



ISO 9001:2008, ISO 14001:2004
& OHSAS 18001:2007
Certified Company

आरईसी पावर डिस्ट्रीब्यूशन कम्पनी लिमिटेड REC POWER DISTRIBUTION COMPANY LIMITED

(A wholly owned subsidiary of REC Ltd., a 'Navratna CPSE' under Ministry of Power, Govt. of India)

CIN No. RECPDCL-U40101DL2007GOI165779

Corporate Office: 1016-1023, 10th Floor, Devika Tower, Nehru Place, New Delhi-110019
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NIT No: RECPDCL/CSR/CWC/16-17/3368

Date: 20.01.2017

Notice Inviting Tender (Bid Invited through e-Tendering mode only)

From Implementing Agencies for Turnkey execution of RECPDCL's CSR Project of
"Solar Powered Community Water Centre (CWC)"

Comprising of supply, installation and maintenance of 3Hp Solar PV based DC Submersible pump, RO+UV based Water Purification Unit with output capacity of 1000LPH, accommodated in a structure based on Pre-Fab technology in 3 villages of Uttar Pradesh.

REC Power Distribution Company Limited (RECPDCL)

(A wholly owned subsidiary of REC Ltd., a 'Navaratna CPSE' Under Ministry of Power, Govt. of India)

CIN no. of RECPDCL: U40101DL2007GOI165779

Corporate office

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

Telephone: (011) 44128755; Fax: 011-44128768

Website: www.recpdcl.in

Description of task, e-tender submission format and procedure is provided in the tender document available on RECPDCL website (www.recpdcl.in), REC website (www.recindia.nic.in), e-tendering website (www.tenderwizard.com/REC), Central Public Procurement Portal (www.eprocure.gov.in).

Important Dates	
Date of Release of tender	20 .01.2017
Pre Bid Meeting	30.01.2017 at 11:00 Hours
Last date of submission of Bid	06.02.2017 up to 15:00 Hours
Date of Opening of Technical Bids	06.02.2017 at 16:00 Hours
Date of Presentation by technically qualified bidders	To be intimated later
Date of Opening of Financial Bids	

Note:

Online registration has to be done at e-tendering website i.e. www.tenderwizard.com/REC in general; activation of registration may take about maximum 24 hours subject to the submission of all requisite documents required in the process.

-Sd-
(S.C. Garg)
Addl. C.E.O.

[This document is meant for the purpose of engaging of agencies against this tender and should not be transferred, reproduced or otherwise used for purposes other than specified/issued.]

TABLE OF CONTENTS

S. No.	Section	Title	Page no.
1	SECTION -I	TENDER INFORMATION	3
2	SECTION-II	PREFACE & INTENT	4
3	SECTION-III	INSTRUCTIONS TO BIDDING	5
4	SECTION-IV	ELIGIBILITY CRITERIA	7
4	SECTION-V	DETAILED SCOPE OF WORK & CONDITIONS OF CONTRACT	8
5	SECTION-VI	BILL OF QUANTITY & TECHNICAL SPECIFICATIONS	12
6	SECTION-VII	GENERAL CONDITIONS OF BID	21
7	SECTION-VIII	BID EVALUATION METHODOLOGY	22
8	SECTION-IX	COMMERCIAL TERMS, CONDITIONS & OTHER PROVISIONS	23
9	ANNEXURE-I	LETTER FOR SUBMISSION OF BID	27
10	ANNEXURE-II	BIDDER'S GENERAL DETAILS	28
11	ANNEXURE-III	UNDERTAKING TOWARDS NOT BEING BLACK-LISTED	29
12	ANNEXURE-IV	BID BANK GUARANTEE (EARNEST MONEY) FORMAT	30
13	ANNEXURE-V	PERFORMANCE BANK GUARANTEE (PBG) FORMAT	32
14	ANNEXURE-VI	TECHNICAL BID (Part-A)	33
15	ANNEXURE-VII	TECHNICAL BID (Part-B)	34
16	ANNEXURE-VIII	FINANCIAL BID	35

SECTION-I

TENDER INFORMATION

NAME OF ASSIGNMENT:

Supply, Installation & Commissioning of 3 Nos. of Solar Powered Community Drinking Water centre comprising of following components:

- a) 3Hp Solar PV based DC Submersible pump,
- b) RO+UV based Water Purification Unit with output capacity of 1000LPH, accommodated in a structure based on Pre-Fab technology.

in 3 villages of Uttar Pradesh including operation and maintenance for a period of six months (6 months) after installation and commissioning as per the requirements of RECPDCL.

Important Information

S. No.	Event	Date/ Information	
1	Date of Release of Tender	20.01.2017	
2	Date of Pre-Bid Meeting	30.01.2017 at 11:00 Hours	
3	Venue for Pre-Bid Meeting	RECPDCL, 10th Floor, Devika Tower, Nehru Place, New Delhi	
4	Last date of submission of Bid	06.02.2017 up to 15:00 Hours	
5	Date of Opening of Technical Bids	06.02.2017 at 16:00 Hours	
6	Date of Presentation by technically qualified bidders	To be intimated later	
7	Date of Opening of Financial Bids		
8	Bid document	The Bid document can be downloaded and viewed from any of the website: www.recpdcl.in (or) www.recindia.nic.in (or) www.eprocure.gov.in (or) (www.tenderwizard.com/REC) at free of cost.	
9	Earnest Money Deposit (EMD)	All participating bidders have to submit EMD in original amounting to Rs.50,000/- (Rupees Fifty Thousand only) in the form of Demand Draft (DD) in favour of REC Power Distribution Company Ltd. payable at New Delhi (or) in the form of Bank Guarantee (bid bank guarantee) from a scheduled bank as per format of Annexure-III .	
10	Validity of Bid	180 days from the last date of bid submission	
11	Address for Bid Submission	Shri S. C Garg, Addl. Chief Executive Officer, RECPDCL, 10 th Floor, 1016-1023, Devika Tower Nehru Place, New Delhi-110019	
12	Contact Person	Shri L.B. Nautiyal, DGM (Civil), RECPDCL Phone:011-44128751; Fax:011-44128768 Email- co.delhi@recpdcl.in	Shri Sunil Bisht, Dy. Manager (Tech.), RECPDCL Phone:011-44128760; Fax:011-44128768 Email- co.delhi@recpdcl.in

SECTION-II

PREFACE & INTENT

About the Company:

REC Power Distribution Company Limited (RECPDCL) is an ISO 9001:2008 (Quality Management System), ISO 14001:2004 (Environmental Management System), OHSAS 18001:2007 (Occupational Health & Safety) Certified company and a wholly owned subsidiary of Rural Electrification Corporation Ltd. (REC), a “Navratna CPSE” under the Ministry of Power, Govt. of India.

Business Activities of RECPDCL:

RECPDCL is engaged in providing value added consultancy services in power sector arena covering Power Generation, 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, Project Management Consultancy (PMC) works, Detailed Project Report (DPR) preparation for R-APDRP/DDUGJY/RGGVY/NEF and other power project schemes, Third Party Inspection of DDUGJY/ RGGVY/other projects, 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.

Intent:

As a part of CSR activities, the tender is sought from the reputed agencies to setup 3 Nos. of Solar Powered Community Water Centre (CWC) for providing Safe Drinking Water to the residents of following villages of Uttar Pradesh:

- (1) Vill: Kaulapur, Post: Gopiganj, Bhadhohi District
- (2) Vill: Kaida, Post: Suriyaon, Bhadhohi District,
- (3) Vill: Chhattona, Post: Sarai Mamrej Vikas Khand ,via Pratap Pur, Allahabad District.

RECPDCL invites e-Tender from reputed agencies, having experience of similar works and financially sound bidders meeting eligibility criteria as per detailed prequalification conditions for carrying out the mentioned assignment.

Note: Bidder may visit the site before quoting the rate to get better idea of location, work place etc. However, in any case, it will be assumed that bidder has visited the site and understood all site conditions etc. for this work before submission of bid.

SECTION-III

INSTRUCTIONS TO BIDDING AGENCIES

SUBMISSION PROCESS OF BID DOCUMENTS:

A. Downloading & viewing of tender Document:

Bidders can download and view tender document from RECPDCL web site www.recpdcl.in (or) e-tender website www.tenderwizard.com/REC (or) REC website www.recindia.nic.in (or) Central Public Procurement Portal www.eprocure.gov.in at free of cost.

B. Participation through e-Bid Submission:

Bidders shall submit their bid documents online through website www.tenderwizard.com/REC

- 1) In order to participate in e-Bid submission, it is mandatory for agencies to have log-in User ID and Password. For this purpose, the agency has to register with REC PDCL through tender Wizard website as per procedure given below.

Steps for Online Registration:

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

Note:

- J While accessing tenderwizard.com website, please type 'REC' in capital letters only to get access of e-tender portal.
 - J Activation of On-Line registration may take about maximum 24 hours. It is the responsibility of the bidder to register in advance.
- 2) Please note that the agencies have to obtain digital signature token for applying the bid. Bidders may also obtain the same from Tender Wizard.

Steps for applying for Digital Signature from Tender Wizard:

Download the Application Form from the website <https://www.tenderwizard.com/REC>. Follow the instructions as provided therein. In case of any assistance, you may contact RECPDCL officials whose address is given in this tender document.

C. Submission of Bid Documents:

Submission of bids will be through online e-tendering mode only from www.tenderwizard.com/REC website.

Agencies should upload bid documents (scanned copies) as mentioned below. Online submission of bid documents is mandatory.

- 1) **Letter for Submission of Bid** has to be submitted on Company's letterhead duly signed and stamped as per format of **Annexure-I**. This is mandatory document for submission.
- 2) **Bidder's General Details** has to be submitted on Company's letterhead duly signed and stamped as per format of **Annexure-II**.

- 3) Undertaking towards not being black-listed has to be submitted duly signed and stamped as per format of **Annexure-III**.
- 4) **Earnest Money Deposit (EMD)** amounting to Rs.50,000/- (Rupees Fifty Thousand only) has to be deposited in the form of Demand Draft (DD) in favour of 'REC Power Distribution Company Ltd.' payable at New Delhi (or) in the form of Bank Guarantee (Bid Bank Guarantee) from a scheduled bank as per format **Annexure-IV**. Scanned copy of DD or BG has to be uploaded and *original of DD or BG has to be submitted before last date & time of submission of bid*. Exemption for payment of EMD amount will be given to Micro, Small & Medium Enterprises (MSMEs) registered with National Small Industries Corporation Ltd. (NSIC). However, relevant valid document/ Certificate from NSIC or Ministry of MSMEs, Govt. of India is required to be submitted without which bidders are not entitled for exemption.
- 5) **Technical Bid (Part-A)** has to be submitted **through online** mode as per format of **Annexure-VI** by specifying Specification, Make, Model, unit, quantity of all bill of items that will be used in the project.
- 6) **Technical Bid (Part-B)** has to be submitted **through online** mode as **Annexure-VII** by details layout plan for proposed Solar Powered Community Water Centre.
- 7) **Financial Bid** has to be submitted **through online** mode as per format of **Annexure-VIII**.
- 8) **Complete set of the Bid document** duly signed and stamped on each page has to be submitted as token of acceptance of its contents.

Note:

All the documents, which are to be submitted in original, shall be kept in an envelope with subject mentioning "Bid Documents for Implementing Agencies for Setup of Solar Powered Community Water Centre (CWC)" on the top of envelope and addressing to:

**Addl. Chief Executive Officer,
REC Power Distribution Company Ltd.,
10th Floor, 1016-1023,
Devika Tower, Nehru
Place, New Delhi –
110019**

In case sealed Financial Bid is submitted in hard copy, it will be returned to the bidder unopened at the time of opening of bids.

SECTION-IV
ELIGIBILITY CRITERIA

S.	Minimum Qualification Criteria	Documents Required
1	Bidder should be a company/Construction Agencies /NGO/ Manufacturer/Registered body.	Certificate of Incorporation issued by Govt of India/ State Govt. In addition to above PAN details and applicable VAT/ Service Tax number also be submitted.
2	Bidder's average annual turnover for last three financial years (FY 2015-16, 2014-15, 2013-14) should be at least Rs.35 Lakhs.	Audited balance sheet of last three FY 2015-16, 2014-15, 2013-14 is to be submitted with summary as cover page on company's letterhead.
3	<p>The agency should have been in operations on similar works of installation of Water purification Unit of minimum capacity ranging from 500 LPH or Solar PV pumps installation of capacity more than 1Hp for drinking/irrigation purpose or turnkey project execution of community water centre in India during last seven years ending last day of month previous to the month of floating of tender for Government/ PSU/ Corporate/Registered body and above, having minimum contract value as:</p> <p style="text-align: center;">Single work of minimum Rs.40 Lakhs or Two works of minimum Rs.25 Lakhs or Three works of minimum Rs.20 Lakhs.</p>	<p>Bidder should submit copy of Work Order(s) (mandatory) and any one document from list below:</p> <ol style="list-style-type: none"> Payment receipts/Proof of release of performance security after completion of the contract Proof of settlement/release of final payment against the contract Certificate for successful completion of work/ Performance report by the client.
4	<p>The bidder should have experience of the following works during last 5 (Five) years up to the date of submission of tenders.</p> <p>Project Execution</p> <ol style="list-style-type: none"> UV Reverse Osmosis Water Purification Technology: - Execution and successful installation & commissioning of minimum ONE plant capacity not less than 500 LPH with Community based Drinking Water Centre with any registered body in India. Experience in at least 10 solar PV pumps installation in Community based Drinking Water Centre. 	Certificate for successful completion of work/ Performance report by the client.
5.	Bidder should not be blacklisted by any Central/ State Government/ Semi Government/ Public Sector Undertaking.	Bidder should submit an undertaking in this regard as per format of Annexure-III .

Note:

- The "community based" means those plants which have been provided to serve common people either by collecting nominal cost or through intense IEC activities.
- The experience of (Execution, Commissioning and O&M) of rural community & Kiosk water purification plants can be against single work order or separate work orders taken together.
- The experience certificate certified by Competent Authority to be submitted as proof of experience.

SECTION-V

DETAILED SCOPE OF WORK & CONDITIONS OF CONTRACT

The agency shall be responsible for turnkey execution of the project of Community Drinking Water Centre in the above-mentioned 3 villages of Uttar Pradesh and its maintenance for a period of 6 months based on Build-Operate-maintain model. The detailed scope of work shall comprise of following components:

- A. RO+UV based 1000 LPH Water Purification Unit and construction of a pre-fabricated based shelter for accommodating the unit.
- B. 3Hp DC Submersible Solar PV Pump for supply of raw water for purification unit.
- C. General
- D. Conditions of Contract

A. 1000 LPH RO+UV Water Purification Unit & Pre-fab structure for accommodating the unit.

- a) Supply, installation & commissioning of water purification plant having total average purified water output rating of 1000 LPH (liters per hour) and equipped with RO+UV (treatment +disinfection) system with latest technological improvisation for trouble free operation and maintenance/ warranty life of about 5 years need to be installed. A indicative/tentative details of the purifier are given in **Section-VI** of this tender.
- b) Construction of a shelter based on Pre-fab technology to accommodate the Water purification plant is to be done by the Agency in accordance with the technical details provided in **Section-VI** of this tender.
- c) All arrangement at site involving transport of material at site, required tools, labor work, engagement of labor, civil construction work etc. and all other required work for successful execution of the project. The cost of the building to be quoted in the Financial Proposal should cover all the expenses required to be made for the aforesaid items.
- d) After completion of the civil construction the Water Purification Unit shall be installed.
- e) The agency has to ensure primarily that safe drinking water as per WHO standard is made available to the end consumers.
- f) The supplier shall have to install the water purification system with required pipeline connection on either side of the purification unit including required plumbing and connections with the system.
- g) The capacity of the purification system shall be the capacity of treated product water in 1000 Liters per hour (LPH).
- h) The bidder shall ensure that the water purification system based on specified technology should not pose any threat/danger to the life of villagers/beneficiaries.
- i) Electric power supply service connection from the available village distribution network shall be done by the Agency.
- j) Collaboratively work and execute with the support of Gram Panchayat or related recognized body.
- k) Work for CWC will commence within 30 days of the agreement being signed with Gram Panchayat or related recognized body.
- l) In order to provide hassle free safe drinking water the RO plant has to have 2 Nos. of Storage Tanks (1 Sintex tank for raw water storage, 4000 liter and 1 triple coated Sintex tank/SS tank for treated water storage, 2000 liter) in each village Total of 06 Nos. in 3 villages) with adequate

outlet points with taps dispensing water at easily accessible to a normal adult from ground level to be provided and cleaning is to be scheduled fortnightly without fail and compliance report duly verified by the Operators/Gram Panchayat/responsible agency has to submit along with the water quality report. Any deviation will attract a penalty.

- m) After installation of the plant, CWC will be ready to supply purified water to the Villagers.
- n) The laminated water cards having more than paper quality of 150 GSM will be issued for families by the agency to pay a minimum amount every month for sustainability of the CWC.
- o) The agency has to train at least 3 villagers (will be known as Operators) each from the above mentioned 3 villages i.e. a total of 9 villagers, so that they can carry out normal and smooth operation of RO plant and she/he will also be taught basic accounting.

B) 3Hp DC Submersible Solar PV Pump for supplying raw water for purification unit:

- a) Supply, Installation and Commissioning of complete 3 Hp DC Submersible Solar PV Pumping System comprising of SPV modules, Motor control unit, Remote Monitoring, DC Submersible Pump, Mounting Structure, Tracking, Cables, HDPE Pipe etc. as per MNRE Specifications, inclusive of Insurance/Warranty for 5 years. The detailed technical specification is provided in **Section-VI**.
- b) Checking of selected bore well / Tube well for having sufficient yield. In case, the bore-well/tube well is not fully functional/improper/un-available, a new bore well/tube well need be installed by the agency near the CWC site upto a minimum depth of 250 ft. or more as the case may be depending on the site for proper availability of water at all seasons.
- c) Collection of all relevant site data which could be required for proper designing and successful layout, installation & commissioning of the system.
- d) Supply and transportation of all required material, components, device, subsystems and equipment to the site and arrangement of safekeeping and storing them at site.
- e) All the Civil work for PV poles and foundation and platform for Pedestal works related with installation, commissioning of system.
- f) All arrangement at site, required tools, labor work, engagement of labor, civil construction work etc all other required work for successful implementation.
- g) All pumping and plumbing required for interlinking the output of the pump and raw water tank. The piping may be done underground for better aesthetics and longer durability. Necessary alarming system to be provided to indicate when the raw water tank is full.
- h) Supply/installation of all essential sign boards, markers and all essential and required documents and manuals clearly explaining the operation and maintenance and trouble shooting of various portion of the system in English as well as in Hindi language.
- i) Impart necessary training during installation commissioning and after commissioning of the plant to the technicians/users in fault diagnosis and fault repair.

C. General

- a) The agency shall take all the required clearances/documentation from the Gram Panchayat for the project site/ area in co-ordination with the RECPDCL officials.
- b) Submit a detailed work plan for the execution of the project.

- c) Carry out all the required civil work including piping , plumbing, interconnection between Solar PV Pump to Raw water tank to Water purification unit and finally water tap points for clean water or any other required activities for completion of the project to the satisfaction of RECPDCL.
- d) All civil work to be done with clear layout maintaining quality and durability to the satisfaction of RECPDCL.
- e) The agency is responsible for execution and maintenance of the project for 6 months after installation and commissioning (Build - Operate - Maintain model) i.e. trained person to be deployed at the site for six months for complete operation of CWC.
- f) Gram Panchayat shall submit quarterly report to RECPDCL on the progress and achievements vis-à-vis stated objectives. Payment can be made as advance or reimbursement basis on submission of related document.
- g) In 6 months time it is expected that enough user charge will begin to come for salary of caretakers and maintenance of CWC.
- h) The project will be owned by RECPDCL during the contract period of 1 year. The operator will function as licensee on payment of user charges by beneficiary. The user charges shall be mentioned by RECPDCL at the time of commissioning.
- i) The above model is based on partnership between RECPDCL and local community by involvement of Village Panchayats and local bodies and after the project period is over it will handed over to Panchayat or the Community for the further operation.
- j) After the installation and complete handover of Solar Powered Community Water Centre, the agency is required to carry out all kind of maintenance work necessary for safe and smooth operation of same water centre for warranty period of minimum 5 years duration, which includes men and all kind of material as required.
- k) The agency shall install 2 signboards at the project site will details of the CSR project work of RECPDCL.

D. Conditions of Contract:

- 1. Work Completion Period:** Work completion period for Supply, Installation, Testing & Commissioning of Solar Powered Community Water Centre at 3 Villages of Uttar Pradesh is 90 days from the date of LoA.
- 2. Insurance:** The bidder shall be responsible and take an Insurance Policy for transit-cum-storage-cum-erection for all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, installation, testing, commissioning and associated warranty. The bidder shall also take appropriate insurance during Comprehensive On-site Maintenance/Warranty period of 5 years from date of handover. The bidder shall also take insurance for Third Party Liability covering loss of human life, engineers & workmen and also covering the risks of damage to the third party/ material/ equipment/ properties during execution of the contract. Before commencement of the work, the bidder will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of bidder.
- 3. Warrantees and Guarantees:** The bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. **Complete Solar Powered Community Water System shall be covered under comprehensive warranty for a period of five year from the date of handover to the respective Panchayat.** Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended on immediate basis but in no case any defect should prolong for more than 48 hours. The comprehensive warranty includes onsite warranty with parts.

- 4. Type & Quality of Materials and Workmanship:** The design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards. The specifications of the components should meet the technical specifications mentioned in **Section-VI**. The bidder without any extra cost and within the time schedule shall provide any supplies which have not been specifically mentioned in this contract but which are necessary for successful & smooth running of the Solar Powered Community Water Centre.
- 5. Coordination & Progress Report:** Bidder shall inform the name, address, contact number of the Nodal Officer(s), assigned by the agency to execute the work, who will report about their daily progress & performance of the assignment. In case, absence of any information is adversely affecting the progress of work, the issue could be escalated to Addl. CEO, RECPDCL. Bidder shall submit the progress report daily/ weekly to RECPDCL in Prescribed Proforma as desired. RECPDCL will have the right to depute its representatives to ascertain the progress of contract at the premises of works of the bidder or at site.
- 7. Project Inspection/PDI:** The work will be inspected for quality at any time during commissioning or after the completion of work by either officer from RECPDCL or any authorized agency / experts. RECPDCL may also conduct the pre-dispatch inspection of major items like (Purifier, solar equipments etc.) at manufacturer premises by RECPDCL itself or by third party.

Note: Note: RECPDCL reserves right to add/delete/modify the scope of work as per requirement of the project.

SECTION-VI

BILL OF QUANTITY & TECHNICAL SPECIFICATIONS

A. 1000 LPH RO+UV Water Purification Plant

The plant need to be designed based on 1200 TDS and 800 ppm raw water hardness.

System Operating Data:

The followings are the technical specification for the equipment supply for drinking water treatment Plant.

1. RAW WATER PUMP

(To feed the dual media filter pressure more than 2.0 bar, which is min. operating pressure for filter.)

- (a) MOC:CI
- (b) Type: horizontal centrifugal
- (c) Flow rate: 1500 liters per hour
- (d) Head: 35 m
- (e) Power required: 1.5 Hp
- (f) Electrical: 220rpm
- (g) Make CRI/Kirloskar
- (h) Quantity: 1No

2. DUAL MEDIA FILTER

(TO remove the total suspended solids, dirt iron and reduce silt density index, which can foul the membranes)

Vessel:

- (a) Make: Aventura, Pentair
- (b) Material of construction: FRP
- (c) Diameter: 13''
- (d) Height: 54''
- (e) Testing pressure: 10Kg/cm²
- (f) Opening: top only
- (g) Quantity: 1No

Valve:

- (a) Make: Initiative, India
- (b) Material of construction: Noryl
- (c) Type: Multiport Single lever valve
- (d) Size: 1.0 inches
- (e) Maximum Flow Rate: 6,000 LPH
- (f) Working pressure: 2-4 Bar
- (g) Working: Down-Flow

Media:-

Mixed bed sand media consisting of the following :- Pebbles, Quartz Sand, Anthracite average porosity 50 micron particulate size Bed depth: 600mm

3. ACTIVATED CARBON FILTER

(To remove the total color, smell, odor, from the water)

Vessel

- (a) Make: Aventura, Pentair
- (b) Material of Construction: FRP
- (c) Diameter: 13''
- (d) Height: 54''
- (e) Testing Pressure: 10 kg/cm²
- (f) Opening: Top only
- (g) Quantity: 1 No

Valve:

- (a) Make: Initiative, India
- (b) Material of construction: Noryl
- (c) Type: Multiport single lever valve
- (d) Size: 1.0 inches
- (e) Maximum flow rate: 6000 LPH
- (f) Working pressure: 2-4 bar; Working: down-flow

Carbon:

Mixed bed sand media consisting of the following- Gravel, Pebbles, Carbon

Average porosity 50 micron Particulate size

4. Dosing system (if required)

(To dose antiscalant chemical to protect the scaling formation on RO Membranes)

- (a) MOC: PP
- (b) Capacity: 5LPH
- (c) Pressure: 7 Bar
- (d) Qty: 1No.
- (e) Make: Etatron, are equiv. Italy

5. MICRON FILTER

(To remove the fine particles up to 5 micron and reduce silt density index levels to acceptable level.)

Cartridge filter & Housing**Hosing:**

- (a) Make: India
- (b) MOC of Housing: pp
- (c) Length: 20"
- (d) Diameter: 4.5"
- (e) Cartridge: Quantity 1no
- (f) Make filtration
- (g) Cartridge MOC: Polypropylene
- (h) Length: 20"
- (i) Diameter: 2.5"
- (j) Quantity: 1no.
- (k) Micron rating: 05micron

6. HIGH PRESSURE PUMP

(To feed the Reverse Osmosis Membrane at pressure more than the osmotic taking into consideration flux rate, flow and recovery.)

- (a) MOC: Stainless Steel
- (b) Type: Vertical Multistage
- (c) Flow rate: 1500 liters per hour
- (d) Head: 110 mwc
- (e) Power Required: 2Hp
- (f) Electrical: 220rpm
- (g) Cycle: 2900rpm
- (h) Make: CRI, equiv To Denmark, Raj, Sumo
- (i) Quantity: 1No

7. REVERSE OSMOSIS MEMBRANE

(To remove the major part of TDS upto 98% by Reverse Osmosis Membrane arranged and designed to give adequate flow and recovery)

- (a) Type: Spiral Wounded
- (b) Diameter of Membranes: 8.0 inch
- (c) Length of membrane: 1 Mt.
- (d) Make: Hydranautics, CSM
- (e) System Recovery: 35%

8. REVERSE OSMOSIS PRESSURE TUBE

(To pack Reverse Osmosis Membrane and operate at high pressure up to 300psi

- (a) MOC: FRP Composite
- (b) Diameter of pressure Vessel; 8.5 inch
- (c) Length of pressure Vessel: 1.2m
- (d) No. Pressure Vessels: 1
- (e) No. of Membrane per Vessels: 1
- (f) Make: Imported
- (g) Positive: Horizontal, Series; Arrays: 1 No.

9. REVERSE OSMOSIS CLEANING SYSTEM

(We provide flushing system, which shall help to clean the membrane and get rid of the foulants that get deposited on the membrane.)

- (a) Flushing Time: 15minutes
- (b) Flushing media: Treated Water/ chemical
- (c) Flushing pump: Raw water pump will be used
- (d) Semi automatic with ball valves operation

10. ELECTRONIC PANEL

(A Control panel is provide as a safety measure for the pumps & other electrical items.)

Stator Button For Pump

11. INSTRUMENTATION

- (a) Flow Meter : To measure the online flow of water

Type: Float type.

M.O.C. : Acrylic

Range (0 – 2,000 Lph) : 1 Nos.

Range (0 – 2,000 Lph) : 1 No

- (b) Pressure Gauges: For Calculator ΔP for each unit in Reverse osmosis System

Pressure Gauges:

Qty: 2 Nos.

Range: 0-7 Bar

Dial Size: 2 inches

Type: Bourdon

Make: Gluck/ Guru, India.

12. PLUMBING AND FITTING

- (a) Valves, Pipelines before Reverse Osmosis module is in UPVC (16 bar tested) and ss304 after HPP: till the permeate line termination point.
- (b) The system will be common SS base frame

B. 3Hp DC Submersible Solar PV Pump.

Indicative Technical Specifications of Solar Deep well (submersible) Pumping Systems: With D.C. Motor Pump Set with Brushes or Brush Less D.C. (B.L.D.C.) as per MNRE guidelines is as follows:

Description	Model –IV
PV Array	3000Wp
Motor capacity	3Hp submersible with Controller
Shut Off dynamic head	75 mtrs
Water Output**	63000 litres per day of total head of 50 meters

*** However, the bidder may recommend for suitable specification based on the site conditions and submitted to RECPDCL for further confirmation before installment.*

The detailed technical specifications of various components of Solar PV Water pumping system as mentioned below and is based on the MNRE guidelines and be strictly adhered to:

A Solar Photovoltaic (SPV) Water Pumping System consists of:

PV Array:

- Capacity of **3000 Wp Solar panel** be used for **“Drinking Water Applications”**.
- PV Array should be mounted on a suitable structure with a provision of tracking the sun.

Motor Pump Set (Surface or submersible):

- D.C. Motor Pump Set (with Brushes or Brush less D.C.)

Electronics:

- Maximum Power Point Tracker (MPPT)
- Appropriate Electronic Controller
- Electronic Protections.
- Interconnect Cables and
- On-Off switch.

I. PERFORMANCE SPECIFICATIONS AND REQUIREMENTS

- Solar PV Water Pumps with PV module capacity of 3.0KWp be installed on a suitable bore-well / open well / Water Reservoir / Water stream etc.
- Under the “Average Daily Solar Radiation” condition of 7.15 KWh / sq.m. on the surface of PV array (i.e. coplanar with the PV Modules), the minimum water output from a Solar PV Water Pumping System at different “Total Dynamic Heads” should be as specified below:

The actual duration of pumping of water on a particular day and the quantity of water pumped could vary depending on the solar intensity, location, season, etc.

II. PV ARRAY

- The SPV water pumping system should be operated with a PV array capacity of **3000 Watts peak**, measured under Standard Test Conditions (STC). Sufficient number of modules in series and parallel could be used to obtain the required PV array power output. The power output of individual PV modules used in the PV array, under STC, should be a minimum of 125 Watts peak, with adequate provision for measurement tolerances. Use of PV modules with higher power output is preferred.

- Indigenously produced PV module (s) containing mono/ multi crystalline silicon solar cells should be used in the PV array for the SPV Water Pumping systems.
- Modules supplied with the SPV water pumping systems should have certificate as per IEC 61215 specifications or equivalent National or International/ Standards.
- Modules must qualify to IEC 61730 Part I and II for safety qualification testing.
- The efficiency of the PV modules should be minimum 14% and fill factor should be more than 70%.
- The terminal box on the module should have a provision for “Opening” for replacing the cable, if required.
- There should be a Name Plate fixed inside the module which will give:
 - a. Name of the Manufacturer or Distinctive Logo.
 - b. Model Number
 - c. Serial Number
 - d. Year of manufacture

III. MOTOR PUMP-SET

The SPV water pumping systems be surface mounted motor pump set.

The “Motor Pump Set” shall be of a capacity in the range of 3Hp and should have the following features:

- The mono block DC centrifugal motor pump set with the impeller mounted directly on the motor shaft and with appropriate mechanical seals which ensures zero leakage.
- The motor of the capacity of 3hp should be PMDC or BLDC type. The suction and delivery head will depend on the site specific condition of the field.
- *It is recommended that all parts of the pump and the motor of the submersible pumps should be made of stainless steel.*

The manufacturers of pumps should self-certify that, the pump and ***all external parts of motor used in submersible pump which are in contact with water, are of stainless steel.*** The pumps used for solar application should have a 5 years warranty so it is essential that the construction of the pump be made using parts which have a much higher durability and do not need replacement or corrode for at least 5 years.

Provision for remote monitoring of the installed pumps must be made in the controllers either through an integral arrangement or through an externally fitted arrangement. It should be possible to ascertain the daily water output, the power generated by the PV array, the UP TIME of the pump during the year, Number of days the pump was unused or under breakdown/repairs.

- The following details should be marked indelibly on the motor pump set
 - a) Name of the Manufacturer or Distinctive Logo.
 - b) Model Number.
 - c) Serial Number.
- The suction/ delivery pipe (GI/HDPE), electric cables, floating assembly, civil work and other fittings required to install the Motor Pump set.

IV. MOUNTING STRUCTURES and TRACKING SYSTEM.

- The PV modules will be mounted on metallic structures of adequate strength and appropriate design, which can withstand load of modules and high wind velocities up to 150 km per hour. The support structure used in the pumping system should be hot dip galvanized iron with minimum 80 micron thickness.
- To enhance the performance of SPV water pumping systems, manual or passive or auto tracking system **must** be used. For manual tracking, arrangement for seasonal tilt angle adjustment and three times manual tracking in a day should be provided.

V. ELECTRONICS AND PROTECTIONS

- Maximum Power Point Tracker (**MPPT**) should be included to optimally use the Solar panel and maximize the water discharge.
- Controller for BLDC motor driven pumps, if required be used. The controller must have **IP 54** protection or must be housed in a cabinet having at least IP 54 protection.
- Adequate protections should be incorporated against dry operation of motor pump set, lightning, hails and storms.
- Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

VI. ON/OFF SWITCH

A good reliable switch suitable for DC use is to be provided. Sufficient length of cable should be provided for inter-connection of the PV array, Controller / Inverter and the motor pump set.

VII. WARRANTY

- The PV Modules must be warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- The whole system including surface pumps shall be warranted for 5 years. Required Spares for trouble free operation during the Warrantee period should be provided along with the system.

VIII. OPERATION AND MAINTENANCE MANUAL

- An Operation and Maintenance Manual, in English and the local language, should be provided with the solar PV pumping system.
- The Manual should have information about solar energy, photovoltaic, modules, DC/AC motor pump set, tracking system, mounting structures, electronics and switches.
- It should also have clear instructions about mounting of PV module, DO's and DONT's and on regular maintenance and Trouble Shooting of the pumping system. Name and address of the person or Centre to be contacted in case of failure or complaint should also be provided.
- A warranty card for the modules and the motor pump set should also be provided to the beneficiary.

NOTES

- The type of pump set used must match the total dynamic head requirement of the site (i.e. the location at which it is installed). Moreover, it should be appropriately tested and certified by the authorized test centers of the Ministry to meet the performance and water discharge norms specified above.

There should not be any compulsion to use only one or the other type of Motor-pump set. The beneficiary may select an appropriate Model (i. e. Capacity of PV Array and Type of Motor Pump Set) as per site requirement.

C. Building to Accommodate the Community Water Center:

Indicative details for construction of the building to accommodate the Water Purification Unit (1 no. in each village and a total of 3 nos.) is as follows:

S. No	Description of items	Unit	Qty.
1	Supplying fitting fixing sandwich panels of 50mm thick in walls with 1 coat of primer. Panels will be inserted to 1 mm thick GI Channels of 40mm x 50mm x 40mm with anchor fasteners/screws etc complete	sqm	250
2	Supplying, fitting and fixing of 50 x 50 x 6 mm MS Angle chookath with one coat primer and two coats painting etc. complete	kg	160
3	Supplying fitting and fixing of 25mm thick Flush Door shutter with BWP ply with iron fittings and wooden hinged cleats including all cost of materials, labour, T&P etc. complete. (one double door, 4 single door)	sqm	20
4	Labour for fixing of Aluminium Semi Corrugated Colour Sheet of 4mm thick in roof drilling holes in wind ties including fixing of ridges and valleys etc. complete.	sqm	95
5	Supplying ,fitting ,fixing up window (sliding type) made up powder coated aluminium section 151-154,151-155,151-153,and 151-167 as shutter frame with 5mm thick plane glass as panel fitted with rubber beading including locking arrangement and Aluminium Jally with frame including all fitting, cost of materials all taxes etc. complete as per direction of EIC	sqm	1.5
6	Earthwork in hardy earth & gravel mixed with stone and boulder not exceeding 0.014 cum in volume in F&P within 50mtr initial lead and 1.50 mtr initial lift etc. complete.	100 cum	100
7	Supplying all materials, labour, T&P and providing Cement Concrete (1:3:6) using 4cm size metal with well, watering and ramming and curing etc. (Below brickwork and shelter foundation) complete	cum	45
8	Supplying all materials, labour, T&P and providing KB brick masonry in cement mortar (1:4) in superstructure etc. complete.(For boundary work, water tank and shelter foundation)	cum	40
9	Earth filling from outside by mechanical carriage within 5km lead with loading and unloading and dressing & levelling the bed etc. complete.	cum	100
10	Supplying all materials, labour, T&P and providing and laying Cement Concrete(1:1.5:3) using 12mm size BHGCB chips with well watering and curing including all cost conveyance of materials, labour, taxes etc. complete	cum	4
11	Supplying, fitting and fixing of vitrified tiles of premium grade in floors of size 600 x 600mm over 25mm bed of CM (1:1) jointed with neat cement slurry mixed with pigment to match the shade etc. complete	sqm	110
12	Supplying, fitting and fixing of Red & Blue colour Pre-Cast M-30 grade interlocking 80mm thick concrete paver blocks of standard size/shape/colour over sand bed of required thickness, compaction with compactor-cum-vibrator machine and four side RCC guard wall for side supporting the detailed specification will be given by the EIC) etc. complete	sqm	100
13	Supplying, fitting and fixing of MS Angle Iron Frame grill gate made of MS Flat with one coat priming and two coats painting including all cost of materials, labour, T&P, and taxes etc. complete.(2 gates of MS pipe in the boundary area)	kg	400

SECTION-VII
GENERAL CONDITIONS OF BID

1. Each bidder should submit **ONLY SINGLE** bid.
2. Consortium/ Joint Venture Firm are not allowed to participate in this tender.
3. The bidder shall ensure that deputed personnel are trained and experienced for jobs as defined in scope of work for ensuring the high quality and correctness of jobs and to be carried out in a highly professional, safe, and sound managerial manner.
4. RECPDCL reserves the right to accept or reject any or all Bid requests without assigning any reason. RECPDCL reserves the right to waive off any shortfalls; accept the whole, accept part of or reject any or all responses to this tender.
5. RECPDCL reserves the right to cancel the Bid at any stage and call for fresh tender and RECPDCL reserves the right to modify, expand, restrict, scrap, re-float the tender without assigning any reason for the same.
6. The responder shall bear all costs associated with the preparation and submission of its Bid and RECPDCL will in no case be responsible or liable for these costs, regardless of the conduct or the outcome of the tender process.
7. Bidder has to specify Make, Model, Specification, unit and quantity of all Bill of Material (BOM) items and components in Technical Bid format.
8. All components of Bill of Material (BOM) should be as per latest IS/IEC standard as applicable. Relevant documents shall be submitted to RECPDCL in this regard.
9. In case of supply of any defect material or substandard material, the materials will be rejected & it will be the responsibility of the vendor for taking back & replacing the rejected materials at their own cost.
10. The supplied materials should be strictly as per specifications mentioned in the tender; otherwise the material would be liable for rejection.
11. Validity of Bid shall be 180 days from last date of bid submission. The validity can be further extended as per requirement of RECPDCL.
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. No price escalation is applicable on account of any statutory payments increase or fresh imposition of custom duty, excise duty, sales tax or duty leviable in respect of the major components of the system.
14. EMDs received late due to any reason including postal delay will not be considered.
15. Bidder's quoted rates should be firm and fixed. No price variation and escalation will be allowed.
16. Bids must be submitted in English language only and incomplete, telegraphic or conditional tenders are not accepted.
17. Canvassing in any manner is strictly prohibited. The same will lead to rejection of the submitted bid.
18. The bidders shall quote reasonable price for items of financial bid (Annexure-VIII).
19. RECPDCL reserves the right to withdraw the work & get it completed at the risk & cost of the agency, if performance of the agency is unsatisfactory, to whom work has been awarded. Further, the said agency may be black-listed for a period of one year or more for participating in any of the bids invited by RECPDCL. Also, RECPDCL would be free to intimate such black-listing to various state/central utilities/ Ministry of Power/ State Governments/ Other agencies not to consider the said agency for any assignment including of the same on websites.
20. Any or all Bids may be rejected or accepted partially or fully without assigning any reason thereof by Chief Executive Officer, RECPDCL.
21. Bidders are requested to watch out RECPDCL website for change of events/additional information from time to time.

SECTION-VIII

BID EVALUATION METHODOLOGY

Stage- 1: OPENING OF TECHNICAL BID:

Opening of technical bids will be through online mode only.

- i. Bidders have to submit documents as per **Section-III**, Clause-C (Submission of Bid Documents).
- ii. Bids duly submitted, will be opened on the date and time indicated in this document in the presence of bidders or their authorized representatives who desire to present.
- iii. If due date of receipt / opening of bids happens to be a closed holiday, the bids would be received and opened on the next working day.
- iv. REC PDCL reserves the right to postpone and/or extend the date of receipt/opening of Bids or to withdraw the Tender notice, without assigning any reason thereof. In any such cases, the bidders shall not be entitled to any form of compensation from the Company.
- v. RECPDCL will scrutinize the technical bid documents submitted by the bidders and shortlist the bidders who qualify based on Eligibility Criteria, Technical Specifications and Terms and Conditions of this tender document.

Stage- 2: PRESENTATION BY TECHNICALLY QUALIFIED BIDDERS:

- i. Such technically qualified bidders shall be required to make a PPT/presentation including the below mentioned areas:-
 - a) Strategy for the assignment work plan with timelines, details of methodologies proposed to be followed by agencies.
 - b) Experience on the successfully completed assignments of similar nature, list of assignments completed along with experience.
 - c) Qualification and experience of key staff.
 - d) Civil and Technical layout of Complete Community water center including Solar PV Pumping system, Water purification unit and pre-fab based structure to accommodate the same.

Stage- 3: OPENING AND EVALUATION OF FINANCIAL BID:

Opening of financial bids will be through online mode only.

- i. Financial Bids of technically and PPT/presentation round qualified bidders will be opened as per scheduled date & time in the presence of bidders or their authorized representatives who desire to be present.
- ii. Bidder is requested to quote either percentage Discount or percentage hike on total value mentioned in the financial bid format (Annexure-VIII)
- iii. Price Bids (Financial Bids) of Bidders whose EMDs received in original (DD or BG) within due date/time will only be opened. Rest of the Financial bids without submission of requisite EMDs in original (DD or BG) within due date/time will not be opened.
- ii. If due date of opening of Financial Bids happens to be a closed holiday, the bids would be received and opened on the next working day.
- iii. REC PDCL reserves the right to postpone and/or extend the date of receipt/opening of Financial Bids or to withdraw the tender notice, without assigning any reason thereof. In any such cases, the bidders shall not be entitled to any form of compensation from the Company.
- iv. Bidders have to quote as per financial bid format (Annexure-VIII) indicating all taxes & duties.
- v. Financial bids will be evaluated based on total price quoted by the bidder.

SECTION-IX

COMMERCIAL TERMS, CONDITIONS & OTHER PROVISIONS

1. RATE:

1.1 Bidders have to quote as per financial bid format (Annexure-VIII) indicating all taxes & duties. Financial bids will be evaluated based on total price quoted including Supply, Installation, Testing and Commissioning of Solar Power Community Water Centre with output capacity of 1000LPH including operation and maintenance for a period of six months (6 months) after installation and commissioning in the State of Uttar Pradesh as per the requirements of RECPDCL. At the time of release of payment to the bidder, TDS/WCT/Labour cess will be deducted as the case may be.

1.2 If it is found that the tax quoted is higher than the applicable tax, in that case applicable taxes will only be paid by RECPDCL and if the tax quoted is lower than the applicable tax, in that case only the quoted taxes will be paid by the RECPDCL.

1.3 In case of implementation of GST/New taxation policy etc. such taxes will be payable as per prevailing laws.

1.4 Rate quoted by the bidder shall remain firm & fixed and shall be binding on the Successful Bidder till completion of work irrespective of actual cost of execution of the project.

1.5 No escalation in rate quoted by the bidder will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.

1.6 The offer must be kept valid for a period of 180 days from the last date of bid submission. No escalation clause would be accepted. The validity can be further extended as per requirement of RECPDCL.

2. PAYMENT TERMS:

All payments would be claimed by the agency from RECPDCL on being due, and would be accepted for payment by Competent Authority of RECPDCL based on the satisfactory progress, quality of the work, actual executed work and measurement book in sole discretion of RECPDCL. The payment to the agency under the contract shall be released after achieving the milestones as per the following terms:

Sl. N	Milestones	Payment
(i)	On completion of all the works of Pre-fab structure for accommodating in all the units as per scope of work and technical specification mentioned in the tender/sanction letter/Work order in all the 3 villages to the satisfaction of RECPDCL	30% of total cost of sanctioned amount
(ii)	On completion of all balance works like installation and commissioning of 3Hp DC Submersible Solar PV Pump for supplying raw water for purification, installation and commissioning 1000 LPH RO+UV Water Purification Unit in each village (Total Three Units) and successfully running of complete Solar Powered Community Water Centre in each village to the satisfaction of RECPDCL	40% of total cost of sanctioned amount
(iii)	After six months of commissioning, maintenance/operation and handing over to the respective Gram Panchayat in each village.	20% of total cost of sanctioned amount
(iv)	Yearly payment after completion of maintenance/warranty for that year(subjected to submission of a letter of satisfaction from concerned Panchayat)	2% of total of sanctioned amount (2%*5 = 10%)

3. EARNEST MONEY DEPOSIT (EMD):

- i. The Bidder shall furnish Earnest Money Deposit in original @Rs.50,000 (Rupees Fifty Thousand only) in the form of Demand Draft/ Bank Guarantee (BG) from a scheduled bank (as per Annexure-IV) drawn in favour of REC Power Distribution Company Ltd.' payable at New Delhi.
- ii. In case of inadequacy or non-submission of EMD amount, the tender shall be deemed to be disqualified and summarily rejected in the technical evaluation.
- iii. The initial validity of EMD shall be for a period of 180 days from the last date of bid submission.
- iv. The validity of EMD shall have to be suitably extended, if necessary, as per requirement of RECPDCL, without which the tender /work order shall be rejected.
- v. Request for adjustment of Earnest Money Deposit against any previous dues with RECPDCL will not be considered.
- vi. EMD will be refunded to the unsuccessful bidders within 30 days after finalization of the tender without any interest.
- vii. EMD of successful bidder will be returned after acceptance of work order and submission of required Performance Bank Guarantee (PBG) within 10 days from the date of LOA.
- viii. Exemption for payment of EMD amount will be given to Micro, Small & Medium Enterprises (MSMEs) registered with National Small Industries Corporation Ltd. (NSIC). However, relevant valid document/ Certificate from NSIC or Ministry of MSMEs need to be submitted without which bidders are not entitled for any kind of exemption.
- ix. The EMD shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to RECPDCL under following circumstances:
 - a. Hundred percent (100%) of EMD amount, if a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner during the period of Bid Validity specified in the tender document.
 - b. Hundred percent (100%) of EMD amount, if the Successful Bidder fails to unconditionally accept LOA within 5 days from the date of its issue.
 - c. Hundred percent (100%) of EMD amount, if the Successful Bidder fails to furnish the Performance Bank Guarantee as specified in the tender document.

4. PERFORMANCE BANK GUARANTEE (PBG):

- i. Within 10 days from the date of issue of LoA, successful bidder must deposit Performance Bank Guarantee (PBG) fees @ **10%** of the total contract value to RECPDCL as per format Annexure-V with validity till completion of comprehensive on-site Maintenance/Warranty period (i.e. work completion period plus 5 years from the date of commissioning plus three months' claim period).
- ii. The said PBG will be refunded after the completion of comprehensive on-site maintenance/ Warranty period, subject to satisfactory performance of the Solar Powered Community Water Centre.
- iii. The PBG shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to RECPDCL:
 - a. Hundred percent (100%) PBG amount furnished, if the Successful Bidder fails to commission the Solar Powered Community Water Centre as per scope of work and to the satisfaction of RECPDCL.
 - b. Hundred percent (100%) PBG amount furnished, if comprehensive on-site maintenance/warranty activities are not carried out as specified in the tender document for successful operation of the Solar Powered Community Water Centre.
 - c. In all the above cases corresponding uncompleted work shall stand cancelled.

5. **DELIVERY:** All materials must be delivered to the project site suitably to complete the work within schedule as mentioned in **Section-II** at Intent.
6. **QUANTITY:** The quantity / capacity mentioned in the tender might either increase or decrease according to the requirement.
7. **LIQUIDATED DAMAGES:** For the delay in supply, installation, testing and commissioning of Solar Powered Community Water Centre as against the work completion period of 90 days as mentioned Clause D, Section –V of this tender, the liquidity damage @ 1% of the contract value per week or part thereof subject to the maximum of 10% of the contract value shall be deducted from the bill of the contractor.
8. **PENALTY APPLICABLE DURING COMPREHENSIVE ON-SITE MAINTENANCE PERIOD:** All major & minor defects in Solar Powered Community Water Centre during comprehensive on-site maintenance/warranty period shall be rectified within atleast 10 days, failing which, penalty @ Rs. 500 per day, will be imposed and deducted from that years payment as per the payment terms. In case of repetitive occurrence of such failures, RECPDCL reserves right to terminate the contract, get the work done at the risk & cost of the bidder and may also forfeit PBG at its sole discretion.
9. **STATUTORY CLEARANCES:** Statutory clearances, if any (such as environmental clearance, pollution certificate, fire hazards etc. as per industry practices/applicable law as per Govt. of India and state Govt.), to install Solar Powered Community Water Centre at the location specified by RECPDCL will be done by the contractor including any measures such as providing fire extinguishers etc. at location and no extra cost will be paid in this regard. Further, in the event of any issue relating to statutory clearances or any violations arises during the contract period will be settled by the contractor and any expenditures/cost/penalty etc. arises therein will be borne by the contractor itself. RECPDCL is not liable to pay for any claim made by the contractor to obtain statutory clearances and for any claim made by the contractor to settle statutory clearances issue at any point of time during the contract period. RECPDCL reserves the right to conduct the safety audit at any time by any designated official of RECPDCL or Third party inspector during the contract period, if the safety practices are not found satisfactory during their visit, suitable action will be taken against the contractor along with penalty & the same may be deducted from the quarterly payment or any other payment due or from their PBG. Contractor has to follow suggestions (if any) being provided by the safety audit team.
10. **FORCE MAJEURE:** Force majeure shall mean any cause, existing or future, which is beyond the reasonable control of Bidder or RECPDCL including, but not limited to, acts of God, storm, fire, floods, explosion, epidemics, quarantine, earthquake, strike, riot, lock out, embargo, interference by civil or military authorities, acts, regulations or orders of any governmental authority in their sovereign capacity, acts of war (declared or undeclared) including any acts of terrorism, and all other such acts of similar or analogous nature (where all such acts to be collectively referred to as “Force Majeure”). RECPDCL and Bidder shall not be liable for the failure to perform any obligation in terms of this Proposal if and to such extent such failure is caused by a Force Majeure, provided that none of such acts of Force Majeure will relieve the Customer from meeting its payment obligations.

11. SUCCESSIONS & ASSIGNS: In case RECPDCL or successful bidder may undergo any merger or amalgamation or a scheme of arrangement or similar re-organization & this contract is assigned to any entity (ies) partly or wholly, the contract shall be binding mutatis mutandis upon the successor entities & shall continue to remain valid with respect to obligation of the successor entities.

12. DISPUTES RESOLUTION & ARBITRATION:

- i. Disputes under the agreement shall be settled by mutual discussion.
- ii. However, in the event amicable resolution or settlement is not reached between the parties, the differences of disputes shall be referred to and settled by the Sole Arbitrator to be appointed by Chairman, REC PDCL.
- iii. The arbitration proceedings shall be in accordance with the prevailing Arbitration and Conciliation Act, 1996 and Laws of India as amended or enacted from time to time.
- iv. The venue of the arbitration shall be New Delhi, India.
- v. The fee & other charges of Arbitrator shall be shared equally between the parties.
- vi. The Arbitrator will give the speaking & reasoned award. The party will not be entitled to any Pendent late interest during arbitration proceedings.

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

(SIGNATURE OF BIDDER WITH SEAL)

Date:

Designation:

Name:

LETTER FOR SUBMISSION OF BID

(To be submitted on Company's letterhead duly signed)

To,

Addl. Chief Executive Officer
REC Power Distribution Company Ltd,
1016-1023, 10th Floor,
Devika Tower, Nehru
Place, New Delhi-110019

Sub.: Engagement of implementing Agencies for Turnkey execution of RECPDCL's CSR Project of Solar Powered Community Water Centre (CWC).

Dear Sir,

We wish to submit bid against RECPDCL's NIT No: RECPDCL/OS/16-17/..... datedfor " RECPDCL's CSR project of Solar Powered Community Water Centre (CWC)" comprising of supply, installation and maintenance of 3Hp Solar PV based DC Submersible pump, RO+UV based Water Purification Unit with output capacity of 1000LPH, accommodated in a structure based on Pre-Fab technology in 3 villages of Uttar Pradesh, including operation and maintenance for a period of six months (6 months) after installation and commissioning in the State of Uttar Pradesh as per the requirements of RECPDCL.

Further, I hereby certify that:

1. I have read the provisions of all clauses and confirm that notwithstanding anything stated elsewhere to the contrary, the stipulation of all clauses of tender are acceptable to me and I have not taken any deviation to any clause.
2. I further confirm that any deviation to any clause of Tender found anywhere in my Bid, shall stand unconditionally withdrawn, without any cost implication whatsoever to the RECPDCL.
3. Our bid shall remain valid for period of 180 days from the last date of bid submission.

Date:
Place:

Signature:
Full Name:

Designation:
Address:

Note: In absence of above declaration/certification, the Bid is liable to be rejected and shall not be taken into account for evaluation.

BIDDER'S GENERAL DETAILS*(To be submitted on Company's letterhead duly signed)*

NIT No: RECPDCL/CSR/CWC/16-17/

Dated 20.01.2017

Turnkey execution of RECPDCL's CSR Project of Solar Powered Community Water Centre (CWC) including operation and maintenance for a period of six months (6 months) after installation and commissioning in the State of Uttar Pradesh as per the requirements of RECPDCL.

GENERAL DETAILS

1. Name of Company: _____

2. Year of Incorporation: _____

3. Name of Authorized Person: _____

4. Regd. Address:

a) Address of Office: _____

b) Contact Person's

i. Name & Designation: _____

ii. Address: _____

iii. Tel. No. (Landline& Mobile): _____

iv. Email ID : _____

5. Type of Firm (Please tick): Private Ltd./ Public Ltd./ LLP/ Joint Venture Company/NGO

6. Permanent Account Number: _____

7. Service Tax Reg. Certificate No.: _____

8. EMD Details : Rs. _____

DD No. _____

Name & Address of Bank: _____

Signature.....

Full Name.....

Designation.....

Address.....

UNDERTAKING TOWARDS NOT BEING BLACK-LISTED

I, _____Authorized Signatory of M/s _____ hereby give undertaking that we, as a company are not black-listed by any Central/ State Government/ Semi- Government Organization/ Public Sector Undertaking/ Private Institution in India.

Further, if information furnished above stands false at any stage, we shall be completely liable for actions taken by RECPDCL as per terms & conditions of the tender including disqualification and exclusion from future contracts/assignments.

(Signature of Authorized

Signatory) Name*:

Designation*:

Seal:

BID BANK GUARANTEE (EARNEST MONEY DEPOSIT) FORMAT

This deed of Guarantee made this day of 2017 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 1016-1023, 10th Floor, Devika Tower, Nehru Place, New Delhi -110019 (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 of **Supply, Installation & Commissioning of Solar Powered Community Water with output capacity of 1000 LPH including operation and maintenance for a period of six months (6 months) after installation and commissioning in the State of Uttar Pradesh** as contained in the tender.

AND WHEREAS the Tender is required to furnish to RECPDCL a Bank Guarantee for a sum of ₹ /- (Rupees..... only) as Earnest Money for participation in the Tender aforesaid. AND WHEREAS..... **(Name of Bank)** have at the request of the tender 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 Tender may subsequently agree and if the Tender 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 ₹ /- (Rupees only).

We further agree as follows:

1. 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 Tender 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 Tender or any other forbearance, act or omission on the part of the RECPDCL or any indulgence by RECPDCL to the said Tender or any other matter or thing whatsoever.

2. 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 Tender (whether or not pending before any arbitrator, tribunal or court) or any denial of liability by the Tender stopping or preventing or purporting to stop or prevent any payment by the Bank to RECPDCL in terms thereof.

3. 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 Tender, 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 ₹ /- (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.

PERFORMANCE BANK GUARANTEE (PBG) FORMAT

M/s REC Power Distribution Company Ltd.,
 Core-4, Scope Complex, 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 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 BID/ Work Order No _____ date _____
 and RECPDCL having agreed that the Agency shall furnish to RECPDCL a Performance Guarantee
 for the faithful performance of the entire period of empanelment, of the value of ₹ _____.

We, _____ ("The Bank") which shall include OUR successors, administrators and executors
 herewith establish an irrevocable Letter of Guarantee No. _____ in your favor for account of
 _____ (The Agency) in cover of performance guarantee in accordance with the
 terms and conditions of the Empanelment 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 BID/Work Order
 and despite any contestation on the part of above named-agency.

This letter of Guarantee will expire on _____ including 90 days 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: PBG shall be valid as specified in Section-IX, Clause No. 4.

TECHNICAL BID (Part-A)*(To be submitted Online)*

NIT No: RECPDCL/CSR/CWC/16-17/3368

Dated 20.01.2017

Supply, Installation and maintenance of 3Hp Solar PV based DC Submersible pump, RO+UV based Water Purification Unit with output capacity of 1000LPH, accommodated in a structure based on Pre-Fab technology in 3 villages of Uttar Pradesh, including operation and maintenance for a period of six months (6 months) after installation and commissioning in the State of Uttar Pradesh as per the requirements of RECPDCL.

We confirm the following are technical specification of items that will be used for Installation & Commissioning of Solar Powered Community Water Centre.

Sl. No	Item	Specificationon	Make	Model	Unit	Quantity
1.	Raw Water Pump					
2.	Dual Media Filter					
3.	Activated Carbon Filter					
4.	Dosing System (If Required)					
5.	Micron Filter					
6.	High Pressure Pump					
7.	Reverse Osmosis Membrane					
8.	Reverse Osmosis Pressure Tube					
9.	Reverse Osmosis Cleaning System					
10.	Electronic Panel					
11.	Instrumentation					
12.	3Hp DC Submersible Solar PV Pump					
13.	PV Panel					
14.	Mounting Structures and Tracking System					
15.	Electronics and Protections					
16.	On/Off Switch					
17.	Fire Extinguishers					
18.	Other items as per requirement for Solar Powered Community Water Centre					

(AUTHORIZED SIGNATORY)

NAME:

SEAL:

Note:

(1) Above mentioned items are major components only. Any items not specifically mentioned above but are required to finish the work will be arranged by the Supplier

If bidders found quoted any low quality (Inferior) Solar Equipments / components, RECPDCL reserve its right to ask the bidder to change the Equipment / Components of above mentioned quality/Make. RECPDCL reserves to take final decision at its sole discretion.

TECHNICAL BID (Part-B)

Details Civil and Technical layout of Complete Community water center including Solar PV Pumping system, Water purification unit and pre-fab based structure to accommodate the same.

(Note: Separate sheet/paper may submit as a layout plan.)

Financial Bid (To be submitted through online mode only)

PROFORMA OF SCHEDULE OF RATES

RECPDCL/CSR/CWC/16-17/3368 Dated: 20.01.2017

NAME OF THE COMPANY

Implementing Agencies for Setup of
Solar Powered Community Water Center (CWC) in 3 villages of Uttar Pradesh

S. No.	Item Type	Unit	Total Amount (Rs.)
A	B	C	D
1	1000 LPH RO+UV Water Purification Unit as per Scope of work and technical specification mentioned in the tender. Including Raw water tank, Treated water tank	1	420000.00
2	3Hp DC Submersible Solar PV Pump for supplying raw water for purification unit as per Scope of work and technical specification mentioned in the tender.	1	450000.00
3	Pre-fab structure with required finishing for accommodating the unit as per Scope of work and technical specification mentioned in the tender.	1	510000.00
4	Water Boring as per Scope of work and technical specification mentioned in the tender (i.e Minimum depth of 250 Feet for proper availability of water at all seasons)	1	55000.00
5	Awareness campaigns, Training by expert for first three months, Water testing operation including change of filter every 3-4 months and change of chemical every month, Printing literature for creating awareness and water card.		40000.00
6	Water Testing (Quarterly)	2	30000.00
7	Maintenance/Operation cost per unit for six months as per Scope of work, warranty and insurance period as mentioned in the tender.		72000.00
Total All Inclusive Value for complete BOQ (Rs.)		1 CWC	1577000.00
Bidder is requested to quote either percentage Discount or percentage hike on total value mentioned above only		% Discount offered from total value as mentioned above	% Hike offered from total value as mentioned above
Total Price quoted by the bidder before tax.		0	
This tender is Composite Works Contract for UP, accordingly applicable taxes are to be quoted by the bidder.			
Applicable taxes	% Proportion of Bill Value on which tax will apply	% Rate of Tax	Amount of Tax
* Sales Tax UP VAT			0.00
* Sales Tax CST			0.00
Service Tax			0.00
		Total Tax Amount	0.00
Total Price quoted by the bidder including taxes.		Final Bid Value for the evaluation of lowest bid	0.00
Important Instructions (Please Read before quoting the rates)			
* Bidder should enter either Sales TAX CST or Sales Tax UP VAT as applicable			
Bidder may visit the site before quoting the rate to get better idea of location, work place etc. However, in any case, it will be assumed that bidder has visited the site and understood all site conditions, factors etc. for this work before submission of bid.			
The offer must be kept valid for a period of 180 days from the last date of bid submission. No escalation clause would be accepted. The validity can be further extended with mutual consent.			
Proportion of bill value, % Rate of Tax should be quoted by the bidder as per applicability.			
In case of implementation of GST/New taxation policy etc. such taxes will be payable as per prevailing laws.			
if it is found that the tax quoted is higher than the applicable tax, in that case applicable taxes will only be paid by RECPDCL. And if the tax quoted is lower than the applicable tax, in that case only the quoted taxes will be paid by the RECPDCL.			
if it is found that the Bill Value Proportion quoted is higher than the applicable proportion, in that case applicable proportion will only be paid by RECPDCL. And if the Bill Value Proportion quoted is lower than the applicable proportion, in that case only the quoted Proportion will be paid by the RECPDCL.			
The price bid shall be opened only of those bidders who qualify in the technical bid and presentation round.			
The price bid shall be submitted only in the above mentioned price Performa only.			
Only Yellow cells need to be filled apropiately.			
RECPDCL would not be responsible for any mistake, error done by the bidder while quoting. No further opportunity to rectify the bid after submission is available. As such Bidder should take utmost care while quoting rates and applicable taxes.			

-----End of document-----