



**Chhattisgarh State Renewable Energy  
Development Agency (CREDA)**  
(Dept. of Energy, Govt. of Chhattisgarh)

Near Energy Education Park, Village Fundhar  
VIP (Air Port Road) Raipur 492015 (C.G.)  
Ph.: 91-8602143414

**E-mail: [contact.creda@gov.in](mailto:contact.creda@gov.in), Website: [creda.co.in](http://creda.co.in)**  
**RFX No.-8100017646**

**TENDER DOCUMENT No.1686/CREDA/Solar WPS/2020 Dated: 01-06-2020**

**FOR SURVEY, DESIGN, SUPPLY, INSTALLATION & COMMISSIONING OF  
SOLAR WATER PURIFICATION SYSTEMS WITH FIVE YEARS ON SITE  
WARRANTEE, CMC & INSURANCE ANYWHERE IN THE STATE OF  
CHHATTISGARH**

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice inviting bid	01-06-2020 05:00 pm	----	----
Period of availability of bidding document at website	01-06-2020 05:00 pm	25-06-2020 05:00 pm	<a href="http://www.creda.co.in">http://www.creda.co.in</a>
Pre Bid queries Submission in writing	10-06-2020 11:30 am	10-06-2020 05:00 pm	At CREDA H.O., Raipur
Submission of Technical Bid	25-06-2020 11:00 am	25-06-2020 02:00 pm	At CREDA H.O., Conference Hall, Raipur.
Submission of e-Price Bid	11-06-2020 05:00 pm	25-06-2020 02:00 pm	<a href="http://www.cspc.co.in">http://www.cspc.co.in</a>
Opening of Technical Bid	25-06-2020 03:00 pm	25-06-2020 05:00 pm	At CREDA H.O., Conference Hall, Raipur.
Declaration of Eligible Tenderer	25-06-2020 05:00 pm	----	At CREDA H.O., Conference Hall, Raipur.
Opening of e- Price Bid	26-06-2020 11:00 am	26-06-2020 05:00 pm	At CREDA H.O., Conference Hall, Raipur.

**Tender Document Cost– Rs.5,000.00 + 18% GST = Rs.5,900.00**  
**(in words Rupees Five Thousand Nine Hundred Only)**

Document can also be downloaded from our website [www.creda.co.in](http://www.creda.co.in) with the cost of tender as mentioned in NIT, which shall have to be deposited along with the tender document.

**CHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY****CONTENTS**

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**NOTICE INVITING TENDER**

CREDA invites sealed tenders for Survey, design, supply, installation, and commissioning of Solar Water Purification Systems with five years onsite warrantee, Comprehensive Maintenance Contract (CMC) and Insurance for anywhere in the State of Chhattisgarh from registered System integrators. As per following details -

Sr.No.	Item Description	Cost of Tender Document	EMD	Essentials
1.	Design, Supply, Installation and Commissioning of Solar Water Purification Systems with 05 years onsite warrantee, CMC and insurance for anywhere in the State of Chhattisgarh.	Rs 5,000.00 +18% GST = Rs.5,900.00	Rs. 5,00,000.00	As per clause no. 1A to 1F of Eligibility Criteria (Page no.7)
<b>TOTAL -</b>		<b>5,900.00</b>	<b>5,00,000.00</b>	<b>----</b>

**Important Events and time schedule for this tender are as follows -**

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice inviting bid	01-06-2020 05:00 pm	----	----
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Declaration of Eligible Tenderer	25-06-2020 05:00 pm	----	At CREDA H.O., Conference Hall, Raipur.
Opening of e- Price Bid	26-06-2020 11:00 am	26-06-2020 05:00 pm	At CREDA H.O., Conference Hall, Raipur.

Price Bid shall be submitted online only at <http://www.cspc.co.in>, however Technical bid will have to be submitted in hard copy at CREDA H.O., Conference Hall, Near Energy Education Park VIP Road, Raipur. Bidders are advised to follow the instructions provided for Registration and e-Submission Process accordingly. (For any query about e-bidding please visit user manual at <http://www.cspc.co.in>. (RFX No.-8100017646)

**Details of this tender are mentioned at Tender Documents which can be downloaded from our website [www.creda.co.in](http://www.creda.co.in). Any amendment/corrigendum will only be uploaded on CREDA's website. The tenderer should have to deposit tender document cost along with EMD as mentioned above through demand draft/NEFT/RTGS payable to CREDA Raipur while submitting tender.**

CREDA reserves all rights to accept/reject any or all tenders in full/part without assigning any reasons.

**Chief Engineer  
RE-II, H.O. CREDA  
Raipur (CG)**

**CHECK LIST**

To ensure that your tender submitted to CREDA is complete in all respects, please go through the following checklist & tick mark for the enclosures attached with your tender -

<b>Sl. No.</b>	<b>Description</b>	<b>Complied</b>	<b>Page No. / Flag</b>
1.	Earnest Money Deposit		
2.	Tender Document Fee (proof of submission)		
3.	The original document duly signed & with stamp on each page, as a confirmation of acceptance of Terms & Conditions (T&C).		
4.	Net Worth Certificate and Turnover Certificate for last three years duly signed by Chartered Accountant		
5.	Completion cum Performance Certificate of Solar Water Purification System installed by the Bidder in Govt Scheme of any state or Market Mode Scheme of CREDA.		
6.	Copy of Registration: Valid Certificate as System Integrator of CREDA in SPV Programme.		
7.	Declaration of conflict of interest - by bidder about any relatives working with CREDA.		
8.	Manufacture Authorization certificates of major components of Solar Water Purification Systems.		
9.	Forwarding Letter & Undertaking by the Tenderer		
10.	PAN, GSTIN, Tax clearance certificate of the Tenderer		
11.	Self-certificate from Tenderer on not being a debarred from Government contract or a blacklisted company.		

**A. Details of Beneficiary/ Account Holder**

<b>Name of Beneficiary</b>	Chhattisgarh State Renewable Energy Development Agency (CREDA)
<b>Address</b>	Near Energy educational Park, VIP Road (Airport Road), Raipur
<b>Contact Number</b>	Tel.: 8370008630

**B. Bank Details**

Bank Name	ICICI Bank
Branch Address	Pachpedi Naka, Raipur
Beneficiary Account No.	134601000400
Beneficiary Account Name	C G ST Renewable Energy Dev. Agency (CREDA)
Type of Bank Account	Saving
MICR Code of the Bank	492229006
IFSC Code of the Bank	ICIC0001346

**UNDERTAKING OF THE TENDERER**

I/We have read carefully and examined the notice inviting tender, schedule, General Rules and terms and conditions of the contract, special conditions, Schedule of Rates and other documents and Rules referred to in the tender document for the supply.

I/We hereby tender my rates for the execution of the work for CREDA as specified within the time stipulated in the schedule in accordance with all aspects with the specifications, designs, drawings and instructions with such conditions so far as applicable.

I/We agree to keep the tender valid for **One Hundred Eighty (180) days** from the due date of submission thereof and not to make any modifications in its terms and conditions.

A sum of **Rs..... Lacs** is hereby forwarded as **Earnest Money** in the form of crossed demand draft / RTGS / NEFT payable to CREDA at Raipur (C.G.). If I/We fail to commence or complete the sanction ordered in specified time or fail to fulfil the any condition of tender document, I/We agree that the CREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money absolutely. The said Earnest Money shall be retained by CREDA towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be required by CREDA.

I/We hereby declare that I/We shall treat the tender documents, specifications and other records connected with the work 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 prejudicial to the safety of CREDA/Government.

I/We shall abide to all the laws and shall be responsible for making payments of all the taxes, duties, levies and other Govt. dues etc. to the appropriate Govt. departments.

Our GST Registration No. .... The PAN No. under the Income Tax Act is .....

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 CREDA to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

Dated:

**Signature**

Place:

**Name of tenderer with seal .....**

**Witness :**

Signature: .....

Name: .....

Postal Address: .....

.....

## SECTION - 1

### INSTRUCTIONS FOR TENDERERS

#### 1. ELIGIBILITY CRITERIA :

##### A. MINIMUM EXPERIENCE:

Bidders must have minimum experience in last three financial years i.e. 2016-17, 2017-18 & 2018-19 as per the details mentioned below-

S. No.	Capacity of Solar Water Purification System	For bidders of Chhattisgarh State and Start-ups & New Entrepreneurs	For bidders of Other States
1	SPV based Iron Removal Water Purification System of capacity 5000LPD	01 Nos.	04 Nos.
2	SPV based Fluoride Removal Water Purification System of capacity 2000LPD	01 Nos.	04 Nos.
3	SPV based R.O. Water Purification System of capacity 2000LPD	01 Nos.	04 Nos.

##### B. TEST REPORTS:

Tenderer must have to submit test reports of all the major components such as SPV Module, Pump, Battery, and Controller.

##### C. Experience Certificates submitted should be in attached format (as per annexure-II) or Other Format containing similar information as in attached format (annexure-II) shall be considered only in-case of submitted in Hindi / English Language only.

Work order, L.O.I. / L.O.A etc., will not be acceptable.

##### D. Tenderers must have a Net worth of Rs.25 Lacs as on 31<sup>st</sup> March 2019 (which is defined as "Net value of the Assets minus (-) Net value of liabilities"). They shall have to submit a Certificate duly signed by a qualified and registered Chartered Accountant having UDI number as a proof. Produced certificate must tally with the audited balance sheet.

##### E. Tenderers should have an aggregate turnover of minimum 2 crores in last three years i.e. 2016-17, 2017-18 & 2018-19 in SPV Projects. Certified copies of the annual returns and audited balance sheet submitted to the Registrar of Companies/ Income Tax Authorities should be enclosed. For the preceding years a Summarised Sheet of turnover certified by registered CA must be enclosed.

##### F. Tenderer who are debarred from business by Govt. /Govt. Agency in any state would not be eligible to participate in this bid. A self-declaration should be submitted by the bidder to this effect, failing which bid shall be rejected.

#### 2. CONSORTIUM - Consortium will be allowed in this Tender up to 2 partners subject to fulfilling following criteria -

- (i) Both the partners should jointly fulfil eligibility criteria as per clause 1D and 1E.
- (ii) The lead partner should fulfil criteria as per clause 1A & 1C individually and other partner should have Net worth as on 31<sup>st</sup> March 2019. For Net worth of other partner Audited balance sheet must be enclosed.
- (iii) Both the partners should individually fulfil criteria of 1F.
- (iv) If either partner submits any alternate / individual bid then both bids (individual & consortium) shall be rejected.
- (v) The Consortium agreement notarized in Non Judicial stamp paper of Rs. 100 as per draft given in annexure-"C" must be submitted along with the bid documents.
- (vi) In Consortium if one or both the partners are from Chhattisgarh then they should have minimum experience as shown in 1.A and if both the partners are from outside the state then they should have minimum experience as shown in 1.A.
- (vii) The Lead Member is hereby authorized by the all Member of the Consortium to bind the Consortium and receive instructions for and on their behalf.

- (viii) The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
- (ix) Subject to the terms of this Agreement, the all member shall be responsible for providing technical and financial support and responsible equally for execution of project as per agreement to be signed.

### 3. START-UP AND NEW ENTREPRENEUR -

- A. **START-UP-** CREDA may consider Start-up Company registered only in area of Solar PV modules/ PV System integrator, if it produces certificate of being a Start-up entities as issued by Government of India.
- B. **NEW ENTREPRENEUR-** (New Entrepreneur means System Integrator who doesn't fulfil the eligibility criteria as per clause 1A to 1D). CREDA shall consider Companies/Proprietorship firm/Partnership firm which are registered in CREDA as NEW ENTREPRENEUR.
- C. EMD of **Rs.1 Lac** in form of D.D.  
Start-up & New Entrepreneur tenderer must have to submit test reports of all the major components such as SPV Module, Pump, Battery, and Controller.
- D. Start -up & New Entrepreneur are not allowed to Quote Prices.
- E. Maximum **10 %** of the total work may be reserved for start-up and new entrepreneur.
- F. Non-meeting of Financial eligibility as mentioned under "eligibility criteria" head shall not be the reason for rejection of bid. Start-up & New Entrepreneur must meet other bid criteria including technical criteria. They also have to accept Price offer by CREDA as discovered in this bid.

### 4. BIDDING PROCESS -

For ease of accessing the e-bidding website and registration the following is to be done by bidder -

- A. Visit <http://www.cspc.co.in>
- B. Click on e-bidding button on right hand side of the page.
- C. The user will be directed to e-bidding page where all information regarding registration is available along with helpline details.
- D. Price Bid shall be submitted online only at <http://www.cspc.co.in> however technical bid will have to be submitted in hard copy. Bid Documents (including Technical Bid and samples) must reach at CREDA H.O., Conference Hall, Near Energy Education Park VIP Road, Raipur latest by **02.00 PM on 25.06.2020**. Tenders submitted after scheduled time and date shall not be considered.

### 5. SUBMISSION OF DOCUMENTS -

Documents should be submitted in prescribed manner in separate envelopes as follows-

- A. Main Envelope: Main Envelope must contain A, B, C & D envelopes as mentioned below. Bidder Name, Address and status of firms and tender number & date should be clearly written on this envelope.
- B. Envelope-(A): EMD and Document Fees.
- C. Envelope-(B): Financial Eligibility Documents: Net worth & Turnover certificate as per clause 1D & 1E.
- D. Envelope-(C): Technical Eligibility Documents: Experience certificates, Test Reports etc. as applicable.
- E. Envelope-(D): Complete Bid document in original duly seal & signed by authorized signatory on each & every page of the Bid document.

**Bid Document which doesn't follow the above format shall be disqualified.**



## 6. SPECIFICATION AMENDMENTS -

The Specifications of Solar Water Purification System should be as per prevailing CREDA norms, as specified in the tender. If any amendments are issued by CREDA in due course of time, in this context, then those shall be applicable under this tender.

## 7. GST & PAN -

Bidder shall have to submit copies of GST registration number and PAN numbers issued by the appropriate authority.

## 8. THE BID -

Technical Bid must be deposited in the tender box only kept in the CREDA H.O., Conference Hall, Raipur **from 11:00 am to 02:00 PM dated 25-06-2020**. Nobody is authorized to receive or grant receipt for tender delivered on behalf of CREDA. Tender received through any other means shall not be considered.

## 9. ANALYSIS OF RATE -

A. Bidder should quote their rates considering variation of site conditions and all other factors in price of different components and keeping the quality of work in mind.

B. If the successful bid is unbalanced in relation to the benchmark cost of CREDA as stated in Annexure-VI by less than 10%, the successful bidder shall have to provide Additional Performance Security (APS) to the extent of difference of 90% of benchmark cost and rates quoted by the successful bidder for total allocable quantity in such categories in which he has submitted unbalanced bid, in the form of Demand Draft/RTGS/NEFT issued by approved scheduled bank in favour of CREDA, before signing the agreement. The same shall be released along with the normal SD after 05 years of agreement. Those bidders who accept the L1 rates also required to submit Additional Performance Security for allocated work.

In case the bidder refuse to deposit Additional Performance Security (APS) then his bid will be rejected by the sanctioning authority and earnest money shall be forfeited and shall be blacklisted /debarred to participate in any tender/ activity of CREDA till further orders. In such case CREDA shall have discretionary rights to decide reasonable rates in comparison to benchmark costs which may be rates quoted by L2 if found reasonable.

If the bidder fails to complete the work or left the work incomplete, this Additional Performance Security (APS), S.D. and EMD shall be forfeited by the CREDA and the agreement shall be terminated and bidder shall be blacklisted /debarred to participate in any tender/ activity of CREDA till further orders.

## 10. REGISTRATION OF BIDDER -

Bidders who are not registered with CREDA, upon allocation of work shall register himself as system integrator of CREDA within 30 days of such allocation failing which work allocation shall stand cancelled without any further notice in this regard and allocation work shall be re-allocated to other parties as per tender condition.

## 11. VALIDITY -

Full descriptive particulars and complete specifications should accompany the offer. Offers should be kept open for acceptance for at least **180 days** from the date of opening. After finalization of this tender the approved rates shall be valid till one year from the date of award; however CREDA shall have liberty to increase or decrease this validity if needed.

## 12. TERMS & CONDITIONS -

A. The terms, conditions and specifications mentioned in tender document shall be binding on the tenderers and no condition or stipulation contrary to the conditions shall be acceptable. It may please be noted that the tenderers who do not accept terms and conditions stipulated in this tender documents, their offers shall be liable to be rejected out-rightly without assigning any reason whatsoever.

B. Each page of tender document & enclosures shall be signed by the tenderer and seal affixed. All the pages of the documents issued must be submitted along with the technical offer.

In case of any corrections / alterations in the tender, the tenderer should attest the same; otherwise tenders may not be considered.

C. Tenderers are also instructed to submit their tenders in properly arranged manner (with index, proper paging and with flags on important documents). Incomplete, lose, conditional or improper arranged tenders will not be accepted.

### **13. CREDA RESERVES THE RIGHT -**

(i) To reject or accept any or all tenders wholly or partly without assigning any reason on the grounds considered advantageous to CREDA, whether it is the lowest tender or not.

(ii) To split the quantities against the tender further for the same items/work. No reason will be assigned by CREDA for this and will be binding on the tenderers.

(iii) Due to large quantum of work & limitation of the time period for completion of the work CREDA may take consent from other tenderers if they agree to work on rates standardized by CREDA.

(iv) CREDA may undergo agreement with those eligible tenderers who give consent to work on rates standardized by CREDA and may allocate work to them. Rates approved through this tender may be standardized for all eligible tenders to work in **year 2020-21** and shall be valid for one year from the date of agreement. However CREDA reserves right to curtail or extend this period.

### **14. COMMUNICATIONS -**

- i. All the communication between Bidder and CREDA shall be in writing. Notice sent by Fax or other Electronic means shall be effective on confirmation of the transmission. Notice sent by registered post or speed post shall be effective of delivery or at expiry of normal delivery period as under taken by Postal Service.
- ii. Offers through Telegraph/Fax/Emails/Post/Courier or open offers etc. received shall be summarily rejected.

### **15. TENDER DOCUMENT FEE AND EARNEST MONEY DEPOSIT -**

- iii. Each tenderer should submit Tender Document Fee and earnest money in the form of Demand Draft/RTGS/NEFT as mentioned in the NIT vide no.1686 /CREDA/ SOLAR WPS/2020 Date: **01.06.2020**, in a separate envelope as prescribed at **point no.5 of page 8**, else they will summarily be rejected and returned. Tender Document Fee & EMD submitted in any other form e.g. **Cash/Bank Guarantee/FDR /TDR etc. shall not be accepted.**
- iv. MSME unit registered as manufacturer or service provider of solar products in Chhattisgarh state and public sectors of government are exempted from EMD subjected to submission of valid document.

### **16. SUBMISSION / DISPLAY OF SAMPLES -**

Tenderers will have to provide samples of their Module, Pump, Battery, Controller, B.O.S. etc. if asked by CREDA for examination by Technical Committee of CREDA.

### **17. PRE-BID QUERIES -**

- i. Suggestions, doubts, confusion, request, queries etc. related to this tender shall have to be sent in writing before **10-06-2020 till 5:00 PM to CREDA H.O. Raipur**. After that any representation in this regard shall not be considered.
- ii. The purpose of this pre-bid queries will be the clarification of issues related to this tender that can be raised at that stage. Any amendments in the bid documents which may become necessary as a result of pre-bid queries shall be part of original Bid document and communicated through corrigendum on CREDA website ([www.creda.co.in](http://www.creda.co.in)).

### **18. TECHNICAL CRITERIA -**

- i. Tenderer must have to submit test reports of all the major components such as SPV Module, Pump, Battery, and Controller.
- ii. The Bidder should have sufficient technically qualified and well-experienced manpower for execution of the project and after sales service of the systems. These details may be called by CREDA and in case there is any deficiency found the Bidder may be debarred.

#### **19. FORFEITURE OF EARNEST MONEY DEPOSIT -**

It should be clearly understood that in the event of tenderer failing to enter into the agreement in the prescribed format on their quoted rates and also fails to execute assigned works under any Scheme of CREDA, within stipulated time, if he is so communicated within the validity period of the offer, the full amount of earnest money will be forfeited and tenderer shall be debarred from future business with CREDA. CREDA's decision in this regard will be final and binding on the tenderers.

#### **20. PRICE OF SUPPLY OF SOLAR WATER PURIFICATION SYSTEMS WITH INSTALLATION, COMMISSIONING AND TESTING OF SOLAR WATER PURIFICATION SYSTEMS -**

**I.** The Price quoted for Solar Water Purification System with installation, commissioning and testing, Civil works and all other required BOS etc. with 5 years system warranty, insurance and CMC. The prices shall be filled exactly as per **e-Price Bid enclosed**.

**II.** GST will be paid extra as per prevailing rate during the time of billing. Any change in GST shall be become applicable during the period of contract.

**III.** In this regard if there is any change in the composition ratio of goods and services by any Authority/Courts, same shall be applicable.

#### **21. ENGINEERING DOCUMENT -**

Tenderers will have to submit Engineering Documents with technical details, drawings, Specifications of components and make etc. to CREDA for approval, as and when asked by CREDA. Works may only be started out only after approval of the Engineering Document and their samples.

#### **22. SAMPLES -**

Samples of the components shall have to be submitted to the CREDA if required.

#### **23. CMC OF SOLAR WATER PURIFICATION SYSTEM -**

The Comprehensive Maintenance work may be entrusted to the concerned bidders on the approved lowest rate of the bid. During CMC the bidders should have spares of every component ready in their service centre or CREDA District Office so that no system should be kept non-functional for more than 07 days. Awarding the work of CMC to bidders is totally at the discretion of CREDA. Also if the bidder is awarded with CMC work, then they must have to submit quarterly monitoring report of the system working satisfactorily duly authenticated by SE of concerned Zonal Office of CREDA.

#### **24. INSPECTIONS -**

CREDA reserves right to inspect the material at Godowns / Temporary Stores before dispatch and also at works sites.

#### **25. TAX OBLIGATIONS -**

CREDA shall deduct TDS for Income Tax, applicable cess on Civil Work etc. under various acts and deposited with the appropriate authority. Costs and taxes before execution of agreement with CREDA so as to ensure tax deposition as per Government Rules accordingly.

#### **26. JURISDICTION OF THE COURT -**

Any dispute arising out of the contract shall be subject to the jurisdiction of Hon'ble Court of Chhattisgarh.

## SECTION - 2

### GENERAL CONDITIONS OF CONTRACT

#### 1. DEFINITIONS -

In writing General Conditions of Contract, the specifications and bill of quantity, the following words shall have the meanings hereby indicated, unless there is something in the subject matter or content inconsistent with the subject.

- CREDA shall mean the Chhattisgarh State Renewable Energy Development Agency represented through the Chief Engineer.
- Work shall mean any work entrusted to the tenderer as mentioned in the scope of work and work order.
- The "Engineer in charge" shall mean the Engineer or Engineers authorized by CREDA for the purpose of this contract. Inspecting Authority shall mean any Engineering person or personnel authorized by CREDA to supervise and inspect the erection of the Solar Water Purification System.
- "The Eligible SI/Tenderer" shall mean the tenderer awarded with the contract or their successors and permitted assigns. Contract Price shall mean the sum named in or calculated in accordance with the provisions of the contract as the contract price. General Conditions shall mean the General conditions of Contract.
- "Specifications" shall mean the specifications annexed to these General Conditions of contract and shall include the schedules and drawings attached thereto or issued to the eligible SI from time to time, as well as all samples and pattern, if any,
- "Month" shall mean calendar month. "Writing" shall include any manuscript, typewritten, printed or other statement reproduced in any visible form whether under seal or written by hand.

#### 2. PROOF OF MANUFACTURER -

Those bidders who are also manufacturers of an important component of Solar Water Purification System such as SPV Modules, Pump, Filtration Membrane, Battery or Controller shall have to submit proof of their factory, SSI Registration and list of Machineries and Equipment's.

#### 3. CONTRACT DOCUMENT -

The term "Contract" shall mean and include the General conditions, specifications, schedules, drawings and work orders etc., issued against the contract schedule of price or their final general conditions, any special conditions applying to the particular contract specification and drawings and agreement to be entered into. Terms and conditions not herein defined shall have the same meaning as are assigned to them in the Indian contract Act or any other Act in vogue or by any person of common knowledge and prudence.

#### 4. MANNER OF EXECUTION -

- A. Execution of work shall be carried out under Govt. Mode Scheme of CREDA in an approved manner as outlined in the technical specifications or where not outlined, in accordance with desired Specifications laid down by CREDA, to the reasonable satisfaction of the Engineer.
- B. Successful Tenderer / Bidder here-in-after called the **SI** (System Integrator).
  - i) The eligible SI shall conduct a detailed survey of site. All necessary documents and survey details shall have to be submitted in concerned District Office of CREDA in prescribed manner.
  - ii) Engineer-in-Charge of District Office of CREDA shall examine this survey report. Engineer-in-charge may visit the site if he/she is not satisfied with survey report.
  - iii) After satisfaction Engineer-in-charge will forward the report to Executive Engineer of concerned Regional office of CREDA for approval.

- iv) Executive Engineer of concerned Regional office of CREDA shall forward this to concerned Chief Engineer of Head Office of CREDA.
- v) The SI shall start work within **15 days** after the date of sanction of work.
- vi) All the materials required for the installation of Solar Water Purification System as per Work Order issued shall be kept at site in the custody of the SI. CREDA shall not be responsible for any loss or damage of any material during the installation.
- vii) All the electrical works should be done as per various provisions of Indian Electricity Act. The persons engaged for carrying out electrical works should have a valid **B-class** license or above issued by licensing board of Chhattisgarh.
- viii) After installation joint inspection will be done in presence of beneficiary, SI and CREDA and after successful commissioning of Solar Water Purification System and its approval from CREDA a JCC will be signed and the claim will be forwarded for payments as per guidelines and procedures of CREDA.
- ix) Work order/LOI will be given to the chosen System Integrator only after execution of the agreement with CREDA.

**5. VARIATIONS, ADDITIONS & OMISSIONS -**

CREDA shall have the right to alter, amend, omit, split or otherwise vary the quantum of work, by notice in writing to the SI. The eligible SI shall carry out such variation in accordance with the rates specified in the contract so far as they may apply and where such rates are not available; those will be mutually agreed between CREDA and the eligible SI.

**6. INSPECTION -**

- A. The Engineer-in-Charge or his authorized representative(s) shall be entitled at all reasonable times to inspect and supervise and test during installation and commissioning. Such inspection will not relieve the eligible SI from their obligations under this contract.
- B. Material can be inspected before dispatch or in transit by the authorized representatives of CREDA at the factory / godown at the cost of the eligible SI, if desired by CREDA.
- C. CREDA will undertake real time performance and quality test of randomly selected Solar Water Purification System and components during the course of execution as per specifications and guidelines to ensure quality and performance of system and components.

**7. COMPLETION OF WORK -**

Time being the essence of contract, the installation of the Solar Water Purification System shall be completed within the time schedule prescribed in the Work order.

**8. ELIGIBLE SYSTEM INTEGRATOR'S DEFAULT LIABILITY -**

CREDA may by written notice of default to the eligible SI, terminate the contract in circumstances detailed hereunder -

- (a) If in the opinion of the CREDA, the eligible SI fails to complete the work within the time specified in the work order or within the period for which extension has been granted by CREDA to the eligible SI.
- (b) If in the opinion of CREDA, the eligible SI fails to comply with any of the provisions of this contract.
- (c) In the event of CREDA terminating the contract in whole or in part as provided in paragraph (a) above, CREDA reserves the right to engage another eligible SI or agency upon such terms and in such a manner as it may deem appropriate and the eligible SI shall be liable to CREDA for any additional costs or any losses caused to CREDA as may be required for the completion of erection of the Solar Water Purification System and or for penalty as defined under this tender document until such reasonable time as may

be required for the final completion of the work.

- (d) In the event CREDA does not terminate the contract as provided in paragraph (a) the eligible SI shall continue performance of the contract, in which case he shall be liable to CREDA for penalty for delay as set out in this tender document until the work is completed.

9. **FORCE MAJEURE -**

The eligible SI shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE such as of God, acts of public, enemy, LWE problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that if SI shall submit delay notice with appropriate cause of delay to the CREDA in writing within **15 days** of force majeure. CREDA shall verify the facts and may grant such extension as facts justify. Delay in supply of any accessories of Solar Water Purification Systems by the related vendors, to whom the tenderer has placed order, shall also not be treated as force majeure.

10. **REJECTION OF WORKS -**

In the event of any of the material supplied/work done by the eligible SI is found defective in material or workmanship or otherwise not in conformity with the requirements of this contract specifications, CREDA shall either reject the material and/or work and advise the eligible SI to rectify the same. **CREDA may impose penalty for such rejection up to the 200% cost of the entire system. Habitual/repeated offenders shall be black listed/debarred to participate in the any Tender/ Activity of CREDA till further orders.** The eligible SI on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible SI fails to do so CREDA may -

a) At its option replace or rectify such defective materials and/or work and recover the extra cost so involved from the eligible SI plus **15%** service charges of the cost of such rectification, from the eligible SI and/ or terminate the contract for balance work/ supplies with enforcement of penalty **as stated above.**

b) Defective materials/workmanship will not be accepted under any conditions and shall be rejected outright without compensation. The eligible SI shall be liable for any loss/ damage sustained by CREDA due to defective work **with enforcement of penalty as stated above.**

11. **EXTENSION OF THE TIME -**

If the completion of installation is delayed due to any reason beyond the control of the eligible SI, the eligible SI shall without delay give notice to the CREDA in writing of his claim for an extension of time. CREDA on receipt of such notice may or may not agree to extend the contract/delivery date of the system as may be reasonable but without prejudice to other terms and conditions of the contract.

12. **MAKES OF EQUIPMENTS TO BE USED IN THE WORK -**

(I) The Solar Modules, Filtration Membrane, Battery, Controller shall be made in India.

(II) The eligible SI has to ensure that equipment's as per Technical Requirements of guidelines of CREDA as complied with. The eligible SI has also to ensure that he will use only components of approved vendors of CREDA. The material/works for which CREDA/MNRE or BSI or ISI specification is not available, engineer-in-charge of the works will examine and approve the material/works, preferably of all makes on which CREDA has report of satisfactory performance. Test certificates for all major equipment's should be submitted to the engineer-in-charge of the works before installation of the same.

(III) Successful SI upon issue of LOI must submit Manufacture Authorization Form (MAF) From manufacture of Solar Module/Pump/Filtration Membrane/Battery/ Controller which it is intending to use during installation guarantee at least five year warrantee of Pump, Filtration Membrane, Battery and controller and at least 10 year warrantee on module, before installation of system. **No payment shall be made if he fails to do so.**

- (IV) SI Should submit warrantee Agreement of **at least 5 year** for major components i.e. SPV Modules, Pump, Filtration Membrane, Battery, and Controller with manufacturer or distributors certified by the manufacturer before installation of systems.

13. **WARRANTEE PERIOD AND POST INSTALLATION SERVICES -**

- A. The work done/material supplied by the eligible SI should be warranted for satisfactory operation and against any defect in material and workmanship including Pump, Filtration Membrane, Battery, Controller and other balance of equipment's, at least for a period of **5 (five) years**, from the date of commissioning of the Solar Water Purification Systems including other works as per scope of work.
- B. Warrantee on SPV Modules shall be for **10 (ten) years** from the date of commissioning of the Solar Water Purification Systems must be warranted for their output peak watt capacity, which should not be less than **90%** at the end of **10 years** and not less than **80%** at the end of **25 years**.
- C. The above warrantee certificates shall be furnished to the CREDA for approval. Any defect noticed during this period should be rectified by the supplier free of cost upon written notice from CREDA provided such defects may be due to bad workmanship or bad materials used.
- D. The warrantee period shall be extended by the period during which the system remains non-operative due to reasons within control of the eligible SIs.
- E. This warrantee must be an unconditional onsite warrantee and the eligible SI will have to replace the defective material within **7 days** positively from the date of information given to him.
- F. Care should necessarily be taken to make the Solar Water Purification Systems operational, once the reporting of the fault/non-operational status is done, within a week. If the Solar Water Purification System is not made operational within **7 days** CREDA may rectify the same at the cost of SI and the warrantee period shall be extended for a month for the same.
- G. System Integrators shall have to establish their service stations in the allocated area and shall have to keep sufficient quantity of spares and man power to ensure proper service network for taking care of smooth functioning of Solar Water Purification Systems installed by them. SI shall have to give a toll free number to register complaints.

14. **TERMS OF PAYMENT -**

The following terms of payment shall apply for the tender -

- A. **95%** of the cost of the Solar Water Purification System as per the work order after satisfactory supply, installation, commissioning & performance test of the system at site with proper handing over. Payment will be done after receipt of Beneficiary contribution to CREDA.
- B. Balance **5%** of the cost shall be retained by CREDA as Performance Security for a period of **60 months**.
- C. GST shall be paid extra as applicable on the date of billing. Any change in GST shall also be applicable during the period of contract.

15. **PENALTY FOR DELAY IN COMPLETION OF CONTRACT -**

If the eligible SI fails to complete the assigned work within the schedule time specified in the work order or any extension granted there to, CREDA will recover from the SI as penalty a sum of **One per cent (1%)** of the system price excluding GST/Tax for every delayed system per month. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **5% (Five Per cent)** of the cost.

Review of the progress of installation of Water Purification System allocated to SIs shall

be done time to time by CREDA and if the progress of installation is found unsatisfactory, the allocation of entire remaining uninstalled Water Purification System or their part of can be re-allocated to other SI as per discretion of CREDA.

**16. SECURITY DEPOSIT (SD) -**

**A.** The Earnest Money shall be retained by CREDA upto the duration of validity of tender, after agreement is done to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be required by CREDA.

**B.** Beside this 5% of the cost shall also be retained as SD during the five years of warrantee period. No interest shall be payable on the SD.

**C.** Period for which EMD and SD are to be retained may be extended in case the warrantee period is extended due to non performance of the system.

**17. INSURANCE -**

**A.** The eligible SI shall arrange insurance coverage for the materials and Solar Water Purification System at his/ beneficiary's custody for the work under execution and successful commissioning and subsequent handover to the beneficiary. The eligible SI shall take up insurance or such other measures for the manpower so as to cover the claim for damage arising under workmen's compensation Act and other applicable State/Central laws. CREDA shall not bear any responsibility on this account.

**B.** Eligible SI shall arrange for insurance coverage for complete Solar Water Purification System during COMC period i.e. for **05 year** from the date of installation. Insurance should cover for damage and theft. In case of such incidence, SI must replace the lost/damaged part within **7 days** from the date of intimation.

**18. PENALTY DUE FROM THE ELIGIBLE SI -**

All costs of damages and delays for which the eligible SI is liable to the CREDA will be deducted from any money due to the eligible SI including the security deposit of any project under CREDA.

**19. ELIGIBLE SI'S RESPONSIBILITY -**

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of the Solar Water Purification System by CREDA, if any, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the eligible SI. If in any case the eligible SI does not complete the work as per the sanction orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible SI.

**20. RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE -**

If any loss or damage occurs to the work or any part thereof or materials/system/equipment's for incorporation therein the period for which the eligible SI is responsible for the cause thereof or from any cause whatsoever, the eligible SI shall at his own cost rectify/replace such loss or damage, so that the permanent work confirms in every respect with the provision of the contract to the satisfaction of the Engineer. The eligible SI shall also be liable for any loss or damage to the work/equipment's occasioned by him in course of any operation carried out to him during performing the contract.

**21. RESPONSIBILITY TOWARDS THE WORKMAN OR OUTSIDERS -**

**A.** **The eligible SI shall have to take insurance coverage from any authorized Insurance Company against Workmen compensation due under Workmen Compensation Act and submit copy of the insurance document before issuance of Work order.**

**B.** The eligible SI shall ensure all safety measures during execution and repairs of the work. CREDA, will, in no case be responsible for any accident fatal or non-fatal, caused to any workman or outsider in course of transport or execution or repairs of work.



- C. All the expenditure including treatment or compensation will be entirely borne by the eligible SIs. The eligible SI shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations.
- D. CREDA shall have rights to deduct such claims of payments from SI in case of complaints of such violations.

**22. NON-ASSIGNMENTS -**

The eligible bidder shall not assign or transfer the work orders issued as per this contract or any part thereof without the prior approval of CREDA.

If eligible bidder transfer/assigned/sublet full or any part of work allocated to him without prior permission from CREDA in writing to any third party shall be liable to debar/black listed from any Tender/Activity of CREDA till further orders.

**23. SUBLETS -**

**A.** The eligible bidder may sublet / sub contract part of the work with approval of CREDA in writing up to 25% of the allocated work. It is expressly agreed that original bidder shall be responsible and liable for all his obligations under this agreement notwithstanding anything contained in the agreements with his sub contractor and no default under any such agreement shall exempt the original bidder from his obligation or all liabilities here under.

**B.** After approval of the proposal of the sub contract CREDA shall issue a permission letter for the same.

**C.** The original bidder shall not be allowed to sub contract the work assigned to him to more than one sub contractor. In special condition CREDA may permit more than one sub contractor.

**D.** The original bidder should satisfy himself before recommending CREDA whether the sub contractor so proposed is fit for the work, process, experience, qualifications, man power and component necessary for the job proposed be entrusted to him.

**E.** Whatever warranty mentioned in the Tender document shall be honoured by the original bidder. Original Bidder shall be held responsible for any defect / non functionality of any work / system or any components.

**F.** CREDA will not ask to sub contractor for any rectification / replacement of work / system or any component. All liabilities regarding warranty shall be on part of original bidder.

**G.** The original bidder shall be responsible of submission of JCCs to concerned district officers of CREDA with his and sub contractor signatures and seal on every document comprising JCCs. The seal of sub contractor should clearly the name of sub contractor with phrase "on behalf of original bidder". All liabilities like warranty, insurance, specification, compliance of bid conditions and government rules and regulations etc., shall be on the part of original bidder.

**H.** Sub contractor will have to be registered as SI in CREDA immediate after approval.

**I.** CREDA will pay to the original bidder after successful commissioning of the system.

**J.** The original bidder shall have to pay within 15 days of receipt of payment from CREDA. CREDA may pay directly to the sub contractor on-behalf of original contractor after receipt of written consent / recommendation for payment from original bidder.

**K.** If original bidder fails to pay any amount to sub contractor within 45 days then on receipt of information from sub contractor CREDA shall have right to deduct the same from bill or any due amount of original bidders and pay the same to sub contractor.

**L.** The allocated work to sub contractor shall be part of the experience of sub contractor.

Details of the Subletting are mentioned in manual on policy and procedure for sub contract in CREDA, already uploaded in website of CREDA.

**24. CERTIFICATES NOT TO AFFECT RIGHTS OF CREDA -**

The issuance of any certificate by CREDA or any extension of time granted by CREDA shall not prejudice the rights of CREDA in terms of the contract nor shall they relieve the eligible SI of his obligations for due performance of the contract.

**25. SETTLEMENT OF DISPUTES THROUGH ARBITRATION -**

**A.** Except as otherwise specifically provided in the contract, all disputes concerning questions of fact arising under the contract shall be decided by the Chief Executive Officer (CEO), CREDA provided a written appeal by the eligible SI is made to CREDA. The decision of the CEO, CREDA shall be final and binding to the all concerns.

**B.** Any dispute or difference including those considered as such by only of the parties arising out of or in connection with the contract shall be to the extent possible be settled amicably between the parties. If amicable settlement cannot be reached then all disputed issues shall be settled by arbitration.

**26. LAWS GOVERNING CONTRACT -**

The contract shall be constituted according to and subject to the Laws of India and jurisdiction of the Court of Bilaspur, Chhattisgarh.

**27. LANGUAGE AND MEASURES -**

All documents pertaining to the Contract including specifications, schedules, notice correspondences, operating and maintenance instructions, drawings or any other writings shall be written in English / Hindi language. The metric system of measurement shall be used in this contract.

**28. CORRESPONDENCE -**

**A.** Any notice to the eligible SI under the terms of the contract shall be served by registered mail to the registered office of the eligible SI or by hand to the authorized local representative of the eligible SI and copy by post to the eligible SI's principal place of business.

**B.** Any notice to CREDA shall be served to the Chief Engineer, CREDA Raipur in the same manner.

**29. SECRECY -**

The eligible SI shall treat the details of the specifications and other documents as private and confidential and they shall not be reproduced without written authorization from CREDA.

**30. AGREEMENT -**

The successful eligible SI shall have to enter into an agreement with the CREDA in the approved contract agreement form within **10 days** of the receipt of call from CREDA.

**31. DECLARATION OF CONFLICT OF INTEREST -**

The contractor hereby declares that nobody connected with or in the employment of **CREDA** is not/shall not ever be admitted as partner in the contract.

**32. TENDER EVALUATION CRITERIA -**

**A.** Offers of only those parties, who are found qualified based on Eligibility Criteria and Techno-commercial Bid, will be taken into further consideration and financial bid of only those parties who are qualifying the criteria of Techno-commercial Bid will be opened.

**B.** Other things being equal, the lowest rates shall normally be preferred, but CREDA shall have rights and liberty to amend/lower the rates.

**C. Conditional tenders shall not be accepted.**

**D.** However CREDA shall have rights and liberty to call any /other parties to work on approved rates as and when requires in accordance with quantum of work and scheduled time limits for completion of targets.

**33. EVALUTION OF PRICE BID -**

Price bid shall be evaluated on the basis of Quoted rates. Lowest rate of Solar Water Purification System shall be considered, however CREDA shall have discretionary power to amend/lower the rates.

**34. ALLOCATION OF TARGETS AND AREA OF WORK –**

- i.** L-1 Bidder will be given preference for allocation of work.
- ii.** Subsequently all other eligible bidders will be awarded with equal number of work; quantity may change according to number of sanctioned works. Further allocations shall be made on the basis of their performance (both past as well as present performance) subsequently. However CREDA has sole discretion to award any number of works to any eligible bidder.
- iii.** CREDA reserve rights to increase or decrease quantities to be allocated to the eligible bidders on the basis of the availability of stock with the bidder and time limits for the projects.
- iv.** CREDA has full discretion to allot the work to any eligible bidder anywhere in the State of Chhattisgarh.
- v.** Maximum 10% of the total target shall be distributed among start-up and New Entrepreneur.
- vi.** **Review of the progress of installation of Solar Water Purification System allocated to SIs shall be done time to time by CREDA and if the progress of installation is found unsatisfactory, the allocation of entire remaining uninstalled Water Purification or their part of can be re-allocated to other SI as per discretion of CREDA.**

**35. BID REJECTION -**

**If financial bid of a bidder has been opened on the basis of technical bid of a bidder which has been determined to be substantially responsive to the bidding document and in latter stage it is found that bidder does not meet the eligibility criteria or the technical bid is found substantially non-responsive, CREDA reserves rights to reject such bid of a bidder any time.**

**We (on behalf of Eligible SI/Tenderer) have read all the above stated details & accept to comply with it in total**

**(Name, Signature & Seal of the Tenderer)**

## SECTION - 3

### SCOPE OF WORK FOR SOLAR WATER PURIFICATION SYSTEM

The scope in brief will be as follows-

1. Survey of Sites, designing, supply, installation & commissioning of Solar Water Purification System as per design and specifications approved by CREDA, on turnkey basis. Bidders shall have to take approval of the engineering documents, Bill of Materials and samples from CREDA prior to commencement of the work. Five years unconditional onsite warrantee for manufacturing defects shall be required for each of the system after successful commissioning and proper handing over.
2. The scope of work shall also includes the followings:
  - Survey of Sites, Submission of site clearance certificate where the Solar Water Purification Systems are to be installed. A layout plan of the site should also be submitted clearly indicating the identified location for installation of SPV Modules, Structures and other components shall be installed. Work order shall be issued only after receipt of satisfactory reports suitable for system installation. SI shall furnish all necessary information to beneficiary for Solar Water Purification System Warrantee, Do & Don'ts etc. so as to avoid further misunderstandings and disputes.
  - Detailed planning of time bound smooth execution of project.
  - Design, supply, installation & commissioning of Solar Water Purification Systems of required capacities as per design and specifications approved by CREDA, on turnkey basis.
  - Providing User Manuals and Warrantee Cards to beneficiary / CREDA.
  - SI shall have to submit JCCs within 15 days of Installation and Commissioning of Solar Water Purification in District Office of CREDA.
  - Unconditional onsite warrantee for manufacturing defects for Five years faultless operation, assure inventory for maintenance.
  - Providing Prompt Service Facilities to customers/ beneficiaries.
  - Risk liability of all personnel associated with implementation and realization of the project.
  - Training of at least two persons nominated by user, on the various aspects of design and maintenance of the offered system after commissioning of the system.
  - The eligible SI shall maintain sufficient inventory of the spares to ensure that the system can be made functional within 7 days from the communication of breakdown of the system during currency of the warrantee period.
  - The contractor shall run the system on trial basis and shall closely monitor the performance of the system before handing over the system, so that the assured annual power generation can be estimated for monitoring of the performance of the system. CREDA shall examine the data of generation and ascertain if the generation is adequate with reference to the capacity of the system.
  - Performance Guarantee Test: Successful performance guarantee test to demonstrate the rated capacity of Solar Water Purification Systems as per CREDA's norms shall have to be conducted by SI in presence of representatives of CREDA, if required.
  - System Integrators shall have to establish their service stations in the allocated area and shall have to keep sufficient quantity of spares and man power to ensure proper service network for taking care of smooth functioning of Solar Water Purification Systems installed by them. SI shall have to give a toll free number to register complaints.
3. **Quality of Drinking Water** – The quality of drinking water should be as per IS: 10500-2012 standard which is as below and for which eligible bidder will have to submit test report after successful installation of the system from NABL Accredited Lab showing the quality of water

Parameters	Unit	Drinking Water	
		Desirable	Maximum
Total Hardness	Mg/l	200	600
Iron	Mg/l	0.3	No relaxation
Fluoride	Mg/l	1.0	1.5
Total Dissolve Solids	Mg/l	500	2000
Calcium	Mg/l	75	200
Magnesium	Mg/l	30	100

**SECTION - 4****TECHNICAL SPECIFICATIONS & FEATURES****I. Technical Specifications of Solar Based Water Purification System****1. Type of Water Purification system: -**

- a. Reverse osmosis (RO) system for TDS removal along with U.V. filter,
- b. Ultra filtration (U.F.) along with U.V. filter,
- c. Iron removal filter + UV + UF
- d. RO + UV + Iron removing filter
- e. Fluoride removing filter + UV + UF
- f. RO + UV+ Fluoride removal filter
- g. RO + UV+ Iron removal filter + Fluoride removal filter
- h. UV + Iron removal filter + Fluoride removal filter + UF,
- i. RO+ UV+ water softener
- j. UF + UV + Water softener
- k. Iron + UV + UF +Water Softener
- l. RO + UV + Iron + Water softener
- m. Fluoride + UV + UF + water softener
- n. RO + UV + Fluoride + Water softener
- o. RO + UV +Iron + Fluoride + water softener
- p. UV + Iron + Fluoride + UF + Water softener
- q. Iron Removal Plant (IRP)
- r. Fluoride Removal Plant (FRP)
- s. Water Softener

**NOTE-** Bidder should submit the technology used by them for the above items.

**2. Solar Pump:** D.C. Submersible Pump Capacity 01 Hp.**3. Specifications:-**

Sr	Type of Purification System	Capacity of water purification system	Cap. of Solar Modules in Wp	Cap. of required Battery Bank	*Raw water Tank in Ltrs.	**Pure Water Tank in Ltrs.
1	R.O.+ U.V.	2000 LPD	1500	48V/150AH	5000	1000
2	U.F.+ U.V.	2000 LPD	1500	48V/150AH	5000	1000
3	Iron +UV + UF	2000 LPD	1500	48V/150AH	5000	1000
4	RO+UV+ Iron	2000 LPD	1500	48V/150AH	5000	1000
5	Fluoride +UV + UF	2000 LPD	1500	48V/150AH	5000	1000
6	RO+UV+ Fluoride	2000 LPD	1500	48V/150AH	5000	1000
7	RO+UV+ Iron+Fluoride	2000 LPD	1500	48V/150AH	5000	1000
8	UV+ Iron+Fluoride+ UF	2000 LPD	1500	48V/150AH	5000	1000
09	R.O.+ U.V. + WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
10	U.F.+ U.V.+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
11	Iron +UV + UF+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
12	RO+UV+ Iron+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000

Sr	Type of Purification System	Capacity of water purification system	Cap. of Solar Modules in Wp	Cap. of required Battery Bank	*Raw water Tank in Ltrs.	**Pure Water Tank in Ltrs.
13	Fluoride +UV + UF+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
14	RO+UV+ Fluoride+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
15	RO+UV+ Iron+Fluoride+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
16	UV+ Iron+ Fluoride+ UF+ WATER SOFTENER	2000 LPD	1500	48V/150AH	5000	1000
17	Iron Removal Plant (IRP)	5000 LPD	900	24V/100 AH	5000	-
18	Fluoride Removal Plant (FRP)	2000 LPD	900	24V/100 AH	5000	-
19	Water Softener	5000 LPD	900	24V/100 AH	5000	-
20	Iron Removal Plant (IRP)	10000 LPD	900	24V/100 AH	5000 x 2	-

21 Water ATM Machine (01 No. Sensor with 100 Nos. RFID Card).

22 Coin Vending Machine for purified water compatible with water purification system.

23 GSM based Remote Monitoring System.

Iron removal – It should be operated for back wash with programme editable.

\* Raw water tank should be of HDPE type,

\*\* Treated water tank should be made by stainless steel.

\*\*\* Raw Water tank should be ISI marked as BIS 12701 and fresh water tank should be stainless steel as per IS 304 of thickness 0.50 mm and waste water tank if and when required should be of HDPE and the basin/flooring should be below the taps so that water may not get logged. This should be made of RCC Pre-cast slabs or RCC flooring.

4. **Structure/ Assembly:** Pre-fabricated control room of size 11'X6'X8'. Complete assembly of water purification system should be kept inside the container. Raw water tank should be kept overhead at 05 Mtr. staging above ground level. For IRP 10000 LPD staging should be 06 Mtr. above ground level.

5. **Make and specification of the membranes :**

- i. **Filter membrane – Hitech/ G.E./ Nova/ M.F. or equivalent.**
- ii. **Spun - Hitech/ G.E./ Nova/ M.F. or equivalent.**
- iii. **U.F. - Hitech/ G.E./ Nova/ M.F. or equivalent.**

6. **Stand Post:** 04 Nos. Taps with stand steel stand post (as per approved design of CREDA).

Separate 01 Tap should be provided for treated water which should be incorporated within the prefabricated structure at any one side.

7. **Water ATM:** 01 Sensor with 100 Nos. ATM card should be provided. Water ATM should be programmed (as much as time and as much as quantity in a day) according to the site requirement.
8. **LED Luminary:** 02 Nos. X 06 W white LED luminaries should be installed for providing proper lighting at night.
9. GSM based remote monitoring system.
10. Module Mounting Structures should be hot dip galvanised (minimum **80 microns**) and should have theft proof arrangements preferably with the use of GI Steel C-channel along with the array support structure for locking arrangement of SPV modules for protecting them from theft. Its size should be with reference to the specifications of the SPV modules such that modules can comfortably slide in the channel while installation. It should not hide any portion of the photovoltaic circuit encapsulated in the lamination of the SPV module, there by unaffected the efficiency & rating of the SPV modules. Anti Theft Nut Bolts of SS (with washers) must also be used for better theft proofing along with "C" Channel MMS.
11. Tank holding structure above the container should be hot dip galvanised.

## **II. Features Specifications of Solar Based Water Purification System**

- **I.R.P -**

### **Features-**

1. Automatic backwash system controlled by time & discharge so that the backwash is calibrated depending upon the PPM of Iron present in water
2. Back wash system should be programmable / Editable to change the time & discharge so that the routine cleaning can be made assured.
3. The most important, that the system backwash should work even if the plant & solar power is not in operation which will ensure the cleaning in idle condition too.
4. It should be compatible enough if attached with retrofit water softener & R.O Plant if installed in combination.

- **Water Softener-**

### **Features-**

1. System should be capable of auto recharge of catalyst and back wash the saturated stuff of resins.
2. System should be capable of maintaining the softness of water automatically by a programmable unit to control the stuff of the system.
3. System should be capable to draw catalyst/recharge solution automatically from the storage tank, which is kept separately.
4. Design should be compatible enough to incorporate retrofit RO or IRP in Required to be installed in combination.

- **R.O. Plant-**

### **Features-**

1. Plant should be capable to reduce the TDS as below as 40 TDS.
2. System should have UV system to eliminate the E-coli bacteria from the water.

3. Plant should be compatible enough to operate on Solar & battery (24\*7),so that the product water level in the storage tank can be maintained upto 700 ltr at least.
4. System should be fully automatic to operate submersible pump, the R.O plant & the street light built within (dusk to dawn) dry run protection, over flow protection.
5. System should be so designed that it can work through ATM, coin vending machine (24\*7) to dispense water.
6. Design of the system should be such that it can be compatible enough to incorporate the retrofit water softener & IRP if required to install in combination.

- **UV+UF-**

#### Features-

1. Though it does not reduce the TDS in water but membrane should be pressurized to separate all suspended solids & solute of high molecular weight to get clear water.
  2. It should be compatible to incorporate UV on line to eliminate the E-coli bacteria.
  3. System should be fully automatic to control overflow dry run, pump & all other equipments installed.
- Complete System/Equipments should be installed under lock & key within pre-fabricated container with 2 Nos. of 6w LED Street light (D TO D).There should be a provision of RMS in the controller system so that if required can be incorporate .

#### A. SOLAR PHOTO VOLTAIC (SPV) MODULE -

1. SPV arrays contain 3 nos. of Solar Modules of capacity 300Watt each for 900Wp & 06 Nos. of Solar Modules of capacity 250Wp for 1500Wp. The power output of individual PV modules used in the PV array, under STC, should be a minimum of 150 Watts peak, with adequate provision for measurement tolerances. Use of PV modules with power output is preferred.
2. Modules supplied with the Solar Water Purification systems shall have certificate as per IS14286/IEC 61215 specifications or equivalent National or International/ Standards. STC performance data supplied with the modules shall not be more than one year old.
3. Modules must qualify to IS/IEC 61730 Part I and II for safety qualification testing.
4. The minimum module efficiency should be minimum 15 percent and fill factor shall be more than 70 percent.
5. Modules must qualify to IEC TS 62804-1:2015 for the detection of potential-induced degradation.
6. The name plate shall conform the IS 14286/IEC61215
7. Module to Module wattage mismatch in the SPV array mismatch shall be within ( $\pm$ ) 3 percent.
8. Variation in overall SPV array wattage from the specified wattages shall be within zero percent to +10 percent.
9. The PV Modules must be warranted for output wattage, which should not be less than 90% of the rated wattage at the end of 10 years and 80% of the rated wattage at the end of 25 years.

#### 10. IDENTIFICATION AND TRACEABILITY -

Each PV module must use a RF identification tag (RFID), which must contain the following information:

- (i) Name of the manufacturer of PV Module
- (ii) Name of the Manufacturer of Solar cells
- (iii) Month and year of the manufacture (separately for solar cell and module)



- (iv) Country of origin (separately for solar cells and module)
- (v) I-V curve for the module
- (vi) Peak Wattage,  $I_m$ ,  $V_m$  and FF for the module
- (vii) Unique Serial No and Model No of the module
- (viii) Date and year of obtaining IEC PV module qualification certificate
- (ix) Name of the test lab issuing IEC certificate
- (x) Other relevant information on traceability of solar cells and module as per ISO 9000 series.

**The RFID must be inside of module lamination. The module laminate, but must be able to withstand harsh environmental conditions. It must also have appropriate Barcode in it.**

**11.** The panel should be supplied with CREDA Logo in the form of sticker on the back of SPV panel or duly laminated inside the glass of solar module with the remark "Manufactured for CREDA". Inter connections of solar modules should be through good quality male female joint. Name of manufacturer, Sl.No. of Module & manufacturing year should be clearly fixed inside the glass lamination of every module. Back label should be affixed behind every module which should clearly state the specifications & capacity of the module.

**12.** All SPV modules must be indigenously built and made in India.

## **B. MODULE MOUNTING STRUCTURE (MMS)**

1. MMS as per drawings **enclosed**, should be installed along with the hot dipped galvanized (minimum **80 microns**) module support structure for mounting of SPV modules at site. The panel frame structure should be capable of withstanding a minimum wind load of **50m/s** per hour, after grouting and installation. MMS should be sturdy & designed to assist SPV Modules to render maximum output. The hardware (fasteners) used for installation of SPV Modules & MMS should be of suitable Stainless Steel (**SS 304**). Each MMS should be fixed as per drawings. Each module should be fastener by four theft proof nut built.

2. Module Mounting Structures should have theft proof arrangements with the use of GI Steel C-channel along with the module support structure for locking arrangement of SPV modules for protecting them from theft. Its size should be with reference to the specifications of the SPV modules such that modules can comfortably slide in the channel while installation. It should not hide any portion of the photovoltaic circuit encapsulated in the lamination of the SPV module, there by un-affecting the efficiency & rating of the SPV modules. Anti-Theft Nut Bolts of SS (with washers of dia 25mm, 2mm thick) should also be used for better theft proofing along with "C" Channel MMS.

3. The general hardware for structure fitment should be either SS 304 or 8.8 grade. Modules should be locked with antitheft bolts of SS 304 Grade. Foundation should be as per drawing attached.

## **C. EARTHING ARRANGEMENT**

1. Preferably Marconite earthing shall be provided for Solar Water Purification System.
2. For safety purpose, it shall be ensured during installation that the earthing is capable of taking care of leakage current.

## **D. USE OF INDIGENOUS COMPONENTS**

It will be mandatory to use indigenously manufactured solar modules. The Battery and controller should also be manufactured indigenously. The SI has to declare the list of imported components used in the Solar Water Purification System.

**E. OPERATION AND MAINTENANCE MANUAL**

An Operation and Maintenance Manual in Hindi should be provided with the Solar Water Purification System. The Manual should have information about Solar Modules, Pump, Filtration Membrane, Battery, Controller, electronics and switches. It should also have clear instructions about DO's and DONT's and on regular maintenance and Trouble Shooting of the system. Helpline number and Name and address of the Service Centre and contact number of authorized representative to be contacted in case of failure or complaint should also be provided. A warranty card for the modules and the system should also be provided to the beneficiary.

**e-Price Bid – A****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar RO+UV based Water Purification System with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of <b>Solar RO+UV based water</b> Purification system with Pump capacity – 1HP/ 900 Wp and all accessories (Raw water Tank, Pure Water Tank, wastage water Tank, basins, taps etc.) at site <b>Cap. – 2000 LPD</b>	
2	<b>Installation and Commissioning at site</b>	
3	<b>Comprehensive Maintenance of Systems for five years including periodic replacement of Filters/ Chemicals / components whenever required</b>	
4	<b>TOTAL AMOUNT without GST(in Figures and words)</b>	

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**e-Price Bid – B****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar UV+UF based Water Purification System with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of <b>Solar UV+UF based water</b> Purification system with Pump capacity –1HP/ 900 Wp and all accessories (Raw water Tank, Pure Water Tank, wastage water Tank, basins, taps etc.) at site <b>Cap:-2000LPD</b>	
2	<b>Installation and Commissioning at site</b>	
3	<b>Comprehensive Maintenance of Systems for five years including periodic replacement of Filters/ Chemicals / components whenever required</b>	
4	<b>TOTAL AMOUNT without GST(in Figures and words)</b>	

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**e-Price Bid – C****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar Iron Removal based Water Purification System with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of <b>Solar Iron Removal based water</b> Purification system with Pump capacity – 1HP/900 Wp and all accessories (Raw water Tank, Pure Water Tank, wastage water Tank, basins, taps etc.) at site <b>Cap:-5000LPD</b>	
2	<b>Installation and Commissioning at site</b>	
3	<b>Comprehensive Maintenance of Systems for five years including periodic replacement of Filters/ Chemicals / components whenever required</b>	
4	<b>TOTAL AMOUNT without GST(in Figures and words)</b>	

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**e-Price Bid – D****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar Iron Removal based Water Purification System with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of <b>Solar Iron Removal based water</b> Purification system with Pump capacity – 1HP/900 Wp and all accessories (Raw water Tank, Pure Water Tank, wastage water Tank, basins, taps etc.) at site <b>Cap:-10000LPD</b>	
2	<b>Installation and Commissioning at site</b>	
3	<b>Comprehensive Maintenance of Systems for five years including periodic replacement of Filters/ Chemicals / components whenever required</b>	
4	<b>TOTAL AMOUNT without GST(in Figures and words)</b>	

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**e-Price Bid – E****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar Fluoride Removal based Water Purification System with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of <b>Solar Fluoride Removal based water</b> Purification system with Pump capacity – 1HP/900 Wp and all accessories (Raw water Tank, Pure Water Tank, wastage water Tank, basins, taps etc.) at site <b>Cap:-2000LPD</b>	
2	<b>Installation and Commissioning at site</b>	
3	<b>Comprehensive Maintenance of Systems for five years including periodic replacement of Filters/ Chemicals / components whenever required</b>	
4	<b>TOTAL AMOUNT without GST(in Figures and words)</b>	

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**e-Price Bid – F****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar Water Softner based Water Purification System with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of <b>Solar Water Softner based water</b> Purification system with Pump capacity – 1HP/900 Wp and all accessories (Raw water Tank, Pure Water Tank, wastage water Tank, basins, taps etc.) at site <b>Cap:-5000LPD</b>	
2	<b>Installation and Commissioning at site</b>	
3	<b>Comprehensive Maintenance of Systems for five years including periodic replacement of Filters/ Chemicals / components whenever required</b>	
4	<b>TOTAL AMOUNT without GST(in Figures and words)</b>	

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**



**e-Price Bid – G****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Solar Iron Removal Retrofit, Water Softner Retrofit & Fluoride Removal Retrofit System** with five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	<b>Supply of Iron Removal Retrofit</b> with all necessary accessories Including testing & commissioning at site	
	<b>Installation and Commissioning</b> at site	
	<b>Comprehensive Maintenance</b> of Systems including periodic replacement of Filters/ Chemicals / components whenever required <b>for five years</b>	
	<b>TOTAL AMOUNT (1) without GST</b>	
2	<b>Supply of Water Softener Retrofit</b> with all necessary accessories Including testing & commissioning at site	
	<b>Installation and Commissioning</b> at site	
	<b>Comprehensive Maintenance</b> of Systems including periodic replacement of Filters/ Chemicals / components whenever required <b>for five years</b>	
	<b>TOTAL AMOUNT (2) without GST</b>	
3	<b>Supply of Fluoride Removal Retrofit</b> with all necessary accessories Including testing & commissioning at site	
	<b>Installation and Commissioning</b> at site	
	<b>Comprehensive Maintenance</b> of Systems including periodic replacement of Filters/ Chemicals / components whenever required <b>for five years</b>	
	<b>TOTAL AMOUNT (3) without GST</b>	
<b>Overall Total (1+2+3)</b>		

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**e-Price Bid – H****e-Price Bid (For supply, installation, Commissioning & Testing of Solar Water Purification System)**

Schedule of Rates for Solar Water Purification Systems

*(e-bidding as per Specifications & Scope of Work of No. 1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020)*

Supply, Survey, Installation and Commissioning of **Water ATM Machine with RFID Card & Coin Vending Machine with** five years on site unconditional warrantee, system insurance and 05 years CMC anywhere in the State of Chhattisgarh.

No.	Description	Rate/ Unit (without GST)
1	Supply of Water ATM Machine with RFID Card at site	
	Installation and Commissioning at site	
	Comprehensive Maintenance for five years	
	<b>TOTAL AMOUNT (1) without GST</b>	
2	Supply of Water Coin Vending Machine with RFID Card at site	
	Installation and Commissioning at site	
	Comprehensive Maintenance for five years	
	<b>TOTAL AMOUNT (2) without GST</b>	
<b>Overall Total (1+2) without GST</b>		

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the bid document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**

**STANDARDS FOR SOLAR WATER PURIFICATION SYSTEM**

<b>Component</b>	<b>Standard</b>	<b>Description</b>
1. PV Module- Design	IEC 61215-1:2016	Terrestrial Photovoltaic (PV)modules- Design qualification and type approval- Part 1 : Test requirements
	IEC 61215-1-1:2016	Terrestrial Photovoltaic (PV) modules- Design qualification and type approval- Part 1.1 : Special requirements for testing of crystalline silicon photovoltaic (PV) modules
	IEC 61215-1-2:2016	Terrestrial Photovoltaic (PV) modules- Design qualification and type approval- Part 2: Test procedures
2. Module Testing	IEC 61701: 2011	Salt mist corrosion testing of photovoltaic (PV) modules, wherever applicable
3. PV Module Safety	IEC 61730-1:2016	Photovoltaic (PV) module safety qualification- Part 1: Requirements for construction
	IEC 61730-2:2016	Photovoltaic (PV) module safety qualification- Part 1: Requirements for testing
	UL 1703/ UL 61730	PV module safety standards
	IEC 62852: 2014	Connectors for DC-application in photovoltaic Systems- Safety requirement test
4. Solar Pump	As per MNRE Specification (2014-15).	The Water output should be minimum 10000 Litres per Day (LPD) from a total dynamic head of 60 meters and Shut Off Head 90 meters.
5. Battery	IP 25	Battery & BMS should be in IP-25 Box with the arrangement of proper ventilation but arrangement for prevention of insects.
6. Wires, Cable and Cords	UL 1581	Reference Standard for Electrical Wire, Cables and Flexible Cords
	UL 4703	Photovoltaic Wire

**DRAFT AGREEMENT**

CONTRACT AGREEMENT BETWEEN Chief Engineer Chhattisgarh State Renewable Energy Development Agency (CREDA) Raipur AND M/s..... Represented by ..... THIS CONTRACT AGREEMENT against Tender No.1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020 (also referred to as "Service Contract") is made on the ..... day of Month 2019.

**BETWEEN**

- (1) Chief Engineer Chhattisgarh State Renewable Energy Development Agency (CREDA) Raipur a society incorporated under the laws Society Registration Act 1973 , (1973 , Sr. No. 44 ) (with amendment from time to time) and having its Registered Office at VIP Road Near Energy Education Park, Village- Fundhar, Raipur and (hereinafter called "The Employer" and also referred to as "CREDA" )

**And**

- (2) ..... Represented by .....a company incorporated under the laws of Companies Act 1956/2013/ Partnership firm/ Proprietorship firm/Consortium (as applicable, with amendment from time to time ) and having its Principal place of business at ..... and Registered Office at.....hereinafter called "The Contractor" and also referred to as "....."

Whereas the contractor has offered to enter into contract with the said CREDA for the Supply of Solar Water Purification Systems and for installation, commissioning and comprehensive operation & maintenance of Solar Water Purification Systems with 5 Year Warranty.

Wide Tender No.1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020 on the terms and conditions herein contained and the rates approved by the CREDA (Letter No. .... dated ..... annexed here to) have been duly accepted and where as the necessary security deposit shall be furnished in accordance with the provisions of the tender document and whereas no interest will be claimed on the security deposits.

Now these presents witness and it is hereby agreed and declared by and between parties to these presents as follows -

- 1) The Contractor shall, during the period of this contract, that is to say from ..... to ..... or completion thereof, until this Contract shall be determined by such notice as is hereinafter mentioned, safely carryout, by means of labours employed at his own expenses and by means of tools, implements and equipment etc. to be supplied by him to his labour at his own expenses, for installation of "**Solar Water Purification Systems**" as described in tender documents. (Annexed to the agreement).
- 2) The NIT (Notice Inviting Tender), Corrigendum to NIT, Notices, Bid documents (Qualifying, Technical and Financial), approved rates annexed hereto and such other additional particulars, undertaking, instructions, general conditions of contract, Scope of work, Technical specifications of Solar Water Purification Systems and Annexure therein, engineering documents, detailed specifications of BOS & drawings, so far they relate to the Tender No.1686/CREDA/ Solar WPS/2020 Dated: 01.06.2020 as may be found requisite to be given during execution of the work shall be deemed and taken to be an integral part of the contract and shall also be deemed to be included in the expression "The Agreement or "The Contract "wherever herein used.
- 3) The contractor shall also supply the requisite number of workmen with means & materials as well as tools, appliances, machines, implements, vehicles for transportation, cartage etc. required for the proper execution of work within the time prescribed in the work orders and /or as per the tender conditions.

- 4) The Engineer in Charge or his authorized representative (s) shall be entitled at all reasonable times to inspect and supervise and test during installation and commissioning. Such inspection will not relieve the eligible SI from their obligations under this contract.
- 5) Material can be inspected before dispatch or in transit by the authorized representatives of CREDA at the factory at the cost of the eligible SI, if desired by CREDA. CREDA reserves right to inspect the material at Godowns / Temporary Stores before dispatch and also at works sites.
- 6) CREDA shall deduct TDS for Income Tax, applicable cess on Civil Work etc. under various acts and deposited with the appropriate authority. Costs and taxes before execution of agreement with CREDA so as to ensure tax deposition as per Government Rules accordingly.
- 7) **ELIGIBLE SYSTEM INTEGRATOR'S DEFAULT LIABILITY -**  
 CREDA may by written notice of default to the eligible SI, terminate the contract in circumstances detailed hereunder -
- (a) If in the opinion of the CREDA, the eligible SI fails to complete the work within the time specified in the work order or within the period for which extension has been granted by CREDA to the eligible SI.
  - (b) If in the opinion of CREDA, the eligible SI fails to comply with any of the provisions of this contract.
  - (c) In the event of CREDA terminating the contract in whole or in part as provided in paragraph (a) above, CREDA reserves the right to engage another eligible SI or agency upon such terms and in such a manner as it may deem appropriate and the eligible SI shall be liable to CREDA for any additional costs or any losses caused to CREDA as may be required for the completion of erection of the Solar Water Purification System and or for penalty as defined under this tender document until such reasonable time as may be required for the final completion of the work.
  - (d) In the event CREDA does not terminate the contract as provided in paragraph (a) the eligible SI shall continue performance of the contract, in which case he shall be liable to CREDA for penalty for delay as set out in this tender document until the work is completed.
- 8) **FORCE MAJEURE -**  
 The eligible SI shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE such as of God, acts of public, enemy, LWE problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that if SI shall submit delay notice with appropriate cause of delay to the CREDA in writing within **15 days** of force majeure. CREDA shall verify the facts and may grant such extension as facts justify. Delay in supply of any accessories of Solar Water Purification System by the related vendors, to whom the tenderer has placed order, shall also not be treated as force majeure.
- 9) **REJECTION OF WORKS -**  
 In the event of any of the material supplied/work done by the eligible SI is found defective in material or workman ship or otherwise not in conformity with the requirements of this contract specifications, CREDA shall either reject the material and/or work and advise the eligible SI to rectify the same. CREDA may impose penalty for such rejection up to the 200% cost of the entire system. Habitual/repeated offenders shall be black listed/debarred to participate in the any Tender/ Activity of CREDA till further orders. The eligible SI on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible SI fails to do so CREDA may -
- a) At its option replace or rectify such defective materials and/or work and recover the extra cost so involved from the eligible SI plus **15%** service charges of the cost of such rectification, from the eligible SI and/ or terminate the contract for balance work/ supplies with enforcement of penalty as stated

above.

- b) Defective materials/workmanship will not be accepted under any conditions and shall be rejected outright without compensation. The eligible SI shall be liable for any loss/damage sustained by CREDA due to defective work **with enforcement of penalty as stated above.**

**10) EXTENSION OF THE TIME -**

If the completion of installation is delayed due to any reason beyond the control of the eligible SI, the eligible SI shall without delay give notice to the CREDA in writing of his claim for an extension of time. CREDA on receipt of such notice may or may not agree to extend the contract/delivery date of the system as may be reasonable but without prejudice to other terms and conditions of the contract.

**11) PENALTY FOR DELAY IN COMPLETION OF CONTRACT -**

If the eligible SI fails to complete the assigned work within the schedule time specified in the sanction order or any extension granted there to, CREDA will recover from the SI as penalty a sum of **One per cent (1%)** of the system price for every delayed system per month. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **5% (Five Per cent)** of the cost.

Review of the progress of installation of Solar Water Purification System allocated to SIs shall be done time to time by CREDA and if the progress of installation is found unsatisfactory, the allocation of entire remaining uninstalled Solar Water Purification System or their part of can be re-allocated to other SI as per discretion of CREDA.

**12) PENALTY DUE FROM THE ELIGIBLE SI -**

All costs of damages and delays for which the eligible SI is liable to the CREDA will be deducted from any money due to the eligible SI including the security deposit of any project under CREDA.

**13) ELIGIBLE SI'S RESPONSIBILITY -**

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of the Solar Water Purification System by CREDA, if any, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the eligible SI. If in any case the eligible SI does not complete the work as per the sanction orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible SI.

**14) RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE -**

If any loss or damage occurs to the work or any part thereof or materials/system/equipment's for incorporation therein the period for which the eligible SI is responsible for the cause thereof or from any cause whatsoever, the eligible SI shall at his own cost rectify/replace such loss or damage, so that the permanent work confirms in every respect with the provision of the contract to the satisfaction of the Engineer. The eligible SI shall also be liable for any loss or damage to the work/equipment's occasioned by him in course of any operation carried out to him during performing the contract.

**15) RESPONSIBILITY TOWARDS THE WORKMAN OR OUTSIDERS -**

- The eligible SI shall have to take insurance coverage from any authorized Insurance Company against Workmen compensation due under Workmen Compensation Act and submit copy of the insurance document before issuance of Sanction order.
- The eligible SI shall ensure all safety measures during execution and repairs of the work. CREDA, will, in no case be responsible for any accident fatal or non-fatal,

caused to any workman or outsider in course of transport or execution or repairs of work.

- All the expenditure including treatment or compensation will be entirely borne by the eligible SIs. The eligible SI shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations.
- SI shall have to submit JCCs within **60 days** after Installation and Commissioning of Solar Water Purification Systems in District Office of CREDA.
- CREDA shall have rights to deduct such claims of payments from SI in case of complaints of such violations.

- 16) Contractor shall provide 05 year warranty in installed Solar Water Purification Systems from the date of commissioning as per the terms & conditions prescribed in the Tender No.1686/CREDA/ Solar WPS/2020 dated: 01.06.2020.
- 17) **DECLARATION OF CONFLICT OF INTEREST** - The contractor hereby declares that nobody connected with or in the employment of **CREDA** is not/shall not ever be admitted as partner in the contract.
- 18) (a) The contractor shall arrange insurance coverage for the materials and Solar Water Purification System at his/beneficiary's custody for the work under execution and successful commissioning and subsequent handover to the beneficiary. The contractor shall take up insurance or such other measures for the manpower so as to cover the claim for damage arising under workmen's compensation Act and other applicable State/ Central laws. CREDA shall not bear any responsibility on this account.  
 (b) Contractor shall arrange for insurance coverage for Solar Water Purification Systems and module during COMC period i.e. for 05 year from the date of installation. Insurance should cover for damage and theft. In case of such incidence, SI must replace the lost/damaged part within 7 days.
- 19) The contractor shall abide by the terms and conditions, rules, guidelines, construction practices, safety precautions etc. stipulated in the tender document including any correspondence between the contractor and the **CREDA** having bearing on execution of work and payments of work to be done under the contract.
- 20) The contractor shall be responsible to follow all the laws including Workmen Compensation Act and all other laws in force & shall be responsible for all the obligations towards labour including EPF, ESI, etc.
- 21) All the taxes deductible at source as per Acts in vogue shall be recovered by **CREDA** and deposited with the appropriate authorities
- 22) Contractor agrees to abide by any decision/instruction passed by the appropriate authority under Anti-profiteering rules notified by the state/central government under GST act.
- 23) Any dispute arising out of the contract shall be subject to the jurisdiction of Hon'ble Court of Chhattisgarh.

**"Herewith everything and anything contained in Tender document no.1686/CREDA/ Solar WPS/2020 dated: 01.06.2020 is part of this agreement which has been dully signed by both bidder and authorised signatory of CREDA".**

In witness whereof the parties present today has hereby entered into agreement.

**Signed & sealed on behalf of the above**

**Named contractor**

Name :

Designation :

**Signed on behalf of CREDA**

Name:

Designation:

**Witness:**

1. Name:-.....

2. Name:-.....

Address:-.....

Address:-.....

**CONSORTIUM AGREEMENT**

This Consortium Agreement executed on this ..... Day of ..... 2020

**BETWEEN**

**M/S** ....., a Company/Proprietorship Firm/Partnership Firm incorporate under the Law of companies Act 1956/2013 and and having its registered/principal office at ..... (GST No.....) through its proprietor ..... S/o ..... (herein after called the “Partner-I”/ “Lead Partner” which expression shall include its successors, executors and permitted assigns)

**AND**

**M/s** ..... a Company/Proprietorship Firm/ Partnership Firm under Firm (GST No. .... ) and having its registered/principal office at ..... Through its Partner Mr. .... S/o ..... (herein after called the “Partner-II”/“Second Partner” which expression shall include its successors, executors and permitted assigns)

For the purposes of submission a pre-qualification bid (hereinafter called “PQ Bid”) and submitting the final bid in case of being pre-qualified in response to Owner’s Pre-qualification document (hereinafter called PQ document) no. **TENDER DOCUMENT NO.....** and entering into a contract in case of award for the work of Survey, Design, Supply, Installation & Commissioning of Solar Water Purification System with five years onsite warrantee, COMC & insurance anywhere in the state of Chhattisgarh of **CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)**

**AND WHEREAS** as per PQ document, Consortium bids will also be considered by the Owner provided they meet the specific requirements in that regard.

**NOW THIS INDENTURE WITNESSETH AS UNDER -**

In consideration of the above premises and agreements all the partners to this Consortium do hereby now agree as follows:

1. We the partners in the Consortium hereby confirm that the name and style of the Consortium shall be “..... / .....” “Consortium.”
2. FORMATION AND PRINCIPLE PLACE OF BUSINESS

**FORMATION -**

The partner of the consortium do hereby form a Consortium pursuant to the laws of state of Chhattisgarh in order for the consortium to carry on the purposes for which provision is made herein

**PRINCIPAL PLACE OF BUSINESS -**

The Consortium Partner shall maintain principal place of business at .....  
The partners of the consortium may re-locate its office from time to time or have additional offices as the partners may determine

**3. PURPOSE OF THE CONSORTIUM -**

The object of the consortium to bid and perform Tender No ..... from CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA) For Survey, Design, Supply, Installation & Commissioning of Solar Water Purification System with Five Years on Site warrantee ,COMC & Insurance anywhere in the state of Chhattisgarh and to deal with the same in any manner what so ever.

**4. TERM -**

The term of the consortium shall commence as of the date hereof and shall be terminated and dissolved upon the earliest to occur of (i) on mutual understanding of partners by executing separate agreement regarding dissolution of consortium (ii) the



unanimous agreement of the partners (iii) the order of a court of competent jurisdiction (iv) Competition of the above mention tender

**5. PERCENTAGE OF PARTICIPATION -**

CONSORTIUM PARTNER		PARTNER	PERCENTAGE
1)	M/S .....	Lead Partner ( Partner 1)	.....
2)	M/s .....	Other Partner ( Partner 2)	.....
<b>TOTAL -</b>			

**6. PARTICIPATION -**

Both the partners have decided to perform the above mention work of CREDA in their above proportionate work.

**7. EXECUTION OF WORK AND BILLING -**

Both the partners of consortium have agreed that execution of work will be completed according to proportionate work allotted/ agreed between them and after completion of their work, billing made to CREDA Under their individual Firm Name for their allotted/agreed work completed. If it is not feasible for CREDA to make payment separately to both the partner under their individual Firm name then Lead partner (Partner-1) here by authorize to make bill under his firm name and collect all sales proceeding in his Bank account and after collection on proceeding partner -1 Bound to transfer proportionate share to Other partner (Partner -2) within two working days of sales proceeding received.

**8. MAINTENANCE AND OPERATIONS AND LIABILITY -**

It is mutually agreed between both the parties that Liability of successfully completion and maintenance of system (including 5 Yrs warranty & Insurance) of their allotted/Agreed work, will be the individual liability of both the parties w. r. t. work allotted to them.

9. In consideration of the PQ bid submission by us to the Owner, pre-qualification of our bid by the Owner if considered acceptable, submission of main bid by us and the award of contract by the Owner to the Consortium (if selected by the Owner), we the partners to the Consortium, hereby agree that the Partner – I (M/s .....) shall act as the lead partner for self and for and on behalf of Partner – II and further declare and confirm that we shall jointly and severally be bound unto the Owner for execution of the contract in accordance with the contract terms and shall jointly and severally be liable to the Owner to perform all contractual obligations including technical guarantees.

10. Both the Partners shall be jointly responsible for Project Management of works.

11. In case of any breach of the said Contract by any of the partners of the CONSORTIUM, we hereby agree to be fully responsible for the successful execution/performance of the Contract in accordance with the terms of the Contract.

12. Further, if the Owner suffered any loss or damage on account of any breach of the Contract or any shortfall in the completed equipment/ plant, meeting the guaranteed performance parameters as per the technical specifications/ contract documents, the Lead Partner and Second Partner of these presents undertake to promptly make good such loss or damage caused to the Owner, on the Owner’s demand without any demure.

13. The financial liability of the partners to this Consortium Agreement, to the Owner with respect to the any or all claims arising out of the performance or non-performance of the Contract shall, however be not limited in any way so as to restrict or limit the liabilities of either of the partner.

- 14. This Consortium Agreement shall be governed, construed and interpreted in accordance with Laws of India. Courts of Raipur (C.G.) shall have exclusive jurisdiction in all matters arising there under.
- 15. It is further agreed that this CONSORTIUM Agreement shall be irrevocable and shall form an integral part of the Contract and shall continue to be enforceable till the Owner discharges the same. It shall be effective on the date first above mentioned for all purposes and intents.

IN WITNESS WHEREOF, the partners to this Consortium agreement have, through their respective authorized representatives, have executed these presents and affixed their hands and common seal of their respective companies on the day, month and year first above mentioned.

**FOR, M/s .....**

**FOR, M/s .....**

( MR. ....)  
Lead Partner/Partner-1

(MR. ....)  
Other Partner/Partner-2

WITNESS -

- 1.....
- 2.....

WITNESS -

- 1.....
- 2.....

**SCHEDULE - I****PART 'A': GENERAL INFORMATION**

(Strike off whichever is not applicable. Separate sheets should be used, wherever necessary)

- 01.** Name & Address of the Bidder :
- 02.** Name & Address of the firm/Company etc. :
- a) Registered office :
- b) Factory/works address :
- c) Fax Nos. :
- d) Telephone / Mobile Nos. :
- e) Email id :
- 03.** Confirm whether tenderer is Manufacturer : Yes/No
- 04.** Only manufacturer to give following particulars
- a) Address of factory :
- b) Year of starting manufacture :
- c) Whether same/similar materials :  
Manufactured earlier  
(if yes, give reference)
- d) Yearly/monthly production capacity :
- e) Maximum yearly production :  
Achieved so far
- 05.** Whether the firm is SSI Unit of : Yes/No  
Chhattisgarh State:
- a) If yes, write registration No. :
- b) Whether documentary evidence :  
Regarding registration enclosed
- c) Items for registration :
- d) Period of registration :
- d) Whether latest copy Competency/ : Yes/No  
Certificate furnished
- 06.** Whether the firm is 100% owned by
- a) State Government : Yes/No
- b) Central Government : Yes/No
- If yes, Notification/certificate issued from : Yes/No  
The competent authority to this effect is  
Enclosed
- 07.** a) Whether the bidder is old participant : Yes/No  
with CREDA
- b) If yes, whether documentary : Yes/No  
Evidence is enclosed.
- 08.** Any other information that bidder may like : If yes, give details  
to give in order to light his bid

PLACE :

**SIGNATURE OF TENDERER**

NAME IN FULL

DATE :

DESIGNATION/STATUS

FIRM/COMPANY SEAL

**SCHEDULE - I****PART 'B': COMMERCIAL INFORMATION**

(Strike off, whichever is not applicable. Separate sheets should be used. Wherever necessary)

01. i) Earnest Money Details : Bank draft/Bankers cheque payable to "CREDA", Raipur
- ii) Amount of E.M.D. & full details : ₹ .....
- iii) If exempted, state whether the bidder is / Fully Owned State/Central Govt. Unit : SSI Unit of C.G.
- iv) Reference of documentary evidence regarding exemption enclosed. : Yes/No
02. Whether the offer is valid for 6 months from the date of opening of commercial/technical bid. : Yes/No
03. Rate of Sales Tax on the date of bid (exclusive in the rate quoted) :
04. **DISCOUNT:**
- a) Whether any rebate/discount is offered. : Yes/No
- b) If yes, whether the rebate is unconditional/conditional Rate/amount of rebate/discount : Yes/No
- c) If conditional State condition : Yes/No
05. **PAYMENT TERMS:**  
Whether CREDA's terms of payment is acceptable to tenderer : Yes/No
06. **COMPLETION PERIOD OF WORK:**  
Whether tenderer is agreeing for completion period of work as Specified in the tender : Yes/No
07. **PENALTY CLAUSE:**  
Whether agreeable to CREDA's Penalty Clause : Yes/No
08. Whether agreeable to CREDA's clause of warrantee period : Yes/No
09. **SECURITY DEPOSIT:**  
Whether Security Deposit clause is understood : Yes/No
10. Indicate State, Central Sales Tax Registration Number State : Yes/No  
Central:
- (Please Note that in case of non-registration with Commercial Tax, Department Purchase Tax as admissible shall be deducted by the Purchaser from the Bills of the supplier)
11. Please mention whether rates offered are applicable for part quantities. : Yes/No

PLACE:

**SIGNATURE OF TENDERER**

DATE:

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

**SCHEDULE - II****PART 'C': TECHNICAL INFORMATION**

(Strike off whichever is not applicable. Separate sheets should be used. Wherever necessary)

01. Whether material offered is exactly as per technical specification : Yes/No
02. Whether the copies of completion certificate received during last 3 years from other State Nodal Agency or from other Organization for Solar Water Purification Systems (if yes, give details) enclosed. : Yes/No
03. Whether pamphlets/technical details literatures along with drawing etc. furnished with the offer : Yes/No  
(if yes, give details)
04. Whether the tenderer agrees to furnish material test certificates in respect of chemical composition and physical properties from Govt./ Govt. approved lab with each batch of supplies. : Yes/No
05. Whether the tenderer has furnished details of manufacturing equipments and short history of plant : Yes/No  
(if yes, give details)
06. Whether details of manufacturing process furnished with offer. : Yes/No  
(if yes, give details)
07. a) Whether all testing facilities are available. : Yes/No  
If so, give details and in case of non-availability of facilities indicate approved lab available in surrounding areas where tests are proposed to be conducted.

PLACE

**SIGNATURE OF TENDERER**

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY

SEAL

**SCHEDULE - III**  
**TECHNICAL DEVIATIONS**

From,  
Tenderer Name & Address -

To,  
The CE,  
CREDA, HO,  
Raipur

**Sub - Technical Deviations.**

**Dear Sir,**

The technical deviations & variations to the specifications stipulated in the tender, for the item quoted are as under -

<b>Sl.No.</b>	<b>Condition</b>	<b>Clause No. of Tender document</b>	<b>Page No. of Tender document</b>	<b>Statement of deviations and variations</b>
-----				

2. Except aforesaid deviations, the entire order, if placed, on us shall be executed in accordance with your specifications and other conditions. Variation/deviations etc. if found, elsewhere in our offer should not be given any considerations while finalizing the tender.

PLACE

**SIGNATURE OF TENDERER**

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

**NOTE** - Continuation sheet of like size & format may be used as per bidder's requirements and shall be annexed to this schedule.

**SCHEDULE - IV****PAST EXPERIENCE****From :**

Bidder's Name &amp; Address -

To,

**The CE,  
CREDA, HO,  
Raipur****Sub - Performance/Past Experience.****Dear Sir,**

We furnish herewith the record of our performance and experience as follows -

<b>Sl.No.</b>	<b>Purchaser's Name &amp; Address</b>	<b>Order No. Date</b>	<b>Ordered Quantity</b>	<b>Qty. supplied (Nos.)</b>	<b>Value of Order</b>
---------------	---	---------------------------	-----------------------------	---------------------------------	---------------------------

PLACE

**SIGNATURE OF TENDERER**

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

**NOTE** - Photocopy of the completion certificate received from other State Agencies/Govt. Undertakings etc. should be enclosed.

**(EXPERIENCE CERTIFICATE ON THE OFFICIAL LETTER HEAD OF CONCERNED GOVERNMENT  
DEPARTMENT WITH SEAL AND SIGN BY AUTHORIZED SIGNATORY)**

Ref. No.....

Date.....

**Completion cum Performance Certificate**

This is to certify that **M/S** \_\_\_\_\_ **(With Full Address)**, has successfully completed the work of design, Supply, Installation and Commissioning of **Solar Water Purification System** in \_\_\_\_\_ State, as per following details :-

S. No.	Location/Site	District	Work Order No. & Date	Cap. Of Solar Water Purification System	No. of System	Installation Date
<b>Total</b>						

This certificate is being issued against the request of **M/S** \_\_\_\_\_, for their intent for participation in the following Bid:-

S. No.	Bid Number
1	1686/CREDA/ Solar WPS/2020 DATED 01-06-2020

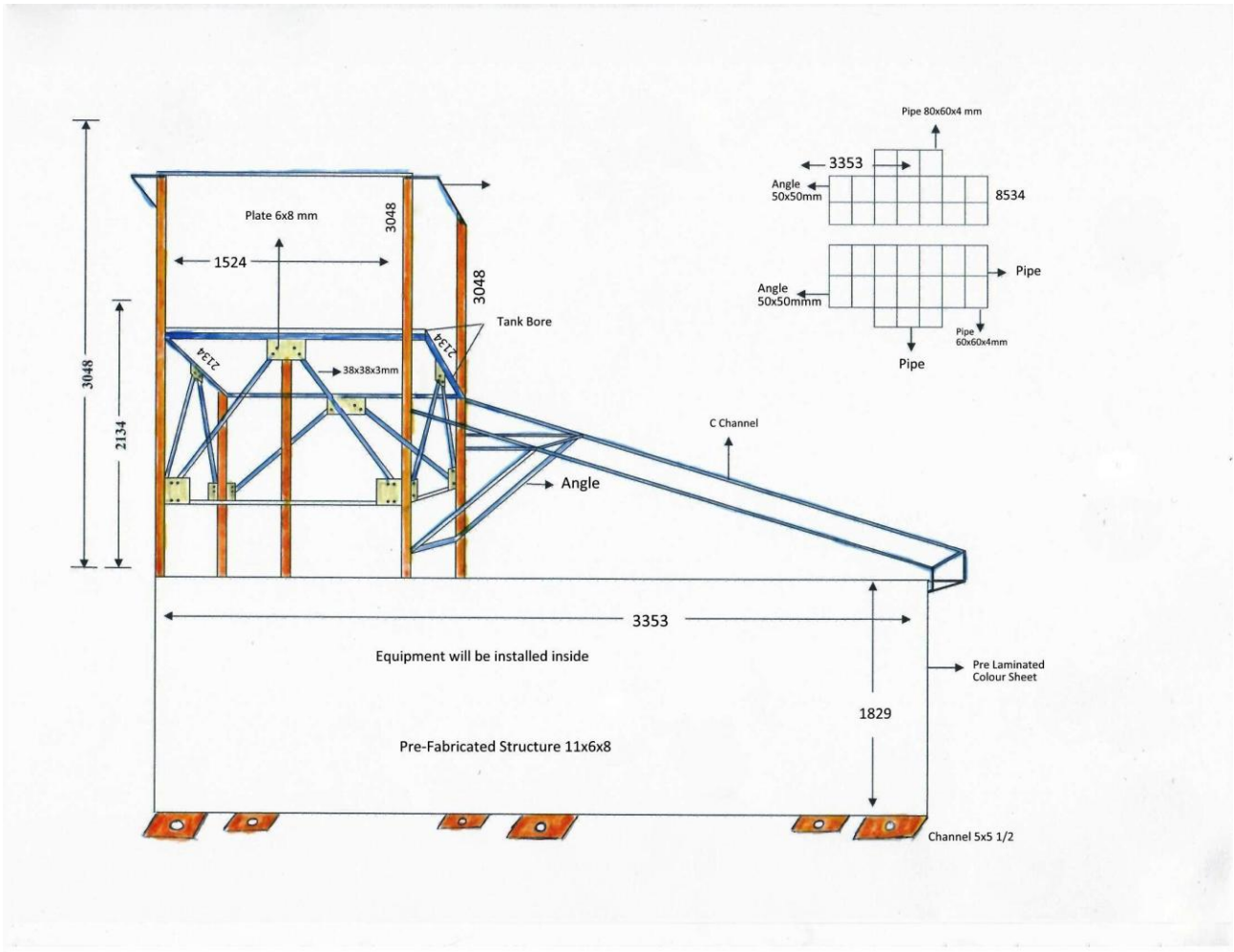
The Workmanship and performance of the installed systems are found satisfactory and are in successful operation.

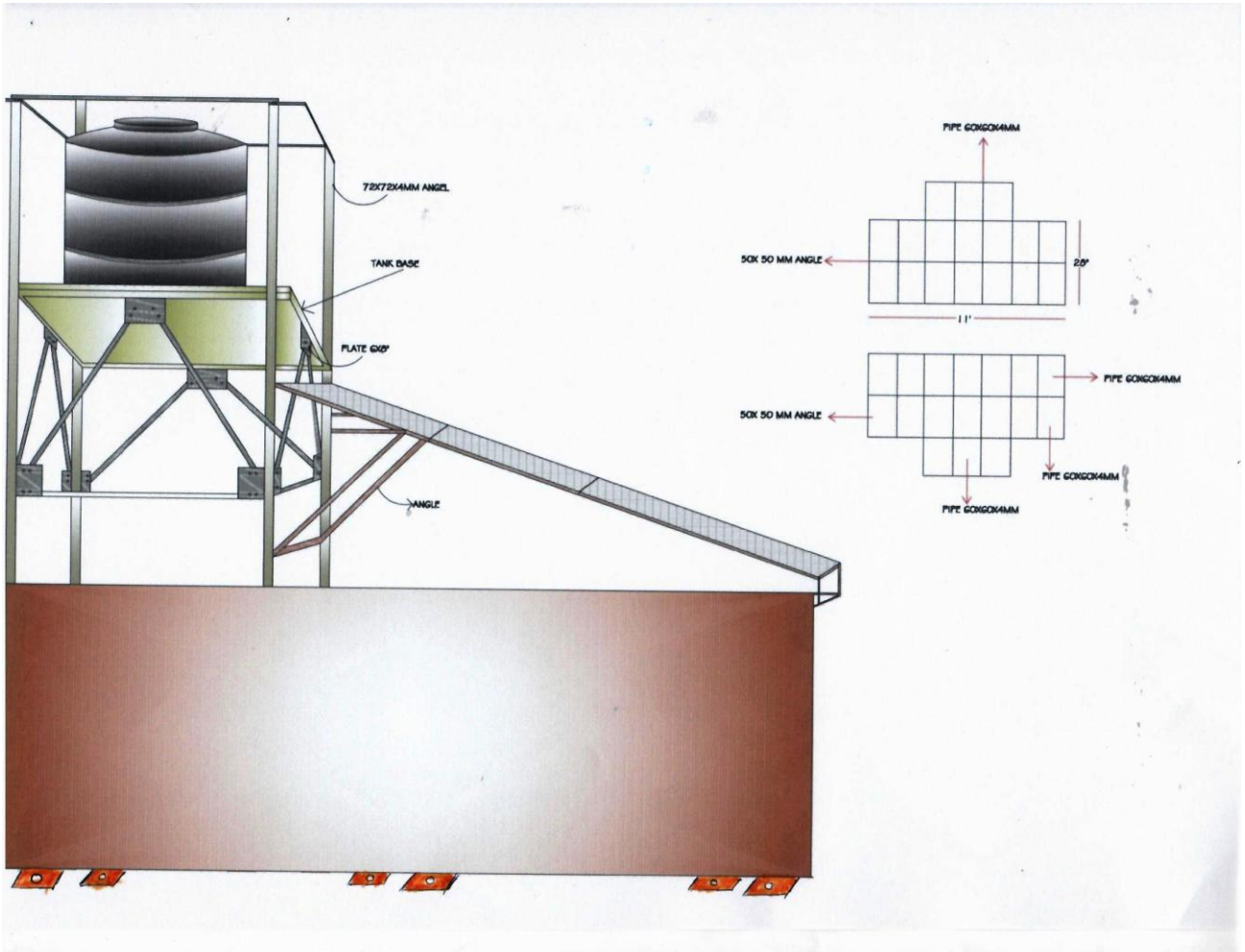
**Seal & Sign  
(Authorised Signatory)**



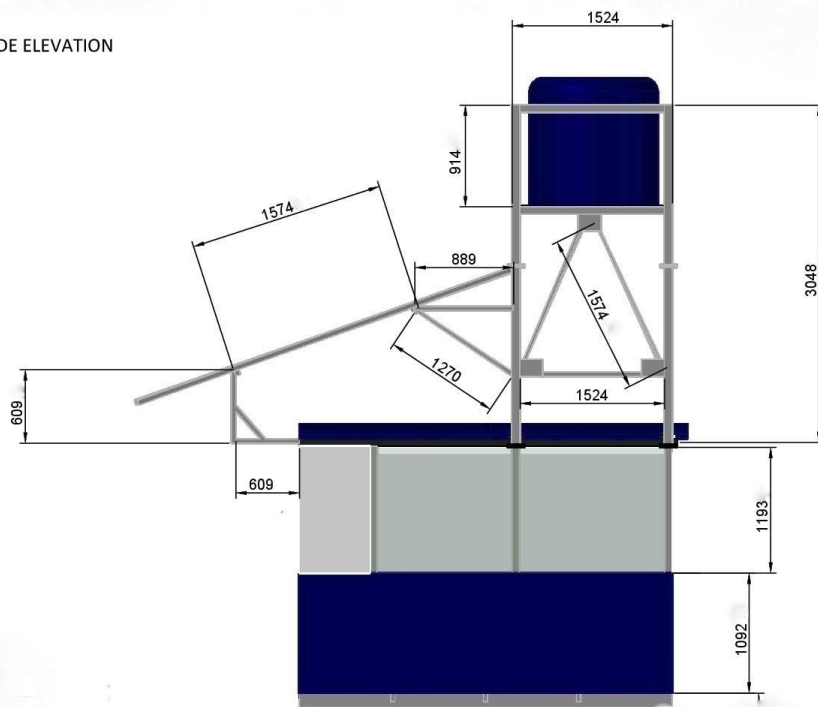
**DRAWING OF SOLAR WATER PURIFICATION SYSTEM-**

A-1

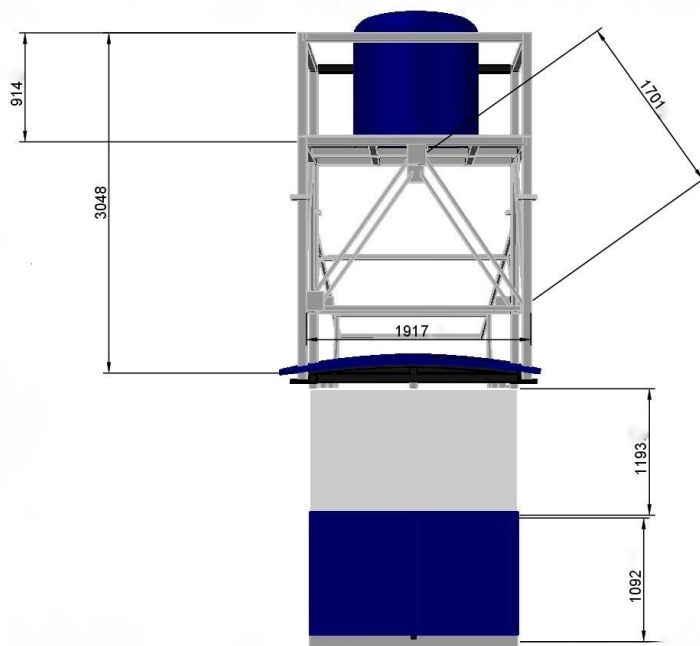


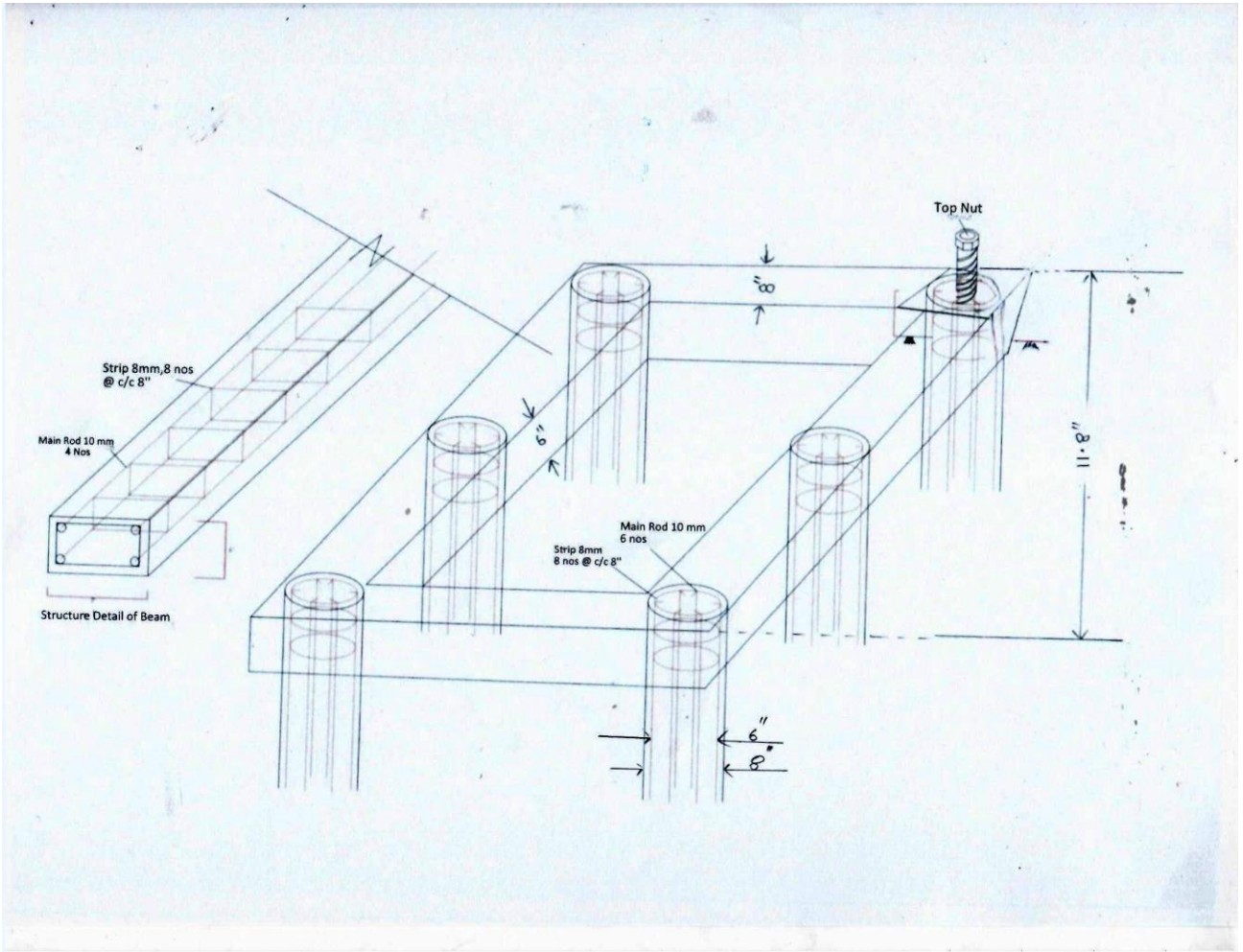


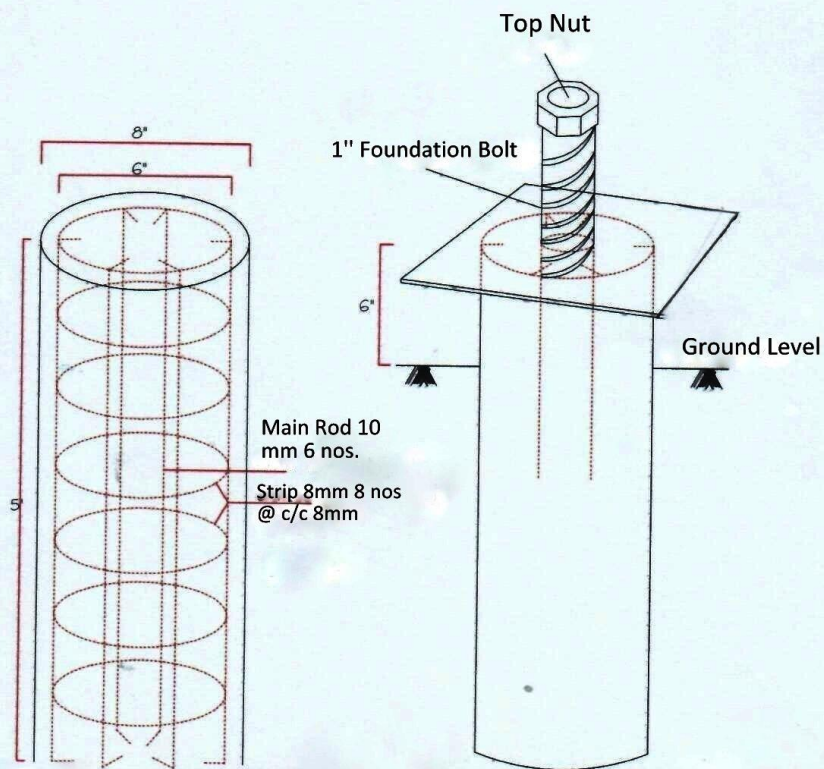
SIDE ELEVATION



FRONT ELEVATION

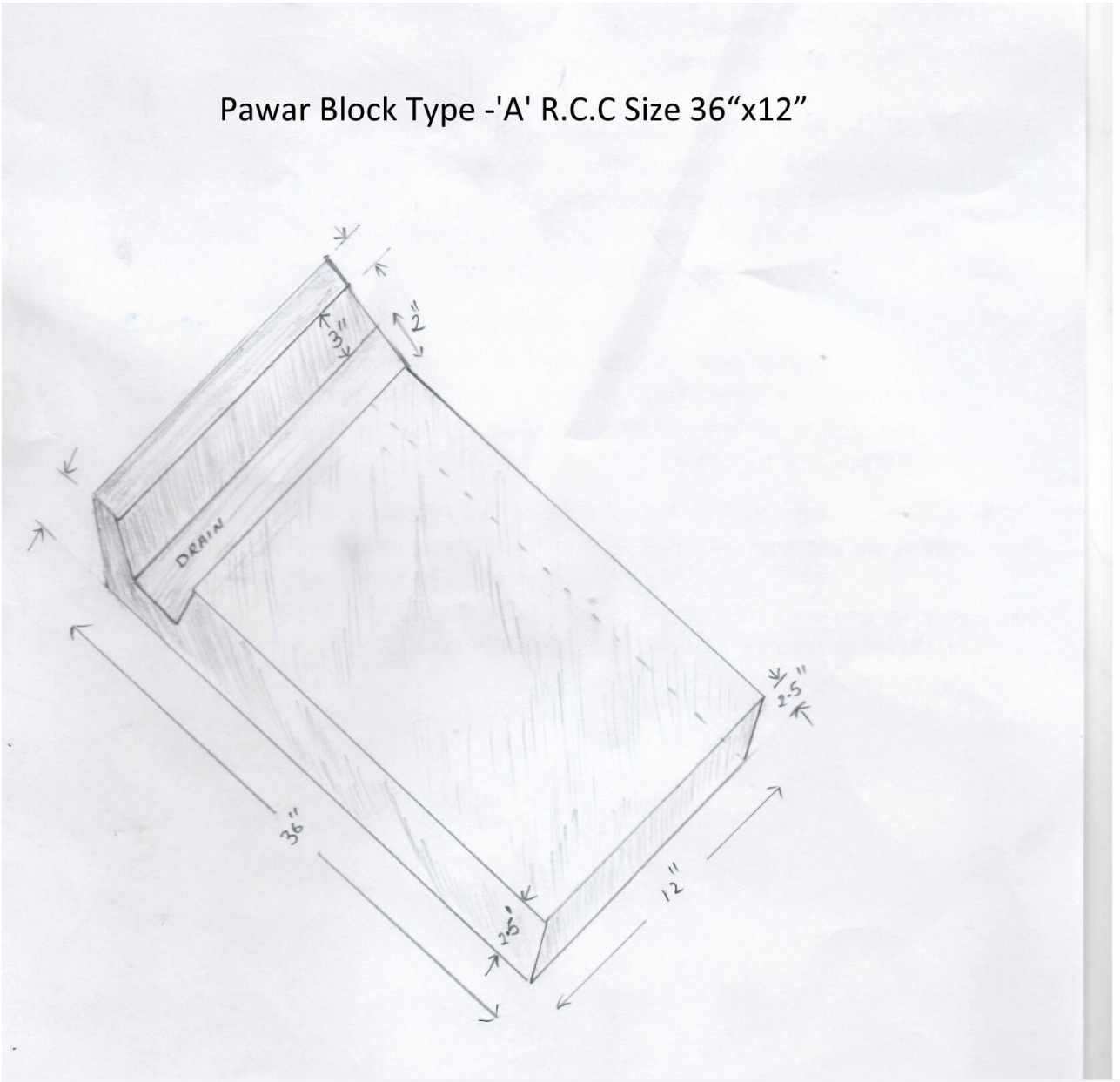




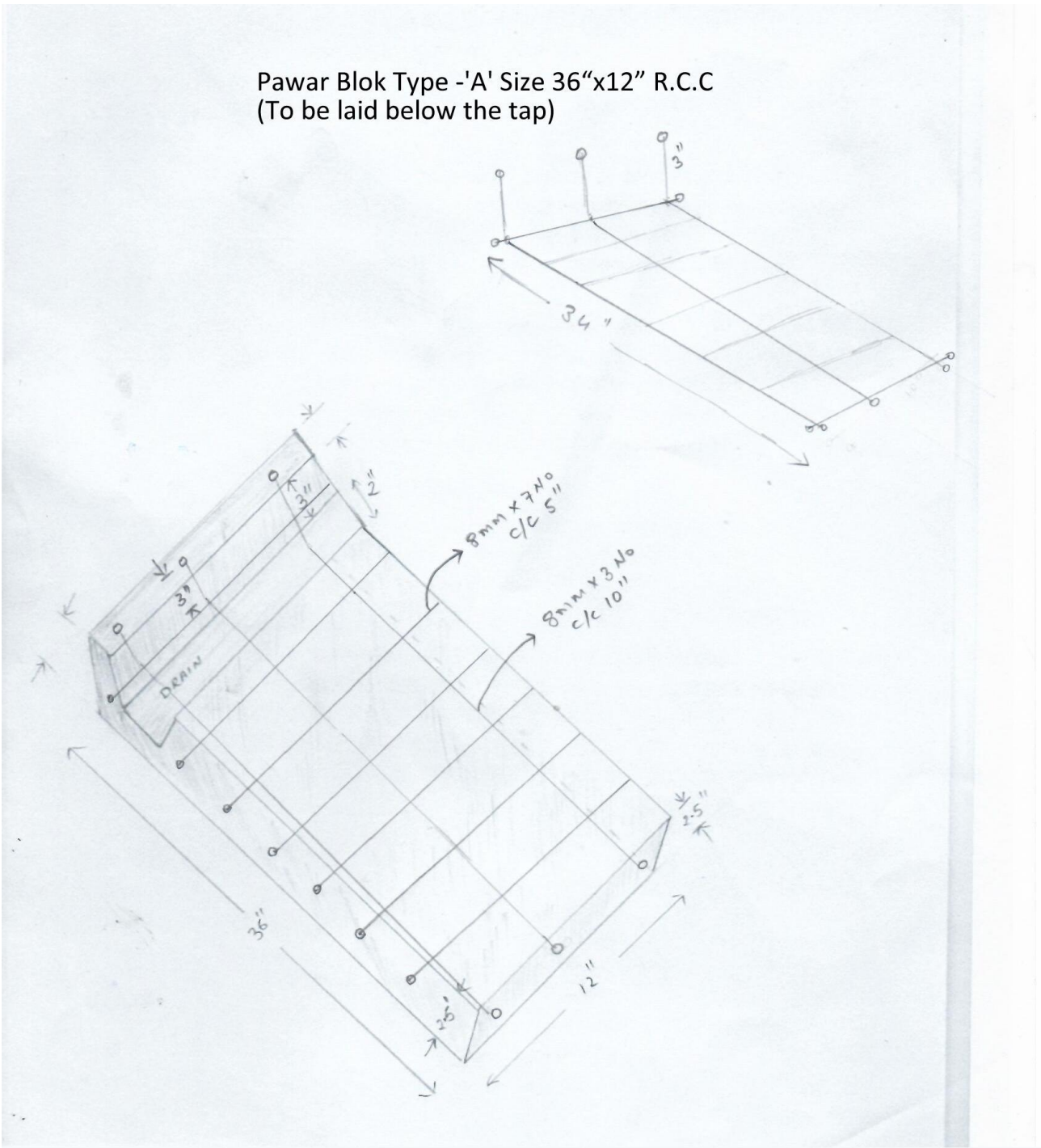


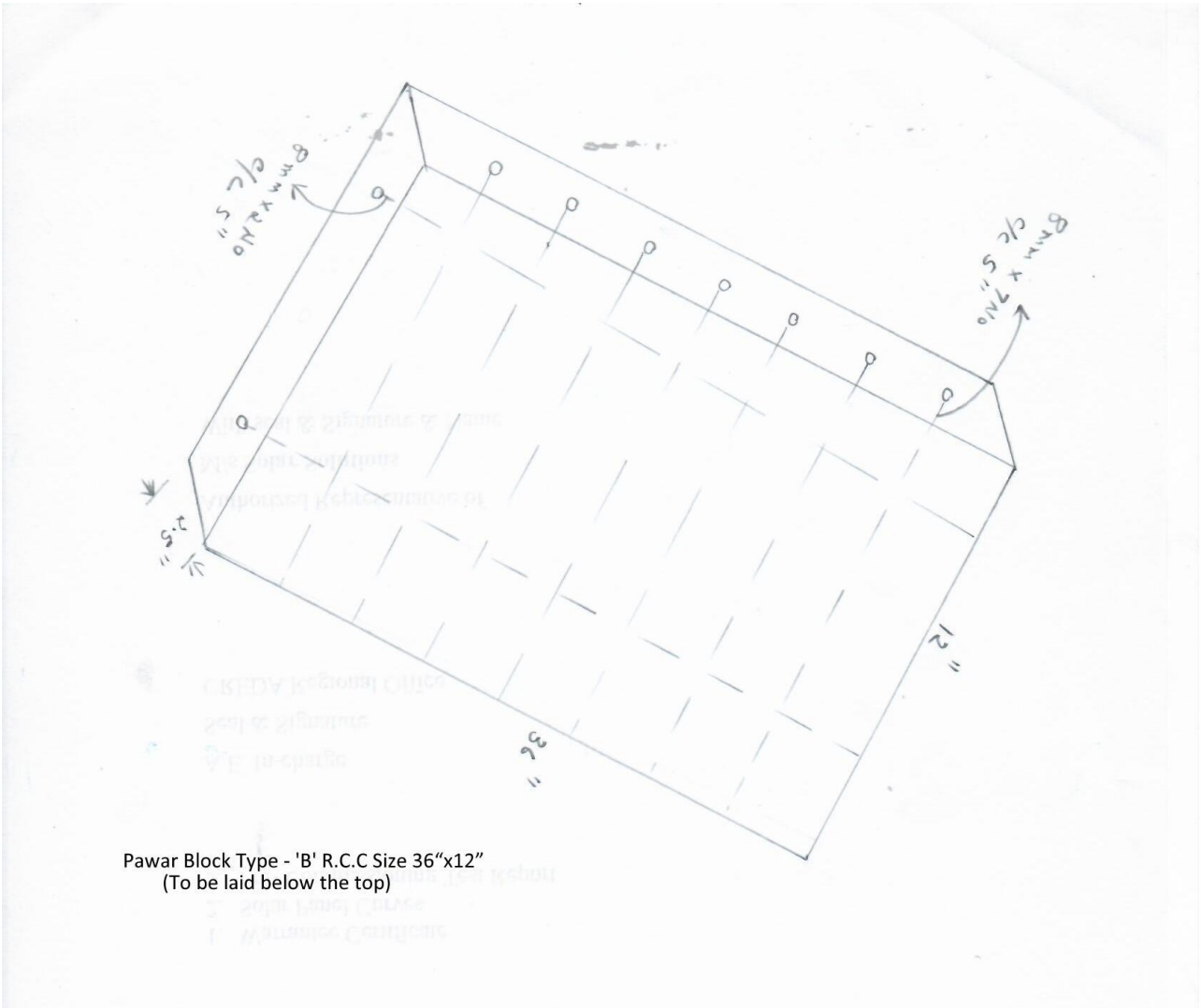
Structure Detail of Foundation for Pre Fabricated Container

Pawar Block Type -'A' R.C.C Size 36"x12"



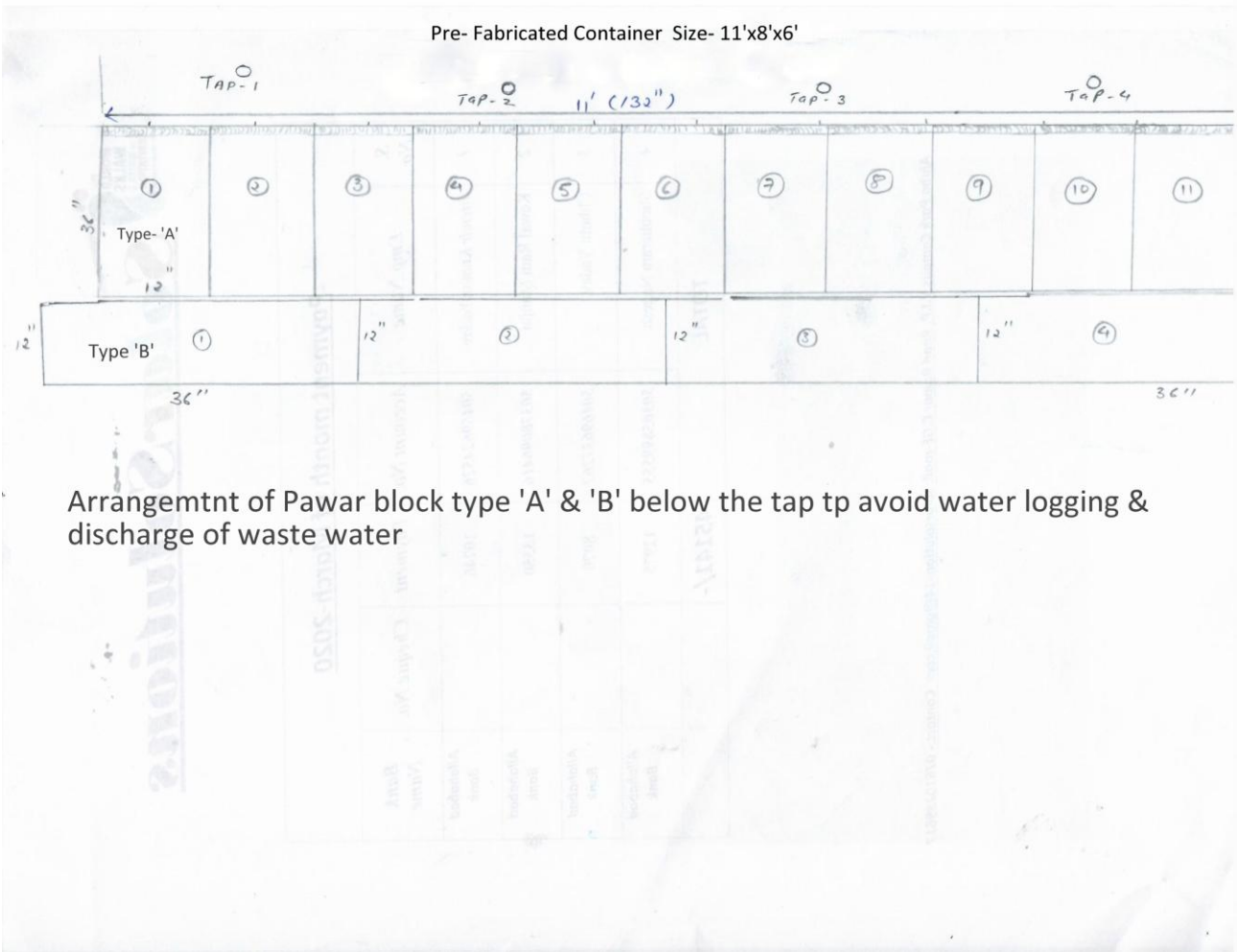
Pawar Blok Type -'A' Size 36"x12" R.C.C  
(To be laid below the tap)



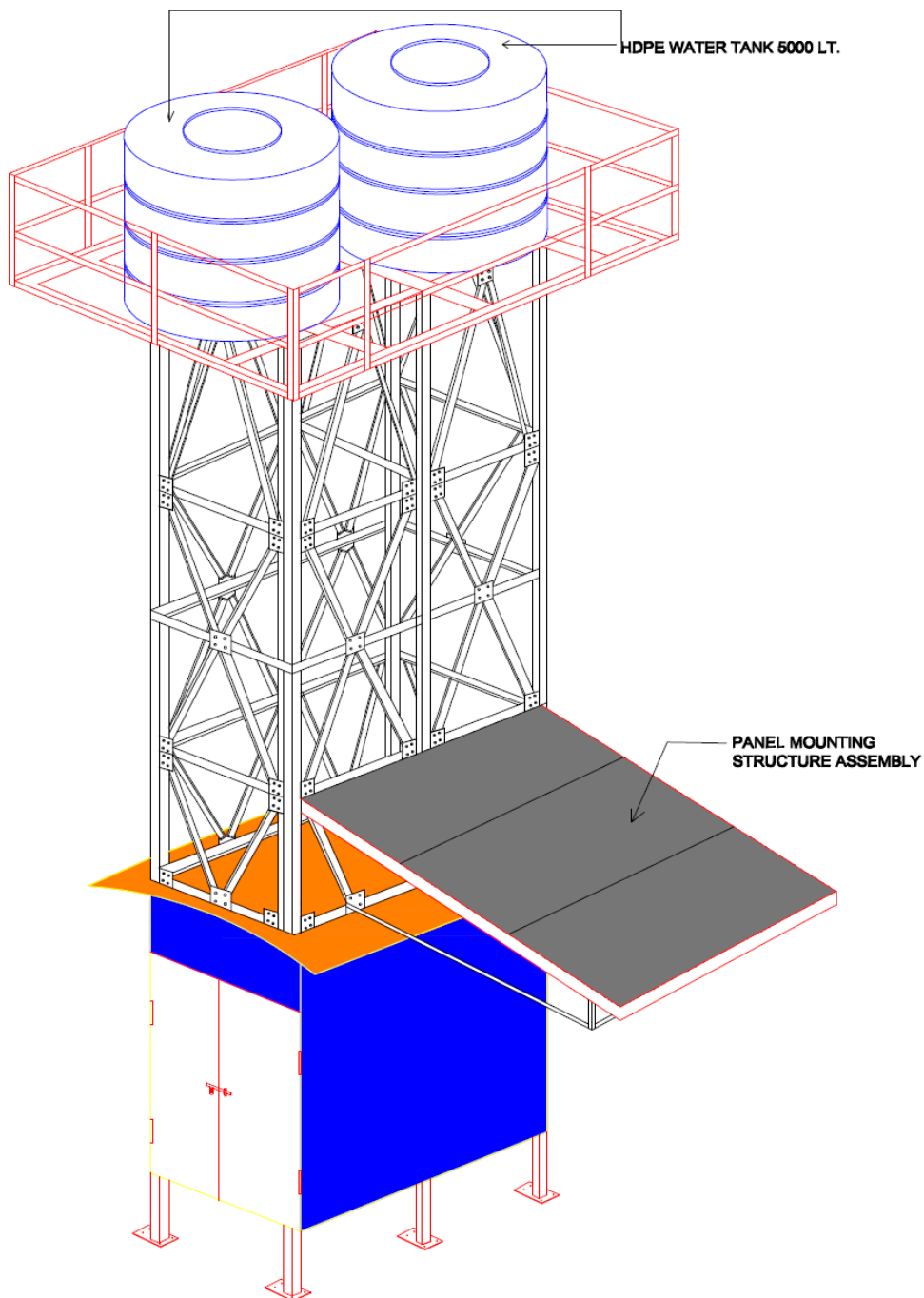


Pawar Block Type - 'B' R.C.C Size 36"x12"  
(To be laid below the top)



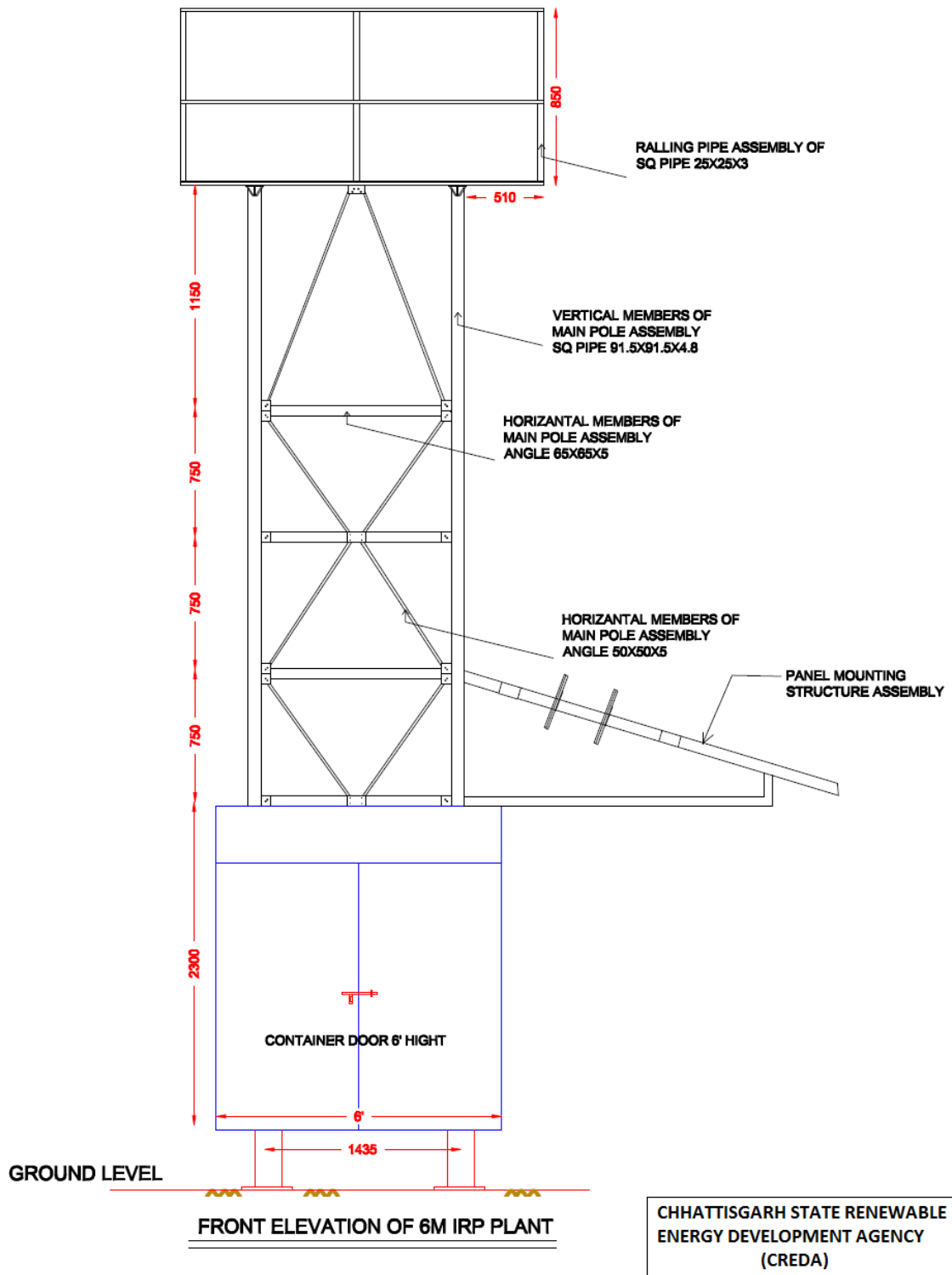


Arrangement of Power block type 'A' & 'B' below the tap to avoid water logging & discharge of waste water

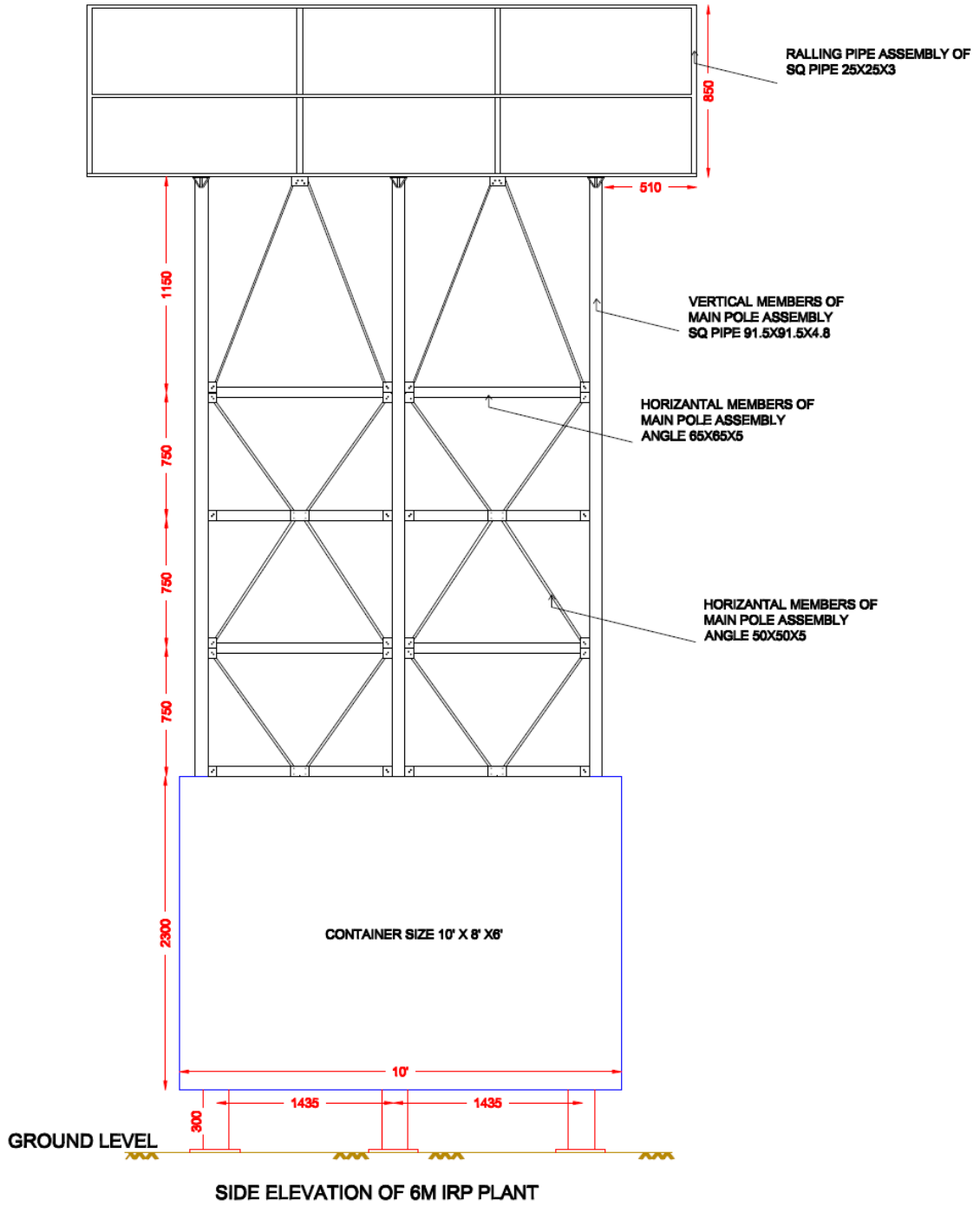


VIEW OF GI STRUCTURE OF 6M IRP PLANT

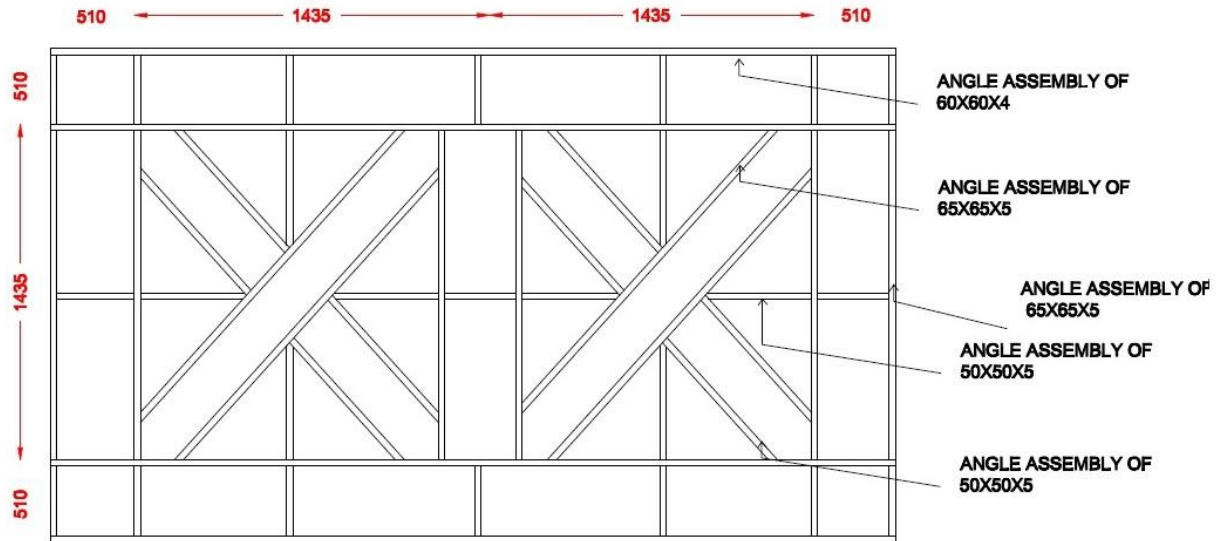
CHHATTISGARH STATE RENEWABLE ENERGY  
DEVELOPMENT AGENCY (CREDA)



CHHATTISGARH STATE RENEWABLE ENERGY  
DEVELOPMENT AGENCY  
(CREDA)

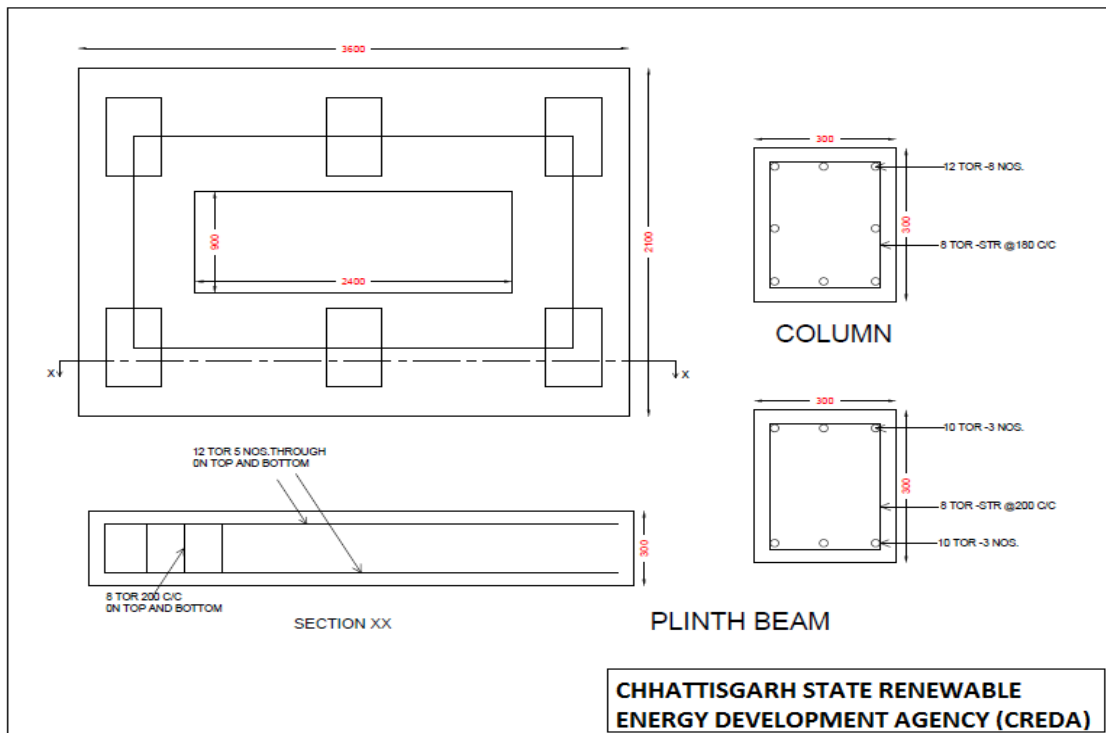


A-13

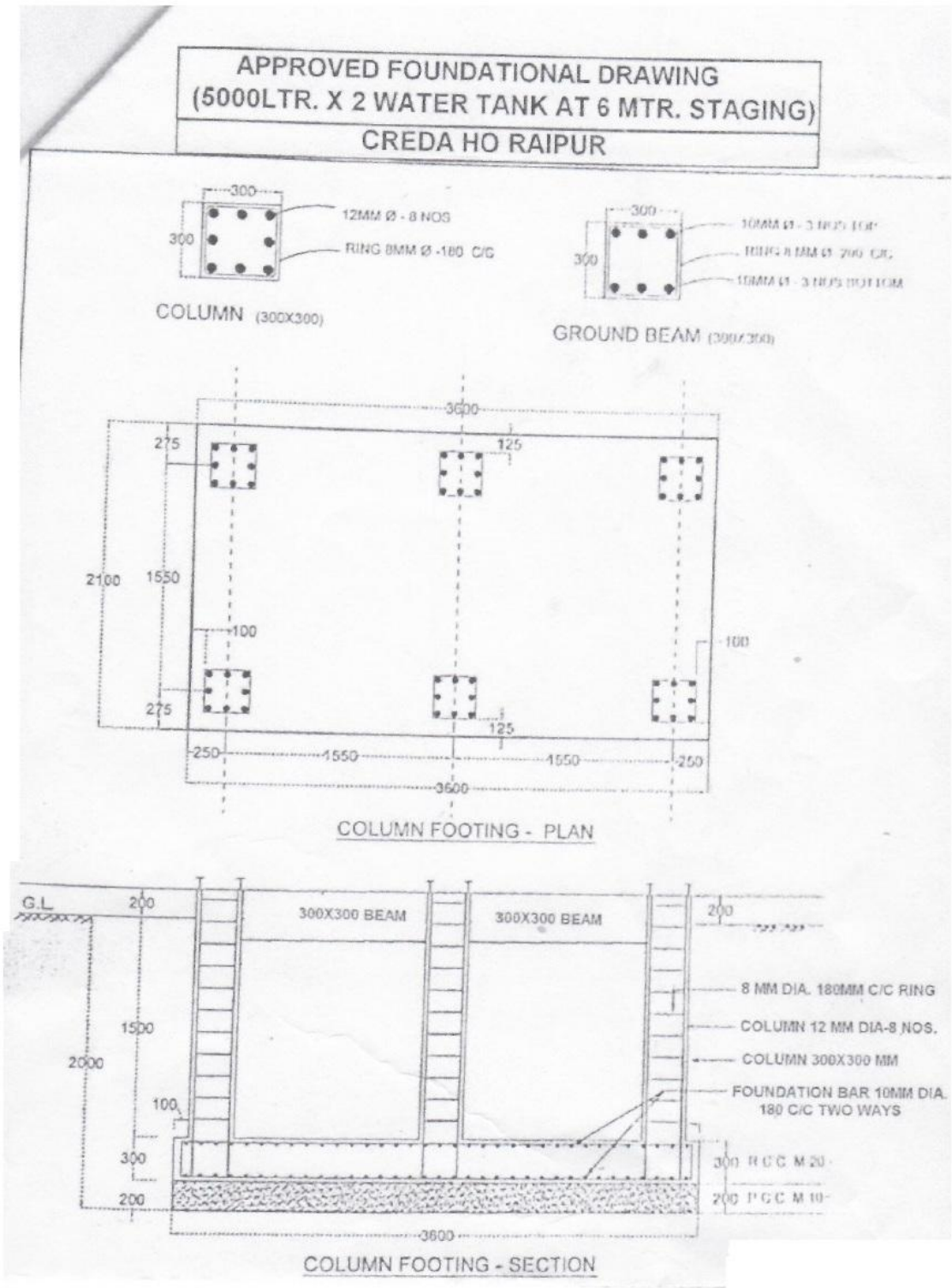


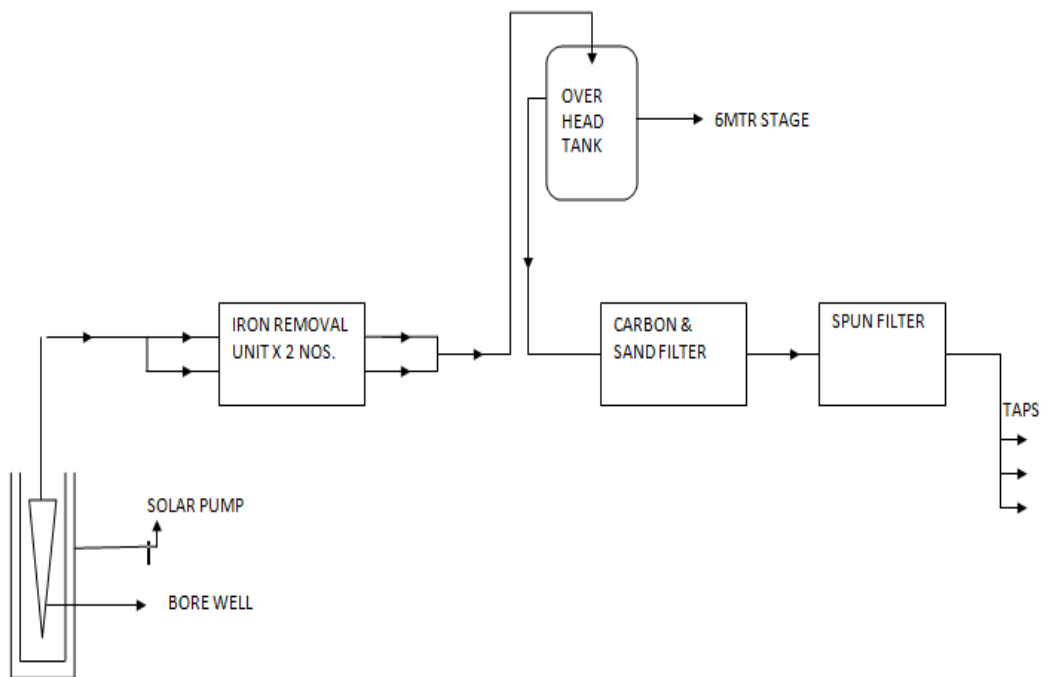
TOP VIEW TANK BASE OF 6M IRP PLANT

CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)



CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)





**FLOW CHART**

**BENCHMARK COST FOR SOLAR WATER PURIFICATION SYSTEM**

S.No.	Particular	Supply Cost without GST (in Rs.)	I&C Cost without GST (in Rs.)	COM Cost for 05 Years without GST (in Rs.)	Total without GST (in Rs.)
1	<b>RO+UV</b> with dual pump capacity 1HP/ 900Wp and all accessories at site (Cap. – 2000LPD)	7,98,000/-	52,500/-	1,26,000/-	<b>9,76,500/-</b>
2	<b>UV+UF</b> with dual pump capacity 1HP/ 900Wp and all accessories at site (Cap. – 2000LPD)	7,94,850/-	49,350/-	88,200/-	<b>9,32,400/-</b>
3	<b>IRP</b> with dual pump capacity 1HP/ 900Wp and all accessories at site (Cap. – 5000LPD)	5,69,625/-	37,275/-	37,275/-	<b>6,44,175/-</b>
4	<b>IRP</b> with dual pump capacity 1HP/ 900Wp and all accessories at site (Cap. – 10000LPD)	6,98,250/-	1,09,200/-	73,500/-	<b>8,80,950/-</b>
5	<b>Fluoride Removal</b> with dual pump capacity 1HP/ 900Wp and all accessories at site (Cap. – 2000LPD)	7,80,000/-	80,000/-	1,40,000/-	<b>10,00,000/-</b>
6	<b>Water Softner</b> with dual pump capacity 1HP/ 900Wp and all accessories at site (Cap. – 5000LPD)	5,88,000/-	42,000/-	42,000/-	<b>6,72,000/-</b>
7	<b>IRP Retrofit</b> with all accessories including testing & commissioning at site	1,11,300/-	5,250/-	26,250/-	<b>1,42,800/-</b>
	<b>Water Softner Retrofit</b> with all accessories including testing & commissioning at site	1,16,815/-	5,250/-	26,250/-	<b>1,48,315/-</b>
	<b>Fluoride Removal Retrofit</b> with all accessories including testing & commissioning at site	1,89,000/-	21,000/-	42,000/-	<b>2,52,000/-</b>
8	<b>ATM Machine</b> with RFID Card at site	37,500/-	3,000/-	5,000/-	<b>45,500/-</b>
	<b>Coin Vending Machine</b> with RFID Card at site	22,000/-	2,500/-	4,000/-	<b>28,500/-</b>