



## **ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY, BHUBANESWAR**

### **BID DOCUMENT**

**FOR**

Design, Manufacture, Supply, Installation (Erection), Testing, Commissioning, including Warranty and Comprehensive Maintenance Contract for a period of 5 years of Solar energy based dual pump pipe water supply schemes in the state of Odisha under RWS&S and other Govt Dept on **Rate Contract**.

<b>Date of release of bid</b>	<b>20.10.2017</b>
<b>Pre-bid meeting held</b>	<b>03.11.2017</b>
<b>Final online revised bid document hoisting</b>	<b>25.11.2017</b>
<b>Date and time of last submission</b>	<b>12.12.2017 at 5.00 PM Online</b> <b>14.12.2017 at 1-00 PM hard copy</b>
<b>Opening of Techno-commercial bid (Part-I)</b>	<b>14.12.2017 at 3-30 PM</b>
<b>Date of opening of the price bid(part-II)</b>	<b>To be informed to the qualified bidders.</b>

**Revised and Final Tender Documents Tender Call Notice No-3834**  
**Dt.18.10.2017**

S-3/59, MANCHESWAR INDUSTRIAL ESTATE, BHUBANESWAR-751010

Phone : (0674) 2588260,2586398,2580554. Fax:2586368

Website: [www.oredaorissa.com](http://www.oredaorissa.com), Email: [ceoreda@oredaorissa.com](mailto:ceoreda@oredaorissa.com)

## CONTENTS

Sl No	Items	Page
1	Disclaimer	
2	Notice inviting tender	
3	Instruction to bidder online	
4	Submission of bid online	
5	Checklist of documents to be submitted	
6	Undertakings by bidders	
7	Letter of Authorisation	
8	The Scope of work	
9	Eligibility Criteria	
10	Instructions to Bidder	
11	Commercial terms and conditions	
12	Technical specification	
13	All format annexure	
14	Scope of CMC	
15	BG format	
15	<b>Price bid for online only, not in hard</b>	

## **Disclaimer**

Kindly Note:

1. This document is not transferable
2. Though adequate care has been taken for preparation of this document, the bidder shall satisfy himself that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any bidder on the pre bid meeting or within ten days from the date of issue of the bid document, it shall be considered that bid document is complete in all respects and has been received by the bidder.
3. The Odisha Renewable Energy Development Agency (OREDA) reserves the right to modify, amend or supplement this bid document keeping in view the necessity in implementation of the scheme.
4. While the bid document has been prepared in good faith, neither OREDA nor their employees or advisors make any representation, warranty, express or implied or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability and completeness of this bid document, even if any loss or damage is caused by any act or omission on their part.

**ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY**

S-3/59, MANCHESWAR INDUSTRIAL ESTATE, BHUBANESWAR-751010

Phone : (0674) 2588260,2586398,2580554. Fax:2586368

Website: [www.oredaorissa.com](http://www.oredaorissa.com), Email: [ceoreda@oredaorissa.com](mailto:ceoreda@oredaorissa.com)

**NOTICE INVITING E-TENDER NO: 3834 /OREDA DTD-18.10.2017**

ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY invites sealed e-tenders **in two part bidding system** from manufacturer, system integrator for Design, Manufacture, Supply, Installation (Erection), Testing, Commissioning, including Warranty and Comprehensive Maintenance Contract for a period of 5 years of Solar energy based dual pump pipe water supply schemes in the state of Odisha under RWS&S and other Govt Depts on rate contract.

<b>Date of release of bid</b>	<b>20.10.2017</b>
<b>Pre-bid meeting held</b>	<b>03.11.2017</b>
<b>Final online revised bid document hoisting</b>	<b>25.11.2017</b>
<b>Date and time of last submission</b>	<b>12.12.2017 at 5.00 PM Online</b> <b>14.12.2017 at 1-00 PM hard copy</b>
<b>Opening of Techno-commercial bid (Part-I)</b>	<b>14.12.2017 at 3-30 PM</b>
<b>Date of opening of the price bid(part-II)</b>	<b>To be informed to the qualified bidders.</b>

Interested prospective bidders may visit OREDA's website [www.oredaorissa.com](http://www.oredaorissa.com) and [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) for details relating bidding process and all other terms and conditions. The bidders can view the tender documents from [www.oredaorissa.com](http://www.oredaorissa.com) website free of cost.

**Chief Executive, OREDA**

**ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY**  
S-3/59, MANCHESWAR INDUSTRIAL ESTATE, BHUBANESWAR-751010

Phone : (0674) 2588260,2586398,2580554. Fax:2586368

Website: [www.oredaorissa.com](http://www.oredaorissa.com),

Email: [ceoreda@oredaorissa.com](mailto:ceoreda@oredaorissa.com)

**DETAIL OF NOTICE INVITING TENDER**

ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY invites sealed e-tenders **in two part bidding system** from manufacturer, system integrator, EPC firms for Design, Manufacture, Supply, Installation (Erection), Testing, Commissioning, including Warranty and Comprehensive Maintenance Contract for a period of 5 years of Solar energy based dual pump pipe water supply schemes in the state of Odisha under RWS&S and other Govt Depts on rate contract.

Particulars	Estimated Cost (Rs. in .Lakhs)	Earnest Money Deposit (Rs. In Lakhs)	Tender processing fee Non refundable (in Rs.)	Non refundable Cost of Bid document	Last date/time for submission of bids	Date and time of opening of bid
Supply, installation, commissioning including warranty and Comprehensive Maintenance Contract for a period of 5 year of solar energy based dual pump pipe water supply systems complete in all respect with independent riser pipe as per the technical specification, schedule of materials and terms and condition of the of the work award from time to time on the basis of the lowest price arrived at within a period of minimum one year of the valid tender under the scope of work	<b>3500 project likely to enhance</b> 145,00	40,00	2300 and other fees	Rs. 10500/-	Online -12.12.2017, 5-00 PM Hard copy 14.12.2017, 1-00 PM	Dt.14.12.2017, 3-30 PM

Interested prospective bidders may visit OREDA's website [www.oredaorissa.com](http://www.oredaorissa.com) and [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) for details relating bidding process and all other terms and conditions. The bidders can view the tender documents from [www.oredaorissa.com](http://www.oredaorissa.com) website free of cost. The authority reserves the right to accept / reject any part thereof or all the bids without assigning any reason.

Chief Executive, OREDA

## ONLINE SUBMISSION OF BID

### **General Information**

- i) Interested bidders may visit OREDA's website [www.oredaorissa.com](http://www.oredaorissa.com) or [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) for details. **Tender documents can be viewed free of cost.**
- ii) Bidders who want to submit bid shall have to pay the **tender cost**. The tender cost is required to be paid in shape of **Demand draft** only, drawn in **favour of Chief Executive, OREDA payable at Bhubaneswar**. The tender cost is inclusive of taxes and is non refundable.
- ii) The bidders shall have to submit the non-refundable tender processing fee in e-payment mode only. The processing is inclusive of service **tax**.

***(NOTE: For tender processing fee to K.S.E.D.C. Ltd. Bangalore, the bidder can use various modes of e-payment facility available through Tender wizard Portal, i.e. by Credit Card, Debit Card, Net Banking).***

- iv) The bidders shall have to scan the Demand Draft / Bank guarantee towards **EMD, Tender Cost, Signed copy of unconditional acceptance of all terms and conditions of the tender, Signed copy of Confirmation to Technical Specifications and all other documents as required in the tender** and upload the same in the prescribed form in .pdf or .jpg format in addition to sending the originals.
- v) The bidders are advised to register their user ID, Password, company ID on website [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) by clicking on hyper link "**Register Me**".
- (v) Any clarifications regarding the scope of work and technical features of the project can be had from the undersigned during office hours

**NB:** All subsequent addendum/Corrigendum to the tender shall be hoisted in OREDA's official web site [www.oredaorissa.com](http://www.oredaorissa.com) and [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) only.

**For and on behalf of OREDA**

#### **A. MODE OF SUBMISSION OF BID:-**

- i) The bidder shall submit the bid in Electronic Mode only i.e. in [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) portal. The bidder must ensure that the bids are received in the specified website of the OREDA by the date and time indicated in the Tender notice.
- ii) Bids submitted by telex/telegram will not be accepted.
- iii) The OREDA reserves the right to reject any bid, which is not submitted in electronic mode and according to the instruction, stipulated above.

**(A-1) PARTICIPATION IN e-TENDER:-****ACQUISITION OF DIGITAL SIGNATURE CERTIFICATE**

- i) For all the users it is mandatory to procure the Digital Signatures of **Class III only**.
- ii) Contractors / Vendors / Bidders / Suppliers are requested to follow the following steps for registration.

**(A-2) REGISTRATION IN TENDER WIZARD PORTAL**

- i) Log in [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) Click "Register", fill the online registration Form.
- ii) Payment shall be made to KSEDCL, Bangalore for vendor registration in tender wizard portal in **e-payment** mode only.
- iii) As soon as the verification is done the e-tender user ID will be enabled/provided.

**(A-3) ON-LINE REQUEST FOR e-TENDER DOCUMENTS.**

After viewing Tender Notification in [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) if bidder intends to participate in tender, he has to use his e-tendering User ID and Password which has been received after registration and acquisition of DSCs (Digital signature certificate). If any Bidder wants to participate in the tender he has to follow the instructions given below.

1. Insert the PKI (which consists of your Digital Signature Certificate) in your System.

**(Note: Make sure that necessary software of PKI be installed in your system)**

2. Click / Double Click to open the Microsoft Internet Explorer
3. (This icon will be located on the Desktop of the computer).
4. Go to Start > Programs > Internet Explorer. Type [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) in the address bar, to access the LoginScreen.
5. Enter e-tender User Id and Password, click on "Go". Click on "Click here to login" for selecting the Digital Signature Certificate. Select the Certificate and enter DSC Password. Re-enter the e- Procurement User Id Password
6. Click "Un Applied" to view / apply for new tenders.
7. Click on Request icon for online request. After making the request, bidder has to pay the requisite tender processing fee (as indicated in tender notice) through **e-payment** facility only available in the portal. Bidders will receive the Tender Documents which can be checked and downloaded by following the below steps.
8. Click to view the tender documents which are received by the user. Tender document screen appears.
9. Click "Click here to download" to download the documents.

**NOTE: For vendor registration and payment of tender processing fee to KESDCL, the bidder can use various modes of e-payment facility available through Tender wizard Portal, i.e. by Credit Card, Debit Card, Net Banking.**

**(B) ONLINE SUBMISSION OF BID**

The bidders shall have to scan the Demand Draft / Bank guarantee towards **EMD , Tender Cost, signed copy** of “unconditional acceptance of all terms and conditions of the tender”, Signed copy of “confirmation to technical specification” and **other documents** as required for the tender and **upload** the same in the prescribed form in .pdf or .jpg format in addition to sending the original **except bid sheets (.xls)** prior to last date and time of receipt of bids as specified in tender Notice. Tender processing fees is mandatory & to be paid on **e-payment** mode as stated elsewhere in the document. The attachments should be properly renamed before uploading.

**(B-1) PROPER FILLING UP OF THE PRICE SCHEDULE:**

The bidder should fill up the Techno commercial and price schedule properly in the bid sheets provided in .xls format and up-load the same without changing the file name. The tender may be rejected if the schedule of price is submitted in incomplete form.

**NB: The bid sheets (.xls file) shall be uploaded in [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) portal, prior to online closing of the tender. By no other means (except online) price bid shall be accepted for evaluation of tender.**

- i. After completing all the formalities, Bidders will have to submit the tender as specified in NIT and must take care of all instructions. Prior to submission, verify whether all the required documents have been attached and uploaded to the particular tender or not.

**Note down / take a print of bid control number once it displayed on the screen**

- ii. Tender Opening event can be viewed online.
- iii. Competitors bid sheets are available in the website for all participated bidders.

**For any assistant, Contact:**

**E-Tendering help desk number: 080-  
40482000/121/133/140(Bangalore) OREDA Help Desk-  
09776823641/09937140591**

**NOTES:**



**(C) DEAD LINE FOR SUBMISSION OF BIDS**

- i) Soft copy of the bid shall be uploaded through the portal [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) on or **before the online submission time and date as stipulated in the bidding document.**

**DD towards Tender cost, DD/BG towards Bid Security, tender processing fee acknowledgement & a set of all uploaded documents including uploaded Techno-commercial Bid must be received by OREDA at the address specified not later than the time and date stated in the tender notification.**

- ii) In the event of the specified date for the submission of bids being declared a holiday for OREDA, the bids will be received on the next working day as per the time indicated in tender notification.
- iii) OREDA may, at its discretion, extend this deadline for submission of bids by amending the Bidding Documents in accordance with Instruction to Bidders for the reasons specified therein at any time prior to opening of, in which case all rights and obligations of Employer and bidders will thereafter be subject to the deadline as extended.

**(D) LATE BIDS**

- i) Soft copy of the bid will not be uploaded on the portal after expiry of submission time and the bidder shall not be permitted to submit the same by any other mode. In such case, even if the bidder has submitted the specific documents in hard copy in original (viz., bid security, tender cost & any other document) within the stipulated deadline, its bid shall be considered as late bid. The hard copy submitted [specific documents (viz., bid security, tender cost.)] shall be returned unopened to the bidder.
- i) Hard copy of the bid security i.e EMD in shape of DD/BG if received by OREDA after the last date for submission of the bid the same will be considered as late bid even if the bidder has uploaded the soft copy of the bid within the stipulated deadline. In such a case, the soft part of the bid uploaded on the portal shall be sent unopened to "Archive" and shall not be considered at all any further.

**(E) MODIFICATION AND WITHDRAWAL OF BIDS:-**

- i) Bidder may modify or withdraw their bids through the relevant provisions on the portal [www.tenderwizard.com/OREDA](http://www.tenderwizard.com/OREDA) **up to due date and time of submission of bid indicated in tender notification**
- ii) The Bidders may modify and resubmit their bids as per the provisions given in the portal.
- iii) Bidders may withdraw their bids through the relevant provisions of mentioned in the portal.

- iv) No bid shall be modified/ withdrawn after the dead line for submission of bids. Withdrawal/modification of bid before the expiry of bid validity shall result forfeiture of Bidder's bid security.**

**SUBMISSION OF HARD COPIES OF THE BIDS AND SEALING AND MARKING:-**

- (A) Hard copies of the following items should only be submitted to OREDA**

All the papers of bid documents as per the check list **except the price bid** duly signed & should be uploaded in **e-tender** portal. Hard copy (i.e EMD, Tender cost & signed e-tender document) shall be submitted OREDA office at S-57, Mancheswar Industrial Estate, Bhubaneswar 751010 before tender closing date and time.

**Submission of any documents other than the asked documents can't be received at any cost. This may lead to the rejection of bid.**

- (B) Technical bid:**

The Electronic Form/Template of the bid for the Techno-Commercial bid, as available on the portal, shall be duly filled and scanned copies of documents in support of meeting the minimum qualifying requirement of the tender shall be given as attachments.

- (C) Financial bid:**

The Electronic Form/Template of the Price bid (as available on the portal) shall be duly filled in.

**Any condition in regards to financial aspects, payments, terms of rebate etc beyond the prescribed financial terms of OREDA will make the bid invalid.**

Therefore it is in the interest of the bidders not to write anything extra in the Price Bid except price.

**ACCEPTANCE/REJECTION:**

OREDA reserves the right to accept / reject any or all Tenders without assigning any reason thereof and alter the quantity of materials mentioned in the Tender documents at the time of placing purchase orders. Tender will be summarily rejected if:

- i) Bid security is not deposited either in shape of Bank Draft in favor of OREDA payable at Bhubaneswar or in Bank Guarantee.

**Note: Bid security against previous Tenders, if any, will not be adjusted towards Bid security against this Tender.**

- ii) Complete Technical details are not enclosed.
- iii) Tender is received after the last date for what-so-ever reasons.

### **PROCEDURE FOR OPENING THE BIDS:**

The procedure of opening of the bid shall be as under

- The TECHNICAL BID shall be opened at the time & date mentioned in the bid notice by OREDA in the presence of bidders, who choose to be present. If necessary, the firms may be called for Technical Presentation the schedule for which will be intimated by OREDA.
- The Price bid shall be opened after evaluation of technical suitability of the offers. The date for opening of Price bid shall be communicated subsequently. The Price Bid of only those bidders shall be opened who qualify in the technical bid.

***\*Contactors/Vendors are advised to upload their tender documents well in advance to avoid last minutes disappointment.***

### **Background**

#### **Solar energy based dual pump piped water supply scheme:**

Bore well / tube wells are the only sources of drinking water in small / inaccessible / habitations. When water level in the wells depletes or hand pumps go out of order providing minimum life supporting drinking water in these villages comes as a very big challenge. Since most of these habitations are either un-electrified, power starved or the power supply is highly erratic energising the wells with normal grid power is also very difficult. Frequent natural calamity disrupts the normal water supply due to grid failure. In such scenario Solar PV water pumping systems in tandem with regular existing hand pumps (called as dual pump) emerge as viable option for ensuring uninterrupted drinking water supply with minimum recurring expenses.

About 3500 or more villages/habitations will be covered under the program. RWS&S and other depts will provide the list of villages, locations of the bore wells within the villages and water yielding report of each selected bore well. RWS&S and OREDA through a joint survey of each village will finalise the location point of the over head tank (OHT) on the optimal height and distance within minimum 15 mtr periphery, solar module mounting structure. Pipe line for longer distance shall be accommodated within the overall pipe laying in each supply / installation order in total job beyond which the cost as per actual is to be borne by the respective RWS&S Division/ User. Two models are proposed. One with model mounting structure separately with mono pole for cyclone / nor'wester(tornado) / lightning prone areas, another with overhead module for other areas.

In view of the large geographical spread and limited time available for completion of the project it is contemplated to allocate the supply / installation to multiple qualified bidders subject to their acceptance of the L1 price discovered through the tender subject to condition that qualified L1 bidder shall have the claim of minimum 30% of the allocation on successful performance on phase wise firm work order.

### Check list of documents to be submitted along with the bid

Sl no	Particulars	Compl ied	Page-no / Flag
1	Bank draft for Rs.10,500/- or or exempt as admissible with proof of exemption	Bank No Dt	Envelope
2	Bank draft for Rs.40,00,000/- towards Earnest Money deposit or exempt as admissible with proof of exemption	Bank No Dt	Envelope
3	Forwarding letter & Undertaking duly signed and stamped by the bidder. Undertaking to unconditionally accept all terms and conditions of the bid document with the endorsement by Board Resolution		
4	Valid document registering the status of the bidder as manufacturer /systems integrator / MNRE Channel Partner		
5	Copy of the PAN card of the bidder's firm		
6	Copy of the GST card of the bidder's firm		
7	Copies of Tax clearance certificate / returns latest		
8	Document summarised average annual turnover of 15 crore for last three years <b>or as relaxed</b> duly signed and stamped by a registered chartered accountant on the letter head of the Chartered Accountant		
9	Proof of installation of min 500 pumps (AC / DC / surface / submersible) with min 50 dual pumps in the entire country in Govt / PSU / Govt Agencies <b>or as relaxed</b> . Copies of certificates given by the concerned government agencies to be enclosed		
10	A self certificate on not debarred / black listed / default		
11	Valid Test reports of Solar PV BLDC water pumping systems of 900 Wp capacity in the name of the bidder from valid MNRE accredited test lab		
12	Undertaking for Indigenusness (domestic content) of the supplied items		
13	Filled in bid document duly signed and stamped at the bottom of each page except the price bid format.		

## UNDERTAKING BY THE BIDDER

I/we here by undertake that

1. We have thoroughly read and examined the notice inviting tender and the tender document along with all its schedules, annexure etc.
2. The rates quoted by us are firm and final and are meant for execution of the allotted supply / installation within the time frame stipulated in the tender/supply / installation order.
3. All terms and conditions of the tender including the rates quoted by us shall remain valid for a period of min one year from the date of opening of the technical bids.
4. In case our tender is incomplete in any respect or we violate any of the prescriptions given in the tender for submission of the same OREDA shall , without prejudice to any other right or remedy , be at liberty to disqualify us.
5. In case of award of supply / installation in our favour OREDA shall have the right to convert the EMD deposited by us in to full or part (as the case may be) of the security deposit to be deposited by us against award of the supply / installation.
6. In case we fail to commence or complete the supply / installation as per the time schedules or fail to fulfill any of the terms and conditions given in the tender OREDA shall , without prejudice to any other right or remedy , be at liberty to forfeit the security deposit made by us against the award of the supply / installation.
7. I/We hereby declare that I/We shall treat the tender documents, specifications and other records connected with the supply / installation as secret/confidential and shall not communicate information derived there-from to any person other than a person to whom I/We have authorized to communicate the same or use the information in any manner prejudiced to the safety of OREDA/the State Govt.
8. I/We shall abide by all the laws prevailing at the time of the execution of the supply / installation and shall be responsible for making payments of all the taxes, duties, levies and other Govt. dues etc. to the appropriate Govt. departments.
9. The entire tender document has been discussed in the Board meeting and a resolution has been concurred for participation in the tender (copy enclosed)
10. We are not blacklisted / debarred / defaulted in any manner by any Central / State Government / Public Sector Undertaking in India.
11. In case any false documents submitted and found any time in future the firms shall be liable to be proceeded against as per prevailing laws.
12. Our state tax registration no. is \_\_\_\_\_ and the PAN No. under the Income Tax Act is \_\_\_\_\_
10. I/We shall be responsible for the payment of the respective taxes to the appropriate authorities and should I/we fail to do so, I/we hereby authorize OREDA to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

**Signature of bidder with stamp & date**

**Letter of Authorization**

**(to be submitted in the letter head of the bidder)**

To,  
Chief Executive  
Odisha Renewable Energy Development Agency  
S-59, MIE, Bhubaneswar-751010  
Odisha

Sub: Submission of tender for the supply / installation of Design, Manufacturing, Testing, Supply, Installation, Commissioning & Maintenance of **Solar energy based dual pump piped water supply.**

Ref: Tender Call **Notice No. -----/ OREDA, dtd -----.**

Sir,

I/we hereby authorise Ms. /Mr. \_\_\_\_\_, Designation .....of our company to sign all relevant documents on behalf of the company/firm in dealing with the above tender. She / He is also authorized to attend all meetings and submit technical and commercial information as may be required by OREDA in the course of processing of the tender.

We further authorise Ms. /Mr. \_\_\_\_\_ designation..... of our company to make technical presentation on behalf of the company, if called for.

Signature of the authorise persons

1. \_\_\_\_\_
2. ....

Signature attested

Name and designation of the attesting officer with stamp.

**Yours faithfully**  
**Head of the organization**

## 1. Scope of Works.

The broad scope of the supply / installation includes design, manufacture, supply, installation, testing commissioning, warranty, operation & Maintenance for 5 years for supply / installation of Solar energy based dual pump piped water supply system providing Solar Photovoltaic pumps sets along with MS stage, storage tank, piping, stand post adhering to the standardized norm / BIS /MNRE specification (as per the valid test report issued to the bidder of the authorized test centre ) as per the workorder from time to time in the entire state in the year2017-18/ 2018-19.

All tax deductions at source applicable for turnkey contract will be made irrespective of GST clearance documents subject to bifurcation of the price components.

- a) Collection of the list of village including, locations of the bore wells, water discharge testing reports, shadow free area etc from OREDA / Users Agency.
- b) Visit to the village and identifying the designated bore well and selection of site for construction of over head tank at a higher location and stand posts as per the requirement and intimating the concern EE RWSS/ VWSC about the date and time of commencement of supply / installation.
- c) Deciding the location of stage and the stand post required in habitations after discussing with the elected representative / VWSC / authorised officer of RWSS.
- d) Transportation of all materials to the village and keeping the same in safe own custody within village. OREDA shall not be the consignee to receive the materials supplied/ delivered.
- e) Installation of the solar PV submersible water Pump, MS Stage, storage water tank, solar PV array, required stand post, soak pit and pipeline for water dispensation etc. as per the technical specifications, prevailing standards provided in the tender and testing the same in the presence of the VWSC/ authorised officer of RWSS/ User's Agency. In case of sanitary well the float arrangement to provide.
- f) Installation of the water dispensing stand post including construction of its platform etc. in a manner which is convenient for collection of water. The system shall be away from the water outlet portion. Outlet pipes for tube well shall not be exposed over the platform.
- g) After initial operation and testing of the pump for about a week handing over the same to the Village Committee/authorised officer of RWSS to be maintained by the firm for 5 years under CMC.
- h) Collection of all documents, including photographs of the installed systems and preparing the joint commissioning reports.

- i) Submission of all documents as detailed in the tender document including the joint Commissioning report to OREDA
- j) Periodic maintenance of the system as detailed in this tender.
- k) Opening of service centre/keeping servicing personnel and making available all essential spares in the vicinity of the solar water pumping system will give the desired performance with least interruption.
- l) Submission of periodic reports and returns as per the MIS prescribed by OREDA from time to time.
- m) Supply of the complete systems, including all necessary components, sub-components, spares, tools, tackles etc. as per technical specifications given in this document including packing, forwarding, safe storage, handling, commissioning, trial and performance testing and handing over, insurance.
- n) The solar panel shall be warranted for ten years with rated performance. Security cum PGF for the corresponding amount for the period warranty is to be retained by this office.
- o) Solar submersible pumps of 900 Wp capacity depending upon the yield of bore well will be utilized for the purpose of water supply in the village as per the requirement of the village.
- p) Comprehensive Maintenance for 5 years and Performance guarantees for the rated delivery / discharge of water as per standard test condition.
- q) All civil structures and site clearances for setting up of the complete job are to be obtained before installation.
- r) All structural drawings to be got approved from OREDA/ any other competent authority, if necessary at any time.
- s) While implementing Solar energy based dual pump piped water supply scheme in the village the physical condition of the area on shades / water logging during rain should be taken into consideration.
- u) There should not be any damage what so ever in the village due to setting up of the solar dual hand pump and later there is no leakage of any water connection of the said project the in the village.
- v) While cabling the array care must be taken such that no loose / open cables lie anywhere related to the supply / installations.



- w) Adequate training has to be provided to the persons to be designated by OREDA/ pump users in maintenance and upkeep of the installed system. The installed and commissioned systems are to be handed over to the Village Committee / respective authorised officer. The bidder must also provide a detailed operation and maintenance manual specific to the installed systems.
- x) Before execution of the supply / installation the yield test of the selected tube well shall be carried out by the agency to ensure the sustainability of the system.
- y) Care should be taken to install the OHT at the highest point nearer to the habitation while the stand posts shall be installed as close to the households as possible. In case length of pipe exceeds the assigned length in the tender payment for the extra work shall be made as per current Schedule of Rate by the User Department.

## 2. Eligibility Criteria

In order to be eligible to participate in the tender, the bidder must fulfill the following eligibility criteria. Any discrepancy or deviation from the same shall make the bidder ineligible for participating in the tender and such tender documents shall be rejected.

- a) The bidder must be a company registered under the Indian Companies Act 1956 or a firm registered under GST.
- b) And the bidder must be a manufacturer of any component of solar pumps or a system integrator or MNRE Chanel Partner. A copy of the registration certificate (DIC, NSIC, MSME, Register of Companies, etc) to that effect is to be attached.
- c) And the Bidder must have Test Certificate issued in the name of the bidder only for the tendered Model of Solar PV Water Pumping System (900 wp submersible pump) from a MNRE authorized valid testing center. The pump must fit into min 4”bore well.
- d) And the bidder's company/ firm must have manufactured, tested and commissioned minimum 500 nos of solar PV pumps in the country or 150 pumps in the state of Odisha (ac/dc/surface/submersible) in any of government departments/ PSU/ Public Institutions during last 3 years. Out of aforementioned criteria at least 50 pumps should be in the dual pump for drinking water category. The Copy of the certificates only and no other documents from the authorized / designated public officer should be furnished as per the following table.

Sl no	Name of govt /public user agency	Name of scheme / year	No of solar pumps installed	No of dual pumps	Certificates attached

- e) And the bidder company must have **average annual turnover** of Rs.15 crore in last three years (2014-15 to 2016-17) or cumulative 15 crore in the solar business in state of Odisha. A Chartered Accountant certificate to that effect is to be attached.
- f) Notwithstanding of clause d) and e) above, any firm / manufacturer with min 250 solar PV pumps (ac/dc/surface/submersible) with at least 15 pumps in the dual pump category, commissioned in any of government departments/ PSU/ Public Institutions in the country during last 3 years with min cumulative turnover of Rs.15.00 crore in last three years in solar business only subject to condition that **minimum capacity of allocation clause in the terms and condition will not be applicable even in case of being L1.**

- g) Max. of 10% of the tendered quantity shall be considered for local registered small and medium entrepreneurs in the solar business subject to their meeting all specifications and terms / conditions (except the experience and turnover) and matching the L1 price. The bidder in this category is not to fill the price bid format on line.
- h) The firm is not under debarred / blacklisted / defaulted by any Govt. Dept, agency, PSUs / institution / agencies / autonomous organisations during the period of tender. A self-certificate by an authorized person of the bidder's company/firm is to be attached.

### 3. INSTRUCTIONS TO BIDDERS

Intending bidders are requested to carefully study the instructions contained hereunder before preparing their bid documents for submission.

1. A Bidder shall submit a single offer-bid only. The bidders shall be responsible for properly uploading the relevant documents in the e-tender portal in the specified location and Tender Inviting Authority shall not be held liable for errors or omissions done while uploading the online bid.
2. Bidders must submit their bids for all items as stated in this bid document above.
3. Demand Drafts towards cost of document and EMD should be submitted in a separate envelop placed inside the envelope containing the technical bid.
4. Bids must be submitted in English language only.
5. Incomplete, telegraphic or conditional bids shall not be accepted.
6. Prices quoted must be firm and fixed. No price variation / escalation shall be allowed during process of completion of the project or for a period of one financial year whichever is earlier.
7. The bidders must sign at the bottom of each page of the bid documents at the time of submission in token of unconditional acceptance of the departmental terms and conditions, technical specifications etc.
8. Valid tax return submission document must be submitted along with the bid. **All rules and circulars of Finance Department, Govt of Odisha issued from time to time will be applicable during project period from issue of tender to the completion of 5 years CMC period.**

9. Deviations in terms and conditions, Specification of material, Inspection clause etc. will not be accepted under any condition.
10. The bidder shall submit copies of documents defining the constitution or legal status, place of registration and principle place of business of company or firm.
11. The bidder shall furnish a brief write up backed with adequate data, explaining capacity and experience (both technical and commercial) for the manufacture and supply of the required systems, equipments within the specified time of completion after meeting all their commitments.
12. Earnest money as specified in bid may be deposited in cash at OREDA cash counter or in shape of Demand Draft drawn in favour of Chief Executive, OREDA payable at Bhubaneswar from any nationalized bank. Bids without E.M.D will not be accepted unless exempt.
13. Bids received late due to postal delay or otherwise will not be considered.
14. The bidders are required to furnish their offers in the price bid both in words & figures online only. Any correction shall liable the document to be rejected. In case of any conflict between figures and words, the latter shall prevail.
15. Since timely execution of supply / installations is of paramount importance, requests for extension of time shall not be ordinarily entertained.
16. Canvassing in any manner shall not be entertained and will be viewed seriously leading to rejection of the bid.
17. Certificate to the effect that the systems to be supplied are indigenous & not fully imported must be furnished.
18. Power of attorney to sign the agreement on behalf of bidders & partnership deed articles, if any, should be enclosed along with original bid documents.
19. Notice inviting Tender, bid documents, prescribed Technical bid, price bid, terms & conditions will form the part of the tender.
20. All pages of the bid documents must be signed & sealed by the authorized person on behalf of the bidders.
21. Bids will be accepted & will be opened as per information mentioned in the notice-inviting tender. No receipt against submission of bid shall be issued by OREDA.

- 22. A pre bid meeting will be convened on 3.11.17 in the conference hall of OREDA. After discussion, deliberation and written statement / suggestions of the representative, the final tender document revised and approved has been uploaded on the website replacing the previous one.**
23. Any clarification on the technical specification and commercial terms and conditions may be clarified in writing from OREDA.
24. Deviation of any commercial terms and condition and technical specification shall not be entertained under any circumstances
25. Bidders may in their own interest visit the sites in order to develop a clear understanding of the logistics and other features of the sites before submitting bids and under taking may be attached in the tender document. OREDA will not be responsible for any incidental or consequential losses of the firms while execution and till expiry of the period of maintenance.
26. All the bidders shall essentially indicate the break-up of prices as shown in Price bid.
27. If qualified, the bidder must open a local office at Bhubaneswar before commencement of the supply / installation for coordination of all jobs and service centres fully equipped with technical person and spare parts at cluster level in the district where solar pumps installed. Such facility must have proper mailing address with contact person detail from time to time for all documents. **All supply / installation orders shall be placed with the state local registered office of the qualified empanelled bidders having valid Odisha GST as per the FD circular no 5439 dtd 25.2.14, if applicable.**
28. On award of contract the qualified bidder shall be termed as executing agency.

### **29. Opening of the bids:**

The procedure of opening of the bid shall be as under

- i) The technical bid opening is ONLINE. The date of opening of the technical bid is only published in advanced. The date of opening of the price bid will be decided after verification of those bidders who qualify in the technical bid evaluation and will be informed in advance.
- ii) The online opening of the technical bid and the price bid shall be done by the Chief Executive / or his authorised representative as per bid schedule. The prospective bidders can access to the online opening by logging in to the e-tender portal with the registered digital signature. Bidders / its authorised representative may not come to this office of OREDA for the opening of the technical or price bids.

- iii) In the event of the specified date for opening of the bids being declared holiday, the bid shall be opened at the appointed time and venue on the next working day.
- iv) In the event of the bid and claims in the online documents are materially missing or of substantial error or want of required qualifications, shall stand disqualified and rejected.

### **30. Evaluation of Bids**

- i) The documents submitted as technical bids shall be scrutinized by a bid evaluation committee duly appointed.
- ii) The bid evaluation committee may also verify the veracity of claims in respect of the known performances of the items offered, the experience and reputation of bidder in the field, the financial solvency. The Tender Inviting Authority, if required reserves the right to inspect the facility of the bidder for verification of information furnished in the bid.
- iii) The decisions of the bid evaluation committee on whether the bidders are responsive or non responsive.
- iv) The verification of the items shall be conducted by the Technical Committee in which the external experts from the user institutions / funding agency.
- v) The decision of the technical committee will be published

### **31. Price bid opening**

- i) The opening of the price bid shall be done online by the Tender Inviting Authority or the authorized representative and only the price bids in the proper format of the those firms qualified in the evaluation of the technical bids shall be opened.
- ii) The lowest rate quoted in proper format complete in all respect the will be accepted.

### **32. Acceptance/ Rejection of the bid documents:**

Chief Executive, OREDA reserves the right to reject or accept any bid or annul the bidding process at any time prior to award of contract, without having prejudice of incurring any liability to the affected bidders or any obligation to inform the bidders.

**Chief Executive**

I/we have carefully read & understood the above terms & conditions of the bid & agree to abide by them.

Signature and Seal of bidder

#### 4. COMMERCIAL TERMS & CONDITIONS

The Chief Executive, OREDA shall award the contract to the successful bidders whose bids shall be qualified after evaluation in terms of the responsiveness and lowest rate determined on the basis of price bids. On receipt of the awarded work the same should be submitted duly signed by the authorised person on each page within 7 days duly endorsed by the respective EE, RWSS /authorised Officer of Division and OREDA RE Cell Officials as acceptance of the terms and conditions. In case of non submission of the same duly complied the said award shall stand cancelled.

##### 4.1 **Rate:**

The offer should indicate the unit cost of the system, Installation & Commissioning charges, CMC Charges and taxes & duties separately (Annexure I, J). The unit cost must be inclusive of packing, forwarding, loading & unloading charges, cost of insurance and transportation FOR destination in the entire state where the system will be installed as per the supply / installation order.

##### 4.2 **Tax & Duties etc:**

All taxes and duties applicable (revised at the time of delivery of materials) from time to time will be paid. All statutory deductions applicable for the period of the project shall be effected.

##### 4.3. **Earnest Money Deposit:**

4.3.1 Earnest money deposit Rs.40.00 lakh as specified in the Table above is required to be deposited along with the bid without which the bid will not be accepted. No interest will be payable for the EMD amount under any circumstances.

4.3.2 Earnest money shall be submitted in shape of a Demand Draft in favour of Chief Executive, OREDA or BG valid for 120 days(format enclosed) from any Nationalised Bank Payable at Bhubaneswar and the proof of deposits should be attached to the bid. E.M.D would be refunded to the unsuccessful Bidders after finalization of the bid without any interest.

4.3.3 E. M. D would be forfeited in case of non- compliance of the purchase order by the successful bidders. EMD submitted shall be returned to successful

bidders only after Security cum Performance Bank Guarantee of at least 5 years is deposited.

- 4.3.4 In case of claim for exemption from deposit of Earnest money sufficient proof in support of claim for exemption of EMD as prescribed in Govt. of India Notification is to be attached with the bid. All benefits as per the Govt of Odisha policies will be applicable for local eligible firms only.

#### **4.4 Security Deposit/ Performance Guarantee Fees:**

The successful bidders must deposit a bank guarantee (Annexure-D1) towards Security cum Performance Guarantee fees with the Chief Executive, OREDA, Bhubaneswar for the feasible cases only along with acceptance of work order as follows

2% of the order value per year in shape of irrevocable Bank Guarantees up to 5 years validity from the date of supply, installation and commissioning till the completion of respective warranty and CMC period of the composite system.

The said deposit would be forfeited or BG invoked in part or full depending upon the significance of the performance or deficiency of services, if the supplies are not made and performances are not as per the Terms & Conditions of the purchase order. Every year the validity shall lapse with Warranty and CMC period discharged of the systems after commissioning of each system, subject to satisfactory execution / performance of the systems.

The solar module should be guaranteed on the performance as per the MNRE recommended technical specification. OREDA may at point of time get the performance test checked in any approved manner during period of guarantee. In case of deficiency of the same the whole lot of supply on that said order shall remain liable to be replaced. In case non adherence of quality, the executing agency shall be penalised suitably by the authority, besides, other measures of suspension, de-registration and blacklisting will be invoked.

**All benefits as per the State Govt policies will be applicable for local eligible firms only.**

#### **4.5 Programme Execution Schedule:**

The programme of execution of the supply, installation and commissioning shall be carried out as per the schedule given in the supply / installation order subject to issue of water yield test / layout documents by the respective Nodal Officer of RWSS in phased manner. In case all yield test report are available at the time of issue of supply / installation order the entire job has to be completed within maximum 3 months of sites clearance reports from RWS&S / Authorised Officer / OREDA



Execution of supply / installation shall be carried out in an approved manner as outlined in the technical specification or where not outlined, in accordance with the relevant Indian Standard Specification, to the reasonable satisfaction of the Authorized OREDA Officer.

4.5.1 Upon intimation about commissioning of the systems by the executing firm a joint inspection will be carried out by the representatives of the executing firm, OREDA and other officers from Govt of Odisha / Govt. of India.

4.5.2 The issuance of a JCC shall, in no way relieve the executing firm of its responsibility for satisfactory operation of the solar submersible pump systems.

#### **4.6 Validity of offer:**

The price bid offer (Annexure-H,I ) must be kept valid minimum for a period of one year from the date of opening of the technical bid. No escalation clause except the admissible tax component under the period of consideration would be accepted, if any. The validity can be mutually extended for a suitable period, if situation demands, with all terms and conditions as per the tender.

If at any time during the said period the empanelled bidders enhance schedule or reduce the price of such offered items or sells such items to any other Govt Organization at a price lower than the price chargeable under the contract or include additional schedule of supply, the supplier shall forthwith notify such modification to OREDA.

Any qualified firm violating to aforesaid conditions whenever noticed shall be delisted from the panel.

#### **4.7 Tax return:**

The bidders must submit attested copy of valid up to date tax clearance / tax return certificate along with the bid. The bid would not be considered without this document.

The original certificate would be produced at the time of opening of the bid, or, before issue of purchase order, if required.

#### **4.8 Warranty:**

The Supplier warrants that the Goods(as per the test report issued by authorized test centre) supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or is required by the

Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in conditions prevailing in the country of final destination.

This warranty shall remain valid for 60(sixty) months after the Goods or any portion thereof as the case may be, have been delivered to and commissioned and accepted at the final destination indicated in the Contract.

The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall repair or replace the defective Goods or parts thereof, without cost to the Purchaser other than, where applicable, the cost of inland delivery of the repaired or replaced Goods or parts from the port of entry to the final destination.

If the Supplier, having been notified, fails to remedy the defect(s), the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

#### **4.9 Penalty and termination of contract:**

The systems shall be supplied, installed and commissioned within the scheduled time as mentioned in the supply / installation order. If the supplier fails to adhere to the schedule, OREDA shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damages a sum equivalent to 1% of the delivery price of the delayed goods or unperformed services for each week of delay until actual delivery or installation/commissioning up to a maximum deduction of 5% of the contract price for delayed goods or installation and commissioning. Once the maximum is reached (i.e 5 weeks of delay) OREDA may consider termination of the contract and forfeit the security deposit without prejudice to the other remedies of the contract.

If at any time during the performance of the Contract, the Supplier or its subtle executants(s) should encounter conditions impeding timely delivery of the Goods and performance of the Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

A delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of liquidated damages pursuant, unless an extension of time is agreed upon without the application of liquidated damages.

#### **4.10 Termination for Default**

The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or in part:

- 4.10.1 if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser; or
- 4.10.2 if the Supplier fails to perform any other obligation(s) under the Contract.
- 4.10.3 If the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

For the purpose of this clause:

“Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the borrower, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the borrower of the benefits of free and open competition.

In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

#### **4.11 Inspection:**

Pre delivery inspection of major components may be carried out by a team of designated officials of OREDA, any other department as may be considered appropriate at the factory site of the vendor / manufacturer. Before despatch of consignment intimation shall be given sufficiently ahead so that no delay occurs for deputing officials and inspection at the premises / test site.

- 4.11.1 The rest of the tests and inspections shall be made at the place of delivery. Officers authorized by OREDA shall be entitled at all reasonable time to inspect and supervise and test during erection and commissioning. Such inspection will not relieve the executing firm of their obligation in the contract.

The water output as per technical specification has to be guaranteed without any controversies of variation of water table.

4.11.2 OREDA shall have the right to have the tests carried out at its own cost by an independent agency at any point of time.

#### **4.12 Payment:**

Payment will be made in instalment of solar water pumping system installed out of the total supply / installation order issued against the respective in the following manner

Total value of systems with full taxes / duties (excluding CMC charges) will be made after commissioning of the project. The check list of documents to be submitted along with the bills and Security cum Performance Bank Guarantee for release will be as per the purchase order issued.

For processing of the payment the indicative documents are to be submitted like (Annexure-B,C,D,E,F) all technical detail of the installed system, inspection and testing report, location map of the System, GPS based photograph wherever available of the hand pump, OH tank and solar PV array, System handing over report, Warranty certificate, Joint commissioning certificate or any other documents as may be required.

#### **4.13 Allocation of award & Execution:**

**All supply / installation orders shall be placed with the state local registered office of the qualified empanelled bidders having valid Odisha tax registration as per the FD circular no 5439 dtd 25.2.14 or as amended.**

Minimum 30 % total allocation of work will be awarded to the lowest evaluated responsive bid (L1) of the category of the eligibility clause under d). However, the firm work order will be placed on availability and feasibility of habitations from RWS&S and subsequent performance of the firm.

In case L1 rate being quoted by more than one bidder, the work to be executed shall be equally divided among them @20 % to each of the firm to the extent possible.

In view of large geographical spread and expeditious completion of the project, it is imperative that there shall be multiple vendors subject to their acceptance to the L1 price discovered in the tender for the bidders other than the local category. Successful bidders willing to accept the L1 price may be duly empanelled and arranged in order of their quoted price up to 10<sup>th</sup> bidder( up to 50% shall be under clause d) of eligibility and 50% of clause eligibility clause e)). Allocation of work award shall be as per the previous order issued and the overall execution performance. For local vendors 10 % of the overall allotment will be preferably on the basis of performance of the trial order.

**4.14 Comprehensive Maintenance Contract:**

CMC will be applicable during the period of the warranty period of 5 years. The bidder must enter into a Comprehensive maintenance contract for the specified period at the time of execution of the order. Offer without such CMC shall not be considered (sample format of CMC enclosed at Annexure). The scope of CMC must cover supply of all spare parts, services and performance reports during the contract in force. Order shall be placed on bidders who agree to offer such CMC. No payment for the guarantee & AMC will be paid. This is linked to the performance guarantee fees in shape of BG which will lapse @ 2% each year for 5 years for successful functioning unless otherwise invoked by the authority full or part.

**4.15 Limitation of Liability:**

OREDA, will, in no case be responsible for any accident fatal or non-fatal, caused to any worker or outsider in course of transport or execution of supply / installation. All safety measures as per prevailing norms should be adopted. All the expenditure including treatment or compensation will be entirely borne by the Executants. The Executants shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations. The executants shall take all steps towards the security compliances.

**4.16 Force Majeure:**

In no event shall either Party have any liability for failure to comply with this Agreement, if such failure results directly from the occurrence of any contingency beyond the reasonable control of the Party, including, without limitation, strike or other labor disturbance, riot, major power failure, war, natural calamities including but not limited to floods, earthquakes, fire, volcanic eruptions, epidemics, National Emergency, interference by any government or governmental agency, embargo, seizure, or enactment or abolition of any law, statute, ordinance, rule, or regulation (each a " Force Majeure Event"). In the event that either Party is unable to perform any of its obligations under this Agreement because of a Force Majeure Event, the Party who has been so affected shall as soon as may be, after coming to know of the Force Majeure Event, inform the other Party and shall take reasonable steps to resume performance as soon as may be after the cessation of the Force Majeure Event. If the period of nonperformance due to a Force Majeure Event exceeds thirty (30) days, the Party whose ability to perform has been so affected may, by giving written notice, terminate this Agreement.

**4.17 Dispute:**

For adjudication of any dispute between OREDA and the bidders arising in this case, reference can be made to any Law courts under the jurisdiction of Odisha High court only. The Chief Executive, OREDA reserves the right to accept or reject any or all bids without assigning any reason thereof.

**Chief Executive**

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

**Signature of the bidder with Seal**

## ANNEXURE-A

**5. TECHNICAL SPECIFICATION**

**DEFINITION:** Solar energy based dual pump piped water supply scheme includes complete solution for supply, installation, commissioning and Comprehensive Maintenance contract (CMC) for 5 years. The solar dual pump should consist of arrangement of installation of solar photovoltaic submersible pump in the hand pump in the same bore well/Tube well.

System should consist Solar Panels, Hot dip galvanized Tank Tower Structure (3m ht) suitable for LDPE(5000 liters) with relevant IS specification, Auto Water Level Controller, required no of common Stand Post.

**I. Technical Specification of Solar Dual Pumping System:**

1. Maximum Pumping head - 90 mtr.
2. Daily yield of Solar Submersible Pump at solar irradiance 7kWh/m<sup>2</sup>/day- more than 10000 Ipd
3. Overhead Water Tank capacity - 5,000 liters LDPE Tank of relevant IS specification.
4. Galvanized Overhead Tank Structure height 3 mtr. in knocked down condition with provision for mounting panel structure above over head tank.
5. Stand posts with 4 taps at two sites.
  - Battery bank should not be used as a backup system.
  - There may be provision of remote monitoring (optional)
  - Solar panels should be connected as per MNRE standard
  - Solar panels should be placed on top of the OHT for security.
  - The system should be suitable for 100mm bore size.

**II. Solar Submersible Pump:-**

- Light weight stainless steel positive displacement/ roto-dynamic equivalent submersible pump with MPPT pump controller with suitable indication and control, Permanent magnet brushless motor.
- Pump type - 1 HP, Positive displacement, roto-dynamic equivalent
- Rated rpm – As per MNRE specification
- Rated voltage – As per MNRE specification
- Rated current – As per MNRE specification
- Built-in features -
  - a. Outer dia should fit the bore well ,
  - b. Out let of the pump should be as per MNRE specification
  - c. Dry run protection
  - d. Wire to water efficiency as per MNRE specification
  - e. Over and under voltage protection as per MNRE specification
  - f. Overload protection as per MNRE specification
  - g. Temperature protection as per MNRE

### **III. Auto Water Level Controller without Battery:**

Automatic OFF/ON for controlling water level in the tank.

### **IV. Cable:-**

1. 3 core x 2.5 sq.mm cable as per IS 694- not more than 70 meters.
2. PVC Pipe J4 inch for covering cable for concealed connection - 15 mtrs.
3. Required nos. of Cable clips

### **V. Water Supply System**

The depth of submersible Pump shall be max 60 mtrs or as per the depth of the bore with independent riser pipe. HDPE pipe as per IS of 63 mm size shall be used from over head tank to stand post below ground level connection at a depth of minimum 60cm of required length with provision of 1/8 ferrule connection should be provided by the supplier. Only GI pipe of 50/32/25 mm size shall be used for over ground connection such as inlet, outlet and over flow connection of OHT and to distribution line connected to four mouth hot dip galvanised Common stand post with stainless steel self closing (304 grades) taps at a height 800mm. After testing of the pipe distributions and stand posts the trenches to be filled up with excavated earth up to a depth of 30 cm watering and riming and making good to the damages of the road as per pre road condition (WBM/CC/Bituminous).

### **VI. Solar PV Array:-**

The SPV water pumping system should be operated with a PV array capacity in the range of 225 Watts peak to 5000 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 225 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 more than 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

Please refer to Ministry of New and Renewable Energy, Jawaharlal Nehru National Solar Mission, Solar Photovoltaic Water Pumping System (2013-14) and latest guidelines for further compliance.

1. Mono/Multi-crystalline Solar Panels Capacity – 900 wp
2. Adequate anti-theft fittings need to be provided for each panel.

## **VII. Mounting Structure and Tracking System:-**

The PV modules will be mounted on metallic structures of adequate strength and appropriate design on top of the over head tank(OHT) having rigid joint which can withstand load of modules and high wind velocities up to 150 km per hour. The support structure used in the pumping system will be hot dip galvanized iron (G.I). The G.I. structures for mounting the Solar panels could be so designed, auto adjusted for optimal tilt throughout the year. The "Mounting Structure" should have the following features:

- The modules support structure shall be mild steel, hot dipped galvanized (more than 80 micron) iron for holding the PV modules. The size of angle iron should not be less than 50x50x5 mm.
- Each panel frame structure shall be so fabricated as to be fixed over the OHT suitably. It will withstand severe cyclone/ storm with the speed of 150 Km/Hr. Each panel frame shall be complete with a weatherproof junction box as per the relevant BIS specifications, where the module terminals shall be interconnected and output taken.
- All nuts and bolts should be made of very good quality and should be corrosion resistant.
- The structure should be designed to allow easy replacement of any module.
- The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.

## **VII. Overhead Tank Structure:-**

- Tender should provide design and drawings of structure along with bid.
- G I Structure should be strong enough (Main columns and base frame for Overhead Tank be made out of minimum of 91.5mm x 91.5mm x 4.5 mm square tube) to hold minimum of 7.5 tonnes of weight and cater to a minimum of 200 km/hr. wind speed. RCC foundation should be strong enough to hold weight of structure and water tank and the PV modules. Foundation bolt - M -16X700mm (length)-16 nos. 4 nos. for each concrete foundation.
- The structure should be sized to hold 5,000 litres LDPE water tank of relevant IS specification.
- The structure should be hot dip galvanized (minimum thickness 60 microns).

- Height at which the tank is kept is 3 mtrs. minimum and height at which the panels are placed is 5 meters minimum from the ground
- Overhead Tank Structure should be erected on suitable solid foundation made of reinforced cement concrete as per the ground requirement. Tenderer should provide approved design and valid certificate from certified structural engineer at the time of submitting the bid.
- To provide firm and fixed ladder up to the reach of the tank & module for servicing / cleaning, barbed wire fencing at the ground.
- To provide wash outlet at the bottom of the tank on the ladder side.
- Overhead LLDPE water tank with 2 layers-5000 litre capacity

### **VIII. Civil Supply / installation:-**

1. Civil supply / installation essential for erection of Overhead Tank Structure as per local site conditions and soil formation.
2. Civil supply / installation essential for erection and skirting of Stand Post - 2mtr x2mtr with proper drainage.
3. Civil supply / installation essential for construction of new hand pump platform as per RWS&S specification as the case may be.
4. Civil construction of Soak pit of 1m dia X 1m depth

### **Galvanized Tap Stand :-**

1. Tap Stand should be hot dip galvanized with having platform of 2 mtr x 2mtr with proper drainage up to 3 mtr.
2. Stand should consist of 4 nos. of 20mm stainless steel lift-cock type taps at height min. 800 mm.

### **IX. Warranty**

1. Complete system would be under warranty for a period of 5 years from the date of completion of one year defect liability period against any manufacturing defects.
2. SPV Modules will contain warranty of 10 year for 90 % peak output 25 years for 80 % peak output from the date of commissioning of system.

Minimum Reference drawing

## **Stage & Module mounting for model -II**

### **A.Mounting Structure and Tracking System:-**

To enhance the performance of SPV water pumping systems, it is desirable to use a tracking system. Manual, passive and auto tracking are permitted. 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 will be hot dip galvanized iron (G.I).

Facilities to be provided in the structure: Three times manual tracking in a day. The G.I. structures for mounting the Solar panels could be so designed, that these can be manually/ auto adjusted for optimal tilt throughout the year. A simple provision is to be provided so that the panel can be manually adjusted three times a day (East-West) to face the sun optimally. This adjustment could be done in the early morning, noon time and afternoon to increase the total input solar radiation on the solar panel surface substantially. This provision helps the motor pump set to start early in the morning and function efficiently till late in the afternoon, thereby increasing the total output of the pumping system.

The “Mounting Structure” should have the following features:

- The modules support structure shall be mild steel, hot dipped galvanized (more than 80 micron) iron for holding the PV modules. The size of angle iron should not be less than 50x50x5 mm.
- Each panel frame structure shall be so fabricated as to be grouted on ground of min 2.5 meter above ground level on a single galvanized iron pole of 100 mm dia with 4.8 mm thickness. It will withstand severe cyclone/ storm with the speed of 150 Km/Hr.

Each panel frame shall be complete with a weatherproof junction box as per the relevant BIS specifications, where the module terminals shall be interconnected and output taken.

- All nuts and bolts should be made of very good quality and should be corrosion resistant.
- The structure should be designed to allow easy replacement of any module.
- The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.

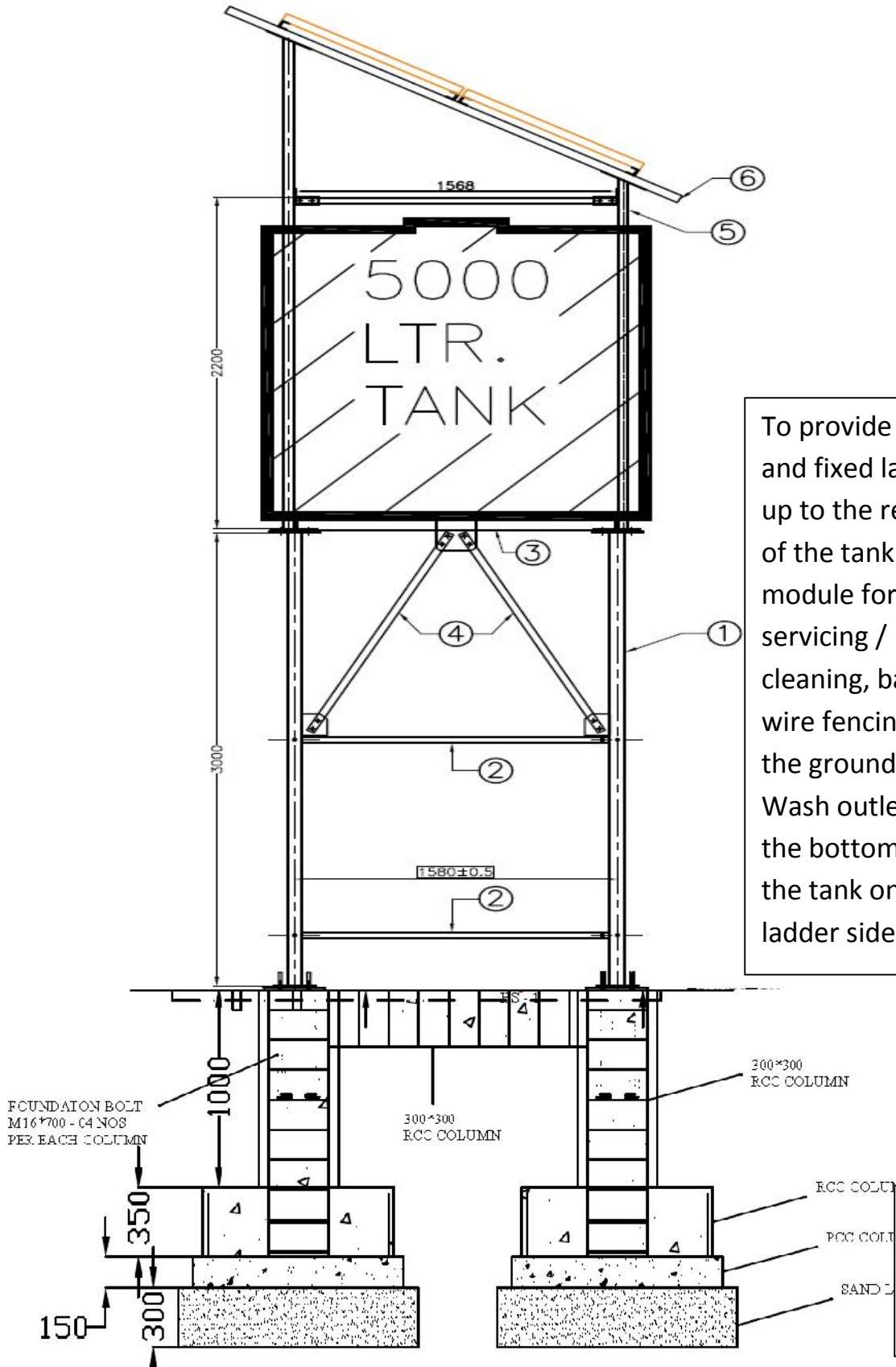
### **B. Overhead Tank Structure:-**

- Tender should provide design and drawings of structure along with bid.
- G I Structure should be strong enough (Main columns and base frame for Overhead Tank be made out of minimum of 72mm x 72mm x 4.8 mm square tube) to hold minimum of 6 tonnes of weight and cater to a

minimum of 150km/hr. wind speed. RCC foundation should be strong enough to hold weight of structure and water tank. Foundation bolt – M - 16X700mm (length)-16 nos. 4 nos. for each concrete foundation.

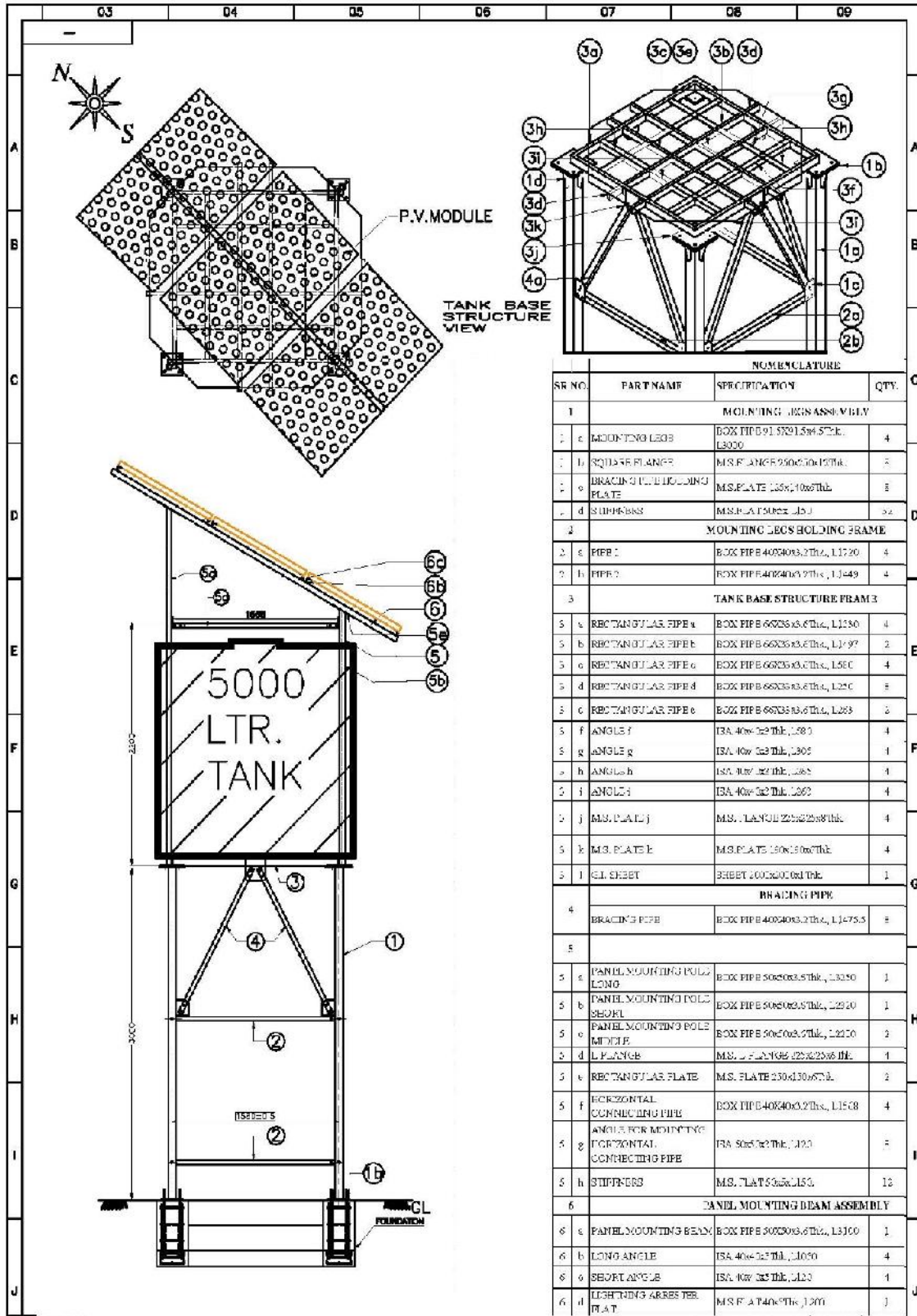
- The structure should be sized to hold 5,000 litres LDPE water tank
- The structure should be hot dip galvanized (minimum thickness 60 microns).
- Height at which the tank is kept is 3 mtr.
- Overhead Tank Structure should be erected on suitable solid foundation made of reinforced cement concrete as per the ground requirement.
- Overhead LDPE water tank with 2 layers-5000 litre capacity –IS 12701

Minimum Reference drawing for model I with overhead Solar module



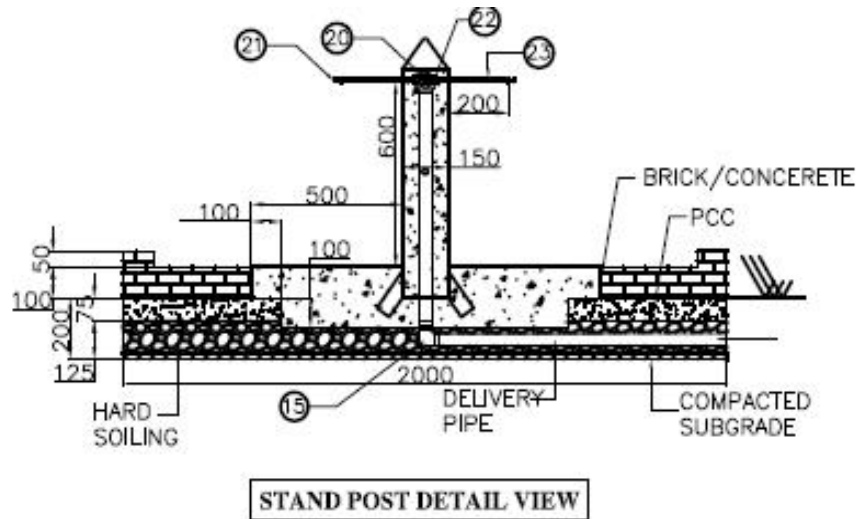
To provide firm and fixed ladder up to the reach of the tank & module for servicing / cleaning, barbed wire fencing at the ground. Wash outlet at the bottom of the tank on the ladder side.

- 600x600x350
- 800x800x150
- 900x900x300



SR NO.	PART NAME	SPECIFICATION	QTY.
<b>MOUNTING DEAM ASSEMBLY</b>			
1	MOUNTING LEGS	BOX PIPE 91.52x1.58x576x L3020	4
2	SQUARE PLATE	M.S. PLATE 200x200x6 THK.	2
3	BRACING PIPE HOLDING PLATE	M.S. PLATE 150x100x6 THK.	2
4	SUPPORTS	M.S. PLATE 150x2x150	2x
<b>MOUNTING LEGS HOLDING FRAME</b>			
5	PIPE 1	BOX PIPE 40x40x3.2 THK., L1720	4
6	PIPE 2	BOX PIPE 40x40x3.2 THK., L1449	4
<b>TANK BASE STRUCTURE FRAME</b>			
7	RECTANGULAR PIPE a	BOX PIPE 60x35x3.6 THK., L1230	4
8	RECTANGULAR PIPE b	BOX PIPE 60x35x3.6 THK., L1497	2
9	RECTANGULAR PIPE c	BOX PIPE 60x35x3.6 THK., L500	4
10	RECTANGULAR PIPE d	BOX PIPE 60x35x3.6 THK., L250	2
11	RECTANGULAR PIPE e	BOX PIPE 60x35x3.6 THK., L250	2
12	ANGLE f	ISA 40x32 THK., L280	4
13	ANGLE g	ISA 40x32 THK., L280	4
14	ANGLE h	ISA 40x32 THK., L280	4
15	ANGLE i	ISA 40x32 THK., L280	4
16	M.S. PLATE j	M.S. PLATE 200x200x6 THK.	4
17	M.S. PLATE k	M.S. PLATE 150x100x6 THK.	4
18	GL. SHEET	3BBT 100x200x6 THK.	1
<b>BRACING PIPE</b>			
19	BRACING PIPE	BOX PIPE 40x40x3.2 THK., L1475.5	2
<b>PANEL MOUNTING DEAM ASSEMBLY</b>			
20	PANEL MOUNTING POLE LONG	BOX PIPE 50x50x3.5 THK., L3250	1
21	PANEL MOUNTING POLE SHORT	BOX PIPE 50x50x3.5 THK., L2920	1
22	PANEL MOUNTING POLE MIDDLE	BOX PIPE 50x50x3.5 THK., L2210	2
23	L PLATE	M.S. PLATE 100x100x6 THK.	4
24	RECTANGULAR PLATE	M.S. PLATE 250x130x6 THK.	2
25	HORIZONTAL CONNECTING PIPE	BOX PIPE 40x40x3.2 THK., L1508	4
26	ANGLE FOR MOUNTING HORIZONTAL CONNECTING PIPE	ISA 50x32 THK., L120	2
27	SUPPORTS	M.S. PLATE 50x50x150	12
<b>PANEL MOUNTING DEAM ASSEMBLY</b>			
28	PANEL MOUNTING BEAM	BOX PIPE 50x50x3.5 THK., L3100	1
29	LONG ANGLE	ISA 40x32 THK., L1050	4
30	SHORT ANGLE	ISA 40x32 THK., L120	4
31	LIGHTING ARRESTER PLATE	M.S. PLATE 140x140x120	1



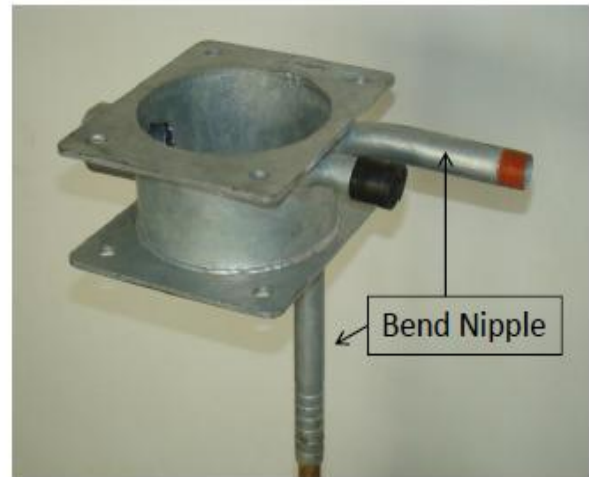


SC

## Special Water Chamber

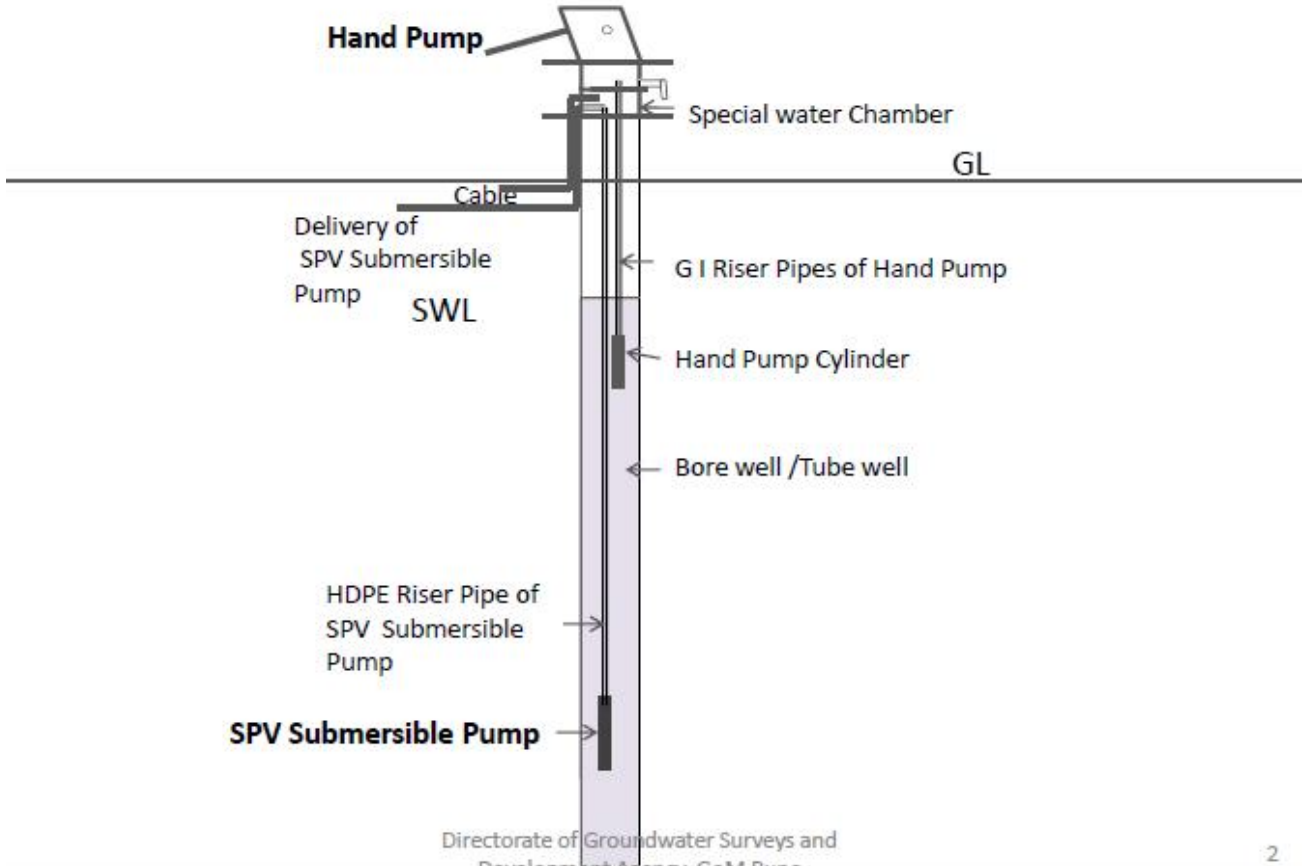


Inlet for rooftop rainwater harvesting





Schematic Drawing of Solar Energy based Dual Pump System.  
Arrangement of two pumps in one Bore well



## ANNEXURE-B

**Survey Format for Solar Energy Based Dual Pump Pipe Water Supply**

(To be jointly surveyed by RWS&S, OREDA, Village Representative, Executing firm, details to mention wherever necessary)

1. Name of the habitation
2. Name of Village
3. GP
4. Block
5. Sub division
6. Number of HH in the habitation
7. Bore well / Sanitary well / any other
8. Water table of well, static when surveyed
9. Min water level, if sanitary well, during summer
10. Yield of bore well/ Well 2000 litre per hour
11. Recharging / yield of sanitary well lit per hour
12. Depth of well in mts
13. Length of casing pipe
14. Distance of habitation from source in mts
15. Site for Over head tank(OHT) & module  
free from shed / tree
16. Distance from source to OHT in mts
17. Distance of source from the highest point of habitation
18. Sample sketch to draw/ Layout of Site .

Signature

Firm  
Representative

Signature

Village  
Representative

Signature

OREDA  
Asst. Director/  
Supervisor.

Signature

RWS&S  
Authorised  
Officer

## ANNEXURE-C

**Joint Commissioning Cum Handing Over certificate and Pump**

(1) Village                                  Block                                  District

(2) Supply / installation Order No.: \_\_\_\_\_ Date: \_\_\_\_\_

(3) Actual Date of Commissioning: \_\_\_\_\_

(4) Name &amp; address of the executants:

It is hereby certified that the executants M/s-----  
 ----- has successfully installed &  
 commissioned the \_\_\_\_\_ Watt SPV dual Pump in Village \_\_\_\_\_  
 on \_\_\_\_\_(date) with all components as mentioned in Annexure I appended  
 hereto, as per the terms and conditions of the supply / installation order mentioned at  
 serial No. (2) above.

The supply / installation has been fully executed as per the supply / installation  
 order and it is handed over in good working condition. The executants shall provide  
 complete warranty against all manufacturing defects and defective/erroneous  
 installation for a period of FIVE years from this date of handing over. The warranty,  
 O&M certificate / agreement , engineering documents have been handed over to  
 OREDA. The above-mentioned SPV Hand Pump is hereby handed over by the  
 executants to Panchayat / VWSC / User in fully satisfactory working condition.

Seal and Signature	Seal and Signature	Seal and Signature	Seal and Signature
Sarpanch/VWSC	Authorized In-Charge	OREDA Officer	RWSS Officer

## ANNEXURE- D

## DETAIL OF SYSTEM INSTALLED

S N	Name of the items installed/supply / installations commissioned at site	Unit	Quantity	Remark
1	900 Wp SPV Module of _____Wp each of _____make as per tender specifications along with IV curve details of every individual panel with anti theft fittings with lightning arrester.	No.		
2	1HP(equivalent) Submersible DC, HR / roto-dynamic equivalent pump with MPPT pump controller with suitable indications and controls as per valid test certificate.	No.		
3	All fittings for conversion of hand pump to dual pump including SS cylinder, nipple, water chamber, strainer / filter.	Set		
4	LDPE (ISI) Overhead Tank of capacity 5000 liters. Suitable Hot Dipped Galvanized MS Structure and civil installation as per design	Set		
5	Auto Water Level Controller without Battery	Set		
6	Cable recommended	mtr/no		
7	Lift cock Taps / Common stand post and platform with proper drainage channel arrangements 1 set	Set		
8	GI / CPVC/ UPVC/HDPE Pipe with valves as per relevant standard	mtr/no		
9	Civil Supply / installation of Platform for Pump with proper drainage channel arrangements and 1 soak pit .	Mtr & no.		
10	Firm and fixed ladder up to the solar module for cleaning , barbed wire fencing / guard at the base ground etc	no.		
11	Display board with dos and don'ts			

Seal and  
SignatureSarpanch/VWSC  
In-ChargeSeal and  
SignatureAuthorized  
OfficerSeal and  
SignatureOREDA  
OfficerSeal and  
Signature

RWSS

**ANNEXURE-E****Scope of Comprehensive maintenance of Solar energy based dual pump piped water supply systems for a period of 5 years. (Contract draft subject to revision)**

All materials, components of the Solar energy based dual pump piped water supply systems during the period of maintenance shall be the property Village Committee where the system is installed.

Regular maintenance of the all Systems for a period of 5 years of warranty against manufacturing defects after commissioning along with supply of consumable items as and when necessary and submission of daily performance of solar submersible pump systems shall come, under the comprehensive maintenance contract.

The break down maintenance of the entire system including supply of necessary spare parts, if any are already under the coverage of warranty clause of the General Terms & Condition and special terms & condition for a period of 5 years from date of commissioning of solar submersible pump systems. The operation and maintenance schedule of the SPV solar submersible pump systems during the 5 years contract period shall be as detailed below.

1. 5 years comprehensive maintenance period shall begin on the date actual commissioning for the solar submersible pump systems. The requisite numbers of qualified and trained personnel are required to be deputed / available in the state.
2. The security of the solar submersible pump systems will rest with the village committee till such time comprehensive maintenance of the solar submersible pump systems.
3. The deputed personnel shall be qualified and well trained so that they can handle any type of operation hazard quickly and timely.
4. The deputed personnel shall have to keep the record on quarterly basis for the solar submersible pump systems as per format to be supplied after commissioning of the solar submersible pump systems.
5. The deputed personnel shall be in a position to check and test all the equipment regularly, so that preventive actions, if any, could be taken well in advance to save any equipment from damage.
6. The Village Committee shall keep clean the solar submersible pump systems in all time.
7. Normal and preventive maintenance of all systems all electrical connection, changing of tilt angle of module mounting structure shall be the responsibility of the supplying agency.

8. During the maintenance period of 5 years of the solar all systems, if there is any defect of any component of all systems the supplier shall be responsible for immediate replacement / rectification. The damaged component may be repaired, if it is understood after examination that after repairing performance of the component shall not be degraded, otherwise the defective component shall have to be replaced by new one without any extra cost.
9. List of spare parts & measuring instruments are to be supplied along with the systems may be specified in the bid.
10. Comprehensive Maintenance Instructions:
  - 10.1 The executants shall furnish prior to completion of the supply / installations copies of maintenance instruction in Odiya / English for approval and supply sets of the approve manuals of instructions at the time of inspection and taking over of the equipment. These manuals shall properly bound in book form and contain all information, description of equipment, diagram etc. necessary to enable the customer to operate and maintain the whole scheme.
  - 10.2 Proper maintenance of the systems shall be carried out by the executants during the maintenance period of 60 months with 6 monthly / annual review check up of systems and equipment in detail with purchaser.
  - 10.3 Properly qualified and trained personnel well versed in maintenance of SPV systems and knowledge of computers with approval from purchaser shall be deployed at site for maintenance.
  - 10.4 Proper repainting, re-coating of exposed surfaces to prevent rusting & replacement of worn out parts shall be carried out along with the maintenance.
    - Systems personnel shall be deputed on such basis so that a qualified / trained person with a minimum Technical qualification should be available at site always during the maintenance period.
    - Supplier shall depute on engineer of their company for the maintenance of the systems who shall be fully responsible for the complete maintenance and optimum operation of the systems. The name and contact nos. of this engineer shall be notified to the purchaser for the purpose of contact, responsibility and correspondence with regard to all trouble shooting.
    - Replacement & repair of damaged parts shall be carried out immediately during the maintenance period so as to ensure at least 95% uptime.

- Systems operation reports in a format prescribed by the purchaser shall be furnished by the supplier on a weekly and monthly basis.
- Systems shall be operated as per the standard practices to ensure proper safety measures.
- The supplier shall ensure replacement of worn out parts and component during the comprehensive maintenance period for which purpose the supplier shall carry and maintain minimum inventory of spares at the systems and its supply / installations.
- In case of delay in repair & maintenance and non-observance of schedule, the purchaser shall have the right to impose any penalties including forfeiture of performance security.
- In case of any fault, the fault must be removed within 2 days of receipt of the complaint, failing which a penalty of Rs.1,000/- per day shall be charged. In case of delay of more than 7 days OREDA may on its take up repair by any suitable method and the cost of the repair along with the penalty amount will be charged from the supplier to be paid or deducted from the performance security deposit by invoking the BG in part to the extent of the repair cost. However, under Force Majeure circumstances penalty can be waived off.

#### 10.5 Routine, preventive, breakdown& Capital Maintenance :

- Routine and Preventive maintenance shall include such checks and maintenance activities quarterly / half yearly and yearly basis which are required to be carried out on all the components of the solar submersible pump systems to minimize breakdown and to ensure smooth and trouble free running of the all systems. The supplier shall be responsible to carryout routine and preventive maintenance and replacement of each and every component/ equipment of the solar submersible pump systems and he shall provide all labour, materials, consumables etc. for routine and preventive maintenance of his own cost.
- Breakdown maintenance shall mean the maintenance activity including repairs and replacement of any component or equipment of the all systems which is not covered by routine and preventive maintenance and which is required to be carried out as a result of sudden failure / breakdown of that particular component or equipment while the systems is running. The supplier shall be responsible to carry out breakdown maintenance of each and every component of the solar submersible pump systems and he shall provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance at his own cost irrespective of the reasons of the breakdown/ failure.

- Capital maintenance shall mean the major overhaul of any component or equipment of the solar submersible pump systems which is not covered by routine, preventive and breakdown maintenance which may become necessary on account of excessive wear & tear, aging which needs repair / replacement. The capital maintenance of solar submersible pump systems and all civil structures shall normally be planned to be carried out on an annual basis. For this purpose a joint inspection by the supplier and purchaser shall be carried out of all the major components of the solar submersible pump systems, about two months in advance of the annual maintenance period. In order to ascertain as to which components of the solar submersible pump systems require capital maintenance. In this regard the decision of the purchaser will be final and binding. However, if the condition of any systems and component warrants its capital maintenance at any other time, a joint inspection of the purchaser and supplier shall be carried out immediately on occurrence of such situation and capital maintenance shall be carried out. If required, in consultation with concerned authorities. The decision of the purchaser shall be final and binding.

**Signature of the bidder**



## ANNEXURE-F

**Model Bank Guarantee Format for Performance Security**

To

The Chief Executive,  
 OREDA, Bhubaneswar

WHEREAS----- (name and address of the supplier) (hereinafter called "the supplier") has undertaken. in pursuance of contract no----- dated----- to supply -----(description of goods and services) (herein after called "the contract")'

AND WHEREAS it has been -stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein, as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we, are guarantors and responsible to you on behalf of the supplier. up to a total as detailed below . (Amount of the guarantee in words and figures). and we undertake to pay you.

1. 1 year@ 2%, Valid from ----- to ----- Rs. -----
2. 2 years@2%, Valid from -----to ----- Rs-----
3. 3 Years@2%, Valid from -----to ----- Rs-----
4. 4 years@2%, Valid from ----- to ----- Rs. -----
5. 5 years@2%, Valid from -----to -----Rs.-----

Upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid. without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your- demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other 'modification of the terms of the contract to be performed there under or of any of the contract documents --which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change. Addition or modification.

This guarantee shall be valid as indicated above .

Our branch at \* (Name & Address of the \_\_\_\_ \* branch) is liable to pay the guaranteed amount depending on the filing of claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our----- \* branch a written claim or demand and received by us at our \_\_\_\_ \* branch on or before Dt.----- otherwise bank shall be discharged of all liabilities under this guarantee thereafter.

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal. name & address of the Bank and address of the Branch

**FORMAT FOR BANK GUARANTEE FOR EMD**

On stamp paper of requisite amount

ANNEXURE-G

**B.G. No:.....**

To

The Chief Executive

OREDA, Bhubaneswar

Whereas 'OREDA' has invited tender for the work of Design, supply, installation, commissioning and maintenance of SPV Systems vide Tender Call Notice No.-----/OREDA AND WHEREAS M/S. (Name and address of the firm), who having submitted their tender hereinafter referred to as the 'Tenderer' and have agreed to deposit to the 'OREDA' an amount of Rs..... (Rupees .....) as per the terms and conditions of the Tender Document AND WHEREAS the 'OREDA' also willing to accept a Bank guarantee in lieu of payment by demand draft of any amount equivalent to the amount of earnest money required to be deposited by the Tenderer to the 'OREDA' i.e. an amount equal to Rs..... which as guarantee will be kept valid up to -----.

In consideration of the 'OREDA' having agreed to consider the Bid proposals submitted by the tenderer without depositing the amount of earnest money and against this Bank guarantee, we .....(name and address of the bank) hereby undertake and guarantee to make payment to the 'OREDA' the amount of Bid earnest money deposit at any time (time being the essence of the contract) when the 'OREDA' asks for the same as per the terms and conditions of the tender Document.

The bank further undertakes not to revoke this guarantee during its currency except with the previous consent of the 'OREDA' in writing and the guarantee shall be continuous and irrevocable guarantee up to a sum of Rs..... (Rupees.....)only provided always that any indulgence or relation on the part of the 'OREDA' to the said tenderer with or without the consent of the bank shall not prejudice or restrict remedies against the bank nor shall the same in any event be a ground of defence by the Bank against the 'OREDA'.

In case the 'OREDA' Force puts forth a demand in writing on the Bank for the payment of amount full or in part against this bank guarantee, the bank will consider that such demand by itself is a conclusive evidence and proof that the tenderer has failed in complying with the terms and conditions stipulated by the 'OREDA' in its bids and payment will be made to the 'OREDA' without raising any disputes regarding the reasons for such failure on the part of the tenderer.

The bank shall not be discharged for release from this guarantee by any arrangement between the tenderer and the 'OREDA' with or without the consent of the bank or any alterations in the obligations of the parties or by an indulgence, forbearance shown by the 'OREDA' to the tenderer.

This guarantee shall be in addition to and without prejudice to any other securities or remedies which the 'OREDA' may have or hereafter possess against the tenderer and the 'OREDA' shall be under no obligations to marshal in favour of the bank any such securities or fund or asset that the

'OREDA' at its absolute discretion may vary, exchange, renew, modify or refuse to complete or enforce or assign any security or instrument.

The Bank agrees that the amount hereby guaranteed shall be due and payable to the 'OREDA' on 'OREDA' serving a notice requiring the payment of the amount and such notice shall be served on the bank either by actual delivery thereof to the Bank or by dispatching thereof to the bank by Registered post at the address of the said Bank. Any notice sent to the Bank at its address by Registered Post shall be deemed to have been duly served on the Bank notwithstanding that the notice may not in fact have been delivered to the Bank.

In order to give full effect to the provisions of this guarantee the bank thereby waives all rights inconsistent with the above provisions and which the bank might otherwise as a guarantor be entitled to claim and enforce.

We,.....(name and address of the bank), lastly undertake not to revoke this guarantee during its currency except with the previous consent of the 'OREDA' in writing.

"Notwithstanding anything contained herein",

- (i) Our liability under this guarantee shall not exceed Rs..... (Rupees ..... only).
- (ii) This Bank Guarantee shall be valid up to -----
- (iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if we receive from you a written claim or demand on or before - ----- (date of expiry of Guarantee)".

Dated:-.... day of ..... 2016

## ANNEXURE- H

**PRICE BID MODEL-I**  
ONLINE

As per MNRE/ JNNSM/ Other national / international standards on components / systems with terms and condition on warranty / replacements, performances

Sl no	Particulars	Price in INR
1	<p>Supply of Solar Photovoltaic Water Pumping System consisting of 1 HP (equivalent), submersible DC (HR / equivalent pump) set and Photovoltaic solar panel set of 900 Wp, lightning arrester, water level auto control &amp; electronics etc. complete as per technical specification.</p> <p>Supply of 25 HDPE independent riser pipe of maximum 60m along with stainless cylinder, nipples, special water chamber, strainer / filter to the pump, necessary fittings to the Solar Photovoltaic water submersible pump set, etc. complete to convert a hand pump to dual pump as per GSDA specification / drawing.(In case of sanitary well float arrangement to provide complete in all respect)</p> <p>Supply of Hot dip galvanized MS Steel staging as per technical specification for composite structure for water storage tank at 3m and solar PV panel at top height with ladder up to the module for servicing or for <b>model-I</b></p> <p>Supply of materials for rising main up to 50m, distribution system with 63mm piping, one galvanized stand posts with 4 taps and 5000 L HDPE (ISI) water storage tank at the locations point on the basis of the joint survey of OREDA / RWS&amp;S etc within 15 m diameter from the hand pump, closest to the habitation as per technical specification.</p> <p>Supply of barbed wire fencing for the ladder/ solar PV panel / staging structure at the ground base, display plate of the supplier/executants, IEC materials to display.</p>	

	Supply of Construction material for foundation for hot dip galvanized MS Steel Staging for LDPE(ISI) water storage tank, solar panel and stand post platforms etc conforming to GOI / GSDA, Maharashtra plan and drawing.	
	Total	
2	Taxes and duties	
3	Sub Total ( 1 +2)	
4	Rates for Installation and commissioning of the systems	
5	Taxes and duties	
6	Sub Total	
7	Grand Total (3+6)	

(In words-----)

Signature of the bidder with Seal

## ANNEXURE- I

**PRICE BID FOR MODEL-II**  
ONLINE

As per MNRE/ JNNSM/ Other national / international standards on components / systems with terms and condition on warranty / replacements, performances

Sl no	Particulars	Price in INR
1	<p>Supply of Solar Photovoltaic Water Pumping System consisting of 1 HP (equivalent), submersible DC (HR / equivalent pump) set and Photovoltaic solar panel set of 900 Wp, lightning arrester, water level auto control &amp; electronics etc. complete as per technical specification.</p> <p>Supply of 25 HDPE independent riser pipe of maximum 60m along with stainless cylinder, nipples, special water chamber, strainer / filter to the pump, necessary fittings to the Solar Photovoltaic water submersible pump set, etc. complete to convert a hand pump to dual pump as per GSDA specification / drawing.(In case of sanitary well float arrangement to provide complete in all respect)</p> <p>Supply of Hot dip galvanized MS Steel staging as per technical specification for composite structure for water storage tank at 3m for <b>model-II</b>.</p> <p>Monopole MS galvanized module structure as per technical specification.</p> <p>Supply of materials for rising main up to 50m, distribution system with 63mm piping, one galvanized stand posts with 4 taps and 5000 L HDPE (ISI) water storage tank at the locations point on the basis of the joint survey of OREDA / RWS&amp;S etc within 15 m diameter from the hand pump, closest to the habitation as per technical specification.</p> <p>Supply of barbed wire fencing for the ladder/ solar PV panel / staging structure at the ground base, display plate of the supplier/executants, IEC materials to display.</p>	

	Supply of Construction material for foundation for hot dip galvanized MS Steel Staging for LDPE(ISI) water storage tank, solar panel and stand post platforms etc conforming to GOI / GSDA, Maharashtra plan and drawing.	
	Total	
2	Taxes and duties	
3	Sub Total ( 1 +2)	
4	Rates for Installation and commissioning of the systems	
5	Taxes and duties	
6	Sub Total	
7	Grand Total (3+6)	

(In words-----)

Signature of the bidder with Seal



## ANNEXURE- J

PRICE BID  
ONLINE

For extra distribution, piping, hand pump supply and platform construction.

## 1 . Distribution:

SL.No	Particulars	Rates in INR
1	Distribution and connections at the door steps from main distribution line with HDPE/ CPVC pipe as per IS of 63 mm size shall be used to connect solar dual pump to over head tank and over head tank to stand post below ground level connection at a depth of minimum 60cm of required length with provision of 1/8 ferrule connection should be provided by the supplier. Only GI pipe of 50/32 mm size shall be used for over ground connection such as inlet, outlet and over flow connection of OHT connecting to HDPE pipe from submersible pump and to distribution line connected to Four mouth hot dip galvanised Common stand post with stainless steel self closing (304 grades)taps at a height 800mm. After testing of the pipe distributions and stand posts the trenches to be filled up with excavated earth up to a depth of 30 cm watering and riming and making good to the damages of the road as per pre road condition (WBM/CC/Bituminous).	
	a) With HDPE pipe per mtr, with taxes	
	b) With GI pipe per mtr with taxes	
2	Common stand post of four taps.	

## 2. Hand pump:

Sr.No	Particulars	Price in INR
1	Demolishing of existing Hand Pump platform with taxes.	
2	Supply of India Mark II Hand Pump Set with 70 mm OD stainless steel cylinder along with 12 nos of GI Pipes and connecting rods 3 meters each with taxes.	
3	Construction of platform for Hand Pump (inclusive of taxes and duties) with taxes.	

Signature of bidder with seal and date