

Important Dates	
Pre-Bid Meeting	03.12.2015 at 11.30 am
Last date of submission of bids	16.12.2015 up to 15:00 hrs

REF. NO: RECPDCL/ODISHA/SOLAR/PMA/2015-16/2429

Date: 24.11.2015

Notice Inviting Tender

(Invited through e-Tendering mode only)

for

Design, Supply, Installation, Commissioning & Maintenance for 5 years of (5kWp X 16Nos) Off-Grid Rooftop Solar PV Power Plant with battery backup in 16 Residential Schools in 9 districts of Odisha state.



REC Power Distribution Company Limited (RECPDCL)

1016-1023, 10th Floor, Devika Tower, Nehru Place, New Delhi-110019

INDEX

Sl. No.	Details	Page No.	
1.	Technical Bid Document	3	
2.	Project back ground	3	
3.	Schedule of Events	5	
4.	Instructions to Bidders	6	
5.	Scope of work	9	
6.	Eligibility criteria for participation	9	
7.	Commercial terms & Conditions	10	
Annexures	I	Technical Specifications of each plant	14
	II	Check List	17
	III	Bidder's respond letter	18
	IV	Bidder's Officials Assignment	19
	V	Profiles of Projects completed	20
	VI	Brief vendor profile	21
	VII	Declaration	22
	VIII	Undertaking	23
	A	Technical Bid	24
	B	Price Bid	25
	C	Bid Bank Guarantee (Earnest Money) Format	26
	D	Acceptance form for participation in reverse auction event	28
	E	Joint commissioning cum handing over certificate	29
	F	Comprehensive Maintenance Contract (CMC) Format	30
	G	Checklist for submission of information / documents after commissioning of project	33
	H	Documents to be submitted after commissioning of project	34
I	Performance Bank Guarantee (PBG) Format	35	

Design, Supply, Installation, Commissioning & Maintenance of Off-Grid Rooftop Solar PV power plant with battery backup

1. **PROJECT BACKGROUND:**

REC Power Distribution Company Limited (RECPDCL), a wholly owned subsidiary of Rural Electrification Corporation Ltd (REC), a “Navratna CPSE” under the Ministry of Power, Govt. of India is engaged in providing value added consultancy services in power sector arena covering Power Generation, Transmission & Distribution (T&D), Renewable Energy Sector and Energy Efficiency programs including Govt. of India’s power schemes for power utilities across the country and various regulatory assignments with CERC/SERCs. It includes the project works under Rural Electrification (DDUGJY / RGGVY), PMC works of DDUGJY / RGGVY, DPR preparation for R-APDRP/ DDUGJY /RGGVY/NEF and other power projects scheme, Third Party Inspection, Feeder Renovation Program, Feeder separation, HVDS program, Lender’s Engineers assignment, IT related assignments in Distribution sector including Energy Audit, Evaluation study for HVDS/Distribution network, AT&C Loss assessment, system study, MRI based billing and Cost Book Data Preparation as per the need of the power utilities, State/Central Electricity Regulatory Commission across the country.

RECPDCL has been engaged as project implementation agency by REC Ltd. to implement 16 nos. Off-Grid Roof top Solar Photovoltaic power plant of 5kWp capacities each at all 16 residential schools, under their sustainable development initiative. Accordingly REC PDCL intends to set up SPV power plants of 5 kWp capacities in 16 residential schools of ST & SC Development Department in 9 backwards districts of Odisha state for illumination, operation of Light/TV/Fans in the institutions with financial support from the REC Ltd.

For this job RECPDCL is to select suitable firm for Design, Supply, installation, commissioning and maintenance of the above SPV power plants.

Details of schools:

Sr . N o.	State	Name of District	Name of block	Village	Name of School	Rooftop area	Total Connected Load (kW)	Essential Load to be energized by Power Plant in absence of grid power (kW)
1	Odisha	Kandhamal	Kotgarh	Durgapanga	Durgapanga High School,	Available	4.85	3.10
2	Odisha	Nabarangpur	Raighar	Balipata	Khuduku High School (New Building),	Available	7.93	3.22
3	Odisha	Nabarangpur	Jharigاون	Kumbhariput	Belgaon High School,	Available	4.81	3.21
4	Odisha	Koraput	Narayanapatna	Dangasil	Balipata High School,	Available	8.61	3.20
5	Odisha	Koraput	Bandhugaon	Bandhugaon	Kumbhariput High School,	Available	5.81	3.03
6	Odisha	Rayagada	Kashipur	Kashipur	Dangasil Girls High School,	Available	6.53	3.85
7	Odisha	Bargarh	Chardapali	Chardapali	Govt. (SSD) High School,	Available	13.30	3.05
8	Odisha	Sundargarah	Jampali	Jampali	Govt. (SSD) Girls High School,	Available	9.60	3.30
9	Odisha	Sundargarh	Lahanda	Lahanda	Govt. (SSD) Girls High School,	Available	4.0	3.50
10	Odisha	Sambalpur,	Badamundaloi	Badamundaloi	Govt. (SSD) Girls High School,	Available	3.44	3.15
11	Odisha	Sambalpur,	Phasimal	Phasimal	Govt. (SSD) Girls High School,	Available	6.65	3.95
12	Odisha	Sambalpur,	Sandhapathar	Sandhapathar	Govt. (SSD) High School,	Available	5.81	3.19
13	Odisha	Sambalpur,	Rabga	Rabga	Govt. (SSD) Girls High School,	Available	4.27	3.10
14	Odisha	Bolangir	Ramachandrapur	Ramachandrapur	Govt. Girls High School (SSD),	Available	4.04	3.05
15	Odisha	Keonjhar,	Raisua	Raisua	Govt. (SSD) High School,	Available	5.80	3.10
16	Odisha	Sambalpur,	Tikilipada	Tikilipada	Govt. (SSD) Girls High School,	Available	4.0	3.50

2. TENDER NOTICE

- 2.1. This tender is invited from the eligible system integrators, who are empanelled with MNRE as channel partner (Not for NABARD program) accredited by ministry for off-grid and decentralized solar applications under JNNSM, in the country to take up the above.
- 2.2. The agencies/ bidders are advised to study the Tender document carefully. Submission of Tender shall be deemed to have been done after careful study and examination of the Tender document with full understanding of tender details.
- 2.3. Interested bidders may download the Tender document from the RECPDCL website (www.recpdcl.in), REC website (www.recindia.com), Central Publication Portal (www.eprocure.gov.in), e-tendering website (www.tenderwizard.com/REC).
- 2.4. The agencies have to visit the places/schools if required to have the idea/geography of the site as well as site conditions. The submitted bid shall be evaluated presuming that the bidder has full knowledge about the site conditions before submission of the bid and no relaxation on this matter shall be considered by RECPDCL at later stage.

3. SCHEDULE OF EVENTS

Sl.No.	Event	Information to the agencies
1	Date of Release of NIT	24.11.2015
2	Date for Pre- Bid Meeting for queries / seeking clarification	03.12.2015 at 11:30 Hrs
3	Last date of download of tender document	16.12.2015 at 10:00 Hrs
4	Last Date for online Submission of NIT response	16.12.2015 up to 15:00 Hrs
5	Date of Opening of Technical Proposals	16.12.2015 at 16:00 Hrs
6	Address of EMD receiving and bid opening	1016-1023, 10th Floor, Devika Tower, Nehru Place, New Delhi-110019
7	Bid document	The Bid document can be downloaded free of cost from the websites www.recpdcl.in (or) www.recindia.com (or) www.eprocure.gov.in (or) www.tenderwizard.com/REC
8	Validity of bid	180 days from the date of opening
9	Earnest Money Deposit (EMD)	Earnest money amounting to ₹ 2,50,000/- shall be deposited in the form Demand Draft in favour of REC Power Distribution Company Limited , payable at New Delhi or in the form of Bank Guarantee in favour of REC Power Distribution Company Limited .
10	Address for Submission of Tender	REC Power Distribution Company Limited., 1016-1023, 10 th Floor, Devika Tower, Nehru Place, New Delhi-110019, India. Phone :+91-11- 44128767, Tele-fax : +91-11-44128768, Email: recpdcl@rediffmail.com
11	Contact Person	S.C. Garg, Addl. CEO Phone:011-44128752; Fax:011-44128768 Email: recpdcl@rediffmail.com

4. INSTRUCTION TO BIDDERS:

1. Rates quoted should be firm and fixed. No price variation and escalation will be allowed.
2. Complete set of tender document is to be returned duly signed by the bidder on each page in token of acceptance of its contents.
3. Valid Sales Tax/ VAT Clearance Certificate duly attested to be attached.
4. Validity of Bid: - 180 days from the date of the opening of price bid.
5. Deviation in terms and conditions, Specification of material, Inspection clause etc. will not be accepted.
6. Earnest money amounting to Rs 2,50,000/- shall be deposited in the form of Demand Draft in favour of **REC Power Distribution Company Limited**, payable at New Delhi or in the form of Bank Guarantee in favour of **REC Power Distribution Company Limited**. Tenders without deposit of EMD will not be accepted.
7. Those agencies exempted by NSIC against submission of EMD are no need to submit the EMD, however, related document / certificate from NSIC need to be submitted.
8. Intending bidders are required to carefully go through the tender specification before submitting their offer.
9. Tenders must be submitted in English language only.
10. Incomplete, telegraphic or conditional tenders are not accepted.
11. EMDs received late due to postal delay or otherwise will not be considered.
12. The bidders are required to furnish their offers in the price bid in both words & figures, so that in case of any confusion, the offer given in words would be accepted as final.
13. Canvassing in any manner is strictly prohibited. The same will lead to rejection of the tender.
14. Submission of test certificate as specified under JNNSM issued by MNRE Govt. of India vides letter no- 5/23/2009-P & C dated 08.07.2010 and subsequent addendums. The valid test report on components issued by the accredited test centers of MNRE, GOI are to be submitted.
15. Declarations of the bidder to the effect that the complete plant including all the balance of system (BOS) are as per standard equivalent to those specified under JNNSM by MNRE.
16. In case of any correction made by the bidder in the rates offered, it should be signed & sealed by the bidders; otherwise tenders are liable for rejection.
17. Power of attorney to sign the agreement on behalf of bidder & partnership deed articles should be enclosed along with original tender documents.
18. The last date of receipt of the tender is **16.12.2015 up to 15:00 hrs**. Sealed EMDs will only be accepted during office hours on working days through deposit in the tender box kept for the purpose at REC Power Distribution Company Ltd., 10th Floor, 1016-1023, Devika Tower, Nehru Place, New Delhi-110019. EMDs received after due date & time will not be considered.
19. If due to any reason the due date is declared as a holiday the tender will be opened on next working day at the same time.
20. The technical bid shall be opened **16.12.2015 at 16:00 hrs**. at RECPDCL office, New Delhi in presence of such Bidders /their representatives, who intend to be present at the time of opening.
21. No price escalation on account of any statutory increases in or fresh imposition of custom duty, excise duty, sales tax or duty livable in respect of the major components in the said acceptance of the tender shall be applicable.
22. The bidders quoting abnormally low/high price may be rejected from consideration during financial bids analysis.
23. In case of supply of any defective material or substandard material, the materials will be rejected & it will be the responsibility of the supplier for taking back & replacing the rejected materials at their own cost.

24. The supplied materials should be strictly as per specifications mentioned in the tender; otherwise the material would be liable for rejection.
25. In case of any doubt, regarding specification, the participants may raise the same in the pre-bid meeting.
26. The tender with validity of less than six months shall not be considered. The validity can be further extended with mutual consent.
27. Any or all tenders may be rejected or accepted partially or fully without assigning any reason thereof by Addl. Chief Executive Officer, RECPDCL.
28. Wiring / Hardware cost of connecting Essential load which will be used thru Solar energization (as per end user's requirement) is inclusive of contract value.

5. SUBMISSION PROCESS OF BID RESPONSE:

Bidder shall be submitted their responses online through our website www.recpdcl.in.

A. The submission and opening of Bids will be through e-tendering process.

Bidders can download bid document from the RECPDCL web site www.tenderwizard.com/REC or from e-tender link given in RECPDCL website <http://www.recpdcl.in>. However, bidders will also submit Original copy of the EMD document. Do not upload Financial Bid in Technical bid. Financial Bid has to be uploaded separately.

(Note: To participate in the e-Bid submission, it is mandatory for bidders to have user ID & Password. For this purpose, the bidder has to register himself with REC through Tender Wizard Website given below. Please also note that the bidder has to obtain digital signature token for applying in the tender. Vendor may also obtain digital signature from Tender Wizard.)

Steps for Registration:

- (i) Go to website <http://www.tenderwizard.com/REC>
- (ii) Click the link 'Register Me'
- (iii) Enter the details about the bidder as per format
- (iv) Click 'Create Profile'
- (v) Bidder will get confirmation with Login ID and Password

B. Steps for application for Digital Signature from Tender Wizard:

Download the Application Form from the website <http://www.tenderwizard.com/REC>. Follow the instructions as provided therein. In case of any assistance you may contact REC officers whose address is given at the tender.

- (1) Technical Bid to be submitted through online mode on website www.tenderwizard.com/REC in the prescribed form.
- (2) Financial Bid to be submitted through online mode only on website www.tenderwizard.com/REC in the prescribed form .

C. The bidder qualifying under the above criteria should upload Bid document in soft copy of the pre-qualification response with following documents in 2 parts:

Part 1 (soft copy and original copy to be submitted)

- a) EMD (The scan copy of the EMD to be uploaded in the prescribed web-portal and the original copy of the same will be submitted to RECPDCL within the last date and time of the submission of the NIT)

Part 2 (Only soft copy i.e. scan copy to be submitted)

- b) Covering letter duly signed by the authorized representative of the company on company's letter head – Annexure III
- c) Letter for Un-conditional acceptance of terms and conditions of the tender document duly signed by the authorized representative of the company in company letter head – Annexure VII
- d) Eligibility/ Qualification Criteria Documents

- e) Responder's particulars – Annexures IV, V, VI, VIII
- f) Solvency certificate from any scheduled bank.
- g) Details of Methodology and work plan proposed
- h) Acceptance form for participation in reverse auction event – Annexure D

The original copy of EMD should be accompanied a covering letter on the letter head of the company in a sealed envelope super scribing "Techno-Commercial Bid for Design, Supply, Installation, Commissioning & Maintenance for 5 years of (5kWp X 16nos.) Off-Grid Rooftop Solar PV power plant with battery backup in 16 residential schools in 9 districts of Odisha state." and should be addressed to:

Addl. CEO

REC Power Distribution Company Ltd.

1016-1023, 10th Floor,

Devika Tower, Nehru Place,

New Delhi - 110019

(Note: All papers that comprise the bid document of the concerned bidder must be numbered. An index of each page should also be provided).

6. OPENING OF TENDERS

- A.** Tenders duly submitted, will be opened on the date and time indicated in this tender document in the presence of bidders or their authorized representatives who desire to present.
- B.** Financial bid of only those bidders will be opened who have submitted requisite EMD and found eligible in the evaluation of technical bid.
- C.** Financial bid of those bidders will not be opened who have not submitted requisite EMD in original copy within the specified time limit and found not eligible in the evaluation process.
- D.** If due date of receipt of tenders and/or that of opening of tender happens to be a closed holiday(s), the tenders would be received and opened on the next working day.
- E.** REC PDCL reserves the right to postpone and/or extend the date of receipt/opening of tenders or to withdraw the tender notice, without assigning any reason thereof. In such a case the bidders shall not be entitled to any form of compensation from the Company.

7. EVALUATION OF BIDS:

Stage 1 / Technical Bid Evaluation

RECPDCL will identify the eligible responders based on the evaluation of the pre- qualification response.

Stage 2 / Financial Bid Opening

Bids shall be evaluated on the basis of per unit quoted rates for the services mentioned in Scope of Work/Technical specification and thereby arriving at bidder ranking. The bidder will be awarded who qualifies in all sorts and lowest price in price bid.

8. SCOPE OF WORK

Broad scope of work for the given task but not limited to the followings:

Design, Engineering, Supply, Erection, Testing, Storage, Erection, Commissioning and Comprehensive Maintenance for 5 years for 16 nos. of 5 kWp Off-Grid Rooftop Solar Photovoltaic Rooftop standalone power plants with battery backup.

Work involves the following major activities:

- I. Preparation and submission of the Design Basis Report, Project Technical Specifications, all related project and power evacuation drawings and Bill of Quantity of the Project.
- II. Design, Engineering, Manufacture, Assembly, Inspection, Testing, packing, supply, delivery at site, subsequent storage, erection and commissioning and testing at site; including insurance during transit and storage of PV plant along with battery, inverter, distribution boards (AC and DC), cable, combiner box, and associated work including protection and measuring arrangements etc.
- III. Design, Engineering, Manufacture, Assembly, Inspection, Testing, packing, supply, delivery at site, subsequent storage, erection and commissioning and testing at site; including insurance during transit and storage of SPV compatible electrical systems and associated work including protection and measuring arrangements etc.
- IV. Preparation of route profile drawing along with service connection to prospective consumers.
- V. All civil works for PV plant and distribution line.
- VI. All civil and electrical works for SPV compatible electrical systems and distribution line.
- VII. Submission of plant technical manual and user O&M manual.
- VIII. Operation & Maintenance and Monitoring up to 3 months after commissioning.
- IX. Comprehensive Maintenance and Monitoring up to 5 years after commissioning.
- X. Provide in-house training to the nominated persons for daily Operations and Monitoring of power plant.
- XI. Any other works not specifically mentioned but are required to finish the work.
- XII. **Coordination:** Agency shall inform the name, address, contact phone number of the Nodal Officer(s), assigned by agency to cover all 16 schools, who will report about their regular daily progress & performance of the assignment. Daily progress report should be sent to REC PDCL, Delhi offices in prescribed Performa. In case, absence of any information is adversely affecting the progress of work, the issue could be escalated to Addl. CEO, RECPDCL.

Scope of work and nature of work is indicative only; however RECPDCL reserves the right to add/delete items, relocate project area in scope/nature of work for smooth execution and completion of project.

9. ELIGIBILITY CRITERIA FOR PARTICIPATION

The Agency intending to be bid for such above mentioned task should fulfill the following eligibility criteria and shall submit documentary evidence towards the following:

Sl. No.	Eligibility Criteria	Supportive Document to be provided by Bidder
1.	The bidder should be a Solar PV system integrator and empanel with Ministry of New and Renewable energy (MNRE), SPV Division, as a channel partners (not for NABARD programme)	MNRE empanelment letter to be enclosed.

	accredited by the Ministry for off- Grid Decentralized solar applications under JNNSM as per latest list published by MNRE as on the date of opening of technical tender .	
2.	The Bidder should have been Design, Supply Installation & Commissioning and Maintenance of captive Off-Grid Solar Photovoltaic Rooftop power plant with battery backup at least one Off-Grid rooftop solar photovoltaic system/plant of minimum 5 kWp capacity or at least five Off-Grid Rooftop solar photovoltaic system/plant of minimum 1 kWp capacity.	Enclose copy of work order(s) along with satisfactory completion certificate(s)/payment(s) received from client(s).
3.	The bidder's average annual turnover must be at least ₹ 1.10 Crore (Rupees One Crore Ten Lakh Only) during the last three financial years, 2014-15, 2013-14, 2012-13. The turnover refers to a company and not the composite turnover of its subsidiaries / sister concerns etc.	3 years audited balance sheets of last 3 financial years (2014-15, 2013-14, 2012-13) should be submitted by the bidder.
4.	The bidder should have valid CST/State VAT/ TIN registration certificate.	A copy of each certificate should be enclosed.
5.	The bidder should have Service Tax and income Tax registration number (PAN).	Bidder should submit valid documentary proof of details of Service Tax and income Tax registration number (PAN).
6.	The bidder should be having office / service center in Orissa.	Registration of office/service centre to be attached.
7.	The bidder should have been in operations in India for a period of at least 3 years as on last date of Bid submission.	Audited balance sheets of last three years to be submitted.
8.	The agencies should not be black listed by Govt. Companies / Govt. Organization/ Govt. Agencies etc. in India or abroad.	Undertaking regarding not having black listed / banned by signed by authorized signatory as annexure (Declaration).

10. SIGNING OF AGREEMENT/ MOU

Finally selected firm or their authorized representative will submit the signed and sealed copy of the purchase / work order in each page on behalf of the firm as token of acceptance along with required security deposit to execute the work as per the terms and condition laid down in the said order.

Bidders are requested to watch out RECPDCL web site for change of events/additional information from time to time.

11. COMMERCIAL TERMS & CONDITIONS

11.1 RATE:

The offer should indicate the unit cost, taxes & duties separately. The unit cost must be inclusive of packing, forwarding, loading & unloading charges, cost of insurance, transportation for delivery at destination and training to users, technical personnel and field functionaries of RECPDCL.

11.2 SALES TAX & DUTIES ETC.:

All taxes and duties as prescribed both under central and state Government sales tax rules would be applicable.

11.3 EARNEST MONEY DEPOSIT (EMD):

11.3.1 Earnest money amounting to ₹ 2,50,000/- (Rupees Two lakhs Fifty Thousand only) shall be deposited along with the tender without which the same shall not be accepted.

11.3.2 Request for adjustment of Earnest money Deposit against any previous dues with RECPDCL will not be considered.

11.3.3 EMD will be refunded to the unsuccessful bidders after finalization of the tender without any interest.

11.3.4 The Earnest Money Deposit will be returned to the successful bidders after furnishing Security Deposit for performance and acceptance of the purchase order. The EMD can also be adjusted against Security Deposit on request by the successful bidder

11.3.5 Within 15 (fifteen) days of issue of the letter-accepting bid, the successful bidders shall furnish security deposit for the amount prescribed in this document for performance along with the letter of acceptance. If the bidders fail to furnish the required security deposit along with acceptance letter, within the stipulated time, his EMD shall be forfeited and the bidder may be disqualified for participating in further tenders.

11.3.6 The validity of Earnest Money, shall have to be suitably extended if necessary on request by RECPDCL, without which the tender shall be rejected.

11.4 SECURITY DEPOSIT/ PERFORMANCE BANK GUARANTEE (PBG) FEES:

The successful bidder must deposit the Security amount / Performance Guarantee fees @ 10% of the ordered value with RECPDCL, New Delhi-110019 at the time of acceptance of the work order in shape of Bank Guarantee in two parts, 50 % value with 5 ½ years validity and the balance 50% value with 10 ½ years validity from the date of acceptance of the work order or till the completion of respective warranty periods whichever is later. The said deposit would be forfeited, if the supplies are not made as per the Terms & Conditions of the purchase order. 50% of the security deposit amount will be refunded after the expiry of the Warranty period and CMC period of the systems, subject to satisfactory execution / performance of the systems. Balance 50% of the Security deposit shall be released after expiry of warranty period of 10 years provided for the SPV modules subject to the successful performance.

11.5 DELIVERY:

The materials must be delivered within the stipulated time mentioned in the purchase order. The system should preferably be delivered to the consignee within one month of issue of purchase order.

11.6 QUANTITY:

The quantity mentioned in the tender might either increase or decrease according to our requirement. The order shall be placed to the approved bidder in phased manner.

11.7 CONSIGNEE: The Addl. CEO, RECPDCL/ The respective head master/head mistress of each school.

11.8 VALIDITY OF OFFER:

The offer must be kept valid for a period of 180 days from the date of opening of the tender. No escalation clause would be accepted. The validity can be further extended with mutual consent.

11.9 Sales Tax Clearance Certificate (STCC):

The Bidders must submit attested copy of valid up to date Sales Tax / VAT clearance certificate along with the tender. The tender would not be considered without this document. The original certificate would be produced at the time of opening of the tender, or, before placement of purchase order, if required.

11.10 WARRANTY:

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

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

Any defect noticed during warranty period should be rectified/replaced by the supplier free of cost upon due intimation by the concerned School/RECPDCL. The warranty period shall be extended by the period during which the systems remain non-operative due to reasons within the control of the executants. Care should be necessarily taken to make the system operational within a week of reporting of defect. If the system is not made operational within fifteen days, RECPDCL may rectify the same and charge all expenses incurred on the said account to the vendor.

11.11 LIQUIDATED DAMAGES:

The systems are to be supplied within the scheduled time. For delay in supply and installation of the system beyond the scheduled date the buyer shall without prejudice to its other remedies deduct from the order value as liquidated damage 1% of the delayed in commission the work per week of delay or part thereof up to maximum 10% of order value. Once the maximum is reached (i.e., 20 weeks of delay) the purchase order would be cancelled and the security deposit would be forfeited.

12. SPECIFICATION:

The detailed technical specifications of the SPV system should be as specified under JNNSM issued by MNRE vide letter no- 5/23/2009-P & C dated 08.07.2010 and subsequent addendum issued. The materials must confirm to the specification.

13. INSPECTION:

All tests and inspections shall be made at the place of delivery unless otherwise specifically agreed upon by the bidder and RECPDCL at the time of purchase if necessary.

14. PAYMENT TERMS:

1. Mobilization advance of 10% of contract value will be released after submission of Bank guarantee of the 10% of contract value and submission of detailed approved Drawings, BOM, BOQ and Project implementation plan including timeline by the agency, which will be adjusted in the subsequent payments.
2. 35% of contract value will be disbursed after the delivery of all the materials for each SPV power plant mentioned in the BOM and accepted by RECPDCL.

3. 35% of contract value will be disbursed after completion of successful commissioning of all the SPV power plants and 3 month of successful Operation of each SPV power plant.
4. Rest 30% of contract value will be disbursed after submission of performance bank guarantee for 5 years for Comprehensive Maintenance.

15. COMPREHENSIVE MAINTENANCE CONTRACT (CMC)

CMC will be applicable from the date of commissioning of the system. The bidder must execute Comprehensive maintenance contract for the specified period before release of the first installment of payment. Offer without such CMC shall not be considered. The scope of CMC must cover supply of spare parts and all consumable (including battery) / services during the contract in force. Order shall be placed only on bidders who agree to offer such CMC. The CMC charges quoted by the bidder must be realistic in view of actual rendering of after sale services. Bids with very low/unrealistic CMC charges will be liable for rejection. The payment of annual maintenance charges under the Comprehensive Maintenance Contract shall depend upon the functionality of the system duly certified by the concerned office/ Authorized officials of RECPDCL. Upon receipt of such certificates CMC amount as applicable shall be paid at the end of 1st, 2nd, 3rd, 4th and 5th years. (Format of CMC is enclosed)

16. SPLIT OF WORKS:

In view of large geographical spread, limited time available for completion of the project, RECPDCL reserves the right to increase / decrease / split of the work to agencies in district level / school level at the sole discretion of the RECPDCL. Suitable amendment / communication shall be issued in the event of variations in quantities.

17. TRAINING PROGRAMME:

The bidder as per the discretion of RECPDCL should conduct Training programme to users, technical personnel & field functionaries of RECPDCL at site so that they are well versant with day to day operations and basic maintenance activities.

18. DISPUTE:

For adjudication of any dispute between RECPDCL and the bidders arising in this case, reference can be made to any Law courts under the jurisdiction of New Delhi High Courts only.

The Addl. Chief Executive Officer, RECPDCL reserves the right to accept or reject any or all tenders without assigning any reason thereof.

-Sd-
**Addl. Chief Executive Officer,
RECPDCL**

I/We have carefully read and understood the above terms and conditions of the tender and agree to abide by them.

SIGNATURE OF TENDERER WITH SEAL

Annexure-I Technical specification of each SPV plant

Description	For 5 kWp plant capacity (With Battery)	
Annual Mean Daily Global Solar Radiation over Odisha	5.0	kWh/sq. mtr per day
Capacity Utilization Factor (CUF)	19%	
Tentative Size of proposed Polycrystalline Photo Voltaic Module:		
Tentative Length	1.65	mtr
Tentative Breadth	0.987	mtr
Tentative Thickness	0.04	mtr
Tentative Area of 1 Photo Voltaic unit	1.63	sq. mtr
Tentative Proposed Solar PV Module Capacity	250.00	Wp
Tentative Voltage of PV Module	24.0	Volts
Tentative Nos. of module required	20.00	nos.
Tentative Nos. of module connected in series	4.00	nos.
Tentative Nos. of module connected in parallel	5.00	nos.
Approximate area required for module array	60.4	sq. mtr
Area of the room required for Control systems, Battery bank & Inverter housing	(5x3x3)	m ³ Battery to be installed in rack
Power generated using PV module	5	kWp
Battery Bank calculation		
Total daily use in Watt-hours (Wh)	18000	Wh/day
2 Days of Autonomy (backup days)	36000	Wh
Depth of Discharge (DoD) as 70%	51429	Wh
Derate battery bank for ambient temperature effect @ 60 degree F	57086	
Minimum Amp-hour (Ah) capacity of battery bank.	595	Ah
Battery bank voltage	96	Volts
Inverter Rating	5	KVA
Efficiency of inverter	Min 85%	
Charge Controller Capacity	65.10	Amps

System Design /Specification			
1		Area for SPV Plant	
	i	Area for SPV Plant	60.4 sq mtr
	ii	Location: Facing South angled 18-22 Deg upwards on the terrace.	
2		SPV Power Plant	
	i	Output	5 kWp
3		Solar PV Module - Electrical Parameter	
	i	Power Rating	250 Wp or above
	ii	Rated Current	8.14 Amp
	iii	Rated Voltage	37.8 volts

4		Mounting Arrangement	
	i	Mounting	Fixed type
	ii	Tilt angle(Slope) of PV Module	18-22 degrees
5		Inverter/ Power Conditioning Unit (PCU)	
	i	Type	Single phase Islander with DG and/or Grid inter phase
	ii	Number of units	1
	iii	Rated Capacity	5 kW
	iv	Input Voltage range	80-180V DC
	v	Output Voltage	240 V AC, 1 Phase
	vi	Frequency	50 Hz
		Efficiency	> 90% on full load conditions
6		Annual Energy Generation	
	i	Annual Energy	9.125 MWh
7		Construction Time	6 months

i. Technical Details of Solar Panel

- Indigenously manufactured Solar Panel of the capacity up to 250 Wp or above
- Efficiency of at least 14%
- Designed for High area Efficiency ideally suited for rooftop and ground mounted applications
- IEC 61215 Edition II / BIS 14286 from NABL or IECQ accredited laboratory, IEC 61730, MCS Certified
- Certified for Ammonia Resistance (IEC 62716)
- Certified for PID Resistance (IEC 62804-Ed.1)
- Certified for Salt Mist Corrosion Resistance (IEC 61701)
- Low Mismatch Losses and should be free from Potential Induced Degradation (PID) effect.
- Excellent performance over the span of 25 years life.
- 100% EL Tested to ensure micro crack free module.
- Withstands high wind-speed (180 ~ 200 km/hr) pressure and snow load (passed 5400Pa mechanical loading test), and extreme temperature variations
- Testing as per MNRE latest guidelines under Standard Test conditions (STC)
- Should have name plate fixed inside the module consisting: Name of the manufacturer, model number, serial no, year of manufacture.

• Technical Details of Battery Bank

- Solar Tubular GEL VRLA battery - 12V or 2 V Cells
- Nominal Capacity : 600 Ah
- Battery bank voltage: 96V
- Electrolyte conform to IS 226:1977
- Charge Efficiency more than 90%
- Complying and certified to TUV IS 13369:1992
- MNRE, Govt of India approved.
- Self-discharge less than 4% under STC (Standard Test Conditions)
- High Cyclic Time
- Operating : 5°C to 60°C
- No Thermal Runaway
- Testing as per MNRE latest guidelines

ii. Technical Details of Charge Controller Unit

- MPPT (Maximum Power Point Tracking) Charge Controller
- 3 stage charging – Boost, Float & Equalization
- Efficiency more than 92%
- Ideal current less than 10 mA
- Temperature compensation
- DC : 80V to 180V
- Charging Current Capacity : max 50 amp
- Protections : Overcharge, Reverse Polarity, Short Circuit, Over Current, Deep discharge
- Indications : Charging, Full Charge & Low battery
- Optional Features : Inbuilt Load Controller for DC loads, RS 232 compatibility
- Testing as per MNRE latest guidelines

iii. Technical Details of Inverter

- DSP (Digital Signal Processor) / Microprocessor based PWM (Pulse Width Modulation)
- Islander type with DG and / or Grid interface
- Testing as per MNRE latest guidelines
- Pure Sine Wave output
- Output Voltage Regulation : $\pm 2\%$
- Efficiency minimum 90%
- Total Harmonic Distortion less than 3%
- High Overload Capability at switching.
- Better tolerance for Battery DC Volts
- Minimum Acoustic Noise
- Protections: Overload, Low Battery, Short circuit, Surge, Reverse polarity,
- Optional Features - Digital Display, Alarms
- ✓ Type 1 Phase islander Off Line / On Line
- ✓ Capacity 5 KVA
- ✓ Volt 96 V
- ✓ Output Volt 230 VAC / 50 Hz

iv. Technical Details of Panel Mounting Structure & Accessories

- Fabricated with Angles, Rafters, Purlins, Railings, Bracings, Channels, Round and Rectangle Pipes.
- MS with Hot Dip Galvanized coating of thickness 110 microns. Should be corrosion free.
- Designed suitable for Easy transportation & installations at site
- Sturdy designs suitable to any worst climatic conditions
- Cables, Distribution box, Junction Box, Switches, MCB, ELCB, Glands, Hardware As per ISI standards.
- Should withstand 180~200 km/hr wind speed.

v. Constructive Characteristics of Solar Panel

- ✓ Cells : Poly-crystalline silicon cells
- ✓ Contacts : Full length solder dipped & Electroplated
- ✓ Laminate : EVA
- ✓ Front Face : Anti-reflective structured tempered glass
- ✓ Back Face : Multi-layer laminate of Tedlar material
- ✓ Frame : Anodized aluminum
- ✓ Junction boxes : IP 65 class
- ✓ Cables and connectors : 1 Core / 2 core PVC Insulated Cable
- ✓ Diodes : Includes Schottky by-pass diodes
- ✓ Testing of samples may be done / test certificate may be produce

Annexure-II

CHECK-LIST (All the following documents should be enclosed in Technical bid)

Please check whether following documents have been enclosed in the bid

1. EMD No.:', ----- Amt: ₹ -----/-, (Bank name:, Date:) (Yes/No)
2. Evidence of registered Firm /Company (Yes/No)
3. Evidence of operation of the company in India in SPV sector for last 5 years (Yes/No)
4. Recent test certificate from appropriate authorized test centers of MNRE, GOI.
5. Proof of STCC/VAT Registration Copy of valid STCC /VAT clearance certificate, Service Tax Registration Certificate in Odisha / Copy of PAN (Yes/No)
6. Proof of office in Odisha and registration under Odisha VAT Act (Yes/No)
7. Copy of audited balance sheet for the year 2012-13, 2013-14, and 2014-15, signed by CA, clearly indicating the turn over from Solar PV business.
8. Proof of professionals with qualification and experience in installation of SPV power plants (Yes/No)
9. Proof of successful installation and commissioning of SPV power plants in last 3 years i.e. 2014-15, 2013-14, 2012-13. Copies of work completion with details of work execution / copy of work order (Yes/No)
10. Declaration of ineligibility for corrupt and fraudulent practices (Yes/No)
11. Acceptance of terms & conditions contained in the Tender (Yes/No)
12. Representatives authorization letter both for tender opening and technical presentation (along with Proof of above two persons as employee of the company to be enclosed) (Yes/No)
13. Acceptance form for participation in reverse auction event.

Signature of Authorized Signatory

Annexure-III Bidder's Respond Letter

(To be typed on the Letterhead paper of the Applicant, including full postal address, Telephone and FAX numbers and e-mail address)

To,
**The Addl. Chief Executive Officer,
REC Power Distribution Company Limited (RECPDCL),
10th Floor, 1016-1023, Devika Tower, Nehru Place,
New Delhi-110019**

Subject: **Tender for selection of firm for installation, commissioning and maintenance of SPV power plant vide tender call notice no RECPDCL/ODISHA/SOLAR/PMA/2015-16/2429 dated: 24.11.2015**

Dear Sir,

Having examined the Tender No. RECPDCL/ODISHA/SOLAR/PMA/2015-16/2429, We, the undersigned, offer to propose for award of work for installation, commissioning and maintenance of SPV power plant vide tender call notice no. RECPDCL/ODISHA/SOLAR/PMA/2015-16/2429 dated: 24.11.2015 in full conformity with the said Tender.

We have read the provisions of the Tender and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our Tender offer shall not be given effect to.

We agree to abide by this Tender, consisting of this letter, the detailed response to the Tender and all attachments, for a period of one year from the date fixed for submission of Tender as stipulated in the Tender

This application is made with the full understanding that:

(a) Bids by qualified firm will be subject to verification of all information submitted for qualification and bidding;

(b) RECPDCL reserves the right to reject or accept any application, cancels the qualification process, and rejects all applications and RECPDCL shall not be liable for any such actions.

Any genuine changes made by RECPDCL in the interest of the work with respect to the technical requirement during the course of project implementation will be acceptable.

We hereby declare that all the information and statements made in this proposal are complete, true and correct and accept that any misinterpretation contained in it may lead to our disqualification.

Information Detail

- 1.** Name of bidder
- 2.** Address of bidder
- 3.** Name, Designation and Address of the contact person to whom all correspondences shall be made regarding this Tender
- 4.** Telephone no. of contact person

- 5. Mobile no. of contact person
- 6. Fax no. of contact person
- 7. E-mail address of contact person

We hereby declare that our Tender is made in good faith and the information contained is true and correct to the best of our knowledge and belief.

<Signature of Authorized Signatory>
 <Name>
 <Designation>
 <Contact Address>
 <Telephone Numbers (Mobile & Land)>
 Firm/Company Seal

Annexure-IV Bidder's Officials Assignment

(Representative AUTHORIZATION Letter in the Letterhead of the applicant)

Date : _____

Ref : _____

To

**The Addl. Chief Executive Officer,
 REC Power Distribution Company Limited (RECPDCL),
 10th Floor, 1016-1023, Devika Tower, Nehru Place,
 New Delhi-110019**

Ms. /Mr. _____ is hereby authorized to sign relevant documents on behalf of the company/firm in dealing with invitation reference No. ----- . She / He is also authorized to attend meetings and submit technical and commercial information as may be required by RECPDCL in the course of processing above said application. Ms. /Mr. _____ is hereby authorized to make technical presentation on behalf of the company.
 (Proof of above two persons as employee of the company to be enclosed)

Thanking you,

Authorized Signatory

 Representative Signature

 Signature attested

Annexure-V
PROFILES OF PROJECTS COMPLETED

1. Name of client
2. Name of the Project
3. Brief Description of the Project
4. Scope of the Project (Activities Involved)
5. Details of Solution and Methodology Adopted
6. No. of Locations at which Project is being/was implemented
7. Value of the project (INR)
8. Date of award of contract
9. Date of commencement of the project
10. Date of successful completion of the project
11. If not completed, expected date of completion
12. Name of the person who can be referred to from Clients' side, with Name, Designation, Postal address, Contact phone, FAX number, e-mail id etc.

Attach Additional Sheets and Annexure, if required.

Authorized Signatory
(Company Seal)

Annexure-VI
BRIEF VENDOR PROFILE

01. Name of the Firm/Company

02. Year Established

03. Address of Office

04. Telephone No.

05. Fax No.

06. E-mail Address

07. Website

08. Sectors' in which the company/firm has successfully commission SPV power plant against the work order of Govt./ PSU/ Agencies in India

09. No. of full time personnel currently under employment

10. No. of years of proven experience of providing similar Services

11. Certifications (ISO 9001:2000, if any)

Authorized Signatory
(Company Seal)

Annexure-VII
DECLARATION

Date: _____

Ref: _____

To

**The Addl. Chief Executive Officer,
REC Power Distribution Company Limited (RECPDCL),
10th Floor, 1016-1023, Devika Tower, Nehru Place,
New Delhi-110019**

Ref: Declaration Letter for firms for installation, commissioning and maintenance of SPV power plants

Dear Sir,

This is to notify you that our Firm / Company intend to submit a proposal in response to your Tender Reference No: ----- In accordance with the above we would like to declare that:

- a) We are not involved in any litigation that may have an impact of affecting or compromising the delivery of services as required under this assignment
- b) We are not blacklisted by any Central / State Government / Public Sector Undertaking in India

Sincerely,

[BIDDER'S NAME]

Name

Title

Signature

Date

Company Seal

Annexure-VIII
UNDERTAKING

I , , Son / Daughter of
.....
Resident of Being Proprietor/ Partner/ authorized
representative of M/S of whose State Sales Tax
Registration No VAT and TIN . is CST Registration
No. is , and Income Tax PAN No. is
.....
.....

Hereby give consent to RECPDCL to deduct from our Bill whatever dues of the ST & IT Department on their demand.

Place:

Date:

(SIGNATURE)

NAME:

SEAL:

Annexure-A
Technical Bid

**Supply, Installation, Commissioning and 5-Year Maintenance of Off-Grid Rooftop Solar Power
Plants in residential schools in Odisha State**

We confirm the following technical specification.

Sl. No.	Item	Description
1.	PV Module	
2.	PV Array	
3.	Array Junction Boxes	
4.	PCU	
5.	Battery	
6.	Battery bank	
7.	Wires and cables	
8.	Electronics Protection	
9.	Array structure and other Mechanical Hardware	
10.	Other features	

SIGNATURE and SEAL
BIDDER

Annexure –B
Price Bid

Sl. No.	Item	Rate (in Rupees)
<u>1.</u>	Design, Supply of a 5 kWp SPV power plant comprising of SPV modules, mounting structure, battery bank with rack, PCU, cabling, earthing etc all completed as per technical specification including packing, forwarding, transport, delivery at site, Installation, testing and commissioning of the 5 kWp SPV power plant in Odisha sate including all accessories as per technical specification (Exclusive of taxes)	
<u>2.</u>	Taxes and duties on item no-1	
<u>A.</u>	Total (1+2)	
<u>3.</u>	Comprehensive Maintenance Contract (CMC) charges for five years for 5kWp SPV power plant	1 st Year AMC Charges
		2 nd Year AMC Charges
		3 rd Year AMC Charges
		4 th Year AMC Charges
		5 th Year AMC Charges
<u>4.</u>	Taxes and duties on item no- 3	
<u>B</u>	Total (3+4)	
<u>C</u>	Grand Total (A +B) – for a single 5 kWp plant	
<u>D</u>	Total cost for all Sixteen 5 kWp plants	

Note: Bidders are required to follow the details of the technical specification while quoting rates for each item.

Format – B.1

The Bidder should provide the detail of taxes as per below format:-

Sr. No.	Tax which are included in firm quoted rate	Rate of tax (In percentage %)
1		
2		
3		
4		

Annexure C **BID BANK GUARANTEE (EARNEST MONEY) FORMAT**

(To be stamped in accordance with Stamp act)

This deed of Guarantee made this _____ day of _____ 2015
by _____

(Name of the Bank)

having one its branch at _____
acting through its Manager (hereinafter called the "Bank") which expression shall wherever the
context so requires includes its successors and permitted assigns in favour of REC Power Distribution
Company Ltd., registered under the Companies Act, 1956, having its office at
_____ (hereinafter called)
("RECPDCL") which expression shall include its successors and assigns.

WHEREAS RECPDCL has invited tender vide their Tender Notice No.

_____ Dated _____ to be opened on AND
WHEREAS M/s _____

(Name of Tenderer)

having its office at _____
(hereinafter called the "Tenderer"), has/have in response to aforesaid tender notice offered to
supply/ do the job _____ as contained in the tender.

AND WHEREAS the Tender is required to furnish to RECPDCL a Bank Guarantee for a sum of Rs.
_____ (Rupees _____
_____ Only) as Earnest Money for participation in the Tender aforesaid.

AND WHEREAS, we _____
(Name of Bank)

have at the request of the tenderer agree to give RECPDCL this as hereinafter contained.

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

We further agree as follows:-

- 01.** That RECPDCL may without affecting this guarantee extend the period of validity of the said Tender or grant other indulgence to or negotiate further with the Tenderer in regard to the conditions contained in the said tender or thereby modify these conditions or add thereto any further conditions as may be mutually agreed to in between RECPDCL and the Tender AND the said Bank shall not be released from its liability under these presents by an exercise by RECPDCL of its liberty with reference to the matters aforesaid or by reason of time being given to the Tenderer or any other forbearance, act or omission on the part of the RECPDCL or any indulgence by RECPDCL to the said Tenderer or any other matter or thing whatsoever.
- 02.** The Bank hereby waive all rights at any time in consistent with the terms of this Guarantee and the obligations of the Bank in terms thereof shall not be otherwise affected or suspended by reason of any dispute or dispute having been raised by the Tenderer (whether or not pending before any arbitrator, tribunal or court) or any denial of liability by the Tenderer stopping or preventing or purporting to stop or prevent any payment by the Bank to RECPDCL in terms thereof.
- 03.** We the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of RECPDCL in writhing and agree that any charges in the constitution, winding up, dissolution or insolvency of the Tenderer, the said Bank shall not be discharged from their liability.

NOTWITHSTADING anything contained above, the liability of the Bank in respect of this Guarantee is restricted to the said sum of Rs. _____ (Rupees _____ only) and this Guarantee shall remain in force till _____ unless a claim under this guarantee is filed with the bank within 30 (thirty) days from this date or the extended date, as the case may be i.e. up to _____ all rights under Guarantee shall lapse and the Bank be discharged from all liabilities hereunder.

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

Note: - The date shall be thirty (30) days after the last date for which the bid is valid.

Annexure-D

ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder)

In a bid to make our entire procurement process more fair and transparent, RECPDCL intends to use the reverse auctions as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

The following terms and conditions are accepted by the bidder on participation in the bid event:

1. RECPDCL shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. RECPDCL decision to award the work would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of RECPDCL, bid process, bid technology, bid documentation and bid details to any other party.
4. The bidder is advised to fully make aware themselves of auto bid process and ensure their participation in the event of reverse auction and failing to which RECPDCL will not be liable in any way.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of RECPDCL.
6. In case of intranet medium, RECPDCL shall provide the infrastructure to bidders. Further, RECPDCL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case an auction event is restarted, the best bid as already available in the system shall become the basis for determining start price of the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out rightly rejected by RECPDCL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by RECPDCL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

Signature & Seal of the Bidder

Annexure-E

Joint Commissioning cum handing over Certificate

This is to certify that M/S -----have installed ----- kWp SPV power plant system at ----- School under ----- block of ----- district and completed the same by----- successfully. Now the power plant is running satisfactorily.

- 1. Place of installation:
- 2. Block:
- 3. District:
- 4. Battery make and SI No for power plant:
- 5. SPV module:
- Make & SI no:
- 6. Make and SI no of the PCU:

Signature with Seal

M/S -----

Signature with Seal

Addl. CEO
RECPDCL

Handed over to the Head Master/ Principal ----- School

Signature of the Head Master ----- School or his representative with Seal

Annexure-F
COMPREHENSIVE MAINTENANCE CONTRACT (CMC) Format

**COMPREHENSIVE MAINTENANCE CONTRACT (CMC) FOR MAINTENANCE OF ----- SPV
POWER PLANT SUPPLIED & INSTALLED BY M/S _____ IN
_____ SCHOOL
FOR FIVE YEARS**

This Comprehensive Maintenance Contract (CMC) is executed between the REC Power Distribution Company Limited, 10th Floor, 1016-1023, Devika Tower, Nehru Place, New Delhi represented by its _____ hereinafter called as 1st Party and M/S. _____ hereinafter called as 2nd Party, for maintenance of 5 kWp SPV power plant for a period of five years with effect from _____ AD, supplied and installed at ----- School of ----- block of district. Vide Purchase Order No. _____ dt. _____.

The 2nd party will maintain the SPV power plant as per the terms and conditions mentioned hereunder.

1. It has been envisaged in the Purchase Order No. RECPDCL/ _____, dated. _____ Under Clause No. _____ that the SPV power plant shall be warranted against any manufacturing defect and bad-workmanship at least for a period of five years and module for 10 years from the date of commissioning. The systems have been commissioned and handed over to the 1st party through its _____, posted at New Delhi during _____. The 2nd party is fully responsible for their trouble-free performance of all the components during the warrantee period.

2. PV Modules & battery: As stipulated in the ---- paragraph of the said Purchase Order under the Clause No.----, the PV modules are covered under warranty for a period of at least ten years from the date of use, it is natural that these are to be covered under Warranty up to _____ AD. Similarly the balance of system (BOS) are covered under warrantee for a period of at least 5 years from the date of use so these are to be covered under warrantee up to -----.

The 2nd party is fully responsible for any defect noticed within the above warranty period and is liable for rectification/replacement of the defective components/systems free of cost.

3. The 2nd party should conduct at least one training programs for the users/technical personnel and field functionaries of RECPDCL, on day-to-day repair and maintenance of the system.

4. 50 % of the PGF (Security amount) amount (50 % of the 10% of security deposit/PGF of the ordered value) shall be kept as fees towards Performance Guarantee for a period of five years of maintenance. After expiry of the maintenance period of five years, which remains valid up to _____ AD, the above security deposit towards PGF shall be returned to the 2nd party thereafter only.

If the maintenance of the SPV power plant is found to be unsatisfactory by the 2nd party, the 1st party will have the liberty to encash and forfeit the PGF deposited/furnished, in full or part as may be decided by the 1st party. Balance 50 % of the security deposit will be returned after 10 years of warranty on module.

5. The CMC includes repair/replacement of all spares and consumables, including battery during maintenance period.

6. The 2nd party shall undertake Preventive/Routine Maintenance work of the of SPV power plant. This shall be done at least once in every six month and shall include activities such as cleaning and checking the health of the SPV system, cleaning of module surface, greasing of batteries, tightening of all electrical connections, changing of tilt angle of module mounting structure, cleaning & greasing of battery terminals and any other activity that may be required for proper functioning of the SPV power plant as a whole. The 2nd party shall forward report to the 1st party in the prescribed format attached herewith (format-1) on every succeeding six months.

7. Whenever a complaint is lodged by the user, the 2nd party shall attend within 5-days period of time and in any case the breakdown shall be corrected within a period not exceeding 7-days from the date of complaint. The 2nd party shall furnish the status report after the repair works are over which shall invariably bear the signature of the head master of School, or his representative.

8. For carrying out the CMC effectively, the 2nd party shall establish at least one service center deployed within the State. The 2nd party shall maintain the following facilities at the service center for ensuring highest level of services to the end user.

(a) Adequate trained manpower specifically trained by the 2nd party for carrying out the service activities.

(b) Adequate provisions for record keeping, which shall inter-alia, include the following.

(c) Adequate spares for ensuring least down time of a individual component.

(d) The service center shall send summary service reports to 1st party on half yearly basis. These reports shall include the following information:

Number of complaint received during the period of reporting.

Number of complaints attended during period of reporting.

Major cause of failure, as observed

Major replacement made during the reporting period.

(e) The records maintained at the service center shall be available for scrutiny of authorized representatives of the 1st Party.

(f) The date of CMC, maintenance period shall begin on the date of actual commissioning of the SPV systems.

9. Separate bills/Invoices in triplicate towards CMC cost are to be submitted by the 2nd party to 1st party for effecting payment, after end of the year from the date of maintenance of the systems as per price quoted in the price bid.

10. Certificate in support of successful maintenance of the system (s) shall be obtained from the user as explained above, which should be countersigned by the _____, in token of verification of maintenance done.

11. It will be the liberty of the 1st party to cross check the systems maintained by the 2nd party. Random verification of the maintenance may be carried out by the 1st party wherever necessary.

12. The 2nd party may continue to maintain the power plant after expiry of the maintenance period of five year, provided the beneficiaries/1st party desires.

13. For adjudication of any dispute between the two parties arising on execution of this CMC, the matter shall first be brought to the notice of Chief Executive Officer/Chairman, RECPDCL

14. In case, there will be no amicable settlement of the issue, the matter can be referred to the Court of Law having jurisdiction at Bhubaneswar only.

The Comprehensive Maintenance Contract is signed jointly between the two parties today i.e. on dated. _____ day of 2015.

For and on behalf of REC
Power Distribution Company
Limited (RECPDCL), New Delhi
(1st Party) (Seal)

For and on behalf of
M/S.
(2nd party) (Seal)

Witness:

Witness:

FORMAT-F.1

(To be furnished in duplicate by the 2nd party)

STATUS REPORT OF SPV power plant

(A) PARTICULARS

1. Name of the user :
2. (a) Place of installation:
(Village)
(b) Gram Panchayat:
3. Block:
4. District:
5. Date of visit:
6. Name & address of the staff:
visiting the installation.

(B) OBSERVATIONS (To be filled-in by the staff visiting the installation)

(i) Have seen any

7. Visual damage of the system:

8. Damage of the module:

(i) . Sl. No. & make of the damage module

9. Condition of the battery:

(i) Make & Sl. No. of the battery defective battery

Condition of the:-

10 Electronic Controller:

11. Compact Fluorescent lamp:

16. Electrical condition:

17. Routine maintenance work:

(i) Cleaning up the module surface:

(ii) Greasing of the batteries:

(iii) Tightening of the all electrical connection:

(iv) Changing of tilt angle of the module

Mounting structure:

(v) Cleaning & greasing of the battery Terminal.

18. Type of repair/rectification carried out:

19. Suggestion imparted to the user:

20. Status of the system

21. Remarks of the user:

Signature of the user/representative (with name & stamp if any) with date

Signature of the staff visiting the installations with date –

Annexure- G

Check List for submission of information/documents after commissioning of the project

S/N	Information/document to be submitted	Whether submitted
1.	Site Details Name of the Institution Postal Address Phone No. Fax No. Name of the Contact Person	
2.	System details a. Solar PV Modules	

	<p>Make of the modules Year of manufacturing Module test report from MNRE authorized test centre Serial Number and IV curve of each module may be submitted in a separate sheet</p> <p>b. PCU Make Model Yr of manufacturing Serial Number of the PCU Test report from MNRE authorized test centre</p> <p>c. Battery bank Make Model Yr. of manufacturing Test report from MNRE authorized test centre Serial Number of each battery may be submitted in a separate sheet</p> <p>d. Wires and cables Make of the wires/ cables Length(Meter) and Thickness in sq. mm of all wires and cables used BIS test certification for the wires and cables used.</p> <p>e. Any other feature of the system that needs special mention</p>	
3.	Warranty/ Guarantee of the composite system	
4.	Training details Date of training No. of persons trained Name & designation of the persons	
5.	Service Centre Details Name /address / contact details of the service centre that will cover the project Name & mobile No. of the person of the service centre in-charge of the project	
6.	Performance details (as per enclosed format)	

Annexure- H
Documents to be submitted after commissioning of project

Sl No.	Document to be submitted	
1.	Joint Commissioning and handing over certificate (in prescribed format)	
2.	Signed Copy of CMC	
3.	Performance Report by RECPDCL	
4.	Measurement of performance parameters if any done	
5.	Report of daily/monthly wise generated/ consumed with proper resource in case of short fall.	

Annexure-I
PERFORMANCE BANK GUARANTEE (PBG) FORMAT

**M/s REC Power Distribution Company Ltd.,
Core 4, Scope Complex, 7 Lodhi Road,
New Delhi – 110003 (INDIA)**

(With due stamp duty if applicable)

OUR LETTER OF GUARANTEE NO.:

In consideration of REC Power Distribution Company Ltd., having its office at _____ (hereinafter referred to as "RECPDCL" which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators and executors) and having issued EOI/Work Order No. _____ dated _____ with/on M/s _____ (hereinafter referred to as "The Agency" which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Agency having unequivocally accepted to perform the services as per terms and conditions given in the EOI/Work Order No. _____ dated _____ and RECPDCL having agreed that the Agency shall furnish to RECPDCL a Performance Guarantee for the faithful performance of the entire contract, to the extent of 10% (ten percent) (or the percentage as per the individual case) of the value of the EOI/Work Order i.e. for _____.

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

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

This letter of Guarantee will expire on _____ including 30 day of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

Authorized signature
Chief Manager/ Manager
Seal of Bank

Note: The date shall be 90 days after the date of completion of contract.