

e-tender Notice

Uttar Pradesh New and Renewable Energy Development Agency, (UPNEDA)

(Deptt. of Additional Sources of Energy, Govt. of U.P.)

Vibhuti Khand, Gomti Nagar, Lucknow U P

TeleFax: 0522-2720779, 2720829

Website www.upneda.org.in E-Mail: compneda@rediffmail.com

Tender Notice No: UPNEDA/SPV/OGPP/GIC/2019/2

UPNEDA invites Online Bids from Prospective Bidders through e-tendering for the Rate Contract of Supply, Installation (including wiring up to critical electrical loads) & Commissioning with 05 years Comprehensive Maintenance of Solar PV Power Plants each capacity 05 kW in Government Inter Colleges situated in various Districts of Uttar Pradesh as per scope of work, technical parameters, terms and conditions mentioned in the Bid document.

Sl. no	Item	e-tender No.	Approx. Quantity	Fee of e-tender Document	Earnest Money
1	Rate Contract of Supply, Installation (including wiring up to critical electrical loads) & Commissioning with 05 years Comprehensive Maintenance of Solar PV Power Plants each capacity 05 kW in Government Inter Colleges situated in various Districts of Uttar Pradesh	Tender Notice No: UPNEDA/SPV/O GPP/GIC/2019/2	50 units	Rs 35000.00 +GST 18%= 41300/-	Rs. 3,50,000/- (Three Lakhs and fifty thousand only)

The bid document can be downloaded from website. The bid document is available at e-Procurement website <http://etender.up.nic.in>. Interested Bidders may view, download the e-Bid document, seek clarification and submit their e-tender online up to the date and time mentioned in the table below:

(a)	e-Bid submission end date & Time	24-6-2019 upto 6.30 PM
(b)	Online Technical e-Bid opening date & time	25-6 -2019 at 11.30 AM
(c)	Online Financial Bid opening date & time (Only of Technically qualified Bidders)	31-6 -2019 at 12.30 PM
(d)	Venue of opening of Technical & Financial e Bids	UPNEDA Head Office, Vibhuti Khand, Gomti Nagar,Lucknow-226010

The bidders need to submit the proof/cost of e-Bid document fees and EMD as stated in the above table through Demand Draft as bid documents fees and bank guarantee as EMD in favour of Director Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA), payable at LUCKNOW. The scanned copy of the Demand Draft and Bank guarantee must be enclosed along with the e-Bids. The original Demand Draft and bank guarantee along with the hard copy of the first part of the tender document with enclosures duly signed by bidders must reach the office of UPNEDA at Vibhuti Khand, Gomti Nagar Lucknow before opening date and time of technical e-Bid failing which, tender shall not be considered. Numbers of the system mentioned as above, may increase or decrease. Director, Uttar Pradesh New and Renewable Energy Development Agency, (UPNEDA) reserves the right to reject any or all tenders without assigning any reason thereof. The decision of Director UPNEDA will be final and binding.

**Director
UPNEDA**

e-TENDER DOCUMENT

FOR

Rate Contract

of

Supply, Installation (including wiring up to critical electrical loads) & Commissioning with 05 years Comprehensive Maintenance

of

Solar PV Power Plants each capacity 05 kW

in

Government Inter Colleges

Situated in various Districts of Uttar Pradesh



e-tenderNO.- UPNEDA/SPV/OGPP/GIC/2019/2

Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA)

(Deptt. of Additional Sources of Energy, Govt. of U.P.)

VibhutiKhand, Gomti Nagar, Lucknow, U. P.

Tel.No. 91-0522-2720652, TeleFax: 0522-2720779, 2720829

Website:www.upneda.org.in e-mail: compneda@rediffmail.com

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Uttar Pradesh New and Renewable Energy Development Agency, (UPNEDA)

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**Director
UPNEDA**

2. Covering Letter:

FROM:-

(Full name and address of the Bidder)

.....
.....

To:

The Director,
Uttar Pradesh New and Renewable Energy
Development Agency (UPNEDA)
VibhutiKhand, Gomti Nagar, Lucknow- U. P.

Subject: -Offer in response to e-tender specification No: Tender Notice No:
UPNEDA/SPV/OGPP/GIC/2019/2

Sir,

We hereby submit our offer in full compliance with terms & conditions of the above e-tender. A blank copy of the e-tender (Excluding Financial bid), duly signed on each page is also submitted as a proof of our acceptance of all specifications as well as terms/ Conditions.

We confirm that, we have the capability to supply, install and carryout 5 years comprehensive warranty maintenance of more thanNos. of Solar PV Power Plants in 4 months and..... Nos. in a year (Supporting document in proof of capacity should be attached)

The e-tender is to be uploaded in two separate files named Part-A for technical bid & Part-B for Financial Bid only.

(Signature of Bidder)
With Seal

3. Check list of Annexure

(The following information/documents are to be annexed and flagged by the Bidders along with the BID)

S.N.	Annexure No	Particulars	Yes/No, Flag No.
1.	Annexure-I (a) Annexure-I (b)	Details of Tender document fees (Demand Draft no, date, amount and bank name) Details of Earnest money (bank guarantee no. and date, (valid for four months)	
2.	Annexure-II	The bidder is a Manufacturing Company/Firm/ Corporation Registered in India of SPV Cells / Modules / PV System Electronics/Invertors/Battery(conforming to relevant National / International Standards) OR PV System Integrator-- At least Solar Photovoltaic off grid system/Power Plant (s) aggregating to a total of 100 KWp capacities should have been installed / commissioned. (A copy of the order and completion certificate indicating its successful execution to be enclosed)	
3.	Annexure-III III(a) III(b) III(c) III (d)	Following Test Certificates & Reports for components specified in <u>1.SPV Modules</u> a) IEC 61215 edition II/ IS 14286 for Crystalline Modules (test report should be valid till March 2020) b) IEC 61730 Part 1 & 2 (test report should be valid till March 2020) c) STC Performance Report –I V curve . (test report should be issued on or after 1 April 2016) <u>2.Batteries-</u> MNRE/NABAL/BIS authorized test centers ((test report should be issued on or after 1 April 2016)	
		3. PCU cum Inverters (test report should be issued on or after 1 April 2016)	
	III (e)	MPPT and Protections - IEC 61683 /IS 61683 & IEC 60068-2(1,2,14,30) / equivalent BIS Standard or Charge controller /MPPT units– IEC 60068-2(1,2,14,30) / equivalent BIS standard . (test report should be issued on or after 1 April 2016)	
5.	Annexure-IV	A copy of valid GST registration certificate	
6	Annexure-V	Overall Average Annual Turnover of the Company/Firm/ Corporation in the last three financial years (A summarized sheet of turnover of last three Financial Years certified by registered CA)	
7.	Annexure-IV	A summarized sheet of cumulative three years' experience in PV systems/power plants certified by registered CA.	
8.	Annexure-V	Authorization letter of the Bidder, for the person representing his firm, that he is authorized to discuss and with specific mention of this e-tender.	
9	Annexure- VI	Others (i). An undertaking that the service centres will be opened in allotted district and list will be submitted before supply and installation for verification.	

* Please flag the annexure and write flag number in the box.

Note:- Bids received without supporting documents for the various requirements mentioned in the tender document may be rejected.

(Signature of Bidder)With Seal

4. Particulars of e-tender

1.	e-tender no.	Tender Notice No: UPNEDA/SPV/OGPP/GIC/2019/2
2.	Particulars of the work	Rate Contract of Supply, Installation (including wiring up to critical electrical loads) & Commissioning with 05 years Comprehensive Maintenance of Solar PV Power Plants each capacity 05 kW in Government Inter Colleges Situated in various Districts of Uttar Pradesh
3.	Period of work	Within 4 months from the date of award of work.
5.	Period of validity of rates for acceptance	3 months from opening of Financial Bid
7.	Place of opening of e-tender	UPNEDA, Head Office, Vibhuti Khand, Gomti Nagar, Lucknow, Uttar Pradesh.

1. Bidders are advised to study the tender Document carefully. Submission of e-Bid against this tender shall be deemed to have been done after careful study and examination of the procedures, terms and conditions of the tender Document with full understanding of its implications.
2. The e-Bid prepared in accordance with the procedures enumerated in ITB Clause 15 of Section-I should be submitted through e-Procurement website <http://etender.up.nic.in>.
3. The e-Bids will be electronically opened in the presence of bidder's representatives, who choose to attend at the venue, date and time mentioned in the above table. An authority letter of bidder's representative will be required to be produced.
4. In the event of date specified for e-Bids opening being declared a holiday for UPNEDA's office then the due date for opening of e-Bids shall be the following working day at the appointed time and place.
5. All the required documents including Price Schedule/BOQ should be uploaded by the e-Bidder electronically in the PDF/XLS format. The required electronic documents for each document label of Technical (Fee details, Qualification details, e-Bid Form and Technical Specification details) schedules/packets can be clubbed together to make single different files for each label. All the enclosures should be scanned and uploaded with bid.
6. The companies/firms who are registered at e-Procurement portal for e-tendering with U.P. Electronics Corporation Ltd. (UPLC), 10, Ashok Marg, Lucknow (UP) would only be eligible for participating in this e-tender. All companies/firms who have not registered themselves with UPLC for e-tendering till date can get their registration done. The companies/firms may contact the UPLC officials on phone numbers 0522-2286809, 0522-2288750 (O) 0522-4130303 (Extn: 303, 304 & 307), for their Registration/Digital Signature Certificate related queries.

(Signature of Bidder)
With Seal

5. GENERAL PARTICULARS OF BIDDER

1	Name of Bidder	
2	Postal Address	
3	Mobile no.	
4	Telephone	
5	E-mail	
6	Web site	
7	Name, designation and Mobile Phone No. of the representative of the Bidder to whom all references shall be made	
8	Name and address of the Indian/foreign Collaboration if any	
9	Have anything/extra other than price of items (as mentioned in price Schedule) been written in the price schedule.	
10	Have the Bidder to pay arrears of income tax? If yes up to what amount?	
11	Have the Bidder ever been debarred By any Govt. Deptt./ Undertaking for undertaking any work?	
12	Monthly supply capacity (attach supporting document)	
13	Details of offer (please mention number of pages and number of Drawings in the hard copy)	
14	Reference of any other information attached by the Bidder (please Mention no. of pages & no. of drawings)	

(Signature of Bidder)
with Seal

6.DECLARATION BY THE BIDDER

(Regarding e-tender NO.- Tender Notice No: UPNEDA/SPV/OGPP/GIC/2019/2

We _____ (hereinafter referred to as the Bidder) being desirous of e-tendering for the work under the above mentioned e-tender and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the e-tender document,

DO HEREBY DECLARE THAT

1. The Bidder is fully aware of all the requirements of the e-tender document and agrees with all provisions of the e-tender document.
2. The Bidder is capable of executing and completing the work as required in the e-tender.
3. The Bidder accepts all risks and responsibilities directly or indirectly connected with the performance of the e-tender.
4. The Bidder has no collusion with other Bidders, any employee of UPNEDA or with any other person or firm in the preparation of the bid.
5. The Bidder has not been influenced by any statement or promises of UPNEDA or any of its employees, but only by the e-tender document.
6. The Bidder is financially solvent and sound to execute the work.
7. The Bidder is sufficiently experienced and competent to perform the contract to the satisfaction of UPNEDA.
8. The information and the statements submitted with the e-tender are true.
9. The Bidder is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10. The Bidder has not been debarred from similar type of work by UPNEDA and or Government undertaking/ Department.
11. This offer shall remain valid for acceptance for 12 Months from the date of opening of financial bid of e-tender.
12. The Bidder gives the assurance to execute the e-tendered work as per specifications terms and conditions.
13. The Bidder confirms the capability to supply, install and carryout 5 years comprehensive warranty maintenance of aggregate capacity more than.....Nos. in 4 months of Solar Power Generators /Plants .

(Signature of Bidder)
with SEAL

PART-2 : INSTRUCTION TO BIDDERS

SECTION 1: THE TENDER DOCUMENT

1.1 CONTENT OF e-tender DOCUMENT

1.1.1 The e-tender procedure and contract terms are prescribed in the e-tender Documents. In addition to the e-tender Notice the Bidding documents include.

PART A

Part - 1

- 1 e-tender Notice
- 2 Covering Letter
- 3 Checklist of Annexures
- 4 Particulars of e-tender
- 5 General Particulars of Bidder
- 6 Declaration by Bidder

Part – 2 : Instruction to Bidders

- | | |
|------------|-----------------------------------|
| Section -1 | Contents of e-tender document |
| Section -2 | Eligibility condition |
| Section-3 | Preparation of e-tender |
| Section-4 | Submission of e-tender |
| Section -5 | e-tender opening and evaluation |
| Section-6 | Procedure for Finalisation of Bid |

Part – 3 : General Condition of Contract

Part – 4 : Scope of Work & Technical specifications

Part – 5 : Details of Warranty

Part – 6 : Technical Bid

PART B

Financial Bid

The Bidder is expected to examine all instructions, forms, terms and specifications as mentioned in the e-tender document. Failure to furnish all information required by the e-tender documents or submission of a bid not substantially responsive to the Bid Document in every respect will be at the Bidder's risk and is likely to result in out-right rejection of the e-tender .

1.2 LOCAL CONDITIONS

It shall be imperative on each bidder to fully inform him of all local conditions and factors, which may have any effect on the execution of the works covered under these documents and specifications. UPNEDA shall not entertain any request for clarifications from the Bidder, regarding such local conditions.

1.3 CLARIFICATION:

A prospective Bidder requiring any clarification of the e-tender Documents may contact UPNEDA in writing or by Fax at the UPNEDA's mailing address indicated in the Invitation for e-tender. All are requested to remain updated with the website. No separate reply/ intimation will be given elsewhere. Verbal clarifications and information's given by the UPNEDA or its employees or its representatives shall not be in any way entertained.

The Bidder(s) or their authorized representative(s) is/are invited to attend pre-bid meeting(s), UPNEDA will make all efforts to respond to the queries during the Pre Bid Meeting to be held on 12 th Jun, 2019 at 12.30 PM at UPNEDA Head Office, Lucknow. The purpose of the pre-bid meeting will be to clarify any issues regarding the Bid. Bidders are requested to submit such issues latest by 11th June 2019 up to 5:00 PM through e-mail (compneda@rediffmail.com/ dirupneda@gmail.com)

Enquiries/clarifications may be sought by the Bidder from:

Director,
Uttar Pradesh New & Renewable Energy Development Agency,
VibhutiKhand, Gomti Nagar, Lucknow
Phone: 0522-2720652
Fax: 0522-2720779, 2720829
Email: compneda@rediffmail.com
Website: www.upneda.org.in

1.4 AMENDMENT OF e-tender DOCUMENTS

At any time prior to the submission of the e-tender the UPNEDA may for any reason, whether at its own initiative or in response to a clarification requested by the Bidder, modify the e-tender documents by amendments. Such document shall be made available on websites: <http://neda.up.nic.in>.; <http://etender.up.nic.in> and www.uplc.in. All are requested to remain updated with the website. No separate reply/ intimation will be given elsewhere.

SECTION 2: ELIGIBILITY CONDITIONS

Eligibility Conditions for Bidders

1. Minimum Eligibility Conditions:

- **The Bidder should be**

A Registered Manufacturing Company/Firm/ Corporation in India of **SPV Cells / Modules or PV System Electronics or Invertors or Battery** (Conforming to relevant National / International Standards)

OR

- **A Solar PV System Integrator having**

- At least solar Photovoltaic Power Plant (s) aggregating to a total of 100 KW capacities should have been installed / commissioned.

(A copy of the work order and certificate indicating its successful execution to be enclosed)*

- **Cumulative Experience*** of the Bidder in executing contracts of **Solar Photovoltaic Systems/Power plants for three years (Installed & Commissioned) should be at least 25% of the tender value (Rs. 0.875 Cr.)**
- The Bidder should have valid CST /State VAT/ TIN registration certificate. A copy of which should be enclosed.
- Overall Average Annual Turnover of the Company/Firm/ Corporation in the last three financial years should be at least Rs 1.05 Crores (Rs one crores and Five lakhs only) (This must be the individual Company's turnover and not that of any group of Companies).
(A summarized sheet of turnover of last three years with average turnover certified by registered CA should be compulsorily enclosed)

*The work experience must be with Government organizations or MNRE supported subsidy schemes for supply, installation, commissioning and 5 year of comprehensive warranty maintenance. CA certificate is required.

SECTION 3: PREPARATION OF e-tender

3.1 LANGUAGE OF BID AND MEASURE

- 3.1.1 The e-tender prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the Bidder and UPNEDA shall be written in the English provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purpose of interpretation units of measurement shall be MKS system.

3.2 DOCUMENTS COMPRISING THE BID

- 3.2.1 The e-tender prepared by the Bidder shall comprise the following components

- (a) Covering letter as provided in e-tender document.
- (b) General particulars of bidder, as provided in e-tender document.
- (c) Declaration by The Bidder, as provided in e-tender document
- (d) Documentary evidence establishing that the bidder is eligible to Tender and is qualified to perform the contract if its tender is accepted. Check list of Annexure as provided in e-tender document
- (e) A blank copy of the in e-tender document signed on each page, as a confirmation by the Bidder to accept all technical specifications / commercial conditions along with all necessary enclosures.
- (f) Authorization letter of the Bidder, for the person representing his Company/Firm/ Corporation, that he is authorized to discuss and with specific mention of this e-tender

3.3 BID PRICE

- 3.3.1 The Bidder shall indicate prices on the appropriate financial bid schedule.

3.3.2 DUTIES AND TAXES

The price quoted should include all taxes and duties, custom duty, excise duty, service tax, sales tax, C.S.T., local taxes, Trade Tax/VAT, Income Tax, Surcharge on income tax etc. if any. A Bidder shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government income tax & service tax norms will be payable by the Bidder. TDS will be deducted from the payment of the Bidder as per the prevalent laws and rules of Government of India and Government of Uttar Pradesh in this regard.

3.4 BID CURRENCIES

- 3.4.1 Prices shall be quoted in Indian Rupees (INR) only

3.5 SECURITY DEPOSIT/ PERFORMANCE GUARANTEE:

- 3.5.1 The successful Bidders, who execute the agreement with UPNEDA for the work, shall have to furnish a security amount equivalent to 10% of total value of the contract in the form of Bank Guarantee valid for a period of 18 months from the date of execution of agreement. The bank guarantee may be issued by a nationalized bank or scheduled bank of RBI. Bank Guarantee shall be in favour of "Director, UPNEDA". The aforesaid Bank Guarantee shall be furnished prior to the execution of agreement. The performance Bank Guarantee shall be

released after completion of installation and commissioning of all systems. The performance security is exempted for Micro and Small Industry setup and registered in Uttar Pradesh. The DIC certificates for MSME in this regard should be submitted.

3.6 PERIOD OF VALIDITY OF e-tender

3.6.1 Validity of the offer should be 3 months from the date of opening of the financial bid of the e-tenders. Without this validity the e-tenders will be rejected.

3.6.2 In exceptional circumstances; the UPNEDA will solicit the Bidder's consent to an extension of the period of validity. The request and the response there of, shall be made in writing. The contract performance security provided under clause 3.5.1 above shall also be suitably extended.

3.7 **BID SECURITY (Earnest Money)**

3.7.1 3.7.1 The bidder shall furnish, as part of its bid, bid security of Rs3.50 lakh in the form of Bank guarantee issued by a nationalized bank or scheduled bank of RBI. The bank guarantee shall be valid for a period of 4 (Four) months from the opening of technical bid. The earnest money is exempted for Micro and Small Industry setup and registered in Uttar Pradesh. The DIC /NIC certificates issued from Directorate of industries/ NSIC is required for Micro and Small firms. The certificate should be submitted with tender document to get the exemptions.

3.7.2 Any bid not secured with the tender fee and earnest money will be rejected by the UPNEDA as non-responsive.

3.7.3 No Interest shall be payable on the amount of earnest money. The same will be released after the e-tenders have been decided, to those Bidders who fail to get the contract.

3.7.4 The e-tender security (earnest money) may be forfeited:

- a) If a Bidder withdraws its e-tender during the period of e-tender validity specified by the Bidder in the e-tender.
- b) If the successful Bidder fails to sign the contract within stipulated period.

3.7.5 EMD of successful bidder shall only be released after signing of agreement and submission of 10% Security bank guarantee.

3.8 **FORMAT AND SIGNING OF e-tender**

3.8.1 The bid must contain the name, residence and places of business of the persons making the e-tender and must be signed and sealed by the Bidder with his usual signature. The name and designations of all persons signing should be typed or printed below the signature.

3.8.2 e-tender by corporation/ company must be signed with the legal name of the corporation/ company/firm by the 'President', Managing director or by the 'Secretary' or other designation or a person duly authorized

3.8.3 The original copy of the e-tender shall be typed or written in indelible ink and shall be signed by the Bidder or a person duly authorized to bid and bidder to the contract. The letter of authorization shall be submitted along with power-of-attorney. All the pages of the bid shall be initialed by the person or persons signing the e-tender.

3.8.4 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder in which case such corrections shall be initialed by the person or persons signing the e-tender.

(Signature of Bidder)
with SEAL

SECTION: 4: UPLOADING OF e-tender

- 4.1 Uploading of e-tender: The bid shall be uploaded online as per guide lines of U.PElectronics Corporation Ltd. (UPLC), 10, Ashok Marg, Lucknow (UP).
- 4.1.1 The tender must be complete in all technical and commercial respect and should contain requisite certificate, drawings, informative literature etc. as required in the specification.
- 4.1.2 First part (**PART-A**) should contain technical specification, brochure literature etc. All parts of tender documents except financial bid should be uploaded as per e-procurement mode in due date and time. Scanned copy of Requisite earnest money in the form of Bank Guarantee should be enclosed.
- 4.1.3 The Bidder should submit price bid in Second part. Second part (**PART-B**) should contain financial bid only should be uploaded as per e-procurement mode in due date and time. Anything in regard of financial condition, payment terms, rebate etc. mentioned in financial bid may make the tender invalid. Therefore, it is in the interest of the Bidder not to write anything extra in part-II except price.
- 4.1.4 The original copy of uploaded document i.e. First part (**Part-1**) is to be submitted by Post /courier/by hand to UPNEDA HQ before opening of Technical bid.
- 4.2 EXPENSES OF AGREEMENT: A formal agreement for a period of 01 (one) year shall be entered into between UPNEDA and the contractor/ bidder for the proper fulfillment of the contract. The expenses of completing and stamping of the agreement shall be paid by the successful bidder.
- 4.3 DEADLINE FOR SUBMISSION OF BIDS: Bids must be uploaded by the tenderer in the date; time and address specified in the e-tender notice/ tender documents.

(Signature of Bidder)
with SEAL

SECTION 5: e-tender OPENING AND EVALUATION

5.1 OPENING OF e-tender

The procedure of opening of the e-tender shall be as under:

- 5.1.1 First part (PART-A) uploaded having e-tender specification no. and superscribed as “**Technical bid**” shall be opened at the time and date mentioned in the e-tender notice by UPNEDA’s representatives in the presence of Bidders, who choose to be present.
- 5.1.2 Second part (PART-B) containing Financial Bid shall be opened (after obtaining clarifications and establishing technical suitability of the offer) as per schedule. Second part of only those Bidders shall be opened whose first part (PART-A) shall be found commercially clear and technically suitable.

5.2 CLARIFICATION OF e-tender

- 5.2.1 To assist in the examination, evaluation and comparison of bids the UPNEDA may at its discretion ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing.
- 5.3 UPNEDA reserves the right to interpret the Bid submitted by the Bidder in accordance with the provisions of this document and make its own judgment regarding the interpretation of the same. In this regard UPNEDA shall have no liability towards any Bidder and no Bidder shall have any recourse to UPNEDA with respect to the selection process. UPNEDA shall evaluate the Bids using the evaluation process specified in this document or as amended, at its sole discretion. UPNEDA’s decision in this regard shall be final and binding on the Bidders.

Signature of Bidder
with seal

SECTION-6:PROCEDURE FOR FINALIZATION OF BID

6.0 The Procedure for Finalization of BID would be as follows:

6.1 Finalization of BID:

- 6.1.1 First the Technical Bids shall be opened and evaluated.
- 6.1.2 Then the price bid of technically qualified parties shall be opened.
- 6.1.3 The lowest rate (i.e. L-1) received (and in turn approved by the competent authority) would be the "Approved Rate".
- 6.1.4 L1 i.e. Lowest Rate Bidder will be awarded up to 50% of the total bid quantity or as per his capacity given in the bid, whichever is lower.
- 6.1.5 "Approved Lowest Rate" would be offered to those lowest bidders (i.e. to L-2, L3 L4 and L5 having price not more than 15% of lowest approved rates (L1) will be empaneled and awarded equally remaining of 50% of total bid quantity or as per his capacity given in the bid, whichever is lower.
- 6.1.6 Maximum 20 % of the total quantity purchased in three years has to be distributed equally amongst successful micro and small industries/ firms bidders. Therefore 6.5% of the total order quantity for this year shall be awarded amongst the micro and small industries qualified firm/firms at the lowest approved rate subject to their consent at to work on lowest rate and their capacity. If MSME category bidder will be L1 then L1 will be awarded 50% of 6.5% of MSME work order. The remaining of 6.5% of MSME quantity shall be awarded among others qualified MSME firms as per 6.1.5
- 6.1.7 The bidder other than MSME will be awarded in remaining of 93.5% of total bid quantity. The lowest bidder other than MSME firms qualified and agreed on approved rate L1 shall be awarded 50% of 93.5% or as per its capacity given in the bid, whichever is lower and remaining shall be awarded in other bidders empaneled bidders as per 6.1.5
- 6.1.8 Training of the user will be arranged by the contractor/ bidder.
- 6.2 If required UPNEDA reserves the right to negotiate with (lowest) L-1 bidder before finalization of the tender.
- 6.4 UPNEDA reserves the right at the time of awarding the contract to increase or decrease the quantity of goods and locations of supply without any change in price or other terms and conditions.
- 6.5 UPNEDA reserves the right to accept any bid and to reject any or all bids.
- 6.6 NOTIFICATION OF AWARDDING THE CONTRACT:
List of successful Bidder(s) for contract shall be displayed on UPNEDA's website and shall be intimated in writing to the contractor.
- 6.7 CONTRACT
Before execution of the work, a contract agreement for execution of the work shall be signed by the Bidder with UPNEDA within 15 days of communication from UPNEDA. In case agreement is not executed within the stipulated time, the earnest money will be forfeited.

Signature of Bidder
with seal

PART 3 : GENERAL CONDITIONS OF CONTRACT

1.0 In the deed of contract unless the context otherwise requires:-

DEFINITIONS

- 1.2. "UPNEDA" shall mean The Director of UPNEDA or his representative and shall also include its successors in interest and assignees. The "Contractor" shall mean (successful bidder) i.e. the person whose e-tender has been accepted by UPNEDA and shall include his legal representatives and successors in interest.
- 1.3 The agreement shall be on Rate contract basis. The work shall be completed within four months from the date of placement of work order. However "UPNEDA" may in case of urgency ask the bidder to complete the work earlier, with the mutual consent of the contractor/ bidder. In case the contractor/ bidder fails to execute the said work within stipulated time, "UPNEDA" will be at liberty to get the work executed from the open market without calling any tender/e-tender and without any notice to the contractor/ bidder, at the risk and cost of the contractor/ bidder. Any additional cost incurred by "UPNEDA" shall be recovered from the contractor/ bidder. If the cost of executing the work as aforesaid shall exceed the balance due to the contractor/ bidder, and the contractor/ bidder fails to make good the additional cost, "UPNEDA" may recover it from the contractor/ bidders' pending claims against any work in "UPNEDA" or in any lawful manner.
- 1.4 That on the request of the contractor/ bidder and also in the interest of the organization the "UPNEDA" is authorized to extend the validity of the agreement, subject to that the request of the contractor/ bidder is received before the expiry of the agreement period, or any extended period granted to the contractor/ bidder. Maximum period of extension shall be 2months on the same terms and conditions as contained in this agreement.
- 1.5 The agreement shall be deemed to be extended till the date of completion of last work order subject to the completion period as provided in the clause 1.3.
- 1.6 The contractor/ bidder, (i.e. the successful bidder), may operate in the State of Uttar Pradesh through a single authorized dealer for execution of the orders placed on authorized dealer. It will be the sole responsibility of the contractor/ bidder, to execute orders placed as per time schedule, and to ensure quality parameters, specifications and other requirements provided in the e-tender document and as per agreement.
- 1.7 In the interest of the work and the programme, agreement executed between the contractor/bidder and the "UPNEDA" may be extended to a mutually agreed period, if the need so arises. It shall be sole responsibility of the contractor/ bidder to get verified the quality & quantity of the supplied material at the site of delivery.

2 LIQUIDATED DAMAGES

- 2.1 If the contractor/ bidder fails to perform the services within the time periods specified in the contract (In case of delay for any reason other than due to Force Majeure conditions or any extension thereof granted to him by UPNEDA) the "UPNEDA" shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damage, a sum equivalent to 1.0% of the price of the unperformed services for each week till 04 weeks; 2.0% for next 5 to 8 weeks and 3.0 % for 9 to 10 weeks subject to maximum 18% shall be deducted on unperformed services. If maximum penalty 18% reaches UPNEDA may consider termination of the contract. If maximum penalty 18% reaches UPNEDA may asses the progress of work and take decision where the work order is to be cancelled and debar/blacklist

the firm or continue to give extension with penalty. In the case of violation of contract, UPNEDA may confiscate pending payments/ dues of the contractor/ bidder assigning specific reasons and shall also have the power to debar/ blacklist the contractor/ bidder in similar circumstances. UPNEDA may also invoke performance/security bank guarantee of 10%.

- 3 The contractor/ bidder 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. "UPNEDA" shall have no liability in this regard.
- 4 FORCE MAJEURE
 - 4.1 Notwithstanding the provisions of clauses contained in this deed; the contractor/ bidder shall not be liable for forfeiture of its performance security, liquidated damages, termination for default, if he is unable to fulfil his obligation under this deed due to event of force majeure circumstances.
 - 4.2 For purpose of this clause, "Force majeure" means an event beyond the control of the contractor/ bidder and not involving the contractor/ bidder's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of Government either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes
 - 4.3 However, If a force majeure situation arises, the contractor/ bidder shall immediately notify the "UPNEDA" in writing. The decision of the competent authority of UPNEDA in above conditions shall be final.
- 5 The High court of Judicature at Allahabad and Courts subordinate thereto, at Lucknow, shall alone have jurisdictions to the exclusion of all other courts.
- 6 The contractor/ bidder shall not, without the consent in writing of "UPNEDA", transfer, assign or sublet the work under the contract or any substantial part thereof to any other party.
- 7 "UPNEDA" shall have at all reasonable time access to the works being carried out by the contractor/ bidder under the contract. All the work shall be carried out by the contractor/bidder to the satisfaction of "UPNEDA".
- 8 If any question, dispute or difference what so ever shall arises between "UPNEDA" and the contractor/ bidder, in the connection with the agreement except as to matters, the decisions for which have been specifically provided, either party may forthwith give to the other notice in writing of existence of such question, dispute or difference and the same shall be referred to the sole arbitration of the Principal Secretary/Secretary of the Uttar Pradesh or a person nominated by him not below the rank of Secretary. This reference shall be governed by the Indian Arbitration and Conciliation Act 1996, and the rules made there under. The award in such arbitration shall be final and binding on both the parties. Work under the agreement shall be continuing during the arbitration proceedings unless the "UPNEDA" or the arbitrator directs otherwise
- 9 "UPNEDA" may at any time by notice in writing to the contractor/ bidder either stops the work all together or reduces or cut it down. If the work is stopped all together, the contractor/bidder will only be paid for work done and expenses distinctly incurred by him as on preparation or the execution of the work up to the date on which such notice is received by him. Such expenses shall be assessed by "UPNEDA", whose decision shall be final and binding on the contractor/ bidder. If the work is cut down the contractor/ bidder will not be

paid any compensation what so ever for the loss or profit which he might have made if head been allowed to complete all the work included in the contract.

10 INSPECTION AND TESTS

10.1 The following inspection procedures and tests are required by the “UPNEDA” in the presence of “UPNEDA’s representative if so desired by “UPNEDA”.

10.2 The “UPNEDA” or its representative shall have the right to inspect and / or to test the goods to confirm their conformity to the contract. The special conditions of contract and/ or the Technical specifications shall specify what inspections and test the “UPNEDA” required.

10.3 INSPECTION AT WORKS.

10.3.1 The “UPNEDA”, his duly authorized representative shall have at all reasonable time success to the contractor/ bidders premises or works and shall have the power at all reasonable time to inspect and examine the materials and workmanship of the works during its manufacture.

10.3.2 The contractor/ bidder shall give the “UPNEDA”, 15 day's written notice of any material being ready for testing. It shall be mandatory that such notice should reach “UPNEDA” within 30 days of placement of work order. Such tests shall be on the contractor/ bidder's accounts/ expenses except for the expenses of the inspector. “UPNEDA” reserves the full rights, to waive off inspection of material.

10.3.3 The contractor/ bidder are required to get the entire lot of the ordered material inspected atone time, before the supply of the materials. In case the contractor/ bidder fails to get the entire lot inspected at one time, the total expenses of the further inspection will be borne by the supplier/contractor/ bidder.

10.3.4 UPNEDA will bear the inspector cost at only one manufacturing plant. If a component is produced in more than one location, then the cost of positioning the inspection in the second and subsequent plants would be borne by the successful Bidder at their cost.

10.3.5 The inspection by “UPNEDA” and issue of dispatch instruction there on shall in no way limit the liabilities and responsibilities of the contractor/ bidder in respect of the agreed quality assurance programme forming a part of the contract.

11. WARRANTY

11.1 The contractor/ bidder shall warrant as per standards for quality that anything to be furnished shall be new, free from all defects and faults in material, workmanship and manufacture, shall be of the highest grade and consistent with established and generally accepted standards for material of the type ordered, shall be in full conformity with these specifications, drawing or samples, if any and shall if operable, operate properly. Nothing in clause 10 above shall in any way release the contractor/ bidder from any guarantee or other obligations under this contract.

11.2 Performance of Equipment: In addition to the warranty as already provided, the contractor/bidder shall guarantee satisfactory performance of the equipment and shall be responsible for the period or up to the date specified in clause 11.3 hereof after the equipment has been accepted by the “UPNEDA” to the extent for any defects that may develop such defects shall be removed at his own cost when called upon to do so by the “UPNEDA”

- 11.3 The Warranty period shall be 25 Years for the PV modules and 5 years for complete system from the date of commissioning and handing over of the system. The contractor/ bidder shall rectify defects developed in the system within Warranty period promptly. In case the defects are not rectified within a week of the receipt of the complaint by the contractor/ bidder "UPNEDA" shall have full liberty to restore the system in working condition. The expenditure so incurred by "UPNEDA" shall be deducted from the contractor/ bidder pending claims, security/performance guarantee deposit or in other lawful manner.
- 11.4 Since the maintenance of the system may also be taken up by the contractor/ bidder after expiry of 05 years of warranty period if the end user/"UPNEDA" so desires, the contractor/bidder shall take up annual maintenance of the installed system.
- 11.5 The contractor/ bidder shall maintain the system under annual maintenance contract with the end user.
12. Notice statement and other communication send by "UPNEDA" through registered post or telegram or fax or Email to the contractor/ bidder at his specified addresses shall be deemed to have been delivered to the contractor/ bidder.
13. Any work which is not covered under this contract but is essential required for the completion of job (To the satisfaction of UPNEDA) shall be carried out by the contractor as extra item or which payment shall be made separately at the rates decided by UPNEDA
14. The work shall be carried out by the contractor/ bidder as per design and drawings approved by "UPNEDA", wherever, necessary, the contractor/ bidder shall submit relevant designs and drawings for approval of "UPNEDA", if required well in advance. Work carried out without UPNEDA's approval shall not be accepted and the "UPNEDA" shall have right to get it removed and to recover the cost so incurred from the contractor/ bidder.
15. The contractor/ bidder shall provide one copy system manual containing instruction manual/ routine maintenance manual and maintenance record of the systems with each unit supplied or installed, this shall be both in English and Hindi language.
The following minimum details must be provided with manual:
- About the complete photovoltaic system including PV modules, battery and electronics
 - DO's and DONT's
 - Clear instructions on regular maintenance and trouble shooting of the system
 - Name & address & phone no of the contact person in case of non-functioning of the system.
 - UPNEDA's Toll free number.
16. The contractor/ bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of "UPNEDA".
17. PATENT RIGHT AND ROYALTIES.
- The Contractor/ bidder shall indemnify the "UPNEDA" against all third party claims of Infringement of patent, royalty's trademark or industrial design rights arising from use to the goods or any part thereof.
18. PACKING FORWARDING

- 18.1 Contractor/ bidders, wherever applicable, shall after proper painting, pack and crate all the equipment in such manner as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till time of installation. Contractor/bidder shall be held responsible for all damage due to improper packing.
- 18.2 The contractor/ bidder shall inform the “UPNEDA” of the date of each shipment from his works, and the expected date of arrival at the site for the information of the “UPNEDA” project offices at least 7 days in advance.

19. DEMURRAGE WHARF AGE, ETC

All demurrage, wharf age and other expenses incurred due to delayed clearance of the material or any other reason shall be to the account of the contractor/ bidder.

20. INSURANCE

The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage during transportation shall be included in the bid price.

21. TRANSPORTATION

The contractor/ bidder is required under the contract to deliver the goods to the site. Transportation, storage, safety and security of the supplied material, issuance of road permit etc. shall be the sole responsibility of the contractor/bidder.

22. TERMINATION FOR INSOLVENCY

“UPNEDA” may at any time terminate the contract by giving written notice to the contractor/bidder without compensation to the contractor/ bidder, 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 “UPNEDA”.

23. TERMINATION FOR CONVENIENCE

“UPNEDA”, may by written notice sent to the contractor/ bidder, terminate the contract ,in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the purchaser’s convenience in the interest of “UPNEDA”.

24. APPLICABLE LAW

The contractor/ bidder shall be interpreted in accordance with the laws of the purchaser's country i.e. India. The station of “UPNEDA” Headquarter shall have exclusive jurisdiction in all matters arising under this contract.

25. NOTICE

25.1 Any notice given by one party to the other pursuant to the contract shall be sent in writing or by telegram or telex/ cable or Email and confirmed in writing to the address specified forth at purpose in the special condition of contract.

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

26. TAXES DUTIES AND INSURANCE:

The price quoted should include all taxes, duties and Insurance expenditure etc what so ever, if any, except GST, the GST shall be paid extra as applicable. Supplier/ contractor/ bidder shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per

Government income tax & GST or any other tax State or Central Government norms will be payable by the contractor/ bidder what so ever. If any new tax/duty is levied during the contract period the same will be borne by the contractor exclusively. CGST&SGST and TDS will be deducted from the payment of the contractor/ bidder as per the prevalent laws and rules of Government of India and Government of the Uttar Pradesh in this regard.

27. OTHERS:

- 27.1 I-V curve of the each module technical details such as Voc, Isc, , FF, cell efficiency and Pmaxetc shall be supplied along-with each consignment and copy should be sent to "UPNEDA" HQ for records.
- 27.2 The Contractor in consultation with concerned Project Officer of "UPNEDA" will conduct training programme for users, focusing on main features, operation and maintenance of the systems.
- 27.3 The Contractor/ bidder shall continue to provide spare parts after the expiry of warranty period at the users cost. If the contractor/ bidder fail to continue to supply spare parts and services to users "UPNEDA" shall take appropriate action against the Contractor/ bidder.
- 27.4 After successful supply/commissioning of the system and training, the system will be handed over to the person designated by the UPNEDA.
- 27.5 It shall be the sole responsibility of the contractor/ bidder to get verified the quality & quantity of the supplied material at the site of delivery.

28. PAYMENTS:

The payments shall be made as per the following terms and conditions:

The payments shall be made as per the following terms and conditions:

- i) 50% of the ordered value after the supply of the complete system at site and duly certified by the concerned district officer of UPNEDA as per the technical specification and terms and conditions specified in the contract.
 - ii.) 35% of the ordered value after installation and commissioning of the system, establishing of service center, along with the summary of Joint Commissioning & handing over certificate, indicating bill of material and successful commissioning duly countersigned by the designated officer and end user.
 - iii) The balance 15% payment shall be released against AMC charges on annual basis kept as security deposit and to be released @1.5% at the end of every six months, for five years on satisfactory performance and timely submission of quarterly performance report.
29. In case of any ambiguity in interpretation of any of the provisions of the tender, the decision of "UPNEDA" shall be final.

(Signature of Bidder)
with seal

PART -4

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

SCOPE OF WORK

The scope of work includes Supply, Installation (including wiring up to critical electrical loads) & commissioning with 05 years Comprehensive Maintenance of Solar PV Power Plants each capacity 05 kW in Government Inter Colleges Situated in various Districts of Uttar Pradesh as per the following specifications.

Capacity of off-grid Solar Power Plant: 05 KWp

Capacity of Battery bank 96 Volt 400 Ah

Capacity of PCU Inverter: 6.0 KVA.

GENERAL TECHNICAL SPECIFICATION:

ITEM	DESCRIPTION
Solar Module	<p>The photovoltaic modules should be Mono /Poly Crystalline with a total array capacity of SPV power plant- Power output under STC should be 5.0 KW. The capacity each module should not be less than 250 watt with 72 cell.</p> <p>The Photovoltaic modules must be qualified as per IEC 61215 (revised) / IS 14286 standards and in addition, the modules must conform to IEC 61730-1 requirements for construction & Part-2 requirements for testing, for safety qualification.</p> <ul style="list-style-type: none">• The PV modules must be tested and approved from any of the NABL/IEC/ MNRE Accredited Testing Calibration Laboratories.• The supplier shall provide performance guarantee for the PV modules used in the power plant must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 12 years and 80% at the end of 25 years.• The efficiency of the PV modules should be atleast 16%.• Only indigenously manufactured PV modules should be used. <p>IDENTIFICATION AND TRACEABILITY</p> <p>Each PV module must have sticker inside the module with the following information:</p> <ol style="list-style-type: none">(i) Name of the manufacturer of PV Module(ii) Month and year of the manufacture of module(iii) Peak Wattage, Im, Vm and FF for the module(iv) Unique Serial No and Model No of the module(v) Made in India(vi) UPNEDA logo (This may be pasted outside in such a way that it should not pull out during harsh environmental condition) <p>The solar module must be from ALMM list approved by MNRE from effective date of implementation as per MNRE order no 283/54/2018-Grid solar dated 3rd Jan 2019 or its latest amendments</p>

	Test reports/ certificate from IEC/NABL accredited laboratory to be mandatorily enclosed for relevant IEC/equivalent BIS Standards .
System autonomy	1+1 day
BATTERY	<p>Battery shall be flooded electrolyte Tubular Low Maintenance Lead Acid tubular low maintenance battery .The batteries should conform to IS 1651. A copy of the relevant test certificate for the battery should be furnished. The battery should be Tested by Central Electro-chemical research laboratory, CECRI, Tamilnadu or authorized test center of MNRE shall only be used.</p> <ol style="list-style-type: none"> i. Capacity of the battery bank shall be as specified above at C10 rate. ii. Battery terminal shall be provided with covers. iii. Suitable carrying handle shall be provided. iv. Batteries shall be provided with micro porous vent plugs & acid level indicator.
Battery Bank	<ul style="list-style-type: none"> • The battery bank should be 48 cells of 2 Volt, 400Ah Cells will be connected in series/ parallel to form 96 volt 400 Ah battery bank. • Battery Trolley/Rack should be provided to store battery bank • Battery rack/ Trolley should be PVC/wood or other equivalent material to bear the required battery load.
Power Conditioning Unit with inbuilt charge controller	<p>Power conditioner unit with inbuilt charge controller of capacity 6 kVA should convert DC power into AC power must conform to standards IEC 61683 with 96 volt DC input and 230 volt AC output single phase The PCU will have following features:</p> <ul style="list-style-type: none"> • IGBT based MPPT / PWM charging • Wide input voltage range • Output voltage 230 + 2% of modified/ pure sine wave • Output frequency: 50 Hz+0.5 Hz • Capacity of PCU/ Inverter is specified at 0.8 lagging power factor. • THD (Current) : less than 3% with non-linear Load • Efficiency: > 90% at full load • Ambient Temp 50 degree Celsius (max) • Operating humidity 95% maximum • Indications: - Array on - MPPT charger on - Battery connected, charging - Inverter ON - Load on solar/ battery - Grid charger on - Load on Grid - Grid on • Display parameters - Charging current - Charging voltage - Voltage of PV panels - Output voltage - Grid voltage - Inverter loading - Output frequency • Cooling: Air cooled. <ol style="list-style-type: none"> i. The Solar Power Plant will have the facility of charging with grid electricity. Priority will be charging from solar systems. Accordingly the components wiring and

	<p>connectors should be specified and provided.</p> <p>ii. Automatic change-over between solar system and AC main supply is to be incorporated.</p> <p>iii PCU shall have following protection</p> <ul style="list-style-type: none"> • Inverter over voltage • Inverter over load • Inverter over Temperature • PV under/over voltage current • Battery Reverse Polarity Protection <p>iv PCU shall have following displays: Alpha numeric display with key pad LED indications :</p> <p>System on Inverter on Solar Charging Mains charging PV Present Fault</p> <p>v Necessary earthing/ grounding is to be provided on the body of the inverter.</p> <p>The quality and standards of the system will be strictly adhering to the national/international standards specified as per MNRE Govt. of India norm.</p>
Junction boxes	<ul style="list-style-type: none"> • The junction boxes shall be dust and water proof and made of thermoplastic the terminals will be connected to copper lugs or bus-bar of proper sizes. The junction boxes will have suitable cable entry points fitted with the cables. Suitable markings shall be provided on the lugs or bus-bars for easy identification at cable ferrules will be fitted at the cable terminations points for identification. Each main junction box shall be fitted with appropriate rating reverse blocking diode. The junction boxes shall be of reputed make. • The junction boxes shall have suitable arrangement for the following: <ul style="list-style-type: none"> a) Combine groups of modules into independent charging sub-arrays that will be wired into the controller. b) Provide arrangement for disconnection for each of the groups. c) Provide a test point for each sub group for quick fault location. d) To provide group array isolation. e) The rating of the JBS shall be suitable with adequate safety factor to inter connect the Solar PV array.
Structure for module frame	<p>Modules shall be mounted on supporting structure made out of galvanized MS angle of required structural strength. (hot dip/galvanized)</p> <p>on the roof top as per the site requirement Structure: -</p> <ol style="list-style-type: none"> 1. The size of M.S. (Galvanized) angle should be min 50 x 50 x 5 mm. The structures are to be fitted on the roof top properly and south faced. It should withstand wind speed up to 150 Km/hour. 2. Foundation – The legs of the structure made with hot dip GI angles

	<p>will be fixed and grouted in the RCC foundation columns of size 300mmx300mm made with 1:2:4 cement concrete. The minimum ground clearance from the lowest part of any module shall be 450 MM. While making foundation design due consideration will be given to wait of module assembly, maximum wind speed of 150 km per hour.</p> <p>3. The work includes necessary excavation, concreting, back filling, shoring and shuttering etc.</p>
Connecting cables	<ul style="list-style-type: none"> • Module interconnections (4.0 mm² copper single core multi strand) • Module parallel interconnection (10mm² copper single core multi strand) • Array or AJB to PCU (16 mm² copper two cores). • Battery to PCU (16 mm² copper single core multi strand) might be double cables if required • PCU to load / change over switch (Single core copper cable 6.0 mm² multi strand) and for further distribution points (Single core copper cable 4.0 mm² and 2.5 mm² multi strand)
Indoor wiring	All indoor wiring is to be done in a casing capping system. As and when required flexible pipe may also be used.
Load connection	The supplier shall also ensure that main points of the building should be connected keeping in view the capacity of the plant.
Lighting protection	Suitable nos. of lighting arrestors shall be provided in the array field for the protection
Earthing protection	Each array structure and all metal casings of the plant etc. shall be earthed properly.
Tool Kit and Spares	One necessary tools kit and spares will have to be provided by the supplier
Energy meter	Supplier shall provide energy meter to measure the DC / AC power in KWhrs being fed to the plant

2. CODES AND STANDARDS

The BoS items / components of the SPV power plant must conform to the latest edition of IEC/ equivalent BIS Standards as specified below:

BoS item / component	Standard Description	Standard Number
Power Conditioning Unit Inverter	Efficiency Measurements Environmental Testing	IEC61683/IS 61683 IEC60068 2 (1, 2, 14, 30)/ equivalent BIS standard
Charge controller/ MPPT units*	Environmental Testing	IEC60068 2 (1, 2, 14, 30)/ equivalent BIS standard
Storage Batteries	General Requirements & Methods of Test Tubular battery type	IS IS 1651 as per relevant BIS standard.
Cables	General Test and Measuring Methods PVC insulated cables for working voltages upto and including 1100 V- Do-, UV resistant for outdoor installation	IEC 60227 IS 694 / IS 1554 (Pt I and II)

Switches / Circuit Breakers / Connectors	General Requirements Connectors-safety AC/DC	IEC 60947 part I, II & III/ IS 60947 part I, II & III EN 5052
Junction Boxes/ Enclosures for inverters/ charge controller	General Requirements	IP54 (for outdoor) / IP/21 (for indoor) as per IEC 529

H. Wiring of Critical Loads

- Contractor will carry out the wirings to connect critical loads as per written declaration by the Principal of concerned Government Inter College.
- Critical loads shall be segregated according to summer and winter application with a changeover switch option.
- All loads and sockets (if any) shall have appropriate load limiting switches/fuses for controlling load connections.
- Contractor shall provide Single Line Diagram (in 03 copies for concerned Government Inter College, the contractor and UPNEDA) of Solar Power Plant, indicating Main Grid, Solar Array, Battery Bank, PCU/Inverter, Genset (if any) and all critical loads as declared by the Principal of concerned Government Inter College.
- Single Line Diagram will be duly signed by the Principal of concerned Government Inter College with the declaration that no further load shall be connected to the Solar Power System in future. The Contractor and District Project Officer of UPNEDA shall also sign the single line diagram.
- All wiring is to be done in a casing capping system with cooper wire of BIS standard. As and when required flexible pipe may also be used.

J. OTHER FEATURES

A toll free number (i.e. 1800 180 0005) of IVRS of UPNEDA and 14 digit UID number of minimum computer font size 72 or 13 mm (issued/provided by UPNEDA) is to be embossed/punch in front of inverter/Main switch panel by contractor/ bidder, which in case of non-working/operational problems etc of system will be dialed by the principal of concerned Government Inter College to lodge a complaint in respect of system problems. The IVRS will divert the complaint to Contractor/ bidder through E mail, SMS etc. The contractor/ bidder will have to rectify the same to make/ restore the system to working position within 72 hours in the warrantee period of 5 years, failing which the system may be get rectified on contractor/ bidder cost and the cost will be recovered by contractor/ bidders pending claims what so ever and appropriate action as per noncompliance etc. of agreement will be considered/taken.

K INSTALLATION OF SYSTEM:

The system should be properly installed at site. The SPV module mounting structure should be properly grouted depending upon the location and requirement of the site. The grouting should be such that it should withstand the maximum wind speed /storm. Adequate space should be provided behind the PV module/array for allowing un-obstructed air flow for passive cooling. Cables of appropriate size should be used to keep electrical losses to a bare minimum. Care

should be taken to ensure that the battery is placed with appropriate leveling on a structurally sound surface. All wiring should be in a proper conduit or capping case. Wire should not be hanging loose. Any minor items which are specifically not included in the scope of work but required for proper installation and efficient operation of the Solar Power Plant system are to be provided by the manufacturer as per standards.

L AUTHORIZED TESTING LABORATORIES/ CENTERS

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

M WARRANTY

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

N. TRACEABILITY OF THE PRODUCT TO BE SUPPLIED

In order to prevent the misuse of the product such as unauthorized sale or diversion to the open market, the following incorporation shall be made in the product.

- a) Engraving (or) Screen printing of "CLEAN SCHOOL GREEN SCHOOL" at a suitable place on the main components viz SPV Panel, battery, PCU to be used in the installation of the solar power pack.
- b) The unique system ID number as provided by UPNEDA shall be permanently pasted (or) marked on each component of the system.

PART -5

WARRANTY AND MAINTENANCE

- The PV modules will be warranted for a minimum period of 25 years from the date of supply. (Output wattage should not be less than 90% at the end of 12 Years and 80% at the end of 25 years).
 - The mechanical structures, electrical components including battery and overall workmanship of the complete Solar PV Power Pack must be warranted against any manufacturing/ design/ installation defects must be warranted for a minimum of 5 years from the date of commissioning and handing over of the system.
 - The Comprehensive Maintenance (within warranty period) shall be executed by the firm themselves or through the authorized dealer/ service centre of the firm in the concerned district.
 - It is mandatory for the contractor to open an authorized service center in the concerned district before the supply/ installation of the system.
 - Necessary maintenance spares for five years trouble free operation shall also be supplied with the system.
 - The supplier shall be responsible to replace free of cost (including transportation and insurance expenses) to the purchaser whole or any part of supply which under normal and proper use become dysfunctional within one month of issue of any such complaint by the purchaser.
 - The Comprehensive Maintenance (within warranty period) will include the total system including Battery etc whatsoever at site.
 - It is an essential part of the contract that the bidder shall provide warranty of the system for 5 years. During the warranty following maintenance will required to be carried out by the contractor.
1. Quarterly checking up keeping and replacement of the any component or subcomponents of the system for proper operation of the system.
 2. Repairing/replacement of all defective components and sub-components including battery of the system as per the requirement to ensure proper operation of the system.
- The scope of work includes repairing/replacement of power plant components to make the system functional within warranty period whenever a complaint is lodged by the user at site. The contractor shall attend the same within a week. Apart from this any complaint registered/ service calls received / faults notified in the report generated by the IVRS should be attended to and the system should be repaired/ restored/ replaced within 4 days.
 - In case of any damage or breakage of the component due to negligence or fault of beneficiary or theft etc, the same shall be replaced at users cost.
 - In case of Solar PV module damaged due to natural calamity, contractor shall replace the same at his own cost, if required during warranty period.
 - The safety and security of the system shall be sole responsibility of the user.

PART- 6
e-tender No: **UPNEDA/SOLAR POWER PLANT/GIC/2016**
Technical BID

	Description	To be furnished by the Contractor/Bidder
A.	Solar PV Module	
1.	Type of Module: Crystalline/multi crystalline	
2.	Manufacturer	
3	Max power at STC Pmax (W)	
4.	Voltage at Max power Vmp(V)	
5.	Current at Max power Imp(A)	
6.	Open circuit voltage Voc (V)	
7	Short circuit current Isc (A)	
8.	Module efficiency	
9	Rated capacity of SPV panels at STC	
10	Fill factor	
B.	Battery	
1.	Manufacturer	
2.	Type	
3.	Capacity of Battery at C10	
4.	Max DOD	
5	Charge efficiency	
C	Battery Rack/Trolley	
1	Manufacturer	
2	Material	
D	AC Hybrid Solar Power Conditioning Unit	
1.	Manufacturer :	
2.	Operating voltage (DC)	
3	Operating voltage AC (pure sine wave)	

4	THD	
5.	Details of Indicators provided	
6.	Details of Protections provided	
	i. Battery Over charge set value	
	ii. Deep discharge set value	
	iii. Short Circuit	
	iv. Open Circuit	
	v. Reverse polarity	
	vi. Reverse current	
	vii. Others	

(Signature of Bidder)
with seal

PART II (Financial Bid)

e-tender NO. **Tender Notice No: UPNEDA/SPV/OGPP/GIC/2019/2**
FINANCIAL BID

Name of the Firm: -----

Rate Contract of Supply, Installation (including wiring up to critical electrical loads) & Commissioning with 05 years Comprehensive Maintenance of Solar PV Power Plants capacity 05 kW in Government Inter Colleges Situated in various Districts of Uttar Pradesh as per Technical specifications, Terms and Conditions of the e-tender document.

S.N.	Item	Unit Rate (in Rs.)
1	Rate Contract of Supply, Installation (including wiring up to critical electrical loads) & Commissioning with 05 years Comprehensive Maintenance of Solar PV Power Plants capacity 05 kW in Government Inter Colleges situated in various Districts of Uttar Pradesh as per technical specifications, terms and conditions mentioned in the tender, inclusive of all taxes & duties, trade tax/ vat, storage, transportation up to site, insurance etc. and any other job required to properly execute the complete work.	
Total Amount (In Figures and Words)		

NOTES:

1. Certified that rates quoted above are as per the requirement, specification terms & condition mentioned in the e-tender document.
2. The rates are inclusive of all taxes & duties, storage, transportation up to site, insurance etc., and any other job required to properly execute the complete work.

(Signature of Bidder)
With seal

To be uploaded in Part II.
Other document / condition, terms if enclosed will liable to be rejection of bid.

Model Bank Guarantee Format for Furnishing EMD

Whereas(hereinafter called the “tenderer”) has submitted their offer dated..... for the supply, installation, commissioning with 5 years of comprehensive warranty maintenance of hereinafter called the “tender”) against the purchaser’s tender enquiry No.KNOW ALL MEN by these presents that WE ofhaving our registered office at are bound unto (hereinafter called the “Purchaser) in the sum of Rs..... for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this..... day of20..... THE CONDITIONS OF THIS OBLIGATION ARE:

If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.

If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity

- (1) Fails to furnish the Performance Security for the due performance of the contract.
- (2) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser

will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

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

.....
(Signature of the authorised officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name and address of the Bank / Branch

Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA)

JOINT COMMISSIONING AND HANDING OVER CERTIFICATE /WARRANTEE CARD:

(To be submitted in 3 copies)

It is hereby certified that following system has been supplied, installed, commissioned and handed over to the beneficiary as per following details:-

Sr. No.	Items	Details
1	Name of system	
2	Agreement Number and date	
3	Work Order Number Date	
4	UID number (14 digit)	
5	Name of school with Head Master mobile number.	
6	District	
7	Block	
8	Village/Gram Panchayat	
10	Date of installation	
11	Warrantee expire on	
12	Name & Address of the Manufacturer/ Supplier of the system with mobile no for maintenance contact	
13	SPV Modules Installed Sr. No Make Model	
14	DC Pump Sr. No Make Model	
15	RO Water Sr. No Make Model	
16	Fan Sr. No Make Model	
	Training for operation & maintenance of the systems	Provided/Not Provided
	Technical literature, operation & maintenance manual in English & Hindi	Provided/Not Provided

(Signature)

Authorized Signatory of

firm

(with seal)

(Signature)

Sr./Project Officer/Incharge -Project

UPNEDA

(With seal)

System Photo:

(In case of complaint dial toll free number 1800 180 0005.)

The Above System is being taken over by us in new and good condition and we will ensure the safety & security and also the weekly cleaning of solar panel of the system.
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- 1- gLrk{kj
- 2- laa iklr djus okys dk uke
- 3- ykHkkFkZ l aFkk@xte ipk; r@ vU; l aFkk dk uke
- 4- eqj