slotted to take eye bolts etc.

(All the angle iron posts to be embedded 600 mm in C.C. pillars of size 300mm x 300mm x 600mm in prop. 1: 3: 6 and one coat of anticorrosive ready mixed painting to all iron works) including excavation of foundation trenches for C.C. blocks and refilling and removal of surplus soil after completion of works.

PART - VI

SAMPLE FORMS & FORMATS

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

Format-A

GENERAL INFORMATION ABOUT THE BIDDER

A. BIDDER INFORMATION SHEET			
Bidder's Legal Name			
Legal status of the Bidder (Please tick one)	Private Limited Company		
	Public Limited Company		
	Partnership firms		
	Limited Liability Partnership (LLP)		
	Limited Liability Company (LLC)		
	Sole Proprietorship Firm		
In case of Consortium, Legal name of each partner with participation in technical & financial bid	Legal Name of Consortium member	Legal status of the Bidder (Private Limited Company/ Public Limited Company/ Partnership firms/LIP/LLC/ Sole Proprietorship Firm)	Participate as a Technical / Financial Partner
	1		
	2		
Lead member of Consortium			
Bidder's legal address in India, telephone numbers, email address for communication			
Bidder's authorized signatory (name, designation, address, contact no.)			
Bidder's authorized representative (name, designation, address, contact no.)			

FOLLOWING NEEDS TO BE SUBMITTED BY THE BIDDER: (By each member in case of Consortium):

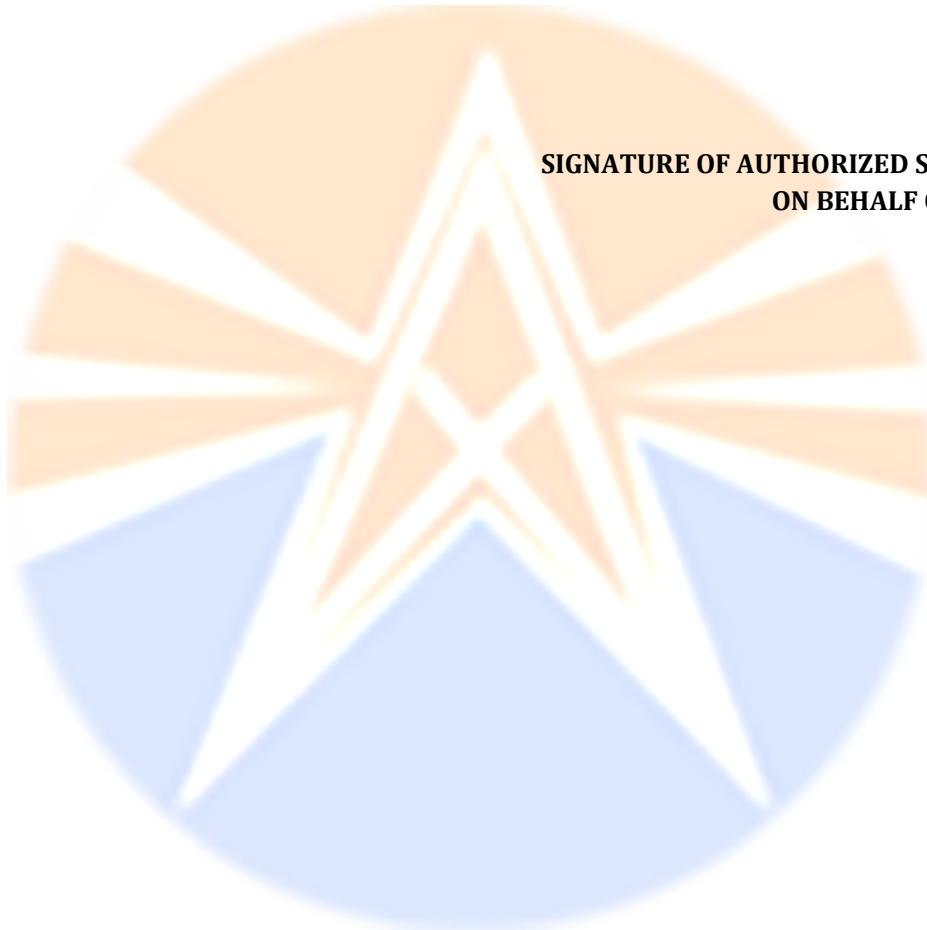
- a) Certificate of Incorporation for Public/Private limited company or Partnership firms/ Limited Liability Partnership (LLP)/ Limited Liability Company (LLC)/ Sole Proprietorship Firm
- b) Memorandum & Article of Association in case of a Public/Private limited company.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

- c) In case of Consortium, MoU/Agreement (duly notarized) entered into by the consortium members, containing intended participation as a Technical / Financial, nomination of Lead Member and division of responsibility to clearly define the work of each member etc.
- d) Authorization in favour of authorized signatory of bidder to sign the tender, and also in favour of authorized representative of each member in case of Consortium.

Note: Bidder's authorised representative shall be deemed to have authority of the Bidder to receive and deliver any correspondence and attend meetings with APDCL related to the tender

**SIGNATURE OF AUTHORIZED SIGNATORY
ON BEHALF OF BIDDER**



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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B. CONSORTIUM MEMBER INFORMATION	
MEMBER – 1	
Consortium Member's Legal Name (Lead Member / Financial Partner)	
Legal status of the Member	Private Limited Company / Public Limited Company / Partnership firms/ Limited Liability Partnership (LLP)/ Limited Liability Company/ (LLC/ Sole Proprietorship Firm (Please tick one)
Member's country of constitution	
Member's legal address, telephone numbers, fax numbers, email address)	
Member's authorized representative (name, designation, address)	
MEMBER – 2	
Consortium Member's Legal Name (Other Member/Technical Partner)	
Legal status of the Member	Private Limited Company / Public Limited Company / Partnership firms/ Limited Liability Partnership (LLP)/ Limited Liability Company (LLC)/ Sole Proprietorship Firm (Please tick one)
Member's country of constitution	
Member's legal address, telephone numbers, fax numbers, email address)	
Member's authorized representative (name, designation, address)	

**SIGNATURE OF AUTHORIZED SIGNATORY
ON BEHALF OF BIDDER**

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Format-B(I)

FINANCIAL BID

(To be submitted through online mode only with due encryption)

RfS No _____ Date: _____

Package –I

Sl. No	Name of Work	Quoted Rate 71 kW Aggregate Capacities of On-Grid and Off-Grid Solar PV Power Plants (Rs.)				
		Supply of Materials excluding all applicable taxes and duties	Installation & Commissioning of the Plant excluding all applicable taxes and duties	CMC for 5 Years excluding all applicable taxes and duties	Total	
					In figure (Rs.)	In Words (Rs.)
1	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of 63 kW aggregate capacities of On-Grid Solar Power Plant		SAMPLE COPY (Price – Bid must be submitted electronically)			
2	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of 8 kW aggregate capacities of Off-Grid Solar Power Plant		SAMPLE COPY (Price – Bid must be submitted electronically)			
	Total					

Date:-.....

Place:-.....

Address:

Signature:-.....

Name:-.....

Company Seal:

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Format-B(II)

FINANCIAL BID

(To be submitted through online mode only with due encryption)

RfS No _____ Date: _____

Package –II

Sl. No	Name of Work	Quoted Rate 92 kW Aggregate Capacities of On-Grid and Off-Grid Solar PV Power Plants (Rs.)				
		Supply of Materials excluding all applicable taxes and duties	Installation & Commissioning of the Plant excluding all applicable taxes and duties	CMC for 5 Years excluding all applicable taxes and duties	Total	
					In figure (Rs.)	In Words (Rs.)
1	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of 71 kW aggregate capacities of On-Grid Solar Power Plant		SAMPLE COPY (Price – Bid must be submitted electronically)			
2	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of 21 kW aggregate capacities of Off-Grid Solar Power Plant		SAMPLE COPY (Price – Bid must be submitted electronically)			
	Total					

Date:-.....

Place:-.....

Address:

Signature:-.....

Name:-.....

Company Seal:

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Format-B(III)

FINANCIAL BID

(To be submitted through online mode only with due encryption)

RfS No _____ Date: _____

Package –III

Sl. No	Name of Work	Quoted Rate 54 kW Aggregate Capacities of On-Grid and Off-Grid Solar PV Power Plants (Rs.)				
		Supply of Materials excluding all applicable taxes and duties	Installation & Commissioning of the Plant excluding all applicable taxes and duties	CMC for 5 Years excluding all applicable taxes and duties	Total	
					In figure (Rs.)	In Words (Rs.)
1	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of 48 kW aggregate capacities of On-Grid Solar Power Plant		SAMPLE COPY (Price – Bid must be submitted electronically)			
2	Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of 6 kW aggregate capacities of Off-Grid Solar Power Plant		SAMPLE COPY (Price – Bid must be submitted electronically)			
	Total					

Date:-.....

Place:-.....

Address:

Signature:-.....

Name:-.....

Company Seal:

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Format-B1

Item-wise Break-up of various project components for 1 KW On-Grid Solar Power Plant
(Scanned copy to be submitted through online mode only with due encryption)

Sl. No.	Particulars	Qty	Units	Unit Price excluding GST (Rs.)	Total Price excluding GST (Rs.)
A	Supply and Delivery of Main Equipment				
1	PV Modules	1	kWp		
2	On Grid Solar Inverter	1	No.		
3	DCDB	1	No.		
4	ACDB /AJB	1	No.		
5	Module Mounting Structure (Ground mounted/Rooftop)	1	kWp		
6	DC Cables	20	Mtr		
7	AC Cables	15	Mtr		
8	Earthing Cables	4	Mtr		
9	Earthing, Strip & Pit Details	1	kWp		
10	ESE Lightning Arrestor with GI Pipe	1	No.		
11	Cable Ties	1	Pkt		
12	MC4 Connectors	2	Pairs		
13	Lugs	2	Nos.		
14	Danger Boards & Safety Tags	1	Set		
15	Sign Board	1	Set		

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

16	Fire Extinguisher	1	Nos		
17	Smart EXIM Meter	1	Nos		
18	*Fencing of the solar yard - Barbed wire fencing with GI Post with height 6 ft with gate (Applicable for Ground-Mounted Solar Plant only)	80	meter		
B	Installation and Commissioning	1	No.		
C	CMC for 5 years	1	No.		
	Total Unit Cost				

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Format-B1

Item-wise Break-up of various project components for 1 KW Off-Grid Solar Power Plant
(Scanned copy to be submitted through online mode only with due encryption)

Sl. No.	Particulars	Qty	Units	Unit Price excluding GST (Rs.)	Total Price excluding GST (Rs.)
A	Supply and Delivery of Main Equipment				
1	Mono Crystalline Solar PV Modules	1	kWp		
2	Hybrid Solar Inverter: 1 KVA 24 VDC/230 VAC, Single Phase	1	Nos		
3	Battery Bank: 24 V/ 200 Ah (12 V/ 200 Ah)	2	Nos		
4	Module Mounting Structure (Ground mounted/Rooftop)	1	kWp		
5	DC Cables	40	Mtr		
6	AC Cable	15	Mtr		
7	Conduit Pipe	1	Bundle		
8	Connectors	LS	Pair		
9	Earthing Equipment	LS	Lots		
10	Earthing Cable	LS	Mtr		
11	ESE Lightening Arrestor with GI Pipe	1	Nos		

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

12	ACDB and DCDB	LS	Lot		
13	Danger Boards & Safety Tags	1	Set		
14	Sign Board	1	Set		
15	Fire Extinguisher	1	Nos		
16	*Fencing of the solar yard - Barbed wire fencing with GI Post with height 6 ft with gate (Applicable for Ground-Mounted Solar Plant only)	80	Mtr		
B	Installation and Commissioning	1	No.		
C	CMC for 5 years	1	No.		
	Total Unit Cost				

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT-1

COVERING LETTER

(The covering letter should be on the Letter Head of the Bidding Company)

RfS No:

Dated:

From:

_____ (Insert name and address of Bidding Company)

Contact No.: _____

E-mail address: _____

To,

The Chief General Manager (NRE)

Assam Power Distribution Company Limited

Annex Building, 2nd Floor, Bijulee Bhawan, Paltanbazar

Dist. Kamrup (Metro), Pin: 781001, Assam, India

E-mail: cgm.nre@apdcl.org

Sub: Request for Selection (RfS) for Selection of Bidders for **“Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam”** with RfS Specification No. Dated

Dear Sir,

We, the undersigned _____ [*insert name of the Bidder*] having read, examined and understood in detail the Request for Selection (RfS) for Standardization of Rates for works of Survey, Design, Engineering, Supply, Installation, Testing and Commissioning Including Comprehensive Operation & Maintenance for five (5) years, **hereby submit our Bid for a capacity of _____ (in word) kWp against Package No. _____ (Insert Package Specification No. and Region)** comprising of Financial Bid and Techno Commercial Bid. **We confirm that neither we nor any of our Parent Company/Affiliate/Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid RfS.**

We give our unconditional acceptance to the RfS Documents attached thereto, issued by APDCL, as amended. As a token of our acceptance to the RfS Documents, the same have been initiated by us and enclosed to the Bid. We shall ensure that we execute such RfS Documents as per the provisions of the RfS and provisions of such RfS Documents shall be binding on us.

1. Bid Fee

We have submitted the tender processing fee of Rs against the **Package No.** online as per provision of bid document.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

2. Bid Security

We have submitted the Bid Security/EMD fee of Rs against the **Package No.** online as per provision of bid document.

3. We have submitted our Price Bid strictly as per provision of this RfS, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format(s).

4. Participate:

We have participated as a bidder against the **Package No.** *[Insert Package Specification No.]* in Region and have accordingly submitted our Technical Bids & Price Bids for the same as per provisions of this RfS.

5. Acceptance

We hereby unconditionally and irrevocably agree and accept that the decision made by APDCL in respect of any matter regarding or arising out of the RFS shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process. We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfill our obligations with regard to execution of projects of capacity offered by us

6. Familiarity with Relevant Indian Laws & Regulations

We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the RFS Documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in RFS have been fully examined and considered while submitting the Bid

7. Contact Person

Details of the contact person are furnished as under

Name	
Designation	
Company	
Address	
Phone No	
Fax No	
E-mail Address	

8. We are enclosing/attaching herewith the **Envelope-I (Covering letter, Tender fee and Bid Security) Envelope-II (Techno-Commercial documents)** containing duly signed formats, each one duly sealed separately, in one original as desired by you in the RfS for your consideration.

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFS and subsequent communications from APDCL. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RfS and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of **90 days** from the Bid deadline. We confirm that we have not taken any deviation so as to be deemed non-responsive

Dated the _____ day of _____, 2024

Thanking you

Yours faithfully,

Name
Designation

Signature of Authorized Person in whose name
Power of Attorney/Board Resolution as per
Clause.....is issued.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT-2

GENERAL PARTICULARS OF THE BIDDER

Name of the Bidder	
Registered Office Address	
Contact No.	
E-mail	
Website	
Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address to whom all references shall be made	
Year of Incorporation	
Have the bidder/Company ever been Debarred By any Govt. Dept. / Undertaking for undertaking any work	
Reference of any document information attached by the Bidder other than specified in the RfS.	
Whether the Bidder wishes to form a Project Company for execution of work	Yes/No
Bidding company is listed in India	Yes/No
GST No	
Certificate of Incorporation of Bidder/ Affiliate (as applicable) enclosed	Yes/No
Partnership deed or LLPF/ Sole Proprietor registration (as applicable) enclosed	Yes/No

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company)

Name:-

Date:-

Place:-

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

FORMAT-3

FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)

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

In consideration of the _____ [*Insert name of the Bidder*] (hereinafter referred to as selected Solar Power Developer') submitting the response to RFS inter alia for selection of the Project for **"Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam"** of the capacity of _____ kWp [*insert the quoted capacity*], in response to the RFS dated..... issued by Assam Power Distribution Company Limited (hereinafter referred to as APDCL) and APDCL considering such response to the RFS of.....[*insert the name of the selected Solar Power Developer*] (which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and selecting the Solar Power Project of the Solar Power Developer and issuing Letter of allocation for _____ kWp under Package No. ____ to (*Insert Name of selected Solar Power Developer*) as per terms of RFS and the same having been accepted by the selected SPD or a Project Company, M/s ----- [*a Special Purpose Vehicle (SPV) formed for this purpose, if applicable*]. As per the terms of the RFS, the _____ [*insert name & address of bank*] hereby agrees unequivocally, irrevocably and unconditionally pay to APDCL without demur at Guwahati forthwith on demand in writing from APDCL or any Officer authorized by it in this behalf, any amount upto and not exceeding Rupees _____[*Total Value*] only, on behalf of M/s _____ [*Insert name of the selected Solar Power Developer / Project Company*]

This guarantee shall be valid and binding on this Bank up to and including..... and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement

Our liability under this Guarantee is restricted to Rs. _____ (Rs. _____ only). i) Nos ---- dated ----, Value -----; ii) Nos-----dated ----, Value -----).

Our Guarantee shall remain in force until..... APDCL shall be entitled to invoke this Guarantee till

The Guarantor Bank hereby agrees and acknowledges that APDCL shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by APDCL, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to APDCL.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by _____ [*Insert name of the selected Solar Power Developer / Project Company as applicable*] and/or any other person. The Guarantor Bank shall not require APDCL to justify the invocation of this BANK GUARANTEE, nor

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

shall the Guarantor Bank have any recourse against APDCL in respect of any payment made hereunder

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Guwahati shall have exclusive jurisdiction

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly APDCL shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the selected Solar Power Developer / Project Company , to make any claim against or any demand on the selected Solar Power Developer / Project Company or to give any notice to the selected Solar Power Developer / Project Company or to enforce any security held by APDCL or to exercise, levy or enforce any distress, diligence or other process against the selected Solar Power Developer / Project Company

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. _____ (Rs. _____ only) and it shall remain in force until We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if APDCL serves upon us a written claim or demand

Signature

Name:

Power of Attorney No.:

For

[Insert Name of the Bank]

Banker's Stamp and Full Address

Dated this ____ day of ___, 2024

Witness:

1.

Signature

Name and Address

2.

Signature

Name and Address

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Notes:

1. The Stamp Paper should be in the name of the Executing Bank and of appropriate value. The Performance Bank Guarantee (PBG) shall be executed by any of the Scheduled Bank



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT-4

CHECK LIST FOR BANK DIRECTORY

Sl. No	Details of checks	Yes/No
a.	Is the BG on non-judicial Stamp paper of appropriate value, as per applicable Stamp Act of the place of execution	
b.	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on back of stamp paper under the Signature of Stamp vendor? (The date of purchase of stamp paper should be purchased either in the name of executing Bank or the party on whose behalf the BG has been issued. Also the Stamp Paper should not be older than six months from the date of execution of BG).	
c.	Has the executing Officer of BG indicated his name, designation and Power of Attorney No./Signing Power no. on the BG?	
d.	Is each page of BG duly signed / initialed by executants and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed Performa?	
e.	Does the Bank Guarantees compare verbatim with the Performa prescribed in the Bid Documents?	
f.	Are the factual details such as Bid Document No. / Specification No., / LOI No. (if applicable) / Amount of BG and Validity of BG correctly mentioned in the BG	
g.	Whether overwriting/cutting if any on the BG have been properly Authenticated under signature & seal of executants?	

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT-5

POWER OF ATTORNEY

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

**(a) Power of Attorney to be provided by the Bidding Company in favour of its
representative as evidence of authorized signatory's authority.**

Know all men by these presents, We (*Name and address of
the registered office of the Bidding Company as applicable*) do hereby constitute, appoint and
authorize Mr./Ms. (*Name & residential address*) who is presently employed
with us and holding the position of as our true and lawful attorney, to
do in our name and on our behalf, all such acts, deeds and things necessary in connection with
or incidental to submission of our Bid for **"Implementation of On-Grid and Off-Grid Solar
Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam"** in response to
the RfS No. dated issued by Assam Power Distribution Company
Limited (APDCL), Guwahati including signing and submission of the Bid and all other
documents related to the Bid, including but not limited to undertakings, letters, certificates,
acceptances, clarifications, guarantees or any other document which APDCL may require us to
submit. The aforesaid Attorney is further authorized for making representations to APDCL,
Guwahati and providing information / responses to APDCL, Guwahati representing us in all
matters before APDCL and generally dealing with APDCL, Guwahati in all matters in connection
without Bid till the completion of the bidding process as per the terms of the above mentioned
RfS.

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

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

Signed by the within named

..... (**Insert the name of the executant company**)

through the hand of

Mr.

duly authorized by the Board to issue such Power of Attorney

Dated this **day of**

Accepted

.....

Signature of Attorney

(Name, designation and address of the Attorney)

Attested

.....

(Signature of the executants)

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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(Name, designation and address of the executants)
.....

Signature and stamp of Notary of the place of execution

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

WITNESS

1.

(Signature)

Name.....

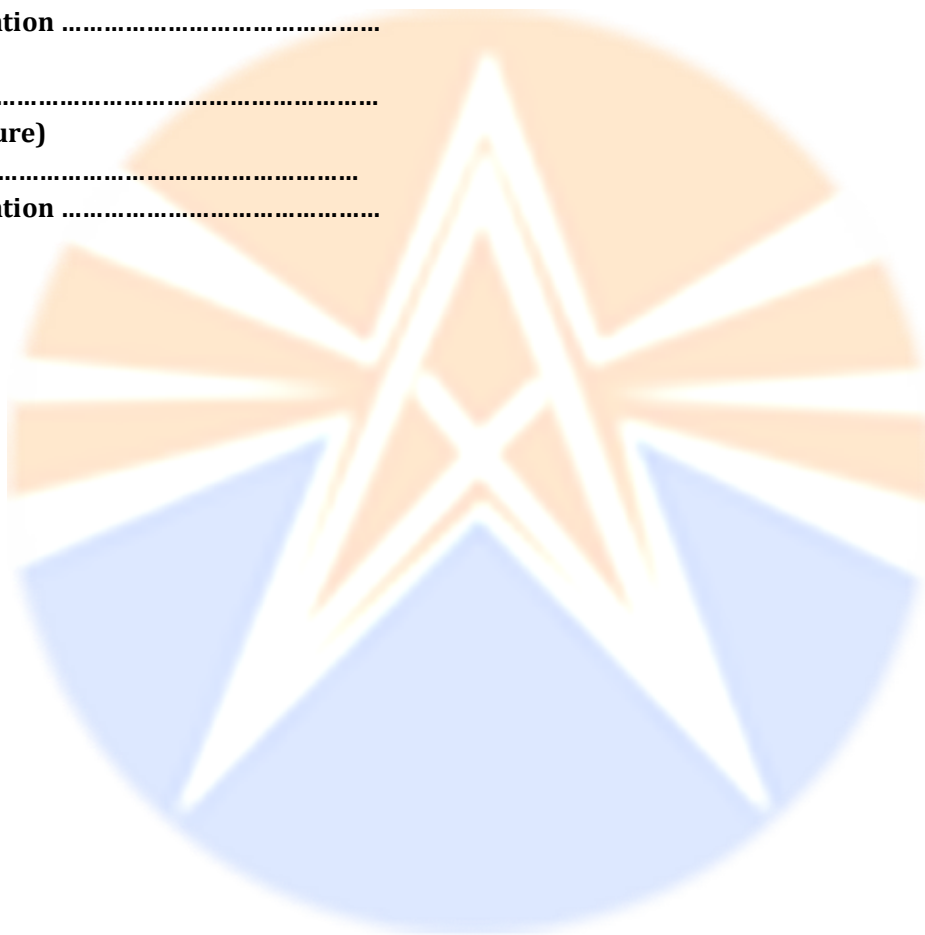
Designation

2.

(Signature)

Name.....

Designation



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT-6

FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT

(To be submitted on the letterhead of Bidding Company & Certify by Chartered Accountant)

Ref: RfS No. _____ Dated: _____

To,

The Chief General Manager (NRE)

Assam Power Distribution Company Limited

Annex Building, 2nd Floor, Bijulee Bhawan, Paltanbazar

Dist. Kamrup (Metro), Pin: 781001, Assam, India

E-mail: cgm.nre@apdcl.org

Sub: Request for Selection (RfS) for Selection of Bidders for "**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam**" with RfS Specification No..... Dated

Dear Sir,

We submit our Bid/Bids for the total capacity of _____ kWp against Package No. ____ ; for Bids for which we submit details of our Financial Eligibility Criteria Requirements.

We certify that the Financially Evaluated Entity had an Annual Turnover and Net worth as specified in this RfS

Name of Financially Evaluated Entity	Financial Year	Year of Incorporation	Annual Turnover (Rs. Crore)	MAAT Value (Rs. Crore)	Net Worth (Rs. Crore)
	2020-21				
	2021-22				
	2022-23				

(Attach Separately **Format-9** with this format)

Yours' Faithfully

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company)

Name:-.....

Date:-.....

Place:-.....

Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of Bidding Company

Name:

Date:

Place:

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT-7

Work Experience
(To be submitted individually against each work / contract)

Bidder's legal name **Date.....**

Work Experience		
Particular	Details	
Employer's Name (Letter of Award / Contract issuing authority)		
Employer's Address: Contact number: E-mail:		
LOA No. & Date		
Schedule Date of Completion		
Type of Work (Grid-Connected Rooftop Solar Power Plant/ Grid- Connected Ground Mounted Solar Power Plant/Off-Grid Solar Power Plant etc)		
Capacity of Allotted Work	_____ kWp	
Role in Contract (Individual/JV/Consortium)		
If Role in Contract is JV/Consortium, specify Technical Partner & Financial Partner	Name of Technical Partner	Name of Financial Partner
Actual works executed by the Applicant (Individual bidder or Technical partner of Consortium)	Minimum Aggregate On- Grid Solar Power Plant Capacity (kW) in last 3 calendar years	Minimum Aggregate Off- Grid Solar Power Plant Capacity (kW) in last 3 calendar years
	_____ kWp (Duly substantiated with Work Order and Work Completion Certificate from Issuing Authority)	_____ kWp (Duly substantiated with Work Order and Work Completion Certificate from Issuing Authority)
% of work executed by the Applicant within the Schedule Date of Completion	_____% (Duly substantiated with Certificate from Issuing Authority)	

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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NOTE:

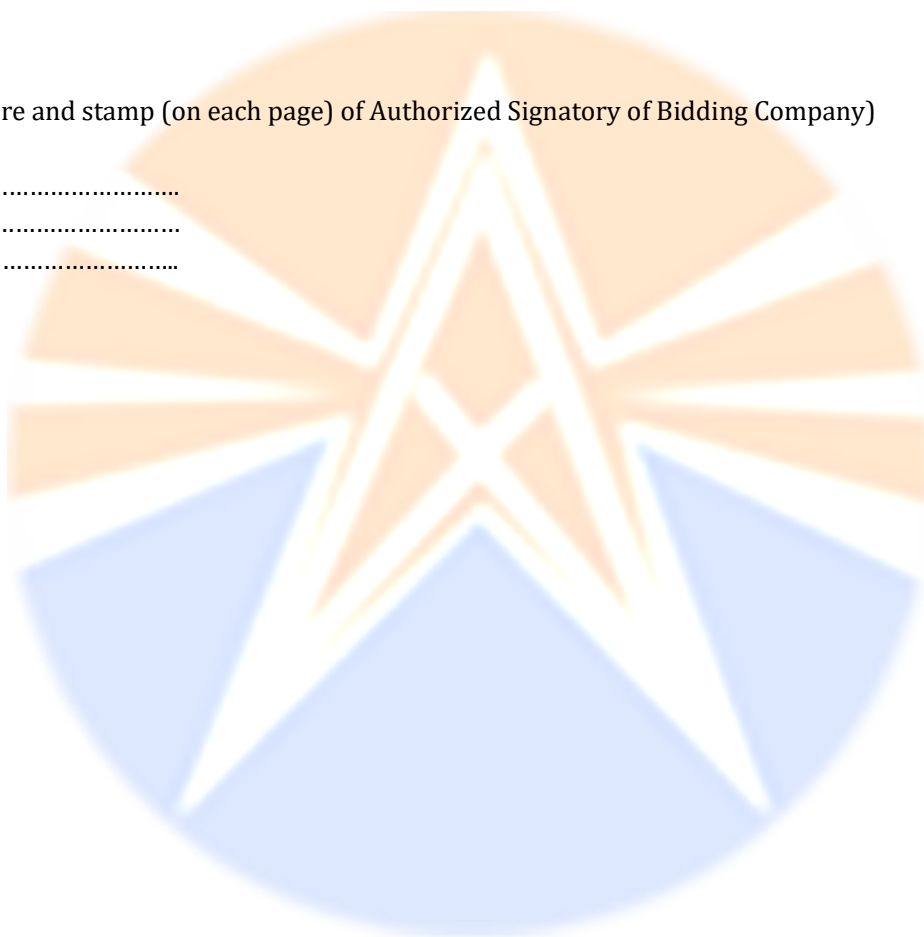
1. Only the value of contract as executed by the applicant/member in his own name should be indicated. Where a work is undertaken by a group JV/JVA only, that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.
2. Separate sheet for each work along with Clients Certificate and Performance Certificate against minimum 1 year in operation after the completion of work to be submitted.

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company)

Name:-.....

Date:-.....

Place:-.....



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT -8

Documents Required to be Submitted by Successful Bidder prior to Execution of Work

1. Site survey report against each location as per attached format prescribed in this RfS to CGM (NRE), APDCL for approval (**Annexure –II**).
2. Application at www.rodalee.com on behalf of consumer & submit the copy of online submitted application form generated from www.rodalee.com
3. Copy of Technical Feasibility Report against each consumer generated from www.rodalee.com



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT -9

Financial Data

Applicant's legal name Date: / /2024

Each Applicant or member of a Consortium must fill in this form

Sl. No.	Description	Financial Data for Last Year (Indian Rupees) (Audited Data)		
		2020-21	2021-22	2021-22
1	Total Assets			
2	Current Assets			
3	Total External Liabilities			
4	Current Liabilities (inclusive of provisions, if any)			
5	Annual Profits Before Taxes			
6	Annual Profits After Taxes			
7	Net Worth [= 1 - 3]			
8	Working Capital [=2 - 4]			
9	Return on Equity			
10	Annual Turnover			

Attach copies of the audited balance sheets, including all related notes, income statements for the last audited financial years, as indicated above, complying with the following conditions

1. Separate Performa shall be used for each member in case of Consortium.
2. All such documents reflect the financial data of the Applicant or member in case of Consortium, and not sister or Parent Company.
3. Historic financial statements shall be audited by Statutory Auditor of the Company under their seal & stamp and shall be strictly based on Audited Annual Financial results of the relevant period(s). No statements for partial periods will be accepted.
4. Historic financial statements must be complete, including all notes to the financial statements.
5. Return on Equity = Net Income / Shareholders Equity
6. Return on Equity = Net Income is for the full fiscal year (before dividends paid to common stock holders but after dividends to preferred stock).
Shareholders equity does not include preferred shares.

The above Annexure shall be duly certified by Chartered Accountant under his signature & stamp.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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**Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of
Bidding Company**

Name:

Date:

Place:



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT-10

CONSORTIUM AGREEMENT

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

THIS Consortium Agreement ("Agreement") executed on this _____ day of _____ 2020 between M/s [insert name of Lead Member] _____ a Firm / Company incorporated under the laws of _____ and having its Registered Office at _____ (hereinafter called the "Lead Member", which expression shall include its successors, executors and permitted assigns)

And

M/s _____ a Firm / Company incorporated under the laws of _____ and having its Registered Office at _____ (hereinafter called the "Technical Member", which expression shall include its successors, executors and permitted assigns), which expression shall include its successors, executors and permitted assigns)

WHEREAS, each Member individually shall be referred to as the "Member" and both the Members shall be collectively referred to as the "Members" in this Agreement.

WHEREAS, the Assam Power Distribution Company Limited (hereinafter called APDCL or Employer), Company incorporated under the Company's Act, 2013 has invited response to RfS No. _____ dated ____ against Package No. _____ for **site survey, design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance for minimum 5 years of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam.**

WHEREAS the RFS documents stipulates that the Lead Member may enter into a Technical Consortium Agreement with another Company / Corporate entity to fulfill the Technical Eligibility Criteria as stipulated in the RFS document. The Members of the Bidding Consortium will have to submit a legally enforceable Consortium Agreement in a format enclosed with the RFS document

NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:

In consideration of the above premises and agreements all the Members in this Consortium do hereby mutually agree as follows

1. We, the Members of the Consortium and Members to the Agreement do hereby unequivocally agree that (M/s _____), shall act as the Lead Member as defined in the RFS for self and agent for and on behalf of Technical Member.
2. The Lead Member is hereby authorized by the Technical Member of the Consortium to bind the Consortium and receive instructions for and on their behalf.

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

3. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement
4. Subject to the terms of this Agreement, the Technical member shall be responsible for providing technical knowledge for "Site Survey, Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for 5 years" to the lead member.
5. In case of any breach of any commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
6. This Agreement shall be construed and interpreted in accordance with the Laws of India and courts at Guwahati alone shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
7. It is hereby further agreed that in case of being shortlisted, the Members do hereby agree that they shall abide by the terms & conditions of the RFS document.
8. It is further expressly agreed that this Agreement shall be irrevocable and shall form an integral part of the RfS submitted to APDCL and shall remain valid till completion of the job assigned to the Contractor.
9. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Members respectively from time to time in the response to RfS.
10. It is hereby expressly understood between the Members that no Member at any given point of time, may assign or delegate its rights, duties or obligations under this agreement without the explicit permission of APDCL.
11. This Agreement
 - (a) Has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
 - (b) Sets forth the entire understanding of the Members hereto with respect to the subject matter hereof; and
 - (c) May not be amended or modified except in writing signed by each of the Members and with prior written consent of APDCL.

IN WITNESS WHEREOF, the Members have, through their authorized representatives, executed these present on the Day, Month and Year first mentioned above.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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For M/s ----- [Lead Member]

(Signature, Name & Designation of the person authorized vide Board Resolution)

Dated

Witnesses:

1) Signature-----

Name:

Address:

2) Signature -----

Name:

Address:

For M/s ----- [Technical Member]

(Signature, Name & Designation of the person authorized vide Board Resolution

Dated _____)

Witnesses:

1) Signature-----

Name:

Address:

2) Signature -----

Name:

Address:

UNDERTAKING FOR CORRUPT & FRAUDULENT PRACTICE
(To be submitted on the letterhead of Bidding Company)

It is confirmed and declared that we, or any of our associate, have not been engaged in any fraudulent and corrupt practice and that no agent, middleman or any intermediary has been, or will be, engaged to provide any services, or any other items of work related to the award and performance of this contract and no agency commission or any payment which may be construed as an agency commission has been, or will be, paid and that the tender price will not any such amount.

STAMP & SIGNATURE OF AUTHORIZED SIGNATORY

NOTE:

1. In case of Consortium, the undertaking shall be submitted by each member of the Consortium.
2. The undertaking shall be signed by authorized signatory of the bidder or constituent member in case of Consortium.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT- 12

**(UNDERTAKING FOR NON-TERMINATION BY ANY ORGANIZATION)
(To be submitted on the letterhead of Bidding Company)**

We do hereby undertake that APDCL/ any Central / State government department / public sector undertaking / other government entity or local body has not banned business with us as on the date of tender submission. Also none of the work has been rescinded / terminated by APDCL / any Central or State Govt. Department / Public Sector Undertaking / Other Govt. entity or local body after award of contract to us during last 3 years (from the last day of the previous month of tender submission) due to our non-performance.

STAMP & SIGNATURE OF AUTHORISED SIGNATORY

Note:

1. In case of Consortium, the undertaking shall be submitted by each member of the JV/Consortium.
2. The undertaking shall be signed by authorized signatory of the bidder. In case of Consortium by the authorized signatory of the constituent members counter signed by the authorized signatory of bidder

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT- 13

**(UNDERTAKING FOR NOT BEING PENALISED IN A CONTRACT)
(To be submitted on the letterhead of Bidding Company)**

We do hereby undertake that we have not paid liquidated damages of 10% (or more) of the contract value in a contract due to delay or penalty of 10% (or more) of the contract value due to any other reason during last five years

STAMP & SIGNATURE OF AUTHORISED SIGNATORY

Note:

1. In case of Consortium, the undertaking shall be submitted by each member of the Consortium.
2. The undertaking shall be signed by authorized signatory of the bidder. In case of Consortium by the authorized signatory of the constituent members counter signed by the authorized signatory of bidder

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT- 14

(UNDERTAKING FOR FINANCIAL STABILITY)
(To be submitted on the letterhead of Bidding Company)

We do hereby undertake that we have not suffered bankruptcy/insolvency during the last 5 years.

STAMP & SIGNATURE OF AUTHORISED SIGNATORY

Note:

1. In case of Consortium, the undertaking shall be submitted by each member of the Consortium.
2. The undertaking shall be signed by authorized signatory of the bidder. In case of Consortium by the authorized signatory of the constituent members counter signed by the authorized signatory of bidder

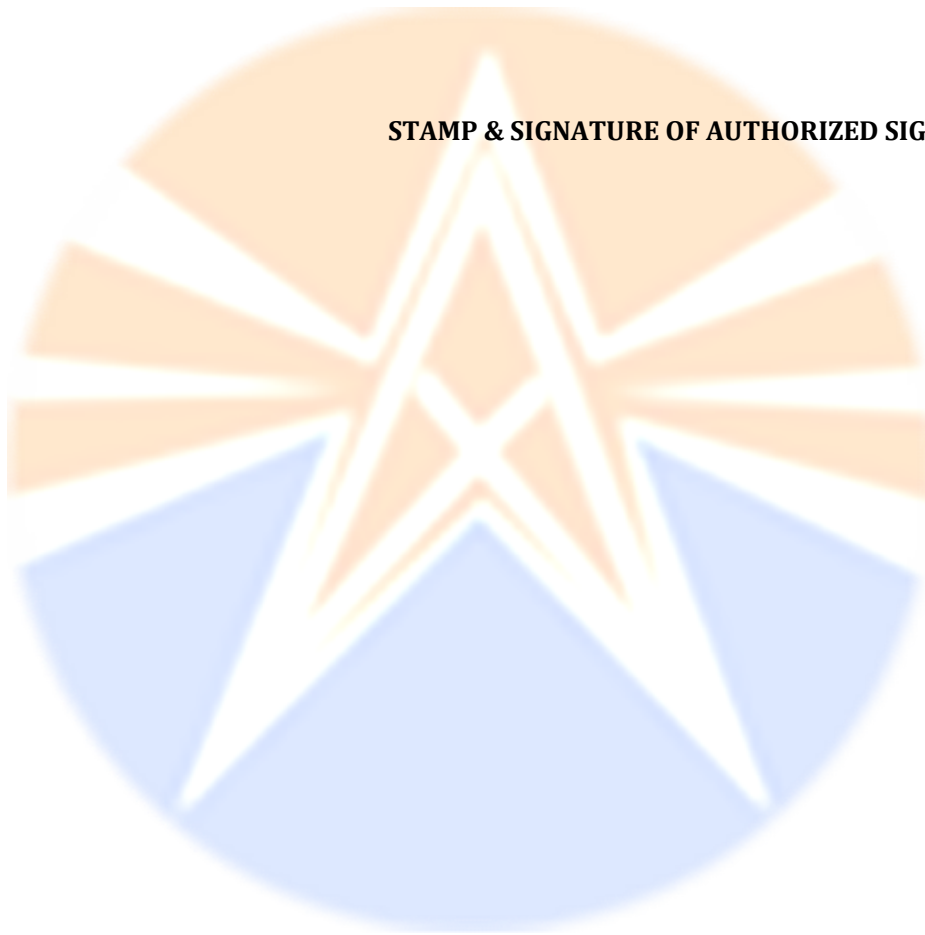
**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT- 15

UNDERTAKING FOR DOWNLOADED TENDER DOCUMENT

We here by confirm that, we have downloaded / read the complete set of tender documents /addendum/clarifications along with the set of enclosures hosted on <https://www.assamtenders.gov.in>. We confirm that we have gone through the bid documents, addendums and clarifications for this work placed upto the date of opening of bids on / <https://www.assamtenders.gov.in>. We confirm our unconditional acceptance for the same and have considered for these in the submission of our financial bid.

STAMP & SIGNATURE OF AUTHORIZED SIGNATORY



**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT- 16

TECHNICAL DETAILS OF THE PROPOSED COMPONENTS

(To be submitted on the letterhead of Bidding Company)

Sl. No	Item	Make Proposed by Bidder	Technical Compliance as per RfS	Test report submitted by the Bidder (Yes/No)
1	Solar PV Module		IEC 61215 / IS 14286	Yes/No
			IEC 61730 Part -1	Yes/No
			IEC 61730 Part -2	Yes/No
2	Mounting Structure		Hot dip galvanized MS (IS 2062:1992 & IS 4759)	Yes /No
3	Junction Box		IP 65 and IEC 62208	Yes/No
4	DCDB		IP 65	Yes/No
6	ACDB		IEC 60947, Part I, II and III/ IS 60947 Part I, II and III	Yes/No
			IP 65 and IP 54	Yes/No
7	PCU /Inverter		IEC 61683 / IS 61683 and IEC 60068 -2 (1,2,14,30)	Yes/No
8	Cable		IEC 60227/ IS 694, IEC 60502 / IS 554 Std	Yes/No
9	Battery		As per latest BIS / IEC / IS Standard	Yes / No
10	Civil Works		Shall conform to relevant IS	Yes/No

STAMP & SIGNATURE OF AUTHORIZED SIGNATORY

Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam

Annexure - I

**Site Survey Report
(To be furnished on the letter head of the bidder)**

RfS No:

LOA No: Date

Sl. No	Name and Address of Consumer	APDCL's Consumer No.	Connected Load (kW)	Existing Connection (3-Ph / 1-Ph)	Latitude	Longitude	Feasible Area (If Ground-Mounted/ Rooftop)	Available Shadow Free Areas (Ground / Rooftop) (Sq. m)	Maximum Eligible Plant Capacity (kW) based on available Shadow Free Areas (1 kW = 10 sq. m shadow free areas)	Allotted Plant Capacity as per LOA (kW)	Actual Eligible Plant Capacity (kW)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)

**Seal & Signature of the Contractor
Date:**

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FORMAT- 17

CONTRACT AGREEMENT FORMAT

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

This contract (hereinafter, together with all attachment annexed hereto and forming its integral part thereof, call the Contract) is made on the _____ day of the month of ____, 2024, between, **Assam Power Distribution Company Limited, having its head quarter at Bijulee Bhawan, Paltan Bazar, Guwahati-781001** and represented by the Chief General Manager (NRE), having his office at Bijulee Bhawan, Annex Building, Paltan Bazar, Guwahati-781001 (hereinafter referred to as APDCL which expression shall unless repugnant to the context of meaning thereof includes its successors and assigns) of the one part and _____ a Company registered under the Laws of _____ and having its registered office at _____ (hereinafter called the contractor which expression shall unless repugnant to the context of meaning thereof includes its successors and assigns) of the other part.

WHEREAS

- (A) APDCL has placed work order for **Site Survey, Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for minimum 5 years of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam** and provides other services as covered in this contract vide work order _____ dated _____.
- (B) The contractor has accepted the work order as set forth above vide reference no. _____ dated _____.
- (C) The APDCL and the contractor shall jointly be termed as “Parties”
- (D) The contractor, having represented to APDCL that they have the required professional skill, personnel and technical resource have agreed to provide the services on the terms and conditions set forth in this contract.

NOW THEREFORE THE PARTIES HERETO HEREBY AGREE AND COVENANT AS FOLLOWS:

1. The parties hereto hereby covenant, bind and undertake to observe and perform this contract faithfully for the work of **“Site Survey, Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for minimum 5 years of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools under Samagra Shiksha, Assam”** and execute, perform and do all works and things mentioned and described in the contract and in all other documents annexed hereto and in accordance with such conditions, specifications and terms and conditions forming part of this contract to the entire satisfaction of APDCL and shall respect, perform, observe and fulfill all such terms, conditions and specifications which are expressed or intended to be performed, observed or fulfilled by the contractor.

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2. The following documents, which are deemed to be integral part of this contract as in herein, set out verbatim and / or is hitherto annexed, shall be binding on the parties.
- a. Annexure – A: Copy of Letter of Intent, if any
 - b. Annexure – B: Copy of Letter of Award
 - C. Annexure – C: Copy of Contractor’s Acceptance Letter
 - D. Annexure –D: Security Deposit
 - E. Negotiation record, if any
3. Security Deposit: The contractor has deposited a security amount to the tune of _____ by _____
- The security deposit will be released after successful and satisfactory completion of installation and commissioning of the full ordered systems & completion of the CMC period.
4. The parties hereto hereby agree and declare that in consideration of the payments to be made by APDCL, the contractor shall execute the work as defined in the contract in the manner and as prescribed in this contract or which are implied or may be necessary for the completion of the said work or incidental thereto on the terms and conditions mentioned in the contract.

In witness whereof the parties hereto have signed this agreement hereunder on the date respectively mentioned against signature of each.

FOR AND ON BEHALF OF

FOR AND ON BEHALF OF

CONTRACTOR

ASSAM POWER DISTRIBUTION COMPANY LIMITED

PLACE:

DATE:

WITNESS:

1.

2.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

FORMAT- 18

**INSTALLATION & COMMISSIONING and HANDING OVER cum WORK COMPLETION
CERTIFICATE**

Certified that ____ (KW) On-Grid/Off-Grid Solar Power Plant has been completed, installed, commissioned and tested successfully as per the specifications of LOA No. _____ at (location details - full address of site) _____ on date _____ and has been handed over to _____ (Beneficiary Organization as per Work Order) on the date the _____ with the following assets.

Sl. No	Component	Details
	LOA No:	
1	Name of Project Site with Complete Address.	
1.1	Longitude/ Latitude	.....E.....N
1.2	Shadow Free Area	..... Sqft.
2	Capacity of system installed (kWp)	..... kWp
3	Specification of the Solar Modules	
3.1	Type of Module (Mono/poly crystalline)	
3.2	Make of Modules & year of manufacturing	
3.3	Wattage of each module	..... Wp
3.4	Module Efficiency (Enclose I-V curve of any of the module used in the system)	Attach/Not Attach
3.5	No of Modules installed	.....
3.6	No of series & Parallel combinations	Series : Nos. & Parallel : Nos.
3.7	Tilt Angle of Modules	..... Degree
3.8	IEC certificate Date of issue Agency Validity Enclose a IEC certificate	: : : : :
3.9	Whether imported or indigenous	Indigenous
3.10	Whether RFID tag is pasted or not?	
3.11	If so, tag is inside or outside. If not, the reason?	
3.12	Type of RFID	
3.13	Solar Module Installed at	(Ground / Rooftop)
4	PCU	
4.1	Make,& rating Type of Charge controller/MPPT	Make: Rating: Charge Controller / MPPT :
4.2	Capacity of inverter & year of manufacturing	
4.3	AC Output :Single Phase/3 Phase	
4.4	Whether hybrid or stand alone	
4.5	Whether indigenous or imported	
4.6	Enclose test certificate as per	

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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	MNRE requirement	
4.7	Input Voltage to Inverter	
5	Batteries	
5.1	Make of batteries & year of manufacturing	
5.2	Type : Tubular Lead Acid /VRLA/GEL	
5.3	Battery Cell Rating	Volt: AH:
5.4	Nos.	..... Nos.
5.5	No of series and parallel combinations	Series: Nos. Parallel: Nos.
5.6	Enclose test certificate as per NIT requirement	
6	Depth of Discharge Proposed	
6.1	Autonomy (hours)	..... hours
6.2	Battery Bank Installed at	
7	Structures	
7.1	Tracking or non tracking	
7.2	Indigenous or imported	
8	Cables Make and size	
8.1	Enclose Certificate: Rating :-	
8.2	voltage of cable	
9	Distribution Box	
9.1	Name (ACDB and DCDB)	
9.2	Make	
9.3	Certificate	
10	Earthing and protections	
10.1	Lightening Arrester (Type)	
11.1	Date of Installation of Meter as well as Synchronization of the system with Grid (For On-Grid Solar Power Plant only)	
11.2	Date of Commissioning of the system (For Off-Grid Solar Power Plant only)	
12	Generation since Installation (enclose report)	Attached / not Attach
13	Technical Person Trained to maintain system (Name with Mobile no.)	Name: Nos. :

System Installed by:

M/s_____

(Signature of Authorized Signatory)

Full Name & Designation:

Seal and Date:

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

Handed Over by:

Taken Over by User:

(Officer in Charge of PM-SHRI School)

For M/s_____

(Authorized Signatory)

Full Name & Designation:

Seal & Date:

Signature:

Full Name & Designation:

Seal & Date:

Verified by:

1. SDE, Concerned Electrical Sub-Division, APDCL

Signature:

Name:

Seal and Date:

2. AGM, Concerned Electrical Division, APDCL

Signature:

Name:

Seal and Date:

(Counter signed by CEO of Concerned Electrical Circle, APDCL)

Signature:

Name:

Seal and Date:

Copies:

1. Copy to the beneficiary/user
2. Copy to the Mission Director, Samagra Shiksha, Assam
3. Copy to be forwarded to CGM (NRE), APDCL
4. Copy to the Turnkey Contractor
5. Copy to _____ for information.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
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FORMAT- 19

SYSTEM MAINTENANCE LOG BOOK FORMAT

Sl. No	Particulars	Details
1	LOA No:	
2	Inspector Name	
3	Inspection Date	___/___/___
4	Name & Address of the Contractor:	
5	Name of Project Site with Complete Address.	Name of Project Site: Address: Town / City / Village: District: Pin: Email: Phone No:
6	Longitude/ Latitude	.....E.....N
7	Shadow Free Area	..... Sqft.
8	Capacity of Solar Power Plant installed (kWp)	..... kWp
A	SOLAR MODULES	
1.1	Type of Module (Mono/poly crystalline)	
1.2	Wattage of each module	..... Wp
1.3	Make of Solar Module:	
1.4	No of series & Parallel combinations	Series : Nos. & Parallel : Nos.
1.5	Tilt Angle of Modules	..... Degree
1.6	Total nos. of module installed	..... Nos.
1.7	CHECKLIST OF SOLAR MODULE:	
	Cracked glass of PV panel?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	White or brown spot, bubble of air, moisture behind the glass?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Junction boxes at backside loose or without cover?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check for physical damage to any PV module?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check for loose cable terminations between PV modules?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Shading on solar panels removed?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	PV modules are properly grounded with lugs on each module?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	ARRAY INSTALLATION AND WIRING	
	Proper insulation on module wiring	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Proper connectors on array wiring extensions	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Proper grounding of array & array mount	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Proper insulation on module wiring	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Array mount properly secured and sealed	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Wrong cable dimension used?	Yes <input type="checkbox"/> No <input type="checkbox"/>
B	STRUCTURAL AND ROOF	
	Is equipment mounted securely, and level?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Any sign of damage to modules or wiring?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	All roof mounted junction boxes, combiners are securely installed?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Are conduit supports rated for the installation and	Yes <input type="checkbox"/> No <input type="checkbox"/>

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	properly installed?	
	Check that all DC wiring from combiner box onward is in dedicated conduit using weather tight fittings and labeled accordingly?	Yes <input type="checkbox"/> No <input type="checkbox"/>
C	DC CONNECTIONS	
	Source Circuit Combiner Boxes	Yes <input type="checkbox"/> No <input type="checkbox"/>
	DC-rated circuit breakers or fuses with adequate voltage rating	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Listed equipment	Yes <input type="checkbox"/> No <input type="checkbox"/>
D	BATTERY BANK (BATTERY BACKUP SYSTEMS ONLY)	
	Terminals protected from shorting	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Maintenance-free vented for cooling	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check for battery ambient temperature?	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, the temperature degree is = °C
	Make of battery	
	Type of battery :	
	Nominal capacity (volts per cell) :	
	Battery capacity/cell (Ah) :	.....V
	Battery voltage (individual battery ) :	..... V
	Battery voltage (per bank battery ) :	..... V
	Battery current (per bank battery ) :	..... A
	Are there hot battery cells (touch by hand each cell)?:	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Proper insulation around battery-to-battery cables?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Incorrect battery connections?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Main cables exposed to physical damage?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check battery rack and DC distribution box	Yes <input type="checkbox"/> No <input type="checkbox"/>
E	INVERTER (PCU)	
	Inverter Size:	..... KVA / KW
	Brand of Inverter	
	Array Voltage	.....V
	PV Current	..... V
	Battery Voltage	.....V
	Energy Generated during inspection	..... kWh
	Total supplied energy since start of operation	..... kWh
	Check cable connector fasteners for torque values	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Checks AC disconnect circuit breakers and its cable connectors?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check DC circuit connectors?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check DC disconnect circuit breakers and its cable connectors?	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check if any damage (e.g. cracks, holes, missing) endangers the operating safety, the battery inverter must be deactivated immediately	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Cleaning the fan with the aid of a vacuum cleaner (recommended) or a soft paint brush/hand brush if they are covered with loose dust and when they are at a standstill	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Check the functionality regularly whether error messages are present to ensure optimal operation discover hidden faults in the installation or errors in	Yes <input type="checkbox"/> No <input type="checkbox"/>

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

	the configuration	
F	Generation since Installation (Enclose Report)	Attached / Not Attached
	Comment	

Remarks, if any: _____

Prepared by:

Mr. _____

For M/s _____

(Authorized Signatory)

Full Name & Designation:

Seal & Date:

Checked by User:

(Officer in Charge of PM-SHRI School)

Signature:

Full Name & Designation:

Seal & Date:

Verified by:

SDE, Concerned Electrical Sub-Division, APDCL

Signature:

Name:

Seal and Date:

Copies:

1. Copy to the beneficiary/user
2. Copy to the Mission Director, Samagra Shiksha, Assam
3. Copy to be forwarded to CGM (NRE), APDCL
4. Copy to the Turnkey Contractor
5. Copy to _____for information.

**Implementation of On-Grid and Off-Grid Solar Power Plants at different PM-SHRI Schools
under Samagra Shiksha, Assam**

SCHEDULE 1

PERFORMANCE PARAMETERS (MONTHLY REPORT)

Project:

Site Location- (Latitude & Longitude):

Total Available Shadow-Free Area (m²) [Specify if Ground or Rooftop Area]:

Total Usable Area for Solar Installation (m²) [Specify if Ground or Rooftop Area]:

Type of Roof:

Tilt Angle:

Radiation data reference:

Energy Simulation:

Power evacuation:

Energy in kWh:

End of year	Global Horizontal (kWh/m ² /year)	Global Inclined (kWh/m ² /year)	Net Energy at Metering point ((kWh/kWp/year))	PR (%) at the metering point	Capacity Utilization Factor (%)
1					
2					
3					
4					
5					

Prepared by:

Mr. _____

For M/s _____

(Authorized Signatory)

Full Name & Designation:

Seal & Date:

Checked by User:

(Officer in Charge of PM-SHRI School)

Signature:

Full Name & Designation:

Seal & Date:

ANNEXURE-A

On-Grid and Off-Grid Solar Plant Capacity at different Schools under PM-SHRI Scheme of Samagra Shiksha, Assam (Package-I: Lower Assam Region)								
Sl. No.	District	School category	UDISE Code	Name of School	APDCLConsumer number as per Electricity Bill	Connected load in kW as per Electricity Bill	On-Grid Solar / Off - Grid Solar Plant	Solar Plant Capacity (kW)
ON GRID POWER PLANT DETAILS								
1	BAKSA	Primary	18240304401	ANANDAPUR LPS	70000037942	2	On-Grid Solar	1
2	BAKSA	Sr. Secondary	18240406605	KAKLABARI H.S.	71000029071	5	On-Grid Solar	4
3	BARPETA	Primary	18050616601	1122 BARPETA NURSERY CUM L.P	59000014212	2	On-Grid Solar	1
4	BARPETA	Sr. Secondary	18050309804	BARBHITHA HS SCHOOL	60000016507	6	On-Grid Solar	4
5	BARPETA	Sr. Secondary	18050605104	BHELLA HS SCHOOL	59000010402	2	On-Grid Solar	2
6	BARPETA	Sr. Secondary	18050112703	PASCHIM MAINBARI HS SCHOOL	60000031705	2	On-Grid Solar	1
7	BARPETA	Sr. Secondary	18050407805	PATACHARKUCHI VIDYAPITH HSS	72000035214	2	On-Grid Solar	1
8	BONGAIGAON	Sr. Secondary	18040305009	ABHAYESWARI HS & MP SCHOOL	32000010770	11.45	On-Grid Solar	5
9	BONGAIGAON	Secondary	18040205611	BARPATHAR HIGH SCHOOL	35000019345	10	On-Grid Solar	5
10	BONGAIGAON	Secondary	18040218504	BIRJHORA GIRLS HIGH SCHOOL	34000004382	5.99	On-Grid Solar	4
11	BONGAIGAON	Sr. Secondary	18040307103	LENGTISINGA H.S SCHOOL	32000003845	2.6	On-Grid Solar	2
12	BONGAIGAON	Secondary	18040318308	NUMBERPARA HIGH SCHOOL	60010090257	2	On-Grid Solar	1
13	BONGAIGAON	Upper Primary	18040103302	ODUDUBI MV SCHOOL	32000077244	2	On-Grid Solar	1
14	CHIRANG	Sr. Secondary	18250124801	BIJINI BANDHAB HS SCHOOL	33000001007	3.7	On-Grid Solar	3
15	DHUBRI	Sr. Secondary	18020339402	JAMADARHAT JANATA HS SCHOOL	41000036746	2	On-Grid Solar	1
16	KOKRAJHAR	Primary	18010539101	2315 NO. TINTILA LP SCHOOL	52000022517	2	On-Grid Solar	1
17	KOKRAJHAR	Sr. Secondary	18010243002	DEBITOLA H.S. SCHOOL	47000040934	2	On-Grid Solar	1
18	KOKRAJHAR	Sr. Secondary	18010110402	DOTMA H.S.SCHOOL	53000000004	2	On-Grid Solar	1
19	KOKRAJHAR	Sr. Secondary	18010235610	JALABILA HS SCHOOL	47000042995	5	On-Grid Solar	4
20	KOKRAJHAR	Sr. Secondary	18010312302	JARAGURI HS SCHOOL	54000046932	2	On-Grid Solar	1
21	KOKRAJHAR	Upper Primary	18010236202	JOLDOBA MV SCHOOL	48010050921	5	On-Grid Solar	4
22	KOKRAJHAR	Sr. Secondary	18010522802	KOKRAJHAR GIRLS HIGHER SECONDARY SCHOOL	55000003290	17	On-Grid Solar	5
23	NALBARI	Secondary	18070105103	ADARSHA VIDYALAYA, BARKHETRI	64000087001	18	On-Grid Solar	5
24	NALBARI	Sr. Secondary	18070214601	DEBIRAM PATHSALA	65000005986	7	On-Grid Solar	5
Total On-Grid Solar Plant Capacity								63
OFF GRID POWER PLANT DETAILS								
1	CHIRANG	Secondary	18250103003	MAKRA HIGH SCHOOL	33000107568	1	Off-Grid Solar	1
2	CHIRANG	Primary	18250223201	NO. 248 BASUGAON TOWN J.B.S.	051000000704	1.84	Off-Grid Solar	2
3	KOKRAJHAR	Upper Primary	18010204904	CHOUTARA ME SCHOOL	54000003295	1	Off-Grid Solar	1
4	SOUTH SALMARA-MANKACHAR	Upper Primary	18320708507	SARKARER GRAM MEM	42010063101	1	Off-Grid Solar	1
5	CHIRANG	Sr. Secondary	18250124801	BIJINI BANDHAB HS	33000001008	1.8	Off-Grid	2
6	BAKSA	Primary	18240210303	BHUTAN KHUTI LPS	70010080571	1	Off-Grid Solar	1
Total Off-Grid Solar Plant Capacity								8
Total Capacity of Solar Power Plant (On Grid + Off Grid)								71

On-Grid and Off-Grid Solar Plant Capacity at different Schools under PM-SHRI Scheme of Samagra Shiksha, Assam (Package-II: Central Assam Region)								
Sl. No.	District	School category	UDISE Code	Name of School	APDCL Consumer number as per Electricity Bill	Connected load in kW as per Electricity Bill	On-Grid Solar / Off-Grid Solar	Solar Plant Capacity (kW)
ON GRID PLANT DETAILS								
1	CACHAR	Secondary	18210104208	BEGAM ABIDA AHMED GIRLS H.E.SCHOOL	133000016109	2	On-Grid Solar	1
2	DIMA HASAO	Sr. Secondary	18200205007	HAFLONG GOVT.GIRL'S HSS	164000000978	7	On-Grid Solar	5
3	DIMA HASAO	Sr. Secondary	18200314806	MAHUR HSS	165000000955	5	On-Grid Solar	4
4	DIMA HASAO	Sr. Secondary	18200610802	MAIBANG H.S. SCHOOL	166000003824	10	On-Grid Solar	5
5	HAILAKANDI	Primary	18230117503	173 NO DALIDHAR LPS	132010086085	3	On-Grid Solar	2
6	HAILAKANDI	Primary	18230310201	RAJA TILLA LPS	134010084088	3	On-Grid Solar	2
7	HOJAI	Secondary	18300309504	SREE NARASINGHA STHAN H. SCHOOL	119000010586	2	On-Grid Solar	1
8	HOJAI	Upper Primary	18300813802	UDALI MVS	121010099123	2	On-Grid Solar	1
9	KARBI ANGLONG	Secondary	18191100203	BAKALIA BAHANI ADARSHA HIGH SC	160000017885	4	On-Grid Solar	3
10	KARBI ANGLONG	Secondary	18190214705	JIN BABA HINDI HIGH SCHOOL	156010062555	2	On-Grid Solar	1
11	KARIMGANJ	Primary	18220432604	1367 NO. SANKARDEV	139010049469	2	On-Grid Solar	1
12	KARIMGANJ	Sr. Secondary	18220317711	ISABHEEL H.S.SCHOOL	141000006809	2	On-Grid Solar	1
13	KARIMGANJ	Sr. Secondary	18220602802	MMM GIRLS HS	140000008682/	2	On-Grid Solar	1
					140000008683	2	On-Grid Solar	1
14	NAGAON	Secondary	18100400102	AMSOI HS	130000000855	3	On-Grid Solar	2
15	NAGAON	Secondary	18101101007	GOVT URBAN HIGH SCHOOL	122000016921	6	On-Grid Solar	4
16	NAGAON	Sr. Secondary	18100708207	JAJARI HSS	112000007563	5	On-Grid Solar	4
17	NAGAON	Sr. Secondary	18100525501	KAMPUR HS & M.P. SCHOOL	120000026870	3	On-Grid Solar	2
18	NAGAON	Sr. Secondary	18100515303	KATHIATOLI HSS	120000006325	5	On-Grid Solar	4
19	NAGAON	Secondary	18100904304	LOWKHOWA HS	129000059492	5	On-Grid Solar	4
20	NAGAON	Secondary	18100704803	MAHKHULI SAHID A. BORA MEMO HS	123000047580/ 123000047697	5	On-Grid Solar	4
21	NAGAON	Primary	18100609802	RAHADHALA GOVT JR.BASIC	127000028364	3	On-Grid Solar	2
22	SONITPUR	Secondary	18110208807	BANI NIKETAN HIGH SCHOOL	100000002561	5	On-Grid Solar	4
23	SONITPUR	Sr. Secondary	18110110701	CHANDRANATH SARMA HS SCHOOL	94000010106	5	On-Grid Solar	4

24	SONITPUR	Secondary	18110313003	KHANAMUKH HS	96000004380	5	On-Grid Solar	4
25	SONITPUR	Sr. Secondary	18110315806	RANGAPARA HSS	95000004485	2	On-Grid Solar	1
26	SONITPUR	Sr. Secondary	18110222402	SINGRI HSS	1.01E+11	2	On-Grid Solar	1
27	UDALGURI	Sr. Secondary	18260201302	MAZBAT H.S. SCHOOL	88000005509	2	On-Grid Solar	1
28	WEST KARBI ANGLONG	Secondary	18330110301	BHOKSONG HIGH SCHOOL	130000022010	2	On-Grid Solar	1
Total On-Grid Solar Plant Capacity								71
OFF GRID PLANT DETAILS								
1	CACHAR	Primary	18210706105	1037 NO DIDARKUSH	149000058972	1	Off-Grid Solar	1
2	CACHAR	Primary	18210704503	664 NO KUKU BARI LPS	148000050977	0.88	Off-Grid Solar	1
3	CACHAR	Upper Primary	18210632202	BAIKUNTHA ROY MES	151000019351	1	Off-Grid Solar	1
4	CACHAR	Primary	18210610301	SAHARJUM UDAY NAGAR LPS	151000013785	0.65	Off-Grid Solar	1
5	DIMA HASAO	Primary	18200610402	D. B. THAOSEN LPS	166000007300	1	Off-Grid Solar	1
6	DIMA HASAO	Secondary	18200504914	GARAMPANI GOVT. HIGH SCHOOL	167000001317	1	Off-Grid Solar	1
7	DIMA HASAO	Primary	18200314801	MAHUR J B HAGJER MEMORIAL LPS	165010020219	1	Off-Grid Solar	1
8	HOJAI	Secondary	18300812605	NAHKHUTI HS	121000037340	1	Off-Grid Solar	1
9	KARBI ANGLONG	Secondary	18190201817	DILLAI HIGH SCHOOL	156000017661	1	Off-Grid Solar	1
10	NAGAON	Primary	18101006402	21 NO. CHAPANALA LPS	129000024442	1	Off-Grid Solar	1
11	NAGAON	Primary	18101000202	AMLOKHI BALIKA LPS	129010327127	1	Off-Grid Solar	1
12	NAGAON	Upper Primary	18100403002	BARAPUJIA GOVT. MVS	130000008784	0.3	Off-Grid Solar	1
13	NAGAON	Sr. Secondary	18100106002	DUMDUMIA BALISATRA HSS	126000007877	0.66	Off-Grid Solar	1
14	NAGAON	Upper Primary	18100902302	FAKALI MES	129010324144	1	Off-Grid Solar	1
15	NAGAON	Primary	18100700601	KACHOLUKHOWA ISLAM PATTY LPS	122010049923	1	Off-Grid Solar	1
16	NAGAON	Sr. Secondary	18100605809	KUTHARI HSS	127000009197	1	Off-Grid Solar	1
17	NAGAON	Primary	18100207802	NURUDDIN FURKANIA	123000049492	1	Off-Grid Solar	1
18	SONITPUR	Secondary	18110319902	KADAMTAL HS	95000010232	1	Off-Grid Solar	1
19	NAGAON	Primary	18100104208	UTTAR GAYONGAON SUBED ALI LPS	126000061398	1	Off-Grid Solar	1
20	SONITPUR	Sr. Secondary	18110222402	SINGRI HSS	(i) 101000024423	1	Off-Grid Solar	1
					(ii) 10100000072	1	Off-Grid Solar	1
Total Off-Grid Solar Plant Capacity								21
Total Capacity of Solar Power Plant (On Grid + Off Grid)								92

On-Grid and Off-Grid Solar Plant Capacity at different Schools under PM-SHRI Scheme of Samagra Shiksha, Assam (Package-III: Upper Assam Region)								
Sl. No.	District	School category	UDISE Code	Name of School	APDCLConsumer number as per Electricity Bill	Connected load in kW as per Electricity Bill	On-Grid Solar/ Off - Grid Solar	Solar Plant Capacity (kW)
ON GRID POWER PLANT DETAILS								
1	CHARAIDEO	Secondary	18290500312	ADARSHA VIDYALAYA RANGAPATHER	196000000696	40	On-Grid Solar	5
2	DHEMAJI	Sr. Secondary	18130137105	GOGAMUKH HSS	234000003331/	2	On-Grid Solar	1
					234000018085	2	On-Grid Solar	1
3	DHEMAJI	Sr. Secondary	18130305613	LAIMEKURI HIGHER SECONDARY SCHOOL	237000010466	3	On-Grid Solar	2
4	DHEMAJI	Sr. Secondary	18130289302	MACHKHOWA HSS	232000003765	4.5	On-Grid Solar	3
5	DIBRUGARH	Sr. Secondary	18150400404	ROHMARIA HS	208000012917	2.9	On-Grid Solar	2
6	GOLAGHAT	Secondary	18180508006	KAZIRANGA NATIONAL PARK HIGH S	182000007480	3	On-Grid Solar	2
7	GOLAGHAT	Sr. Secondary	18180303802	KURALGURI H.S.	172000002605	3	On-Grid Solar	2
8	GOLAGHAT	Upper Primary	18180307902	SOWGURI DHEMAJI MISING MES	172010050825	2	On-Grid Solar	1
9	JORHAT	Secondary	18170207404	DONIKONA HIGH	177000025571	2	On-Grid Solar	1
10	JORHAT	Sr. Secondary	18170622501	MIHI RAM SAIKIA HS	176000005171	5	On-Grid Solar	4
11	JORHAT	Secondary	18170511006	NAMGORUMORA BB HS	172000008730	2	On-Grid Solar	1
12	LAKHIMPUR	Sr. Secondary	18120416007	LAKHIMPUR GOVT. HSS	227000001145	15	On-Grid Solar	5
13	LAKHIMPUR	Sr. Secondary	18120510510	MADHABDEV COLLEGIATE H.S	228000011898	4	On-Grid Solar	3
14	MAJULI	Sr. Secondary	18310402409	C.S RAWANAPAR HS	178000004683	4	On-Grid Solar	3
					178000015108	4	On-Grid Solar	3
15	TINSUKIA	Secondary	18140142906	GOPAL KRISHNA GIRLS HIGH SCHOOL	299000026755	5.8	On-Grid Solar	4
16	TINSUKIA	Secondary	18140107805	INDIRA GANDHI HIGH SCHOOL	217000032930	2	On-Grid Solar	1
17	TINSUKIA	Sr. Secondary	18140335201	SOWMAR VIDYAPITH	212000005835	6	On-Grid Solar	4
Total On-Grid Solar Plant Capacity								48
OFF GRID POWER PLANT DETAILS								
1	DHEMAJI	Secondary	18130251903	RAI CHAPORI HS	231000027274	1	Off-Grid Solar	1
2	GOLAGHAT	Upper Primary	18180404101	HALDHIBARI MES	184000016354	1	Off-Grid Solar	1
3	GOLAGHAT	Secondary	18180210903	KACHARIHAT HIGH SCHOOL	185000016982	1	Off-Grid Solar	1
4	GOLAGHAT	Primary	18180211603	NO 3 TOWN CHANDMARI LPS	181000027449	1	Off-Grid Solar	1
5	JORHAT	Sr. Secondary	18170114106	TEOK GIRLS HSS	188000004647	1	Off-Grid Solar	1
6	LAKHIMPUR	Upper Primary	18120508701	NARAYANPUR GIRLS	228000014532	0.66	Off-Grid Solar	1
Total Off-Grid Solar Plant Capacity								6
Total Capacity of Solar Power Plant (On-Grid + Off-Grid)								54