



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.: 91-9406210918

E-mail: credatendercell@gmail.com, Website: www.creda.co.in

E-BID DOCUMENT No. 200500/CREDA/SCIP&CGGY/2026 -27 Dated: 28.09.2026

E-TENDER FOR STANDARDIZATION OF RATES FOR SURVEY, DESIGN, SUPPLY, INSTALLATION, COMMISSIONING OF SPV COMMUNITY IRRIGATION PROJECT & CHHATTISGARH GAON GANGA YOJANA WITH ALL ALLIED WORKS WITH FIVE YEARS COMPREHENSIVE ONSITE WARRANTY ANYWHERE IN THE STATE OF CHHATTISGARH

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice inviting bid	28.09.2026 05:00 PM	-----	-----
Period of availability of bidding document at website	28.09.2026 05:00 PM	21.10.2026 05:00 PM	www.creda.co.in ; https://eproc.cgstate.gov.in
Submission of Pre Bid queries	28.09.2026 05:00 PM	04.10.2026 05:00 PM	Pre Bid queries cabn be emailed on credatendercell@gmail.com or To be submitted hard copy at CREDA HO, Raipur
Pre Bid meeting	05.10.2026 12:00 PM	05.10.2026 02:00 PM	To be held at Conference Hall, CREDA H.O., Raipur.
Inspection of Samples by Bid committee as per valid test report and submission of Test Report & M.A.F	12.10.2026 12:00 PM	12.10.2026 02:00 PM	At CREDA H.O., Raipur.
Submission of Online Bid (Technical + e-Price Bid) and submission of documents in hard copy	28.09.2026 05:00 PM	21.10.2026 05:00 PM	Online Bid on https://eproc.cgstate.gov.in & Hard Copy at CREDA H.O., Raipur(C.G.).
Opening of Technical Bid	23.10.2026 12:00 PM Onwards		At CREDA H.O., Conference Hall, Raipur. (https://eproc.cgstate.gov.in)
Evaluation of Technical bid	26.10.2026 12:00 PM Onwards		At CREDA H.O., Conference Hall, Raipur.
Opening of e- Price Bid	28.10.2026 03:00 PM Onwards		At CREDA H.O., Conference Hall, Raipur.

Tender Document Cost– Rs.10000.00 + 18% GST = Rs.11,800.00

(in words Rupees Eleven Thousand Eight Hundred Only) to be deposited in CREDA's account along with EMD via Demand Draft/Pay Order or RTGS/ NEFT.

Document can be downloaded from our website www.creda.co.in or from Chhattisgarh e-Procurement portal i.e. <https://eproc.cgstate.gov.in>

CHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY**CONTENTS**

Section	Description	Page No.
	Cover Page, Contents	1-3
	Notice Inviting Tender	4 - 5
	Check List	6
	Details of EMD and Tender Document Fee	7
	Undertaking of the Bidder	8
Section- 1	Instruction For Bidders	9-17
	Eligibility Criteria	9-10
	Consortium	10-11
	Bidding Process/EMD/ Submission of Documents/ Specific Amendments/GST&PAN/The Bid	11-13
	Analysis of Rate/Registration of Bidder/Validity/ Term & Condition/Submission of display Sample/Technical Criteria/	13-15
	CMC/Jurisdiction of the Court	15-17
Section- 2	General Condition of Contract	18-25
	Definitions/Proof of Manufacturer/Contract Document/Manner of Execution	18-19
	Variations, Additions & Omissions/Inspection/Completion of work/ Eligible system integrator's liability in case of default	19-20
	Force Majeure/Rejection of works/Extension of time/ Makes of Equipment etc.	20-21
	Warranty/Terms of Payment/Penalty/SD/Insurance	21-23
	Non assignment/Correspondence/Bid Evaluation/Allocation of the target/BID Rejection	23-25
Section- 3	Scope of Work	26-29
Section- 4	Technical Specification	30-45
Section- 5	Annexure Specification Forms	46-66
	Annexure – I Part A - Completion Certificate SPV Pump	46
	Annexure – I Part B - Completion Certificate WDN	47
	Annexure – I Part C - Completion Certificate Civil Work	48
	Annexure – II – Consortium Agreement	49-51
	Annexure – III – Format for Affidavit (Declaration of Conflict of Interest)	52-53
	Annexure IV - Certificate of Quarterly Visits	54
	Annexure – V - Drawing	55-64
	Annexure – VI- Part A- e-Price Bid for SPV PUMP	65-67
	Annexure – VI- Part B - e-Price Bid for WDN & Part B-1 CMC	68-69
Section- 5	Annexure – VI- Part C - e-Price Bid for CIVIL WORK	70

Annexure – VII – Standards	71
Annexure – VIII - Logo for Module	72
Annexure – IX - Draft Agreement	73-77
Annexure – X - Declaration of same make	78
ANNEXURE – XI - Base rates/ SOR of CG PWD 2026 and CGPHED 2020	79
Schedule - I Part A General Information	80
Schedule - II Part-B Commercial Information	81
Schedule - III - Part C Technical Information	82
Schedule - IV - Technical Deviation	83
Site Clearance Certificate Form-A (CGGY) & Form-B (SCIP)	84-85

NOTICE INVITING BID

CREDA invites online Bids for Standarisation of Rates for the Survey, design, supply, installation, and commissioning of Solar Community Irrigation Scheme & Chhattisgarh Gaon Ganga Yojana and with all allied works with five years COM, onsite warranty for anywhere in the State of Chhattisgarh from registered System integrators of CREDA for SPV Projects with 3 years consistent record in Solar Pumping system as per following details –

Item Description	Approximate Area (Hectare)	Cost of Bid Document	EMD	Essentials*
Survey, design, supply, installation, and commissioning of Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and with all allied works with five years comprehensive onsite warranty, COM at anywhere in the state of Chhattisgarh.	10,000	₹ 10,000/- + 18% GST = ₹11,800/-	₹ 10,00,000.00	As per clause no. 1A to 1G of Eligibility Criteria (Page no.8)

The approximate area of project mentioned in above table is based on target/ work that are expected to be given by various agencies to CREDA within the period of two years. The area may vary as per actual requirement.

Estimated Value of tender:- Rs. 15 Crores.

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	28.09.2026 05:00 PM	-----	-----
Period of availability of bidding document at website	28.09.2026 05:00 PM	21.10.2026 05:00 PM	www.creda.co.in ; https://eproc.cgstate.gov.in
Submission of Pre Bid queries	28.09.2026 05:00 PM	04.10.2026 05:00 PM	Pre Bid queries cabn be emailed on credatendercell@gmail.com or To be submitted hard copy at CREDA HO, Raipur
Pre Bid meeting	05.10.2026 12:00 PM	05.10.2026 02:00 PM	To be held at Conference Hall, CREDA H.O., Raipur.
Inspection of Samples by Bid committee as per valid test report and submission of Test Report & M.A.F	12.10.2026 12:00 PM	12.10.2026 02:00 PM	At CREDA H.O., Raipur.
Submission of Online Bid (Technical + e-Price Bid) and submission of documents in hard copy	28.09.2026 05:00 PM	21.10.2026 05:00 PM	Online Bid on https://eproc.cgstate.gov.in & Hard Copy at CREDA H.O., Raipur(C.G.).
Opening of Technical Bid	23.10.2026 12:00 PM Onwards		At CREDA H.O., Conference Hall, Raipur. (https://eproc.cgstate.gov.in)
Evaluation of Technical bid	26.10.2026 12:00 PM Onwards		At CREDA H.O., Conference Hall, Raipur.
Opening of e- Price Bid	28.10.2026 03:00 PM Onwards		At CREDA H.O., Conference Hall, Raipur.

Technical Bid and Price Bid shall be submitted online only at <https://www.eproc.cgstate.gov.in>. However Technical Bid (as per the checklist) also has to be submitted duly signed hard copy at CE (RE-I). If there is any discrepancy in the e-Bid and hard copy only the e-bid shall be valid. **In no case the hard copy of documents shall be evaluated, they are only for record keeping by CREDA.** 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 <https://www.eproc.cgstate.gov.in>)

Details of this tender are mentioned at Tender Documents which can be downloaded from our website www.creda.co.in.

The Bidder shall have to deposit tender document cost along with EMD as mentioned above through demand draft/RTGS/NEFT payable to CREDA Raipur while submitting tender.

Bidders are requested to submit their suggestions/objections/reservations, if any with details so as to avoid any confusion and to ensure clarity and transparency regarding the tender in writing or by e-mail.

Any Addendum/Corrigendum/AmendmentNotice, if needed, shall be uploaded on CREDA's Website.

CREDA reserves all rights to accept/reject any or all tenders in full/part without assigning any reasons and also has all rights to vary the area and total amount of the tender.

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

CHECK LIST OF DOCUMENTS TO BE UPLOADED IN THE E-BIDDING PORTAL

To ensure that your Bid uploaded on the Chhattisgarh e-Procurement portal i.e. <https://eproc.cgstate.gov.in> is complete in all respects, please go through the following checklist & tick mark for the enclosures attached with your Bid –

Sl. No.	Envelope	Description of documents to be uploaded in the e-bidding portal	Complied (Yes/ No)	(Page No)
1	A. Pre-Qualification	EMD and Tender Document Fee submission form of the bidder confirmed by CREDA (as on page – 7)		
2		Scanned Copy of Undertaking of the Bidder as mentioned on Page – 8 of the tender document on the letter head of bidder		
3		Scanned copy of original tender document duly signed & with stamp on each page, as a confirmation of acceptance of the Terms & Conditions (T&C).		
4		PAN, GSTIN issued in the name of the bidder		
5		Self-certificate from Bidder on not being a debarred from Government contract or a blacklisted company.		
6		Consortium Agreement along with MoU and Power of Attorney (If Applicable) (Annexure II)		
7		Declaration of conflict of interest - by bidder about any relatives working with CREDA and Affidavit (Annexure III) (Hard Copy to be submitted as per Clause 31c , Section – 2)		
8		Copy of Registration: Certificate as System Integrator of CREDA in SPV Program valid at the time of submission of bid		
9	B. Technical and Financial Qualification	Consent for valid Original Test Reports of SPV Pumping system & MAF from the owner of test report in the name of Bidder.		
10		Original Net Worth Certificate duly signed by Chartered Accountant as on 31st March 2026.		
11		Original certificate for last three financial year's turnover i.e., 2022-23, 2023-24 and 2024-25/2025-26 of works done in SPV Projects & Balance Sheet.		
12		Original ITRs for last three Financial Years i.e 2022-23, 2023-24 and 2024-25/2025-26 of the Bidder.		
13		Completion and Experience Certificates of Installation and Commissioning of SPV Pumps by the Bidder in Govt. Scheme of any State or Market mode scheme of CREDA in any three financial years out of 5 financial years i.e. FY 2021-22, FY 2022-23, FY 2023-24, FY 2024-25and FY2025-26.		
14		Proof of being Eligible manufacturer of SPV-Pumps/ Controller /Structure etc. of SPV irrigation pumping system.		
15		Manufacture Authorization certificates of all components of SPV irrigation pumps and Sample Display Certificate issued by CREDA		
16		Technical Data Sheet for each component showing full technical details.		
17		Declaration for using same make of equipment's as per the test certificate. (Annexure – X)		
18	C. Scanned copy of Price Bid	Duly filled scanned copy of price bid (Part A, B & C). To be mandatorily attested by the bidder.		

Note: Bidders shall have to submit the original hard copies of the above-mentioned documents as described in Section – 1; Clause 5(d).

Details of EMD and Tender fee attached

Tender No. and Date	
Name of the Bidder	
Bidder's Bank Account Details	
(i) Name of the bank	
(ii) Branch	
(iii) IFS Code	
(iv) Account No.	
(v) Transaction reference number	EMD - _____ ; Bid Document Fee - _____
(vi) Date of transaction	EMD - _____ ; Bid Document Fee - _____
(vii) EMD	Rs./- In Words (Rs.....)
(viii) Bid Document Fee	Rs./- In Words (Rs.....)
Name	CREDA
Bank & Branch Name	ICICI Bank, Panchpedi Naka, Raipur
Bank Account Number	134601000400
Branch IFS Code	ICIC0001346

(Sign & Seal of the bidder)***NOTE –**

1. The EMD and the Tender Document Fee shall have to be deposited as mentioned in the NIT in CREDA's bank account (amount mentioned above). Bidder shall have to upload the transaction details as above or a scanned copy of the DD (if transaction is done through DD)
2. In case the transaction is done through DD, the original DD has to be submitted in envelope A as per Clause 5(d).

UNDERTAKING OF THE BIDDER

(To be submitted on Letter Head)

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

I/We hereby Bid 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 Bid 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 **Ten 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 Bid 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 Bid 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 Bid 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 Bidder with seal

Witness :

Signature:

Name:

Postal Address:

.....

SECTION - 1

INSTRUCTIONS FOR BIDDERS

1. ELIGIBILITY CRITERIA :

a. TEST REPORTS OF SPV PUMP

- i. Bidder must have either Test Report **or Acknowledgement** in his name or written consent from owner (manufacturer of SPV Module/Pump/Controller only) of the test report to use such test certificate/reports for each of the four types of pump i.e. 7.5HP, 10HP, 15HP & 20 HP solar AC surface pumping system with solar modules. All test reports/Consent Letter for the same are mandatory for eligibility to participate in the tender. Such owner of the Test Reports must have to provide the Original Test Report to CREDA, on or before the date of sample display, for which they are providing consent or using the same.

Note: In case, the bidder, in future wishes to change components such as module and/or pump/controller OR the system configuration as a whole, then they must take prior approval from CREDA in addition to the submission of valid original test report of such a configuration along with written consent of owner (manufacturer of SPV Module/Pump/Controller only). CREDA reserves the right to accept or reject the modified configuration of SPV Irrigation Pumps.

- ii. Bidder shall have to produce original test certificate(s) (in addition to the documents submitted in hard copy as per Clause 5(d)) for the bidding pumps at the **time of agreement**.

b. MINIMUM EXPERIENCE:

- a. Bidders must have minimum experience under Government for any three financial years out of 5 financial years i.e. FY 2021-22, FY 2022-23, FY 2023-24 , FY 2024-25 and FY 2025-26 as per the details mentioned below:

S.N.	Particulars	Minimum Experience required
1	Survey, design, supply, installation, and commissioning of Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and with all allied works with five years comprehensive onsite warranty, COM at anywhere in the state of Chhattisgarh.	Direct experience of Supply, Installation & Commissioning of 1 nos turnkey project under Solar Community Irrigation with minimum aggregate area of 30 Hect. or 02 nos. Pond filling Govt. Projects or 100 nos. Solar Irrigation Pump under Government Scheme in any three years out of last 05 Consecutive years i.e. 2021-22, 2022-23, 2023-24 , 2024-25 and 2025-26

- c. Bidders will have to submit experience of certificates in form of satisfactory commissioning and functioning report containing complete system details from the concerned state/central agencies /department document issued by competent authority duly sealed and signed along with bid document. Experience certificate shall be submitted in attached format (as per **Annexure – I Part A, B, C**) or other format containing similar information shall be considered only in-case submitted in Hindi / English Language only. At the time of opening of technical bid, bidders shall have to present original reports/certificate as above.
- d. Bidders must have a Positive Net worth Positive Net worth (Positive Net Worth means “Net value of the Assets minus (-) Net value of liabilities”) of Rs. 50 lacs as on 31st March **2025 or 2026**. They shall have to submit an Original 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. Bidders should have an aggregate turnover of minimum Rs. 03 Crores in last three consecutive financial years i.e., FY 2022-23, 2023-24 and 2024-25 **or** 2025-26 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, an original Summarised Sheet of turnover certified by registered CA must be enclosed. CREDA reserves the right to call for these documents from such bidders anytime during the validity of the bid. **CA certificate shall clearly depict turnover of SPV Projects.**
- f. Bidder who are debarred/blacklisted at the time of submission of bid, 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.
- g. Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
 - i. Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
 - ii. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion litigation history, or financial failures etc; and/or
 - iii. Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to CREDA.

2. CONSORTIUM-

There shall be consortium for the contract bid in the constituent firm indicating clearly, amongst other things, the proposed distribution of responsibilities, both financial as well as technical for execution of the work amongst them. For the purpose of this clause the most experienced partner shall be the lead partner. The copy of the consortium agreement in accordance with the requirements mention in **Annexure-II**. Lead partner shall be nominated as being partner-in-charge and this authorization shall be evidenced by submitting a Power of Attorney signed by second partner. Consortium shall be allowed in this tender upto two partners submitted to fulfilling criteria:-

- a. The term Bidder used hereinafter would therefore apply to both as single entity and as Consortium. Consortium of companies/organizations/bidders (maximum of two members) registered in India.
- b. A consortium of maximum two (02) members is allowed in this bid including one as lead bidder.
- c. Most experienced partner shall be Lead partner in the Consortium
- d. Consortium partners shall have to open ESCROW bank account. Payment shall be given in same account.
- e. One of the partners of the consortium shall act as Lead member. Both the members of the Consortium shall mandatorily have installation experience of SPV pumping system such as Irrigation pumps and Drinking Water pumps.
- f. Both the partners should individually fulfil criteria of 1d, 1f and 1g.
- g. Both the partners should jointly fulfil eligibility criteria as per clause 1a, 1b, 1c and 1e.
- h. Member of any Consortium Firm shall not be permitted to participate either in individual capacity or as a member of any other Consortium in the same tender. Submission or participation in more than one bid will cause disqualification of all the bids submitted by the bidder.
- i. All formalities in respect of submission of tender shall be done only in the name of 'Lead Member' and not in the name of consortium. However, name & other details of both the members of Consortium should be clearly mentioned in the bid.
- j. The lead partner of consortium shall be solely responsible for any liability, penalty, insurance, CMC and other terms and conditions mentioned in this Tender Document. In event of default by any partner in the execution of his part of contract, both the partners shall be debarred from the tender, execution of work and empanelment list of CREDA.

- k. Notwithstanding the permission to assigning the responsibilities of defaulting partner above, both the partner of consortium will retain the full and undivided responsibility for the performance of their obligation under the bid.
- l. Both the partner shall be registered in CREDA. Otherwise, consortium bid/bidders shall be disqualified.
- m. The bid submitted shall include all the relevant information mentioned in this tender document applicable to consortium partner shall be furnished separately for each partner like affidavit as in **Annexure-III** mentioning information of relatives, Experience certificate, **Schedule- I, II, III, IV** etc. In case of fails to do, bid shall be rejected.
- n. A copy of Memorandum of Understanding (MoU) certified by Magistrate/Sub-Judge/ Notary Public on 100 Rupees stamp paper, executed between the members of Consortium shall be submitted along with the tender. The complete details of the members of the consortium, their share and responsibility in the Consortium etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU.
- o. Once the bid is submitted, the MoU shall not be modified / altered/ terminated during the period of execution including any extension thereafter by CREDA or validity of any letter of award awarded to the said Consortium. In case, the Bidder fails to observe/comply with this stipulation, the full Security Deposit shall be liable to be forfeited.
- p. A duly notarized agreement, attested by Magistrate/Sub-Judge/ Notary Public on 100 Rupees stamp paper, of Consortium shall be executed between the 'Lead Member' and Consortium partner. This Agreement should be submitted in original with bid. **(Annexure-II)**
- q. Copy of the original Memorandum of Understanding (MoU) as stated in clause 2(m) and original copy of agreement as stated in clause 2(o) shall be submitted separately. In absence of any of each shall lead to disqualification from the bid.
- r. Duration of MoU and Consortium Agreement shall be valid during the entire execution period/ validity of letter of award and any extension thereafter/currency of the contract including the period of extension, if any.
- s. Any change/modification in constitution of Consortium Firm shall not be allowed. Members of the consortium are not allowed to enter into separate consortium(s) with other companies/organisations/ bidders to participate in other bids of CREDA as long as this bid is valid.
- t. Splitting of EMD/fees among the members of Consortium shall not be permitted.
- u. Members of the Consortium Firm shall be jointly and severally liable to CREDA for execution of the project/ Work/ Assignment/ attending meetings/Review for the allocated works etc. The Consortium members shall also be liable jointly and severally for the loss, damages caused to the CREDA during the course of execution of any awarded contract or due to non-execution of the contract or part thereof. Governing Laws for Consortium Firm: The Consortium Agreement in all respect be governed by and interpreted in accordance with Indian Laws.
- v. After successful completion of work, experience certificate shall be given by CREDA in accordance with percentage of participation as mentioned in consortium agreement.

All correspondence by CREDA shall be done with the 'Lead member' of Consortium only.

3. BIDDING PROCESS -

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

- a. Visit <https://eproc.cgstate.gov.in>
- b. **Prospective bidders are requested to download, read and understand the Manuals present on the website so as to clearly understand the bid submission process.**
- c. The user will be directed to e-bidding page where all information regarding registration is available along with helpline details.
- d. Technical bid and Price Bid shall be submitted online only at <https://eproc.cgstate.gov.in> latest by **05:00 PM on 21.10.2026**. Bids submitted after scheduled time and date shall not be considered.

4. EMD & TENDER DOCUMENT FEE–

Earnest Money Deposit of **Rs. Ten Lakhs** submitted in the form of Demand Draft/Pay Order or RTGS/NEFT as mentioned in the **Tender** vide no. **200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026**, EMD submitted in any other form e.g. **Cash/Bank Guarantee/FDR /TDR etc. shall not be accepted.**

5. SUBMISSION OF DOCUMENTS -

- a. All the documents including technical and financial Bid should be submitted online on Chhattisgarh e-Procurement portal <https://eproc.cgstate.gov.in> as per the items mentioned in the Checklist on page no.06 in this bid.
- b. Bidders are advised to finish all the bidding portal related activities such as registration, USB certificate/token approval, and payments etc. well in advance so as to avoid last minute difficulties during the bid submission.
- c. Bidders are also advised to make themselves fully aware with the bid submission mechanism to avoid last minute hassles and doubts during bid submission. CREDA shall only entertain genuine technical issues/glitches, provided that the bidder submits evidence regarding the same.
- d. Additionally, the bidders shall also have to submit all the documents, in hard copy, as required in this bid as per the checklist on **page 06** during the opening of Technical Bid, Date **21.10.2026, Time 05.00 PM**. Bidders shall have to submit only the documents as per the checklist in the following envelopes
 - Envelope A – Pre Qualification Documents
(Original DD should be submitted in this envelope)
 - Envelope B – Financial Qualification Documents.
(GST, PAN, Networth, Turn-Over, ITR)
 - Envelope C – Technical and Financial Qualification Documents.

Note: The Envelopes mentioned above are only for submission sake only and must not be related with the Envelopes mentioned in the context of the Checklist on page – 6. The documents submitted in original hard copy (offline) before CREDA officials must match with those submitted in the Chhattisgarh e-Procurement portal. Any document other than the uploaded document shall not be considered. CREDA's Bid committee will only evaluate the documents submitted on Chhattisgarh e-Procurement portal. In no case the hard copy of documents shall be evaluated, they are only for matching the authenticity of the documents uploaded in the e-bidding portal.

6. SPECIFICATION AMENDMENTS –

- a. The specifications of SPV Modules, Pumps, Pump Controller, and Structures including foundation etc. should be as specified in this bid. If any amendments are issued by CREDA in due course of time, in this context, then those shall be applicable under this bid.
- b. CREDA reserves the right to amend or change minor specifications of the entire or any component of SPV pumping system even after the issuance of sanction order as per the site conditions and demand

7. GST & PAN –

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

8. THE BID -

- a. The Pre-Qualification, Technical-Financial Qualification Documents and Price Bid, other related documents must be uploaded in the portal i.e. <https://eproc.cgstate.gov.in> from **05:00 PM dated 28.09.2026 to 05:00 PM Dated 21.10.2026**.
- b. Nobody is authorized to receive or grant receipt for Bid delivered on behalf of CREDA. Bid received through any other mode shall not be considered and shall be rejected.

9. ANALYSIS OF RATE –

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

10. REGISTRATION OF BIDDER –

11. Bidders will be registered with CREDA before the agreement. If not registered then they shall have to get registered themselves prior to the contract agreement.

12. 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 Bid the approved rates shall be valid till **Two Year** from the date of award; however, CREDA shall have liberty to increase or decrease this validity if needed.

13. TERMS & CONDITIONS -

- a. The terms, conditions and specifications mentioned in Bid document shall be binding on the Bidders and no condition or stipulation contrary to the conditions shall be acceptable. It may please be noted that the Bidders who do not accept terms and conditions stipulated in this Bid documents, their offers shall be liable to be rejected out-rightly without assigning any reason whatsoever.
- b. Each page of Bid document & enclosures shall be signed by the Bidder 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 Bid, the Bidder should attest the same; otherwise Bids may not be considered.
- c. **Bidders are also instructed to submit their Bids in properly arranged manner (with index, proper paging and with flags on important documents). Incomplete, lose, conditional or improper arranged Bids will not be accepted.**

14. CREDA RESERVES THE RIGHT -

- a. To reject or accept any or all Bids fully or partly without assigning any reason on the grounds considered advantageous to CREDA, whether it is the lowest Bid or not.
- b. To split the quantities against the Bid further for the same items/work. No reason will be assigned by CREDA for this and will be binding on the Bidders.
- c. To increase or decrease of aggregate quantities as per discretion or circumstances.
- d. Due to large quantum of work & limitation of the time period for completion of the work CREDA may, if required, take consent from other eligible Bidders if they agree to work on rates approved by CREDA.
- e. CREDA may undergo agreement with those eligible Bidders who give consent to work on rates standardized by CREDA and may allocate work to them. Rates approved through this Bid may be standardized for all eligible Bids to work in year **2026-27** and 2027-28 and shall be valid till 31-03-2028. However, CREDA reserves right to curtail or extend this period.
- f. CREDA reserves the right to amend or change minor specifications of the entire or any component of Solar Community irrigation Project & Chhattisgarh Gaon Ganga Yojana with all allied works even after the issuance of sanction order as per the site conditions and demand.

15. COMMUNICATIONS -

- a. 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.
- b. Offers through Emails/Post/Courier or open offers etc. received shall be summarily rejected.

16. BID DOCUMENT FEE AND EARNEST MONEY DEPOSIT -

- a. Each Bidder should submit Bid Document Fee and earnest money in the form of Demand Draft/Pay Order or RTGS/NEFT. Each bidder should submit Tender Document Fee and Earnest Money Deposit (EMD) in the form of RTGS/NEFT as single transaction only as mentioned in the Tender No **200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026.**

- b. Bid Document Fee and EMD submitted in any other form e.g. Cash/Bank Guarantee/FDR/TDR etc. shall not be accepted.

17. SUBMISSION / DISPLAY OF SAMPLES -

- a. Prospective bidders are allowed to provide Original Manufacturer Authorization Form (MAF) in manufacturer's letter head issued for this tender for major components of Solar Community irrigation Project & Chhattisgarh Gaon Ganga Yojana & Consent for Test Report as per clause-1a only from registered manufacturer/vendor in CREDA at the time of sample display as well as in the technical bid, if the components as per the test report is already submitted by manufacturer/vendor.
- b. Owner (manufacturer of SPV Module/Pump/Controller and Pipe only) must have to submit the original test report **or Acknowledgement** to CREDA.
- c. In case there is any component not displayed by Manufacturers/Vendors, bidders shall have to display these samples separately and also submit original Test Report to CREDA for the same.
- d. CREDA shall examine the samples displayed either by bidder himself or by manufacturers and issue Sample Verification certificate to individual bidders. The bidders shall have to mandatorily upload this certificate in addition to manufacturer authorization in the e-technical bid.
- e. If Owner (Manufacturer/Bidder) of the Test Report provides any false/fake information or documents, then they shall be debarred/blacklisted for 03 years for participation of any activity of CREDA and their EMD will be forfeited and registration in CREDA shall be cancelled.

18. PRE-BID QUERIES -

- a. All suggestions, doubts, confusion, request, queries etc., shall have to be presented to CREDA in writing or through email to credatendercell@gmail.com or before **04.10.2026 till 05:00 PM**. After that any representation in this regard shall not be considered.
- b. The purpose of pre-bid queries is to clarify issues and questions 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 received shall be part of original Bid document and communicated through corrigendum on CREDA website (www.creda.co.in) and on Chhattisgarh e-Procurement Portal <https://eproc.cgstate.gov.in>.

19. TECHNICAL CRITERIA –

a. TEST REPORTS OF SPV PUMPS

- i. Bidder must have either Test Report **or Acknowledgement** in his name or written consent from owner (manufacturer of SPV Module/Pump/Controller only) of the test report to use such test certificate/reports for each of the four types of pump i.e. 7.5HP, 10HP, 15HP and 20 HP solar AC surface pumping system with solar modules. All test reports are mandatory for eligibility to participate in the tender. Such owner of the Test Reports must have to provide the Original Test Report to CREDA, on or before the date of sample display, for which they are providing consent or using the same.
Note: In case, the bidder, in future wishes to change components such as module and/or pump/controller **OR** the system configuration as a whole, then they must take prior approval from CREDA in addition to the submission of valid original test report of such a configuration along with written consent of owner (manufacturer of SPV Module/Pump/Controller only). CREDA reserves the right to accept or reject the modified configuration of SPV Irrigation Pumps.
- ii. Bidder shall have to produce original test certificate(s) (in addition to the documents submitted in hard copy as per Clause 5(d)) for the bidding pumps at the time of opening of technical bid.
- b. 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.
- c. Bidders 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.

- d. Financial bid of those Bidders will not be opened who have not submitted valid test reports.

20. FORFEITURE OF EARNEST MONEY DEPOSIT -

It should be clearly understood that in the event of Bidder 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 Bidder shall be debarred/blacklisted from future business with CREDA including future participation in all bids up to three years. CREDA's decision in this regard will be final and binding on the bidders.

21. PRICE OF SUPPLY OF SOLAR COMMUNITY IRRIGATION PROJECT & CHHATTISGARH GAON GANGA YOJANA WITH ALL ALLIED WORKS WITH INSTALLATION, COMMISSIONING AND TESTING -

- a. The Price quoted for Solar Community irrigation Project & Chhattisgarh Gaon Ganga Yojana with all allied works with installation, commissioning and testing of SPV Modules, Structure, Pump & Pipes, Civil works, Fencing and all other required BOS etc. with 5 years system Onsite warranty, CMC. As per GST notification no. 09/2025-Central Tax (Rate) dated 17.09.2025. GST Rate will be applicable under composite supply and installation basis. Rate of GST on supply of Goods (70% of gross consideration treated as supply of Goods) 5% GST and balance portion (30% of gross consideration treated as taxable installation services) 18% GST will be paid extra. No other cost will be claimed other than above quotes price & the applicable GST.
- b. The prices shall be filled exactly as per **e-Price Bid enclosed**.
- c. Any change in GST shall be become applicable during the period of contract.
- d. **Payment of GST according to GST prevailing rate applicable at the time of opening of bid or else the date of installation of solar pumping systems, whichever is less, shall be applicable in addition to the base price.**
- e. In this regard if there is any change in the composition ratio of goods and services by any Authority/ Courts, same shall be applicable.
- f. **There shall be no escalation of rates under any circumstances.**

22. ENGINEERING DOCUMENT -

Bidders 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.

23. COMPREHENSIVE MAINTENANCE CONTRACT (CMC)–

Comprehensive Maintenance Contract shall have two distinct components as described below -

- a. **Preventive / Routine Maintenance:** This shall be done by the contractor at least once in every three month and shall include activities such as cleaning and checking the health of the SPV Pump, cleaning of module surface, tightening of all electrical connections, and any other activity that may be required for proper functioning of the SPV Pump as a whole.
- b. **Breakdown / Corrective maintenance:** Whenever a complaint is lodged by the user/CREDA, the **bidder** shall attend to the same within a reasonable period of time (not exceeding 07 days from the date of complaint) and rectify the defects, period. Replacement of the defective component/ spares if required as and when such requirement would arise. The replacement work shall be carried out within the specified time limit i.e. maximum 7 days for minor replacement/repair and 15 days for major replacement/repair. It is mandatory that the contractor shall submit a certificate, about the rectification/replacement work done, from the concerning beneficiary(s) to the DO, failing which it will be assumed that the contractor has not performed its duties. Major and minor replacement/repair shall be defined by CREDA separately.

For carrying out the maintenance service during CMC effectively, the System Integrator shall establish one local service center at suitable place (preferable at the same district).

- c. Facilities at the local Service Center: The bidder shall maintain the following facilities at the Local Service Centre for ensuring highest level of services to the end user:
 - i. Adequate trained manpower specifically trained by the bidder for carrying out the service activities.
 - ii. Sufficient spare parts, to extend services at the beneficiary's place / site(s).
- d. The System Integrator shall submit certificates of maintenance / quarterly visits in the enclosed format (**Annexure- IV**) to respective DOs on quarterly basis, along with the service reports.
- e. If the bidder fails to repair the systems against the complaints of breakdown / Corrective maintenance to ensure 100% working status during CMC period in stipulated period i.e. maximum 30 days. Repair / replacement work will be done by CREDA from their SD or any other due payments available with CREDA and such SI may be blacklisted for up to three years.
- f. A detailed methodology stating the plan to undertake the work of Maintenance Contract, proposed network of service centers should be submitted at the time of Contract.

24. SAMPLES -

If required, samples of the components shall have to be submitted to the CREDA in prescribed manner after receipt of notification of CREDA for testing, verification purpose without any additional cost.

25. INSPECTIONS -

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

26. MANDATORY DEDUCTION -

This deduction is the One Percent of the cost of installation only and it is mandatory to deposit to concerned department as per state govt. Notification. So while quoting the financial bid keep this in mind.

- I. CREDA shall deduct various statutory taxes like IT TDS, GST TDS and various cess on the payment made by the beneficiaries as contribution to SI's and subsidy payable by CREDA i.e. total cost of system.
- II. WCT- This deduction will be made at the rate of 01% on the total cost (including beneficiary share) of the system.
- III. Royalty- In the absence of Royalty clearance certificate royalty will be deducted at the market rate on the consumption of minor minerals like sand and aggregates.

27. CORRUPT OR FRAUDULENT PRACTICES-

- a. The CREDA requires the Bidder/SI to strictly observe the laws against fraud and corruption in force in India, namely, Prevention of Corruption Act, 1988.
- b. It is required that each Bidder/SI (including their respective officers, employees and sub-contractors) adhere to the highest ethical standards, and report to the Government/ Department all suspected acts of fraud or corruption or coercion or collusion of which it has knowledge or become aware, during the tendering process and throughout the negotiation or award of a contract.

28. MANDATORY EMPLOYMENT -

Qualified diploma engineer with minimum wage rupees 15000/- per month for works above rupees 20 lacs and qualified graduate engineer with minimum wage rupees 25000/- per month for works above INR 01 crore shall have to be deployed by the System Integrator. (As per CG Govt.'s order no. F7-17/2020/1-6 Dated 02.12.2020).

29. TAX OBLIGATIONS -

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

30. JURISDICTION OF THE COURT -

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

- a. **CREDA** shall mean the Chhattisgarh State Renewable Energy Development Agency represented through the Chief Engineer.
- b. **Work** shall mean any **work** entrusted to the Bidder as mentioned in the scope of work and sanction order.
- c. 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 Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana with all allied works.
- d. "**The Eligible SI/Bidder**" shall mean the Bidder 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.
- e. "**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,
- f. "**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 Pumping Systems such as SPV Modules, Solar Pumps, Controllers and **pipes (UPVC and HDPE pipes as per technical specifications under this bid)** shall have to submit proof of their manufacturing unit, appropriate registration documents 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 Government 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 Bidder here-in-after called the **SI** (System Integrator).
 - i. After receipt of LOI from CREDA the eligible SI shall conduct a detailed survey of site and submit site details and feasibility report in prescribed format. After due verification with signatures of Sarpanch or Sachiv of concerned Gram Panchayat. All necessary documents and survey details shall have to be submitted in concerned District Office of CREDA in prescribed manner.
 - ii. SI shall also have to submit civil drawing design for pump house ,stair cum platform / intek well layout plan, survey report (including plan survey and contour survey) and DPR duly consented and signed.
 - iii. Engineer-in-Charge of District Office of CREDA shall examine these reports. After his

- satisfaction will forward details with his recommendations to EE of Concerned ZonalOffice of CREDA. Engineer-in-charge may visit the site if he/she is not satisfied with survey report.
- iv. In case Engineer-in-Charge of District Office of CREDA finds the site not suitable for installation of systems he/she will inform concerned beneficiary organisation / department accordingly and request for alternative site/necessary action.
 - v. Executive Engineer of concerned ZonalOffice, CREDA will decide the technical feasibility and layout plan of site. Executive Engineer may visit the site if he/she is not satisfied with survey report.
 - vi. After satisfaction, Executive Engineer will forward the site clearance report with technical feasibility to Head Office, CREDA.
 - vii. Head Office, CREDA shall be final authority to approve or reject site finalisation recommended by ZonalOffices.
 - viii. After issuance of LOI/Work Order(s), Executive Engineer of concerned ZonalOffice CREDA shall finally approve site layout in writing in prescribed format.
 - ix. The Validity of LOI is **2 months** from the date of issue of the LOI.
 - x. Concerned CE of CREDA, after his satisfaction, shall issue the work order to eligible SI for installation of systems under Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana.
 - xi. LOI/Work order will be given to the chosen System Integrator only after execution of the agreement with CREDA.
 - xii. The SI shall start work within **15 days** after the date of sanction of work.
- c. All the materials required for the installation of systems under Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana 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.
 - d. 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.
 - e. After work is started, CREDA will carry out inspections at various stages and Engineer-in-Charge of District Office of CREDA shall record the measurements in the Measurement Book issued for the said site.
 - f. After installation, joint inspection will be done in presence of SI and CREDA and after successful commissioning of Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and its approval from CREDA, a JCC will be signed and the necessary documents shall be forwarded for payments as per the guidelines and procedures of 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 may undertake real time performance and quality test of randomly selected Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana with all allied works and components during the course of execution as per specifications and guidelines laid by CREDA to ensure quality and performance of system and components.

7. COMPLETION OF WORK -

Time being the essence of contract, the installation of the Solar Community Irrigation Project &

Chhattisgarh Gaon Ganga Yojana with all allied works shall be completed within the time schedule prescribed in the LOI/Work order.

8. ELIGIBLE SYSTEM INTEGRATOR'S LIABILITY IN CASE OF DEFAULT -

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 LOI/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 Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and or for penalty as defined under this Bid document until such reasonable time as may be required for the final completion of the work. CREDA may debar such a defaulter SI for up to three years from taking participation in taking part in all activities of CREDA.
- 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 clause 16 of section 02 in this Bid document until the work is completed.

9. FORCE MAJEURE -

The eligible Bidder 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 Community irrigation Scheme & Chhattisgarh Gaon Ganga Yojana by the related vendors, to whom the Bidder 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 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 Bid/ Activity of CREDA up to three years.**

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 -

- a. 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.
- b. Chief Executive officer of CREDA has full rights for time extensions.

12. MAKES OF EQUIPMENT TO BE USED IN THE WORK -

- a. The Solar Modules, Solar Pumps, Controller & Other BOS should be as per BIS/IEC/CE standards.
- b. The eligible SI has to ensure that equipment's are as per Technical Requirements of guidelines of CREDA as complied with. The material/works for which CREDA/MNRE or BIS 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.
- c. Manufacturer Authorization Form (MAF) on Manufacturer's Letter head of Solar Pump /Module /Pump controller/Structure/Other BOS which the SI is intending to use in the installation shall be submitted at the time of sample submission and the same shall be submitted with technical bid.
- d. The SI shall ensure that all the major components of the Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana such as Solar Modules, Solar Pump, Pump Controller, Pipes and Structure are procured from registered vendors of CREDA of respective components.
- e. SI should submit warranty agreement of at least 5 years for major components i.e. Pump, Controller, structures, pipe and at least 10 years warranty for SPV Modules with manufacturer or distributors duly certified by the manufacturer before installation of the Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana for any manufacturing defects or bad workmanship.

13. WARRANTY 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, Controller, Pipe and other balance of equipment's, at least for a period of **5 (five) years**, from the date of commissioning of system under the Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana including other works as per scope of work.
- b. Warranty on SPV Modules shall be for **10 (ten) years** from the date of commissioning of the Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana with all allied works 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 warranty 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 warranty 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 warranty must be an onsite warranty and the eligible SI will have to replace the defective material within **7 days** positively from the date of information given to him by CREDA.
- f. Care should necessarily be taken to make Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana operational, once the reporting of the fault/non-operational status is done, within **7 days**. If the systems installed under Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana is not made operational within the stipulated time, CREDA may rectify the same at the cost of SI and the warranty period shall be extended accordingly for delayed period.
- g. The Bidder/OEM shall provide Onsite Warranty for the supplied equipment/material for a period of Five (05) years from the date of successful commissioning and acceptance by the CREDA. During the warranty period, the Bidder/OEM shall, at its own cost and risk, repair, rectify or replace any defective equipment, component or part at the installation site without any additional financial implication to the CREDA, in accordance with the standard warranty terms and conditions. The decision of the Technical Committee of CREDA in respect of warranty claims, defects, repair/replacement requirements and interpretation of warranty provisions shall be final and binding on all bidders. Failure to comply with the warranty obligations and directions of CREDA may attract penal action, including forfeiture of EMD and blacklisting/debarment of the bidder, as per the applicable provisions of the tender document.
- h. 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 Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana 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. 90% of the total billed amount + full GST as per the sanction order after satisfactory supply, installation, and commissioning & performance test of the SPV WATER PUMPING SYSTEMS at site with proper handing over.
- b. Balance 10% of total bill amount (Excluding GST) shall be retained as Security Deposit during the five years of warranty period.

15. RATES FOR ADDITIONAL WORKS NOT IN SCHEDULE OF TENDER -

If during the course of execution, where it is found necessary that certain item/items of work not provided in the Tender such as Stone Pitching during work at the site required to be carried out then, on the basis of CG PWD and/or CG WRD Schedule of Rate (SOR) additional payment extra work shall be done by CREDA subject to recommendation of District In-charge and Executive Engineer of the concerned Zonal Office.

16. PENALTY FOR DELAY IN COMPLETION OF CONTRACT -

- a. 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 up to **half per cent (0.5%)** of the system price excluding GST for every delayed system per week. For this purpose, the date of taking over shall bereck one das the date of completion. The total penalty shall not exceed **5 % (Five Per cent)** of the cost.
- b. Review of the progress of installation of Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana 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 system or their part of can be re-allocated to other SI as per discretion of CREDA.

17. SECURITY DEPOSIT (SD) -

- a. 10% of the cost shall be retained as SD during the five years of warranty period. No interest shall be payable on the SD.
- b. Period for which SD is to be retained may be extended in case the warranty period is extended due to non-performance of the system.
- c. 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.
- d. EMD shall be retained up to the validity of this tender.

18. INSURANCE -

- a. The eligible SI shall arrange insurance coverage for the materials and other components of Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and its all allied works 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/accident 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 Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and its allied works during the CMC period i.e. for 05 year from the date of installation, at single instance (5 years insurance premium must be paid at the time of insurance). 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, failing which the

rectification/replacement (keeping the same configuration in consideration) will be done by CREDA at the risk and cost of system integrator, after rectification/ replacement the warranty

- c. Clause will remain compliable as per tender conditions. No claim in this regard will be entertained.

19. 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 and other pending payments of any project under CREDA.

20. RESPONSIBILITY OF ELIGIBLE SI -

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of the Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and its all-allied works 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 work orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible SI.

21. 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.

22. 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, Accidental Insurance, Gratuity, ESI & other legal obligations.
- d. CREDA shall have all rights to deduct such claims of payments from bidder in case of complaints of such violations.

23. NON-ASSIGNMENTS -

- a. The eligible bidder shall not assign or transfer the work order issued as per this contract or any part thereof.
- b. If eligible bidder transfer / assign / sublet full or any part of work allocated to him to any third party then bidder shall be liable to debarred or blacklisted from any bid/activities of CREDA upto 03 years.

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 High 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 –

- a. Any regular employee working or worked on basis of contract or through placement agency cannot work directly or indirectly in any scheme of CREDA. If such a person is found working with any SI or through sublet then, such SI shall be blacklisted for three years.
- b. The bidder shall not be permitted to Bid for the work if the section of HO CREDA (responsible for implementation of work) in which his near relative is posted. Furthermore, the successful bidder shall not be given work in the district in which his near relative is posted. The bidder shall also intimate the names of his near relatives working in CREDA. Bidder shall also intimate the name of persons who are working with him in any capacity and who are near relatives to any employee in CREDA. Any breach of this condition by SI would render himself liable to be blacklisted for three years and removed from approved list of SIs in CREDA.

Note:- By the term near relatives are meant Wife, Husband, Parents and son, Brother, Sister, Brother-in-law, Father-in-law, and Mother-in-law etc.

- c. Bidder must produce an affidavit (**Annexure – III**) stating the names of retired/removed employee of CREDA (if any) in his employment who retired /removed within last two years, if in case there is no such person in his employment, his affidavit should clearly state this fact. This affidavit is mandatory, if it is not produced along with the bid, the bid shall be rejected.

32. BID EVALUATION CRITERIA -

- a. Offers of only those parties, who are found qualified based on Eligibility Criteria and Technical Bid, will be taken into further consideration and financial bid of only those parties who are qualifying the criteria of Technical 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 Bids shall not be accepted.**
- d. CREDA shall have rights and liberty to call any /other parties to work on approved rates as and when required 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. L1 rate i.e. lowest rate of total of Supply and

Installation & Commissioning cost of the Solar Community irrigation Project & Chhattisgarh Gaon Ganga Yojana shall be considered. However, CREDA shall have discretionary power to amend/lower the rates.

34. ALLOCATION OF TARGETS AND AREA OF WORK –

- a. Preference shall be given to L1 Bidder in any or all items for allocation of works and if required, CREDA reserves the right to negotiate with Lowest Rate” L1” bidder before finalization of the Approved Rate for each or all items.
- b. “Approved Rate” for each item would be offered to other eligible bidders (i.e. L2, L3 and so on) & may be allowed for agreement after the acceptance of L1 Rates
- c. Additionally, the allocation of works to bidders, including L1 bidder shall be subject to their past performance in the schemes of CREDA. CREDA reserves the right to amend the allocations to bidders based on this criterion.
- d. Increase or decrease allocations shall be decided at the sole discretion of CREDA, which shall be final, binding and conclusive on the bidders.
- e. Allocation can be further extended or curtailed as per discretion of CREDA, in interest of expeditious work completion.
- f. CREDA reserves all rights for allocation of works and the decision of CEO, CREDA shall be final and binding.
- g. Review of the progress of installation of SPVPP 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 System 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/Bidder) have read all the above stated details & accept to comply with it in total.

(Name, Signature & Seal of the Bidder)

SECTION - 3

SCOPE OF WORK

1. SOLAR PUMPS

The scope in brief will be as follows-

- a. Survey of Sites, civil drawing design for pump house, stair cum platform / intake well layout plan, survey report (including plan survey and contour survey) designing, supply, installation & commissioning of SPV Pumps as per design and specifications approved by CREDA, on turnkey basis. Bidder shall have to take approval of the engineering documents, Bill of Materials and samples from CREDA prior to commencement of the work. Five years onsite warranty for manufacturing defects shall be required for each of the system after successful commissioning and proper handing over.
- b. Solar Pumps should be installed with Fixed Module Mounting Structures.
- c. The scope of work shall also include the followings:
 - i. Survey of Sites, Submission of site clearance certificate where the SPV Pumps 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/Contractor shall furnish all necessary information to beneficiary for SPV Pump Warranty, Do & Don'ts etc. so as to avoid further misunderstandings and disputes.
 - ii. Detailed planning of time bound smooth execution of project.
 - iii. Providing User Manuals and Warranty Cards to beneficiary / farmers group / CREDA.
 - iv. **The DCR Certificate of module must be generated in the name of beneficiary (b 2 c) and the same shall be submit along with the JCC.**
 - v. SI shall have to submit JCCs within 45 days of Installation and Commissioning of SPV Pumps in District Office of CREDA.
 - vi. Onsite warranty for manufacturing defects for five years' faultless operation, assure inventory for maintenance.
 - vii. Providing Prompt Service Facilities to customers/ beneficiaries.
 - viii. Risk liability of all personnel associated with implementation and realization of the project.
 - ix. 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.
 - x. To ensure safety and proper operation after commissioning of system at least one Operator cum Caretaker (Guard) shall have to be engaged by the bidder at site whose expenses will be borne by CREDA separately and will be paid to bidder on monthly basis per scheme guide line.
 - xi. The eligible SI/Contractor shall maintain sufficient inventory of the spares to ensure that the system can be made functional within 5 days from the communication of breakdown of the system during currency of the warranty period.
 - xii. The eligible SI/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 water discharge can be estimated for monitoring of the performance of the system. CREDA shall examine the water discharge and ascertain if the discharge is adequate with reference to the capacity of the SPV Pump.
 - xiii. Performance Guarantee Test: Successful performance guarantee test to demonstrate the rated capacity of SPV Pump as per CREDA's norms shall have to be conducted by SI/Contractor in presence of representatives of CREDA, if required.
 - xiv. Joint Less PVC or Column Pipes should be used as suction pipe in the installation of surface pumps.

2. WATER DISTRIBUTION NETWORK (WDN)

- a. **Bidder should provide the specific drawing & design at site for Contour Survey & Pipe line design & Drawing for Water Distribution Network. Details as follows-**
 - i **Topographical & Contour Surevey (Contour at 1.0 Mtr. Interval).**
 - ii **Existing Features.**
 - iii **Grid Level at 30 Meter interval.**
 - iv **Plan Superimposing on Google Image.**
 - v **Site location with GPS coordinates on plan.**
 - vi **Design of Water Distribution Network with demand of water per site (LPM/LPH)**
- b. All the work shall be executed as per the specifications laid down in standard specifications published by Public Works Department and as per the relevant provision of I.S. Code as

applicable. In addition to above, item wise specifications given elsewhere with this tender document shall be applicable.

- c. Contractor has to quote the price for both HDPE & UPVC Pipe. Further CREDA will issue the work order with mentioning which pipe will be used.
- d. Contractor can use Tee/Reducer/Bend of HDPE in lieu of UPVC at the approved unit rate or his quoted rate whichever is less and no additional payment or claim shall be eligible to the Contractor for the use of HDPE Tee/Reducer/Bend in lieu of UPVC Tee/Reducer/Bend.
- e. Composite type of material is not allowed in one mains/submains.
- f. If Contractor opts for HDPE pipe in lieu of UPVC pipe then redesigning of mains/sub mains will be required. Redesigning shall be carried out before preparing estimate for mains/ sub mains.
 - i. The relevant specifications for different types of pipe material shall be followed in handling and laying of pipes. Manufacturing and factory testing and supplying at site of work of different diameters of different types pipes for different tests confirming to relevant IS or it's latest revision.
 - ii. The pipes manufactured at factory are to be carried to the site of work either directly or stacked suitably along the road or elsewhere near the site. Extreme care shall be taken while handling the pipes, damage during the transit and handling shall be at CONTRACTOR's account and shall not be payable. Damage pipes shall be rejected outright. The discretion of the Engineer-in-charge in this behalf shall be final and binding on the CONTRACTOR. The payment of the entry tax, octroi tax and all other taxes shall be the responsibility of the CONTRACTOR
 - iii. Spigot & socket dimensions shall confirm I.S. 458-2003 amendments No.2 April-1991 or its latest revision.
 - iv. All pipes shall be thoroughly inspected before laying, damaged pipe, if any shall not be used & shall be removed from the site immediately.
 - v. For lowering, laying and jointing of the pipe, the provision of relevant I.S. shall be strictly followed. Laying shall not be started till the bedding is approved by Engineer-in-charge or his subordinate.
 - vi. The pipes shall be laid on earth which shall be bedded evenly and firmly as far as up to the haunches of the pipe as to safely transmit the load expected from the back fill through the pipe to the bed. This shall be done either by excavating the bottom of the trenches to fit the curve of the pipe or by compacting the earth under round curve of the pipe to form an even bed. Necessary provision shall be made for joints wherever required.
 - vii. Pipe shall be lowered in trenches very carefully and if required it shall be lowered with mechanical appliances such as crane, chain pulley block with tripped arrangements, etc. only.
 - viii. The pipes shall be laid true to line and alignment with specified grades. Laying of pipes shall preferably proceed upgrade of slopes.
 - ix. The trenches shall be kept free of water till the jointing material is properly set.
 - x. Whenever there are chances of rain water entering into trenches, care shall be taken to prevent pipe line from floating during the construction.
 - xi. Jacking for pipe line should be done properly as per the instruction of the Engineer-in-charge.
 - xii. Before jacks are removed the side should be filled with well rammed earth to prevent all chances of subsequent movement where more pipes are jacked later on.
 - xiii. If the laid pipe goes in zigzag in position due to excess of jacking the pipes have to be removed and re-laid by the CONTRACTOR with no extra cost.
 - xiv. The CONTRACTOR shall remove all the silt and debris if found in the pipe line.
 - xv. The CONTRACTOR shall have to make good any leakage at his cost and satisfactory test shall have to be given after the same. The pipe line once laid and jointed but damaged

- subsequently during the monsoon or due to any other reasons shall have to be rectified by the CONTRACTOR at his cost. The testing of the laid pipe
- xvi. Line should be in accordance with relevant I.S. or its Latest version and amendments thereto.
- g. After pipe-laying is completed and inspected thoroughly and tested, the pipe trenches shall be filled with excavated stuff only. The work of back filling of trenches to its natural ground is covered under the item of excavation. No separate payment will be made for back filling. The back filling of excavated stuff shall include back filling trenches in layers not exceeding 15 cm with watering and compacting the fill with suitable compacting devices as directed by the Engineer-in-charge.
- i. Due care shall be taken to protect existing structures, sewer line, telephone / electricity cables, electric line, gas pipe line, irrigation pipe line etc. In the event of damage to these utility service structures/ cables/pipe lines during the course of execution shall have to be repaired / remedied by the CONTRACTOR at his own cost & risk.
 - ii. At any public highways, road crossings or at such other crossings, the water carrying pipes shall be laid in the RCC NP3 class casing pipes. The casing pipe shall be of appropriate diameter suggested by the Engineer-In-charge which may be about 100 mm or larger than the carrier pipe.
- h. The Contractor shall be responsible for supply & laying work of pipe/Pipe lines with all required specials and other materials such as :
- i. Shut off Valves – Up to 2 inch ball valves, above 2 inch butterfly valves of reputed make-
 - ii. Non Return Valves of reputed make-
 - iii. Strainers – “Y type” or “Pot type” of reputed make-
 - iv. Automatic air & vacuum vent valves of reputed make-
 - v. Glycerine Filled Pressure Gauges of reputed make-
 - vi. Pressure Relief Valve of reputed make-
 - vii. Globe Valve of reputed make-
- i. Each Pump assembly shall have Shut off valve, strainer and pressure gauge before suction and NRV and shut off valve & pressure gauge at discharge.
- j. Automatic air and vacuum vent valve shall be install at regular interval based on the site condition.
- k. The Contractor/Tenderder shall be responsible to meet all necessities which are required for proper distribution of pipe lines.
- l. **Payments & required materials for trenching work:**
- i. The trench depth shall be at least 03 feet (900mm) and the width shall be at least three times the pipe dia.
 - ii. As per the soil texture the back filling of the trench shall be with adequate quantity (minimum 150 mm thick) of sand.
- m. Proper combination of all parts of pipe lines with back-flow prevention.
- n. Pipe materials shall be made as per UPVC (For underground Pipe Line Work) /HDPE (For Over ground Pipe Works) standard & it shall be Rat proof also. Fitting works shall be done as per BIS/ISI norms & specifications.
- o. **Leak Testing**
If a leak test is required, it should be conducted in accordance with the procedure after the embedment material is placed.
- p. **Trench Backfill**
The final backfill may consist of the excavated material, provided it is free from unsuitable matter such as large lumps of clay, organic material, boulders or stones larger than 8 inches, or construction debris. Where the pipe is located beneath a road, place the final backfill in lifts as mentioned earlier and compact to 95 percent Standard Proctor Density.

3. CIVIL WORKS

- a. **Bidder should provide the specific drawing & design at site for all allied works as platform/intake well/buffer well for solar pumps, control room etc. Details as follows-**
 - i **Providing Position, Location of site.**
 - ii **Providing Competency of Structure, Strata Type, Structure Drawing, Necessary Design, Level report includes, River, GL Difference.**
 - iii **Certification for compatibility of the suggested structures.**
- b. Before starting work the SI/ Contractor shall be required to submit the detail drawing of structures, after approval from CREDA the SI/contractor could be able to start the work at site.
- c. Layout of the work will be done by the contractor in consultation with the Executive Engineer of the department or his representative, some permanent marks should however be established to indicate the demarcation of the structure or any component thereof made to this permanent marks in measurement books and drawing signed by the contractor and the departmental officer, responsibility regarding layout will be joint.
- d. Eligible contractor shall have to execute all works on site as CREDA's approved drawing, design & specifications.
- e. The material required only for this work shall be kept in the godown at site. No material shall be shifted outside of the godown site except for the work for which this agreement is entered, without prior approval of the Engineer-in-charge.
- f. The materials i.e. cement, T.M.T. steel bars, concrete, sand, etc. brought on the work site shall be accompanied with necessary Company / Manufacturing firm's test certificates. In addition these materials shall be tested as per frequency prescribed by the department and the cost of such testing shall be borne by the contractor. If the test results are satisfactory, then and then only the material shall be allowed to be used on the work. If the test results are not as per standards prescribed, these materials shall be immediately removed from the work site at contractor's cost. In case of cement, if so requested by the contractor in writing, material shall be allowed to be used before receipt of test results but this will be entirely at the risk and cost of the contractor.
- g. The contractor shall produce sufficient documentary evidence i.e. bill for the purchase, Octroi receipts etc., bill for the purchase of materials brought on the work site at once if so requested by the Department.
- h. All the materials such as cement, T.M.T. steel bars, concrete, sand, etc. required for execution of work shall be brought by the contractor at his own cost.
- i. The contractor shall maintain the record with photographs of all consumed works as well as materials like excavation works done for various works, use of cement, concrete, aggregate, sand, mureem, steel etc. The Contractor shall submit periodically as well as on completion of work, an account of all materials used by him on the work. In addition, a separate register shall be maintained on site for recording daily item wise cement, T.M.T. steel bars, concrete, sand, etc. consumption and also item wise consumption of other materials. This shall be signed daily by contractor or his representative and representative of Engineer-in-charge.
- j. All photographs which are being maintained for keeping records of various works should be clearly visible and justified with measurement equipment as measuring tape, spirit level, plumb etc.
- k. Proper curing of all allied civil works shall be done by the contractor, in case of properly non-cured civil works contractor shall be directly responsible for the same, and thus re-construction of that particular non-cured part/work shall be required which should be done by the contractor at his own cost.
- l. Slump Test shall be required for each construction work at site in presence of competent authority.
- m. Contractor will have to submit 28 Days cube test as an attachment in the joint Commissioning Certificate (JCC). Payment component pertaining to civil works shall be retained by CREDA until the contractor submits cube test report.

SECTION - 4

SPECIFICATION FOR SOLAR PHOTOVOLTAIC WATER PUMPING SYSTEMS, WATER DISTRIBUTION NETWORK AND CIVIL WORK

1. SPECIFICATION FOR SPV PUMPING SYSTEM

General Specifications of SPV Pumping Systems shall be in accordance with prevailing guidelines of MNRE; however the specifications of some components are also mentioned as follows –

A. SPV MODULES

- i. SPV array contains specified number of same capacity, type and specifications modules connected in series or parallel to obtain the required voltage or current output. The SPV water pumping system should be operated with a SPV array of minimum capacity in the range of 4800 Wp to 24000 Wp, measured under Standard Test Conditions (STC). A Sufficient number of modules in series and parallel could be used to obtain the required voltage or current output. The power output of individual SPV modules used in the SPV array, under STC, should be a minimum of 535 Wp, with adequate provision for tolerances measurement. Use of SPV modules with higher power output is preferred.
- ii. Modules supplied with the SPV water pumping systems shall have a certificate as per IS 14286/IEC 61215 specifications or equivalent National or International /Standards. STC performance data supplied with the modules shall not be more than one year old.
- iii. Modules must qualify to IS/IEC 61730 Part I and II for safety qualification testing.
- iv. The minimum module efficiency and fill factor shall be strictly follow the MNRE specifications.
- v. Modules must qualify to IS 170210 (Part 1) for the detection of potential-induced degradation - Part 1: Crystalline silicon (Mandatory in case the SPV array Open Circuit voltage is more than 600 V DC)
- vi. In case the SPV water pumping systems are intended for use in coastal areas the solar modules must qualify to IEC/ IS 61701 for salt mist corrosion test.
- vii. The name plate of SPV module shall conform to IS 14286/IEC 61215.
Module to Module wattage mismatch in the SPV array shall be within ± 3 percent.
- viii. Any array capacity above the minimum array wattage requirement as specified in these specifications for various models of SPV Water Pumping Systems is allowed.
- ix. The SPV 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.
- x. The RFID tag shall be placed inside the glass laminate of the SPV modules.
- xi. 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.
- xii. All SPV modules and cells must be indigenously built and made in India i.e. Domestic Content Requirement (DCR).
- xiii. Module must meet the requirements of 19.5% module efficiency as per the MNRE F. No. 285/54/2018-GRID SOLAR-Part (1) dated 24.02.2024
- xiv. Modules must be confirming the latest guideline issued by MNRE for DCR Content vide OM No. 283/63/2025- GRID SOLAR dated 25.05.2026.

A. MECHANICAL COMPONENTS-

MODULE MOUNTING STRUCTURE (MMS)-

- i. The module & frame structure shall be mild steel, hot dipped galvanized (80 micron) with corrosion resistant painting for holding the PV modules.
- ii. Each panel frame structure shall be so fabricated as to be grouted on ground on its legs.
- iii. The size of angle iron/C channel should not be less than 40X40X5 mm. Anti-Theft Nut Bolts of SS (with washers) should be used for mounting modules for better theft proofing. Regarding civil structures. The bidder need to take care of the load bearing capacity of the roof and need to arrange suitable structures based on the quality of roof. (as per drawing attached in Annexure - V)
- iv. The total load of the structure (when installed with PV modules) on the terrace /ground should be less than 60kg/m².
- v. The legs of the structures made with hot dip GI angles will be fixed and grouted in the RCC foundation columns made with 1:2:4 cement concrete. The foundation should be as per design of structure to withstand maximum windloading.
- vi. There shall be a minimum air gap of 3 +/- 0.3cm between the facing edges of two adjacent modules on all sides.
- vii. Each panel frame structure shall have inclination between 20 - 40 degrees depending on the site location seasonal load requirement. A weather proof junction box as per the relevant ISI specifications, to be provided where the module terminals shall be interconnected and output taken.
- viii. All nuts bolts, and fasteners should be made of stainless steel.
- ix. The structure should be designed to allow easy replacement of any module and shall be aligned with siterequirement.
- x. The structure should be designed for simple mechanical and electrical installations.
- xi. It will be designed to withstand severe cyclone/ storm with the speed max. 150 Km/hr (STAAD.Pro report may be required to besubmitted).
- xii. The systems should be installed at ground level / roof top at least the height of as per drawing,**

A.SPv CONTROLLER-

Controller must be indigenously built and made in India. Maximum Power Point Tracker (MPPT) shall be included to optimally use the power available from the SPV array and maximize the water discharge.

The SPV Controller must have IP (65) protection or shall be housed in a cabinet having at least IP (65) protection.

Adequate protections shall be provided in the SPV Controller to protect the solar powered pump set against the following:

- i Dry running;
- ii Open circuit;
- iii Accidental output short circuit;
- iv Under voltage;
- v Reverse polarity;
- vi SPD to arrest high current surge; and
- vii Lightning arrestor.

A good reliable DC Circuit Breaker as per IS/IEC 60947-2 suitable for switching DC power ON and OFF shall be provided in the SPV Controller.

All cables used shall be as per IS694. Suitable size of cable shall be used in sufficient length for inter-connection between the SPV array to SPV Controller and the SPV Controller to solar powered pump set. Selection of the cable shall be as per IS14536.

B. EARTHING ARRANGMENT

- i. Earthing of the motor shall be done as per IS 9283 in accordance with the relevant provisions of IS 3043. Separate earthing shall be provided for Controller, pump and SPV

array.

- ii. For safety purpose, it shall be ensured during installation that the earthing is capable of taking care of leakage current.
- iii. In case of UPVC/HDPE pipes used as discharge pipe, a separate non-corrosive, low resistance
- iv. Conductor from motor earth terminal to control panel earth terminal shall be provided for earthing.
- v. A lightening arrestor shall be provided with every SPV Water Pumping System.

C. SURGE PROTECTION MECHANISM-

Internal surge protection shall consist of three MOV type arrestors connected from +ve and –ve terminals to earth (via Y arrangement) for higher withstand of the continuous PV-DC voltage during earth fault condition. SPD shall have safe disconnection and short circuit interruption arrangements through integrated DC in built bypass fuse (parallel) which should get tripped during failure mode of MOV, extinguishing DC arc safely in order to protect the installation against fire hazards. Nominal discharge current (I_n) at 8/20 micro seconds shall be minimum 10 KA with maximum discharge (I_{max}) at 8/20 micro seconds minimum 20 KA with visual indication (through mechanical flag) in modules to monitor the life of SPD.

D. USE OF INDIGENOUS COMPONENTS-

It will be mandatory to use indigenously manufactured solar modules. The motor-pump-set, controller and balance of system should also be manufactured indigenously. The SI has to declare the list of imported components used in the solar water pumping system.

E. TESTS FOR HYDRAULIC AND ELECTRICAL PERFORMANCE OF PUMPSET -

The motor-pump set shall be tested independently for hydraulic and electrical performance as per the relevant IS specification including following test -

- i. Constructional requirements /features
- ii. General requirements
- iii. Design features
- iv. Insulation resistance test
- v. High voltage test
- vi. Leakage current test

Testing of SPV Water Pumping Systems shall be done as per procedure specified by the MNRE.

F. GUARANTEE OF PERFORMANCE -

The SPV Water Pumping Systems shall be guaranteed for their performance of the nominal volume rate of flow and the nominal head at the guaranteed duty point, condition of 7.15 KWh/m² on the surface of SPV array (i.e. coplanar with the Photo Voltaic (PV) Modules). The actual duration of pumping of water on a particular day and the quantity of water pumped could vary depending on the solar intensity, location, season, etc.

Solar Photo Voltaic Water Pumping Systems shall be guaranteed by the manufacturer against the defects in material and workmanship under normal use and service for a period of at least 60 months from the date of commissioning.

Sufficient spares for trouble free operation during the Warranty period should be made available as and when required.

G. MARKING AND PARAMETERS TO BE DECLARED BY THE MANUFACTURER -

The motor pump-set and Controller used in SPV Water Pumping Systems shall be securely marked with the following parameters declared by the manufacturer:

Motor Pump-set -

- i. Manufacturer's name, logo or trade-mark;

- ii. Model, size and SI No of pump-set;
- iii. Motor Rating (kW /HP);
- iv. Total head, m, at the guaranteed duty point;
- v. Capacity (LPD) at guaranteed head;
- vi. Operating head range, m;
- vii. Maximum Current(A);
- viii. Voltage Range (V)and;
- ix. Type - AC or DC Pump set;&
- x. Photo Voltaic (PV) Array Rating in Watts peak(Wp)

Controller -

- i Manufacturer's name, logo or trade-mark;
- ii Model Number;
- iii Serial Number;
- iv Voltage Range;
- v Power Range in kW for Controller ;and
- vi Current rating(A)

H. OPERATION AND MAINTENANCE MANUAL -

An Operation and Maintenance Manual in Hindi, should be provided with the solar PV pumping system. The Manual should have information about solar energy, photovoltaic, modules, DC/AC motor pump set, tracking system, mounting structures, electronics and switches. It should also have clear instructions about mounting of PV module, DO's and DONT's and on regular maintenance and Trouble Shooting of the pumping system. 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 motor pump set should also be provided to the beneficiary.

- I.** Raw material test certificates (MTC) of all types of raw material used in dual axis manual tracking type MMS as per appropriate IS code should be submitted along with dispatch documents.

J. TESTS TO BE PERFORMED ON MMS FOR SOLAR WATER PUMPING SYSTEM -

For ascertaining proper welding of structure part following should be referred -

- i. Weld wire grade should be of grade **(ER 70 S -6)**
- ii. D.P. Test (Pin Hole / Crack) **(IS822)**

For ascertaining hot dip galvanizing of fabricated structure following should be referred -

- i. Min coating required should be as per IS4759.
- ii. Testing of galvanized material.
 - (i) Preece Test (CuSO₄ Dip Test) **(IS2633)**
 - (ii) Mass of Zinc **(IS 6745)**
 - (iii) Adhesion Test **(IS2629)**

2. SPECIFICATION FOR WATER DISTRIBUTION NETWORK-

Pipe diameters mentioned in the item are outer diameter of UPVC & HDPE Pipe. The designs of Main & Sub-Mains are carried out considering UPVC pipes of Class-3(6 kg/cm²) having following outer and inner diameters as per IS-4985:2000. Providing and supplying in standard length ISI mark rigid un-plasticized PVC pipes suitable for potable water with ringfit, joint including cost of rings as including all local and central taxes. Transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to the site of work and including cost of jointing materials etc complete.)

- a. Specifications for UPVC & HDPE Pipes of 06 Kg/cm² as : IS-4985:2000**

Sl. No.	Nominal Outside dia (In mm)	Average Max. Thickness (In mm)	Min. Thickness (In mm)	Max. Thickness (In mm)
1	75	3.1	2.6	3.1
2	90	3.7	3.1	3.7
3	110	4.3	3.7	4.3
4	125	5	4.3	5
5	140	5.5	4.8	5.5
6	160	6.3	5.4	6.2
7	180	7	6.1	7.1
8	200	7.7	6.8	7.9
9	225	8.6	7.6	8.8
10	250	9.6	8.5	9.8
11	280	10.7	9.5	11.0
12	315	12.0	10.7	12.4
13	355	13.4	12.0	13.8

- b. Lowering, laying, Jointing and testing un-plasticized PVC & HDPE pipes & specials of following class and diameter including labour, hydraulic testing etc. complete but excluding cost of cement solvent:

(Test Pressure 06 kg/cm ²)			
i	75 mm dia. (UPVC & HDPE)	viii	200 mm dia. (UPVC & HDPE)
ii	90 mm dia. (UPVC & HDPE)	ix	225 mm dia. (UPVC & HDPE)
iii	110 mm dia (UPVC & HDPE)	x	250 mm dia. (UPVC & HDPE)
iv	125 mm dia. (UPVC & HDPE)	xi	280 mm dia (UPVC & HDPE)
v	140 mm dia. (UPVC & HDPE)	xii	315 mm dia. (UPVC & HDPE)
vi	160 mm dia. (UPVC & HDPE)	xiii	355 mm dia. (UPVC & HDPE)
vii	180 mm dia. (UPVC & HDPE)		-

- c. Providing and supplying at site of work including freight, loading, unloading, stacking, insurance and all taxes etc complete.

Made from I.S.I. approved UPVC & HDPE material (Test Pressure 6 kg/cm²)

Tee (Preferably Moulded)

i	Size (75X75 mm)	viii	Size (200X200 mm)
ii	Size (90X90 mm)	ix	Size (225X225 mm)
iii	Size (110X110 mm)	x	Size (250X250 mm)
iv	Size (125X125 mm)	xi	Size (280X280 mm)
v	Size (140X140 mm)	xii	Size (315X315mm)
vi	Size (160X160 mm)	xiii	Size (355X355mm)
vii	Size (180X180 mm)		

Elbow (Preferably Moulded)

(i) size (75 x 75 mm)	(viii) size (200 x 200 mm)
(ii) size (90 x 90 mm)	(ix) size (225 x 225 mm)
(iii) size (110 x 110 mm)	(x) size (250 x 250 mm)
(iv) size (125 x 125 mm)	(xi) size (280 x 280 mm)
(v) size (140 x 140 mm)	(xii) size (315 x 315 mm)

(VI) size (160 x 160 mm)	(xiii) size (355 x 355 mm)
(vii) size (180 x 180 mm)	

Reducer (Moulded/ Fabricated), Tee, UPVC Band & Other Items shall be installed in accordance to the requirement.

- d. Excavation of trenches, Back-filling the excavated stuff and watering & compacting the back-filled stuff where casing pipes are to be laid by open cut method.

The excavation of trenches for laying pipes will include following activities–

- i. Setting out works, profiles etc, according to sanctioned plan for as ordered and setting up Bench marks as other reference mark.
- ii. Providing and subsequently removing, shoring and strutting or cutting slopes except when, separately provided for in the tender.
- iii. Bailing and pumping out water when separate provision does not exist for it in the tender.
- iv. Excavation and removal of all materials of whatever nature wet or dry and necessary for the construction of foundation including materials like explosives, removal of blows and slips and use of tools, plant and equipment necessary for satisfactory completion of the item and preparing bed for foundation.
- v. Sorting out of useful excavated materials, conveying them up to the specified lead clear beyond the structure and stacking them neatly for backfilling or reuse and wasting useless materials as directed by the Engineer.
- vi. Backfilling the trenches alongside masonry or concrete with approved material ground risk or accident.
- vii. Necessary protection including labour, materials and equipment to ensure safety and protection against risk or accident.
- viii. Supply of facilities for inspection and measurement at any time by the concerned Government office.

Compensation for injury to life, and damage to property if any caused by the CONTRACTOR's operations connected with this item.

e. CLEARING SITE-

The site on which the pipe is to be laid shown on the plan and area required for setting out and other operation should be cleared and all obstructions, loose stones, materials and rubbish of all kind, stumps, brush wood and trees removed as directed, roots being entirely grubbed up. The material obtained will be property of Government and materials pronounced useful by the Engineer will be conveyed and property stacked as directed within the specified lead. Useless materials will be burnt or otherwise disposed of as directed by the Engineer.

f. SETTING OUT-

After clearing the site, the center lines will be given by the Engineer and it will be responsibility of the CONTRACTOR to install substantial reference marks, bench marks,

etc. and maintain them as long as required true to line, curve, level and slopes. The CONTRACTOR will assume full responsibility for alignment, elevation and dimension of each and all parts of the work, labour, materials, etc. required for setting out and establishing bench marks and other reference marks shall be arranged by the CONTRACTOR at his own cost.

g. EXCAVATION-

Excavation for pipe line trenches shall include removal of all materials of whatever nature and whether wet or dry, necessary for laying pipes to the required level & shall be exactly in accordance with the lines, levels, grades, and curves shown on the plans or as directed by the Engineer. It shall be taken to the exact width as per diameter of pipes to be laid and the sides shall be plumb where the nature of soil admits it. CONTRACTOR shall at his own cost do the necessary shoring or cutting of slopes to safe angle or both as approved by the Engineer when the strata need such treatment. The CONTRACTOR shall notify the Engineer – In - Charge after achieving the foundation level to allow permission for laying of pipes.

h. SHORING-

Unless separately provided for the contract, excavation of slopes to prevent falling in sides or providing, fixing maintaining and removing, shoring, bracing, etc. shall not be paid for. The CONTRACTOR would be responsible for the design of shoring for the excavation to be properly upheld. Shoring shall be of sufficient strength to resist side pressure and ensure safety from slopes, blows and to prevent damage to work and property and injury to persons. It shall be removed as directed after all the items for which it is required are completed.

i. PROTECTION-

Near towns and all frequented places foundation pits, well pits and similar excavation shall be strongly fenced and marked with lights at night in charge or watchman to avoid accidents, Adequate protective measures shall be taken to see that the foundation excavation does not affect or damage adjoining structures. All measures required for the safety of the excavation the people working in and near the foundation trenches, property and the people in the vicinity shall be taken by the CONTRACTOR at his own cost. He being entirely responsible for any injury to life and damage to property caused by his negligence or accident due to his constructional operations.

j. DISPOSAL OF EXCAVATED MATERIALS-

No materials excavated from foundation trenches of whatever kind they may be are to be placed even temporarily nearer than 1.5m or greater distance prescribed by CREDA from the outer edge of excavation. All materials excavated will remain the property of Government. Rate of excavation includes sorting out of useful materials and stacking them separately as directed. Materials suitable and useful for backfilling or other use shall be stacked in convenient places but not in such a way as to obstruct free movement of men, animals and vehicles or encroach on the area required for constructional purpose. It shall be used to the

extent required to completely backfill the structure to original ground level or elevation shown on the plans or as directed by the Engineer. For backfilling the materials shall be placed in 15 cm. (6" approx) to 20 cm (8" approx.) layers, moistened and well compacted. Materials not useful in any way shall be wasted as directed by CREDA. If useful excavated rubble is required by the CONTRACTOR for use in other times, it shall be paid for at the fixed in the tender and if not so provided, at the rate in the Divisional schedule current at the time of tendering or at mutually agreed rate if there is no rate in the Divisional schedule. The site shall be left clean of all debris on completion.

k. DEWATERING-

The excavation rate shall include bailing or pumping out all water which may accumulate in the excavation during the progress of the work either from seepage, springs, rain or any other cause and diverting surface flow if any, by bunds or other means. The bunds shall be removed after their purpose is served.

Pumping out water from any foundation enclosure or trenches shall be generally in such a manner as to preclude possibility of any damage to the foundation trenches, concrete or masonry or any adjacent structure. The excavation shall be kept free from water (1) during inspection and measurement. (2) When concrete and/or masonry are in progress and till they come above the natural water level and (3) till the Engineer considered that the mortar is sufficient set.

l. SLIPS AND BLOWS-

If there are any slips or blows in the excavation they shall be removed by the CONTRACTOR without cost to the department so as to provide the correct dimensions required for the foundation.

m. BACK FILLING OF PIPE LINE TRENCHES-

The item also includes backfill of pipeline trenches with excavated stuff to its natural ground level after pipe laying is completed. All fill materials shall be laid in continuous level, layer not exceeding 15 cm. and shall be well compacted. No separate payment shall be made for back filling of pipe line trenches.

n. TESTING OF PIPES-

The pipes to be used shall be tested before procurement. The CONTRACTOR shall have to make necessary arrangement for testing of pipes of each class and each diameter at the factory of the manufacturer/Vendor. The test required to be carried shall be as per I.S. No pipes without testing shall be allowed to use in work.

o. INSPECTION-

In addition to the progressive supervision and inspection by the Engineer in charge or his representative, the Contractor shall offer for inspection to Engineer in Charge or his representative, the complete, erected or its Parts.

p. MASONRY WALLS IN 1:5-

Masonry wall in 1:5 proportions of appropriate dimensions as per the requirement of the site situation shall have to be constructed at both the ends of the casing pipes to serve as plugs to

prevent entry of soil / debris in the casing pipe. The walls shall have to be plastered in 1:3 proportion in appropriate dimension as directed by the Engineer-In Charge. No extra payment shall be made for this activity.

q. MONSOON DAMAGES-

Damages due to rain or flood to UGPL and / or in foundation of structure shall have to be made good by the CONTRACTOR till the work is finally handed over to the CREDA. The responsibility of de-silting and making good the damages due to rain or flood rests with the CONTRACTOR, throughout the defect liability period of work and not only limited to earthwork. No extra cost is payable for such operations to protect the work done during the construction and the CONTRACTOR shall therefore have to take all necessary precautions to protect the work done during the construction period. The provision made in this Para shall be applicable to all the components of the work under this contract up to defect liability period of the entire work. The CONTRACTOR shall take all precautionary measures well prior to onset of monsoon to prevent entry of flood water in UGPL and structures on it from drains, nallas, river and other area. However any damage done to the work or silting or slush caused shall have to be attended by the CONTRACTOR without any extra cost to CREDA and no time limit sanction shall be enter for the work. During monsoon the Contractor shall make available the machinery such as pumps, excavators, dozers, rollers etc. and skilled and unskilled manpower to attend the emergency conditions of flood inundation. The cost for such operations, shall not be paid separately and deemed to be included in the rates quoted in respective Items of Schedule-B. The Contractor shall take all necessary precautions to prevent the entry of rain / flood water during monsoon in the pipe line and structures on it.

r. UPVC (UN-PLASTICIZED POLYVINYL CHLORIDE) PIPE LINE-

The specification covers the work of providing and laying all diameter UPVC Pipe line including testing etc.

General Specifications and requirements:

i Raw material-

Raw material used to manufacture **UPVC** Pipes shall be virgin compound (polyvinyl chloride resin) conforming to IS: 4985-2000 and its testing shall conform to IS: 4669-1968. The bulk density of the **UPVC** compound shall be 0.50 to 0.53. The density of UPVC pipe shall be 1.40 to 1.46 g / cm³.

ii Temperature variation-

All the pipes to be manufactured, supplied and erected shall be resistant to whether conditions like sun, dust, rain, wind etc as per the environmental conditions under the project area. They shall also be subject to carry and convey raw water under variable temperature conditions ranging from 4 to 45 deg. Centigrade.

s. MARKING-

Each pipe shall be indelibly marked in English language at an interval of 1m by heat embossing. The marking shall show the following:

- i Manufactures name or trade mark.
- ii Grade of raw material
- iii Class of pipe & pressure rating.
- iv Outside diameter
- v Lot/batch No. of manufacturer.
- vi ISI certification mark.
- vii Name of Department / Project under which work is to be executed: "CREDA"**

viii Any other important matter that the manufacturer or purchaser deems fit to be inscribed.

t. MATERIAL AND WORKMANSHIP-

- i General requirements of material and workmanship shall mean any material or article either raw material or additives or finished are required to be used in the manufacturing process of pipes.
- ii The material used for manufacturing of pipes should not constitute any toxic hazards, should not support micro biological growth and should not give rise to unpleasant test or odour, discolorations of water. The Contractor shall have to produce a certificate fulfilling these effects from the pipe manufacturer. Pipe manufacturer shall obtain certificate to this effect from the manufacturer of raw material. Also a certification from raw material manufacturer that the raw material meets the poly vinyl chloride confirming to ISO 4435-1991 & IS:4985-2000 and its latest revision amendments.
- iii The material from which the pipes are made shall consists substantially of poly vinyl Chloride confirming to IS :10151-1982 to which may be added only those additives that are absolutely needed to facilitate the manufacture of the polymer and the production of sound durable pipe of good surface finish, mechanical strength and opacity. All other quality parameters like density, MFR, Carbon black contents and anti oxidant used for manufacturing of pipes shall be strictly as per IS :12235-2004 and it's latest revision/ amendments.

3. TECHNICAL SPECIFICATION OF PIPES-

A. UPVC PIPES-

- a. The General requirement relating to the manufacture of UPVC pipes shall be confirming to IS: 4985 - 2000 and its latest revision /amendments.
 - i The dimension, material composition, tests etc shall be as per IS:12235 – 2004 and its latest revision/ amendments.
 - ii UPVC pipes shall be marked with ISI certification mark.
 - iii The pipe dimensions and tolerances shall be as per latest revisions and amendments of IS 12235 - 2004. (Part1) & IS 4985-2000

b. TESTS-

The following tests as per IS: 12235-2004 and it's latest revision/amendments will be carried out by the agency .

- i Dimensions (Inside and outside diameter, Wall thickness and Length of pipe) as per Clause No. 7.0 of IS:4985-2000
- ii Visual appearance as per Clause No. 10.1 of IS:4985-2000
- iii Hydraulic Characteristics as per Clause No. 11.1 of IS:4985-2000
- iv Reversion test as per Clause No. 10.4 of IS:4985-2000
- v Density test as per Clause No. 10.6 of IS:4985-2000
- vi Sulphate Ash Content 11% Max. as per Clause no. 10.7 of IS : 4985-2000
- vii Internal hydrostatic pressure in accordance with IS: 12235-2004 (part-8), pipe shall not burst during the prescribed test duration.
- viii The PVC pipe shall not contain vinyl chloride monomer (VCM) exceeding 1 ppm when determined by means of gas phase chromatography using the "headspace" method according to IS: 10151-1982.
- ix The wall of the wall of the plain pipe shall not transmit more than 0.2% of visible light falling on them when tested in accordance with IS:12235-2004 (part -3).

c. SAMPLING AND CRITERIA FOR CONFORMITY-

- i The sampling procedure and the criteria for conformity shall be as per Annex D of IS :4985 – 2000.
- ii The scale of sampling for visual and dimensional requirement shall be as per Table No.13 of IS:4985 – 2000 or as directed by Engineer – In – Charge. The sampling shall be made on

random basis, from a lot manufactured. The samples required for testing shall be taken as directed by Engineer – In – Charge or his representative.

- iii When subjected to internal hydrostatic pressure test in accordance with the procedure given in IS:12235-2004 (Part 8) the pipe shall not fail during the prescribed test duration. The temperatures and duration of test shall conform to the requirements given in the table mentioned below. The tests shall be carried out not earlier than 24 h after the pipes have been manufactured.

d. REQUIREMENTS OF PIPES FOR INTERNAL HYDROSTATIC PRESSURE TEST-

Test	Test Temp. (Min.) °C	Test Duration (Min. holding time) (h)	Test Pressure (Min.) MPa
(1)	(2)	(3)	(4)
Type Test	60	1000	1.16xPN(MPa)
Acceptance	27	1	4.19xPN(MPa)

The pipes under test shall show no signs of localized swelling, seepage cracking, leakage or weeping and shall not burst during the prescribed test period.

During execution if required the sampling of pipes shall be made from the procured, tested and delivered lot of pipes at site randomly. The same shall be tested for the tests mentioned in above Para the CONTRACTOR shall have to borne all the cost of testing in such a case over and above the cost of regular testing.

e. TYPE TEST-

The type test shall be carried out as per IS: 12235 - 2004 and its latest revision/ amendments. The type tests are intended to prove the suitability and performance of anew composition, a new technique or a new size of a pipe. Such tests, therefore, need be applied only when a change is made in Polymer composition or method of manufacture, or when a new size of pipe is to be introduced. Engineer–In–Charge or his representative may call for the fresh samples for the type tests if required.

B. HDPE PIPES-

- a.** The General requirement relating to the manufacture of HDPE pipes shall be confirming to IS: 4984 - 1995 and its latest revision /amendments.

- i. The dimension, material composition, tests etc shall be as per IS:12235 – 2004 and its latest revision/ amendments.
- ii. HDPE pipes shall be marked with ISI certification mark.
- iii. The pipe dimensions and tolerances shall be as per latest revisions and amendments of IS 12235 -2004. (Part1) & IS 4984-1995

b. TESTS-

The following tests as per IS: 12235-2004 and it's latest revision/amendments will be carried out by the agency .

- i. Dimensions (Inside and outside diameter, Wall thickness and Length of pipe) as per Clause No. 6 of IS:4984-1995
- ii. Visual appearance as per Clause No. 7 of IS: 4984-1995
- iii. Hydraulic Characteristics as per Clause No. 8.1 of IS: 4984-1995
- iv. Reversion test as per Clause No. 8.2 of IS: 4984-1995
- v. Density test as per Clause No. 8.4 of IS: 4984-1995
- vi. Carbon Black Content shall be within 2.5±0.5 Percent as per Clause no. 8.6 of IS : 4984-1995
- vii. Internal hydrostatic pressure in accordance with IS: 12235-2004 (part–8), pipe shall not burst during the prescribed test duration.
- viii. The wall of the wall of the plain pipe shall not transmit more than 0.2% of visible light falling on them when tested in accordance with IS:12235-2004 (part -3).

c. SAMPLING, FREQUENCY OF TEST AND CRITERIA FOR CONFORMITY-

- i. The sampling procedure and the criteria for conformity shall be as per IS :4984 – 1995.
- ii. The scale of sampling for visual and dimensional requirement shall be as per Table No.7 of IS:4984 – 1995 or as directed by Engineer – In – Charge. The sampling shall be made on random basis, from a lot manufactured. The samples required for testing shall be taken as directed by Engineer – In – Charge or his representative.
- iii. When subjected to internal hydrostatic pressure test in accordance with the procedure given in IS:12235-2004 (Part 8) the pipe shall not fail during the prescribed test duration. The temperatures and duration of test shall conform to the requirements given in the table mentioned below. The tests shall be carried out not earlier than 24 h after the pipes have been manufactured.

d. REQUIREMENTS OF PIPES FOR INTERNAL PRESSURE CREEP RUPTURE TEST-

Test	Test Temp. (Min.) °C	Test Duration (Min. holding time) (in hours)	Test Pressure (Min.) MPa		
			PE 63	PE 80	PE 100
(1)	(2)	(3)	(4)	(5)	(6)
Type Test	80	165	3.5	4.6	5.5
Acceptance	80	48	3.8	4.9	5.7

e. Type Test

The type test shall be carried out as per IS: 12235 - 2004 and its latest revision/ amendments. The type tests are intended to prove the suitability and performance of anew composition, a new technique or a new size of a pipe. Such tests, therefore, need be applied only when a change is made in Polymer composition or method of manufacture, or when a new size of pipe is to be introduced. Engineer-In-Charge or his representative may call for the fresh samples for the type tests if required.

C. LAYING OF PIPES

- i. **UNDERGROUND INSTALLATION OF UPVC PIPE:** Generally, the width of the trench should be minimum dimension compatible with safe working and the satisfactory laying, jointing and bedding of pipe as per drawing or as directed by Engineer – In – Charge. **The depth of the trench shall atleast be 03 feet from ground level plus diameter of pipe or as directed by Engineer – In –Charge. As excavation proceeds, all unstable trench walls need to be supported as per requirement is mandatory for trenches of 03 feet or deeper. The cost for this is incorporated in the relevant item of excavation of pipe line and no extra payment shall be made / entertained for this activity.** Bed of the trench shall be well dressed and shall be free from clods. If any stones or other objectionable solid material met with during excavation of trench at bottom, it should be removed and if required the bed should be leveled with selected soil available from the excavation of the trench.
- ii. **PREPARATION FOR PIPE LAYING:** Pipes shall be joined to form a single long length above ground prior to staking into the trench as per site situation or as directed by Engineer – In – Charge. To prevent scratches on surface of pipe / damage to pipe of the road surface, pipe rollers should be used. Before commencing of pipe laying into the trench a check should be made for deep cuts, scratches or other damages in the pipe and the fusion joint system is sufficiently cooled.

- iii. **PIPE LAYING:** The pipes shall be laid in proper line and level as per drawing or as directed by Engineer – In-Charge. Gradual changes in direction of polyethylene can be accommodated by pipe deflection but every effort should be made to keep the pipe as central as possible within the trench to enable correct side fill compaction. Similar care should be taken when any distortion of the coiled pipe has occurred.

D. JOINTING OF PIPES-

i PREPARING JOINTS-

The pipes shall be jointed by flush joint as instructed by the Engineer-In-Charge. Caulking space shall be as per relevant IS code according to the diameter of the pipes. The next pipe shall then to be pressed against the first so that the recess between the end of first pipe and that of the second properly fills with Synthetic ring and both pipe shall pressed against each other properly. The joints shall be smooth finished. The CONTRACTOR shall have to make sufficient room for making the joints leak proof at the bottom of joint by excavating the earth as per requirement. But due care shall be required during the backfilling in that portion. No extra payment shall be made for making sufficient room for the jointing of pipes at bottom of joint.

ii CONNECTIONS THROUGH WALLS OF WELLS/WATER SOURCES-

Pipe may have to go through masonry walls of wells/water sources. In such a case, the pipe should have a puddle flange welded (if required) around the pipe to ensure a leak proof joint between the pipe and the masonry well wall.

E. TESTING OF PIPE LINE-

i INSPECTION AND TEST AFTER ERECTION-

In addition to the progressive supervision and inspection by the Engineer in charge or his representative, the CONTRACTOR shall offer for inspection to Engineer-in-Charge or his representative, the complete erected or its parts on which tests are to be carried out.

After such inspection by Engineer-in-charge or his representative, the CONTRACTOR shall have to carry out the testing for leakage/seepage from pipe line /structures in the presence of Engineer – In – Charge or his representative. All the structures shall be observed, checked and tested for leakage and constructional defects.

ii TESTING-

- a. The length of pipeline to be tested shall be the length between well to well or as directed by Engineer – In – Charge. Generally for sub-minor the testing shall be carried out for full length at a time, if length of sub-minor is less than 1.0 km and for more length of sub-minor the testing shall be carried out in two stages as directed / decided by Engineer – In – Charge. The CONTRACTOR shall have to make all the arrangement of water for testing, labours, supervisory staff, etc. for the period of testing. The necessary arrangement for plugging of opening in the wells/water Sources (end well of reach under testing) shall be made by the CONTRACTOR at his cost. After testing CONTRACTOR shall have to remove the plugging at his cost, but care should be taken that no damage will occur to the work executed. If any damage will occur to any parts of work executed the same shall be required to be repaired by the CONTRACTOR at his cost to the satisfaction of Engineer – In – Charge.
- b. Backfilling of pipeline trenches can be done before testing of pipe line.

- (I) **INITIAL FILLING** The water shall be filled in the portion under testing upto predetermined level and shall be continuously maintained at predetermined level at predetermined locations (wells/water Sources) for 48 hours. The purpose of initial filling shall be to provide sufficient time/water for absorption in the masonry structures (wells/water Sources).
- (II) **OBSERVATION/CHECKING/TESTING FOR LEAKAGE** The level of water surface shall be measured after 48 hours of initial filling and thereafter at an interval of 24 hours for at-least 5(Five) days. During the testing the joints of pipe line shall be observed and checked, if any leakage found, the pipe shall be emptied out by the CONTRACTOR at his cost and shall be rectified at his cost. The testing procedure shall be repeated, till the rectification of the damages/defects/leakages are of the acceptable engineering standard. During the testing after initial filling the level of water surface in the wells/water Sources under consideration shall be measured.

Work of UGPL mains/sub-mains shall be inspected by CREDA officials/third party and payments shall be done after getting approval of CREDA Officials. Modalities of Third Party Inspection shall be separately decided and given by CREDA.

F. BACK FILLING OF TRENCHES-

- i Trenches shall be kept free from water until the material in the joints has hardened. Walking or working on the completed pipe shall not be permitted until the trenches have been backfilled so as to arrive at the original ground level after sufficiently compacting each layer of uniform thickness of 15 cm to 23 cm.
- ii Trenches shall be backfilled after pipe has been laid subject to the condition that jointing material has hardened. Only selected material shall be used for back filling. Filling of trenches shall be carried out simultaneously on both sides of pipe in such a manner that unequal pressure does not occur.
- iii After backfilling and during the defect liability period if any settlement will be observed in backfilling on alignment of pipe the same shall have to be attended by the CONTRACTOR at his cost.

4. SPECIFICATION FOR G.I. CHAIN FENCING-

Fabrication supply and installation of fencing of 10 gauge G.I chain link wire mesh of 75X75 mm opening, fitted with 50X50X5 mm vertical M.S. Angle at spacing of 2750 mm & 35X35X5 mm horizontal M.S. Support. Every set of fencing will have one M.S. Angle framed gate with same chain link wire mash with locking arrangement and two extra posts. Three lane barbed bolts, washer and clit as per enclosed design drawing and specification with two coat steel primer zink chromate and one coat silver/aluminium paint of standard brand with installationand fitting of fencing with grouting the poles of R.C.C. 1:1.5:3 of size 300X300X600 mm. for given requirement with complete civil material.

5. SPECIFICATION AND DETAILS OF BUFFER/SUMP/INTAKE OR JACK WELL-

- a. Inner Diameter - Should be as per the site requirements.
- b. Outer Diameter - Should be as per the site requirements.
- c. Control Room - Should be as per the site requirements.
- d. Total Height - Should be as per the site requirements.

- e. Re-inforcement, as per drawing - 16mm, 12mm, 10mm and 8mm, Grade Fe-415, TMT Bars
 - i. IS:1786:208:BIS Standards.
 - ii. 0.2% Proof Stress, Yield Stress (N/mm²) - 415.0, Tensile Strength - 485.
- f. Cement should be as per IS: 1489, Portland Pozzolana Cement
- g. M20 Grade Concrete should be used.
- h. Sand and Aggregates should be use as per IS: 383 (2016)
- i. All materials should be as per IS: and C.G. PWD Standards
- j. Pipe Should be as per IS: Standards. Hume Pipe IS:458, NP2 or NP3
(OR) UPVC, HDPE, GI, DI Pipes can be used with permission of Department.
- k. Scaffolding should be safe, as per IS standards

6. Detailed Specifications of BOS-

SN	Components	Specification
1	SS theft proof Nut Bolt	SS304 anti theft Nut bolt with washer.
2	MS and SS Nut bolt and washer	MS with SS polish nut bolt and washer for main pole and other are SS nut bolt.
3	Conduit pipe/ black drip pipe	2mm thick PVC conduit pipe ISI make or black drip pipe for covering panel wiring.
4	Cable Tie	Stainless steel cable tie.
5	Instruction manual	Do & Don'ts, O&M instruction after Installation with SI,DO and CREDA toll free number etc.
6	Sticker	As per CREDA design

7. Other considerations-

A. REJECTION OF THE SYSTEM OR SYSTEM COMPONENTS-

If any leakage found during testing of pipe line, CONTRACTOR will have to attend immediately and rectify at his cost within 5 (Five) days. If CONTRACTOR fails to rectify the defect the entire length of pipe line between two adjacent wells/water Sources shall be rejected and not accepted. The payment shall not be made for the rejected work. The difference in water level during testing shall be within the tolerance limit as specified above, otherwise the work shall not be accepted and paid. If any intermediate payment made to the CONTRACTOR for portion under rejection, the same shall be recovered from the outstanding dues of the CONTRACTOR

B. MONSOON DAMAGES-

Damages due to rain or flood to UGPL(Under ground Pipeline) or in foundation of structure or Any civil work shall have to be made good by the CONTRACTOR till the work is finally handed over to the Concerned Gram Panchayat in presence of CREDA Officials. The responsibility of de-silting and making good the damages due to rain or flood rests with the CONTRACTOR , throughout the defect liability period of work and not only limited to earthwork. No extra cost is payable for such operations to protect the work done during the construction and the CONTRACTOR shall therefore have to take all necessary precautions to protect the work done during the construction period. The provision made in this Para shall be applicable to all the components of the work under this contract up to defect liability period of the entire work. The CONTRACTOR shall take all precautionary measures well prior to on set of monsoon to prevent entry of flood water in UGPL and structures on it from drains, nallas, river and other area. However any damage done to the work or silting or slush caused shall have to be attended by the CONTRACTOR without any extra cost to CREDA and no time limit sanction shall be enter for the work.

During monsoon the CONTRACTOR shall make available the machinery such as pumps, excavators, dozers, rollers etc. and skilled and unskilled manpower to attend the emergency conditions of flood inundation.

The cost for such operations shall not be paid separately. The CONTRACTOR shall take all necessary precautions to prevent the entry of rain/flood water during monsoon in the pipe line and structures on it.

C. MISCELLANEOUS-

- a. The contractor shall be responsible to provide all facilities for water distribution to all concerned beneficiaries (whether the provision is mentioned or not in terms & condition of tender).
- b. Before starting the work, contractor / Tenderder shall be responsible to make an action plan with inspection of site, measurements and verification of all aspects of work.
- c. To prevent from any possibilities of accident during the work the contractor / Tenderder shall be responsible for cleaning the surface of work area regularly, if any kind of accident occur during the work the contractor / Tenderder shall be responsible for the same.

SECTION-5
ANNEXURE, SPECIFICATION, FORMS

ANNEXURE – I

PART-A

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

Ref. No.....

Date.....

CERTIFICATE OF EXPERIENCE - OFF GRID SPV PUMPS

This is to certify that **Name of Bidder, Address of Registered Office** has successfully completed the work of design supply, installation & commissioning ofNos. Off grid SPV Pumps (.....Scheme) against various Sanction of Name of Agency at various locations in.....State, as per following details –

Capacity & Type of SPV Pumps (HP / AC / DC / Submersible / Surface)	Year & Scheme	Total no. of Pumps	Remarks
Total -			

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	200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026

This workmanship and performance of the above installed systems are found satisfactory and are in successful operation.

Seal & Sign
(Authorised Signatory)

ANNEXURE –I**PART-B****(EXPERIENCE CERTIFICATE ON THE OFFICIAL LETTER HEAD OF CONCERNED GOVERNMENT
DEPARTMENT WITH SEAL AND SIGN BY AUTHORIZED SIGNATORY)**

Ref. No.....

Date.....

CERTIFICATE OF EXPERIENCE - WATER DISTRIBUTION NETWORK

This is to certify that **Name of Bidder, Address of Registered Office** has successfully completed the work of design supply, installation & commissioned ofMtrs. Pipe line work under mini/ micro irrigation projects (.....Scheme) against various Sanction of Name of Agency at various locations in.....State, as per following details –

Length of Pipe line work under mini/ micro irrigation project	Year & Scheme	Total mini/ micro irrigation project of Pipe line work	Cumulative Length of pipe line (Mtrs.)
Total -			

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	200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026

This workmanship and performance of the above installed systems are found satisfactory and are in successful operation.

Seal & Sign
(Authorised Signatory)

PART-C

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

Ref. No.....

Date.....

**CERTIFICATE OF EXPERIENCE – CIVIL WORKS UNDER DRINKING
WATER/IRRIGATION PROJECT**

This is to certify that **Name of Bidder, Address of Registered Office** has successfully completed the work of design supply, installation & commissioned ofno. intake well for drinking water/ irrigation projects (.....Scheme) against various Sanction of Name of Agency at various locations in.....State, as per following details –

Project Drinking water/ irrigation project	Year & Scheme	Total no. of Drinking water/ irrigation project	Quantity of civil works (in cu Mtr.)Under Drinking water/irrigation project	Remarks
Total -				

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	200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026

This workmanship and performance of the above installed systems are found satisfactory and are in successful operation.

**Seal & Sign
(Authorised Signatory)**

CONSORTIUM AGREEMENT

This Consortium Agreement executed on this Day of 2026

BETWEEN

M/S, a Company/Proprietorship Firm/Partnership Firm incorporate under the Law of companies Act 1956/2013 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)

This agreement is for the purposes of submission of bid as per the **TENDER DOCUMENT No. 200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026** and entering into a contract in case of award for the work of Survey, Design, Supply, Installation & Commissioning of Solar Photo Voltaic Irrigation Pumps of various capacities with five years onsite warranty, CMC & insurance anywhere in the state of Chhattisgarh for **Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana of CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)**

AND WHEREAS as per Tender 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 Raipur. 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. **200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026** from CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA) For Survey, Design, Supply, Installation & Commissioning of Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana with Five Years onSite warranty, CMC & Insurance anywhere in the state of Chhattisgarh 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)	
TOTAL -		

6. PARTICIPATION -

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

7. The Lead Member is hereby authorized by the second Member of the Consortium to bind the Consortium and receive instructions for and on their behalf. For this purpose second member will submit a duly signed Power of Attorney.
8. The lead partner of consortium will be solely responsible for any liability, penalty, CMC and other terms and conditions mentioned in this tender document.
9. The Lead Member shall be liable and responsible for ensuring the Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and collective commitment of each of the members of the Consortium in discharging all of their respective obligations. Furthermore lead member shall be liable for fulfilment of each terms and conditions of the tender document. Each Member further undertakes to be Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
10. Subject to the terms of this Agreement, the all member shall be responsible for providing technical and financial support and responsible for execution of project as per agreement to be signed.
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 demur.
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.....

1.....

WITNESS -

2

2

FORMAT FOR THE AFFIDAVIT

(Note: This affidavit should be on a non-judicial stamp paper of Rs. 100/- and shall be attested by Magistrate/Sub-Judge/ Notary Public)

I,.....(Name of the bidder authorized representative of the bidder)
son/ daughter of..... resident of
..... (Full address), aforesaid solemnly affirm and state
as under:

1. I hereby certify that all the information furnished with the bid submitted in response to Tender/bid No. **200500/CREDA/SCIP&CGGY/2026** Dated: **28.09.2026** issued by Chhattisgarh State Renewable Energy Development Agency (CREDA) (authority inviting bids) for Survey, design, supply, installation, and commissioning of Solar Community Irrigation Scheme , Chhattisgarh Gaon Ganga Yojana & solar irrigation pump with all allied works with five years COM, onsite warranty, Insurance for anywhere in the State of Chhattisgarh state (name and identification of work) are true and correct.
2. I hereby certify that I have been authorized by..... (Company name) to sign on their behalf, the bid mentioned in Sr.No.1 above.*
3. Information furnished in the bidding documents is correct in all respects to the best of my knowledge and belief.
4. The near relations, as per clause 30(A) in Section - 02, in CREDA, are not in employment of the firm/company. (Note:-By the term near relatives is meant Wife, Husband, Parents and Son, Brother, Sister, Brother-in-law, Father-in-law, Mother-in-law etc.) (if working mention the name/names)
.....
.....
5. The name of near relative (if any) as per Clause 31(B) who retired/removed within the last two years. (If None, clearly State None)
.....
.....
6. No near relative is working as Financial Accountant in the CREDA. (if working mention the name)
.....
.....
7. No person is working in the company in any capacity, who are near relatives to any Officer in Chhattisgarh State Renewable Energy Development Agency (CREDA) (If working mention the name)
.....
.....
8. Our company/firm/ or otherwise is not under the clarification of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government as mention in clause 1(F) of tender document.

9. I hereby authorize the CREDA Officials to get all the documents verified from appropriate sources (s).

Deponent

Place:

Date:

* Not applicable if the bidder is an Solar Community Irrigation Project & Chhattisgarh Gaon Ganga Yojana and solar irrigation pumps is signing the bid on his own behalf.

Verification

I..... S/o.....do here by affirm that contents stated in Para 1 to 09 above and contents submitted in technical & financial bid are true to the best of my knowledge and believe and are based on my/our record.

Verified that this date of at (Place).....

Deponent

CERTIFICATE OF QUARTERLY VISITS

(To be submitted by SI during CMC period)

(From To)

This is to certified that we have extended preventive / routine maintenance and breakdown / corrective maintenance services for the pumping system, Water Distribution Network installed under SPV COMMUNITY IRRIGATION & CHHATTISGARH GAON GANGA YOJANA scheme at Village, District _____ and that the preventive / routine maintenance and breakdown /corrective maintenance work during the period (from _____ to _____) of the year _____ has been done properly to ensure functionality of the systems as specified in the Tender terms & conditions and agreement.

This is also to certify that nos of systems are working satisfactorily out of nos of total installed systems. The record of preventive / routine maintenance and breakdown / corrective maintenance work carried out by us is kept in our record at our service station.

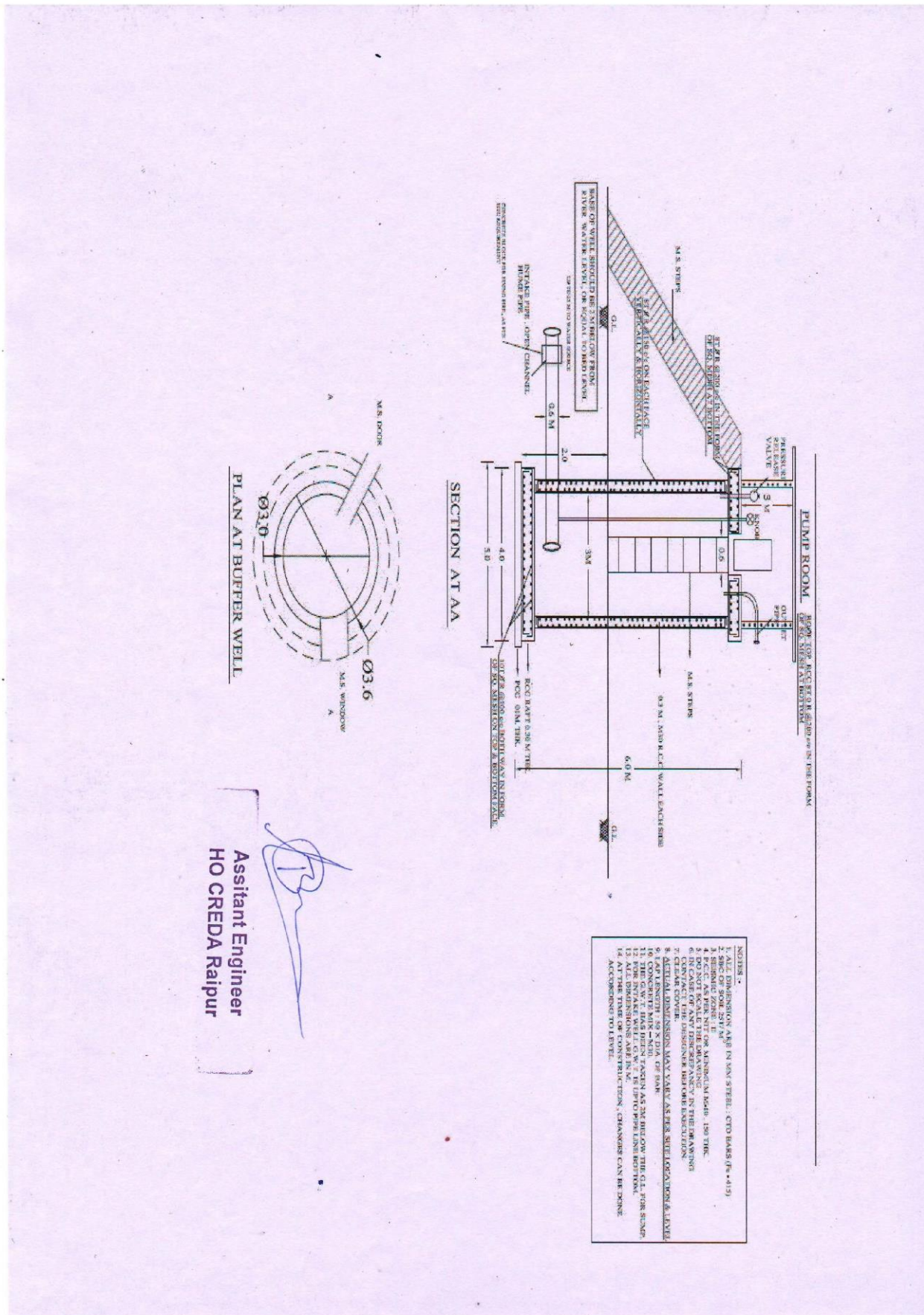
Signature, Name, Designation and Seal of System Integrator

Date :

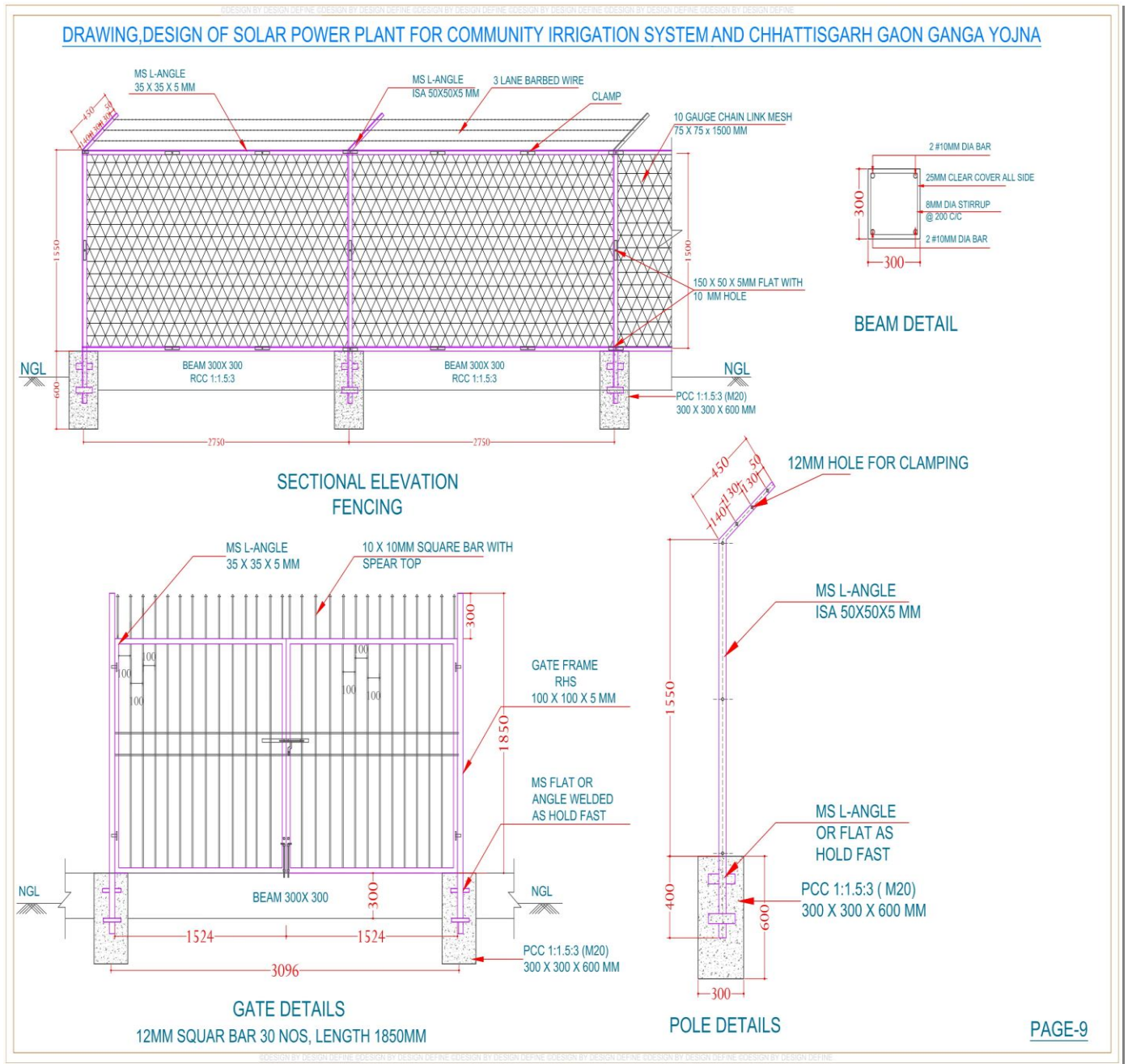
Place :

Signature, Name, Designation and Seal of District In-charge of CREDA

SYMBOLIC DRAWING OF INTAKE/ BUFFER WELL

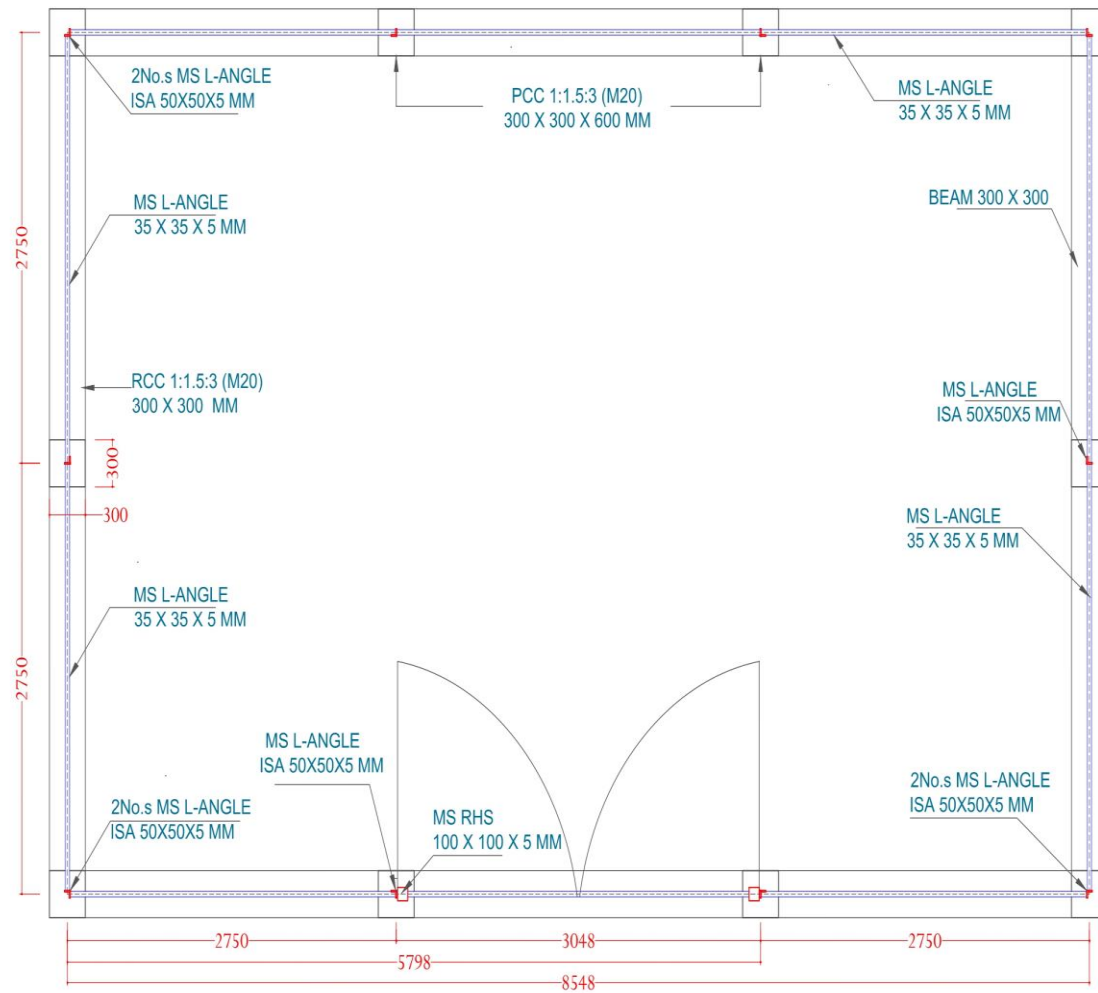


Drawing of Fencing Work



Drawing of Fencing Layout Plan

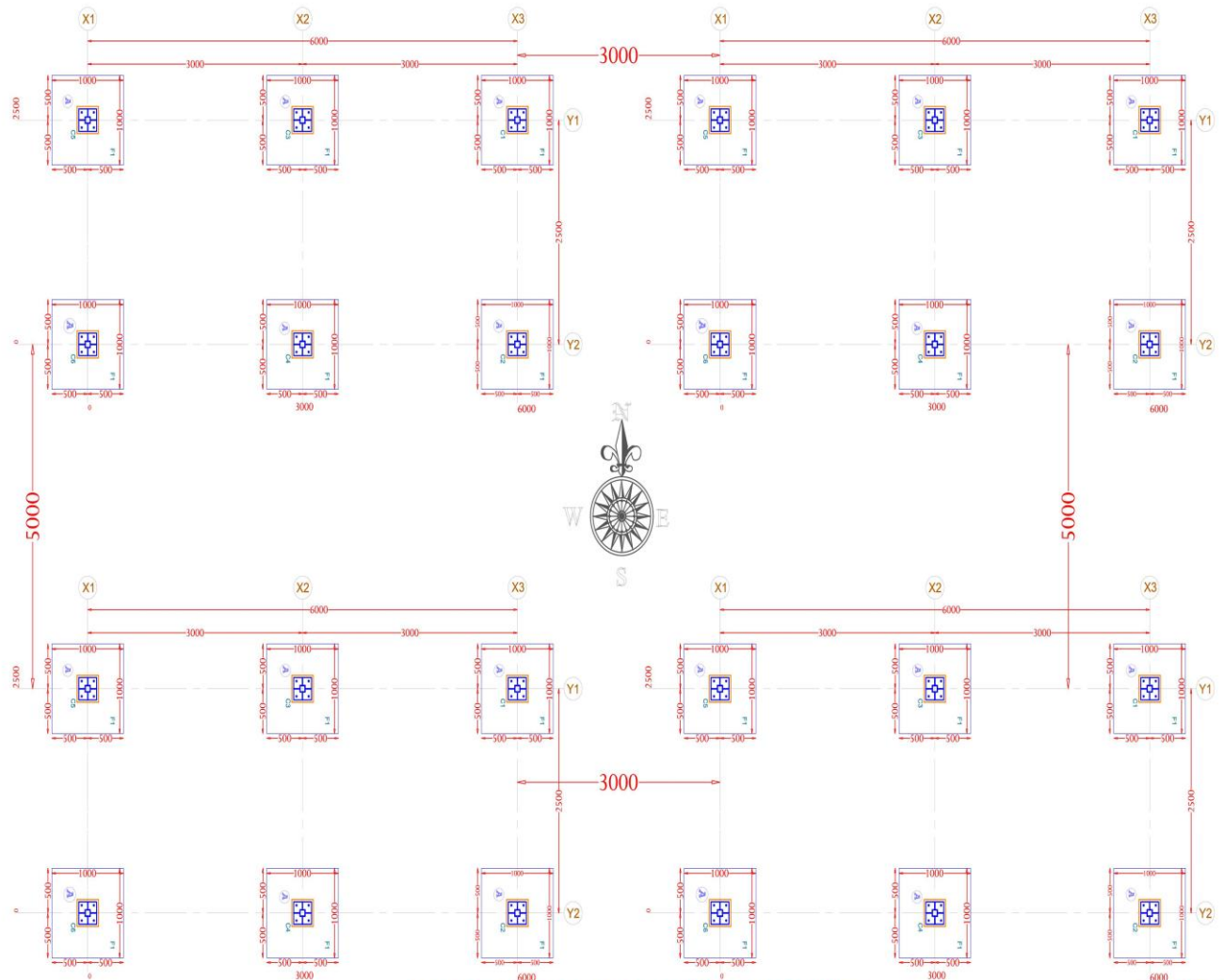
DRAWING, DESIGN OF SOLAR POWER PLANT FOR COMMUNITY IRRIGATION SYSTEM AND CHHATTISGARH GAON GANGA YOJNA



FENCING LAYOUT PLAN

PAGE-08

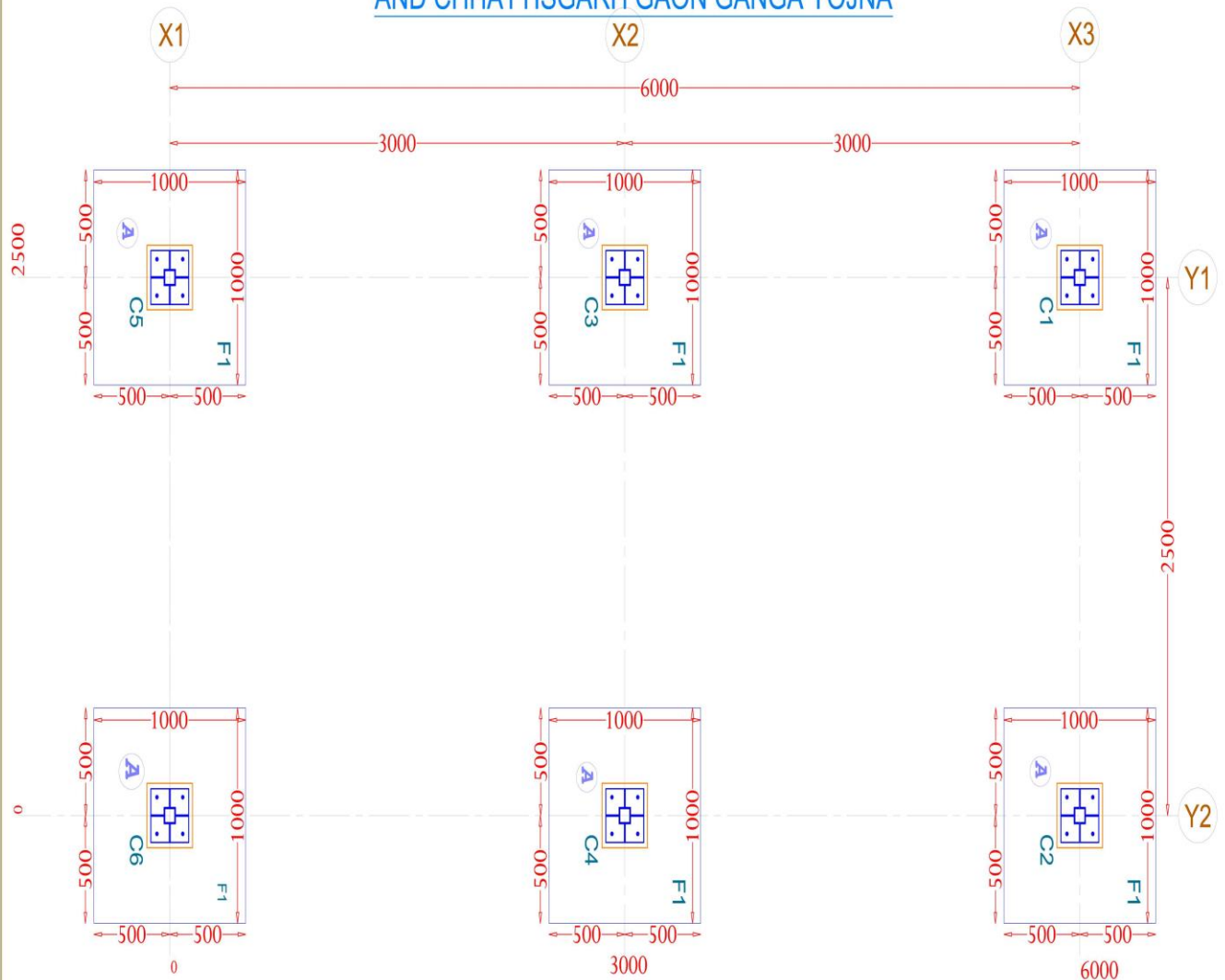
**DRAWING, DESIGN OF SOLAR POWER PLANT FOR COMMUNITY IRRIGATION SYSTEM
AND CHHATTISGARH GAON GANGA YOJNA**



LAYOUT PLAN FOR 20 HP PUMP SET

PAGE-07

DRAWING, DESIGN OF SOLAR POWER PLANT FOR COMMUNITY IRRIGATION SYSTEM AND CHHATTISGARH GAON GANGA YOJNA



FOUNDATION LAYOUT PLAN
FRAMING PLAN

PAGE-02

FOOTING SCHEDULE CONCRETE GRADE- M25 STEEL Fe - 500

FOOTING NUMBERS	COLUMN NUMBERS	FOOTING DETAILS				FOOTING REINFORCEMENT				REMARKS
		FOOTING TYPE	B	L	DEPTH OF FOOTING D	BOTTOM		TOP		
						ALONG B	ALONG L	ALONG B	ALONG L	
F1	C1,2,3,4,5,6	PAD	1000	1000	300	10 # @ 100 c/c	10 # @ 100 c/c	10 # @ 100 c/c	10 # @ 100 c/c	—

[illegible]

FOOTING TO GROUND FLOOR LVL.		
	SIZE	300 X 300
	STEEL	4-12 #
	LINKS	8 # @ 150
	CONC.	M25
	SCR ZONE	---
PEDESTAL NO.	C1,2,3,4,5,6	
PEDESTAL GROUP ID	A	

75X150X6
SHS-72X72X4

(TYP) 8

40 170 40

40 170 40

4-16 Ø
J-BOLTS

10MM THK
BASE PLATE

250 250

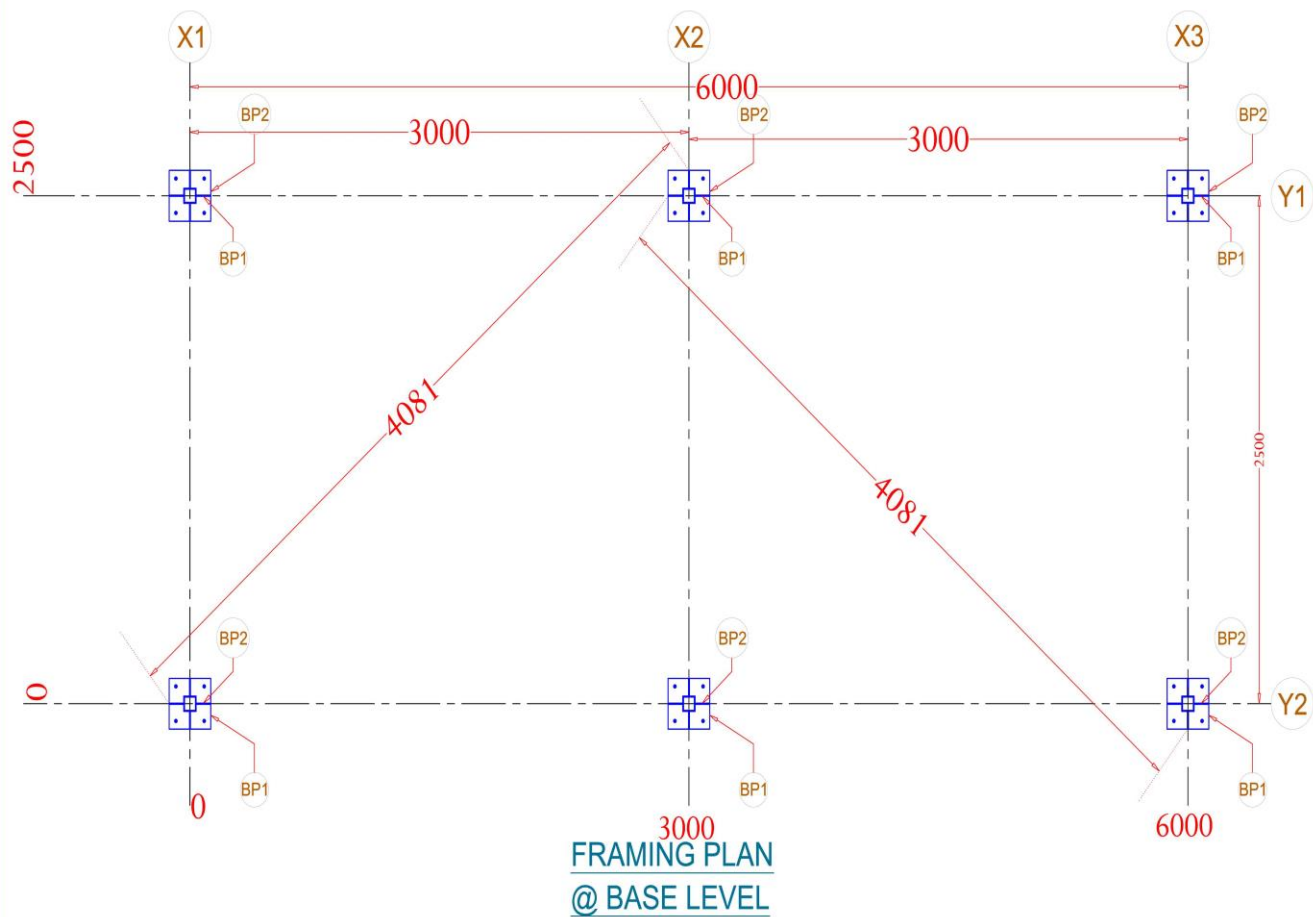
STANCHION
SHS-72X72X4

BASE PLATE DETAILS (PLAN)

SECTION SHS-72 X 72 X 4MM THK

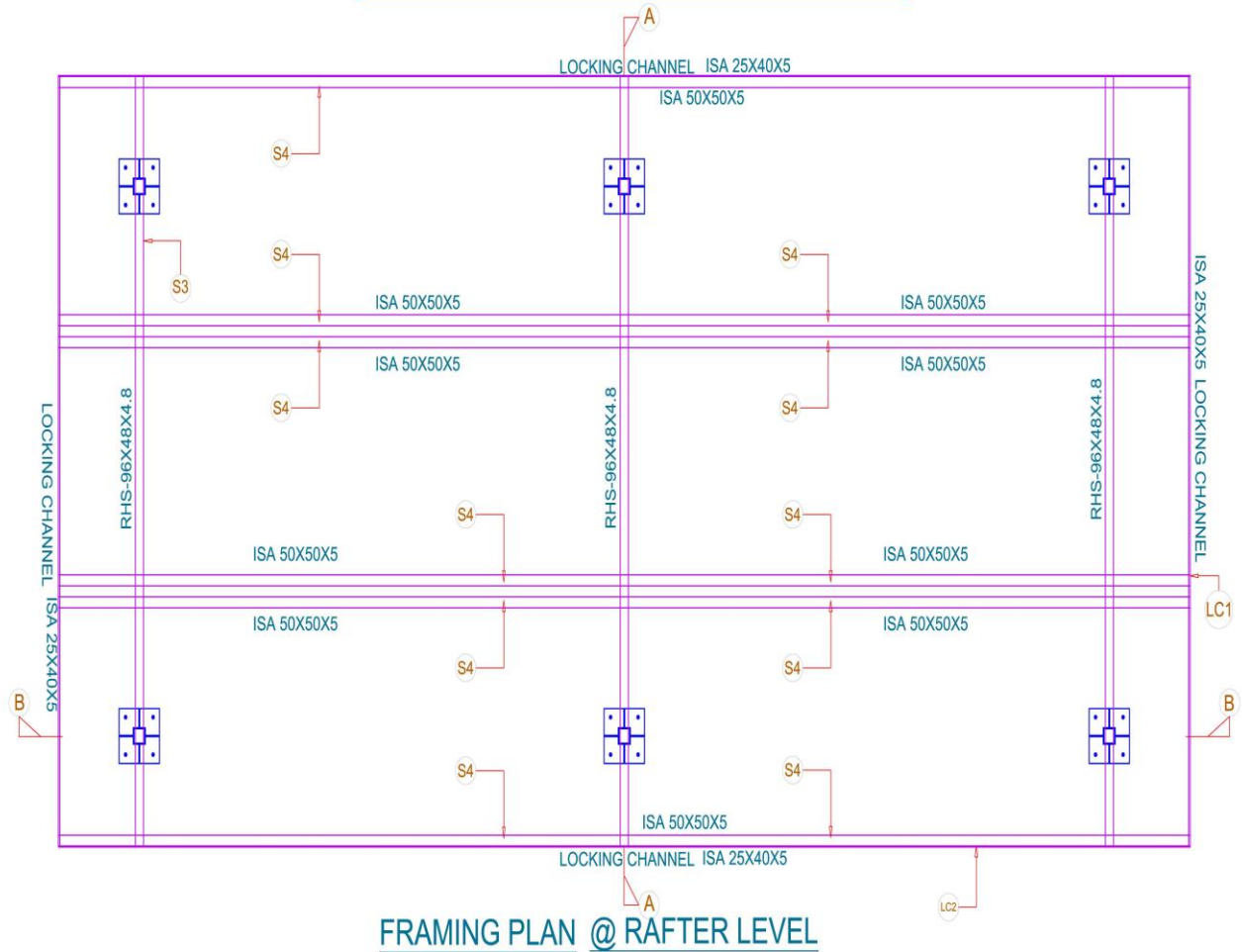
PAGE-03

DRAWING, DESIGN OF SOLAR POWER PLANT FOR COMMUNITY IRRIGATION SYSTEM
AND CHHATTISGARH GAON GANGA YOJNA



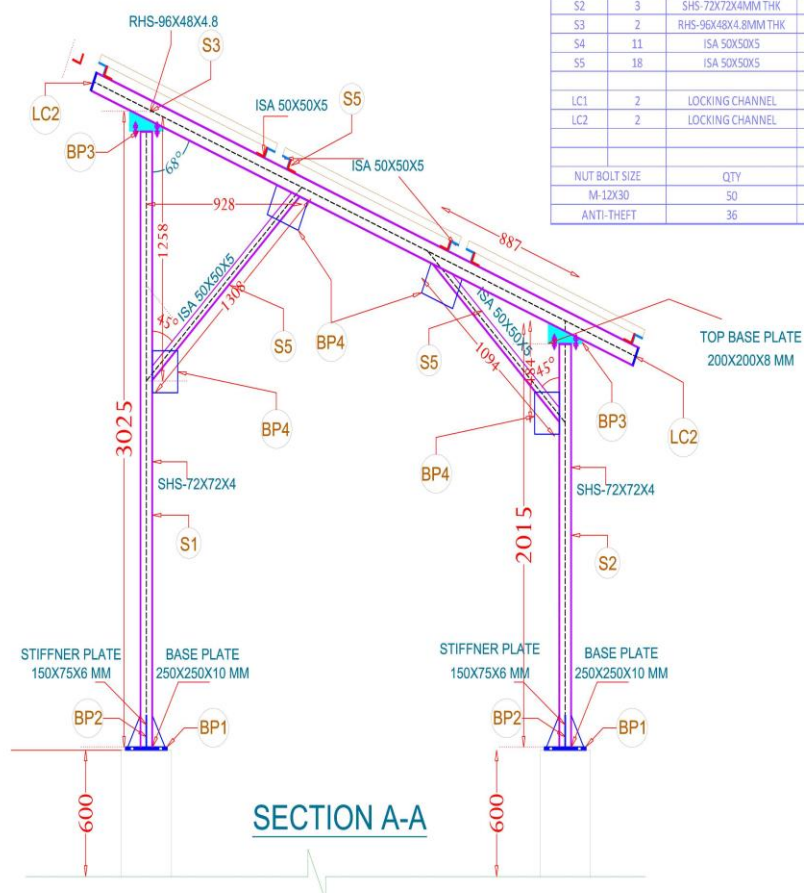
PAGE-04

DRAWING, DESIGN OF SOLAR POWER PLANT FOR COMMUNITY IRRIGATION SYSTEM AND CHHATTISGARH GAON GANGA YOJNA



PAGE-05

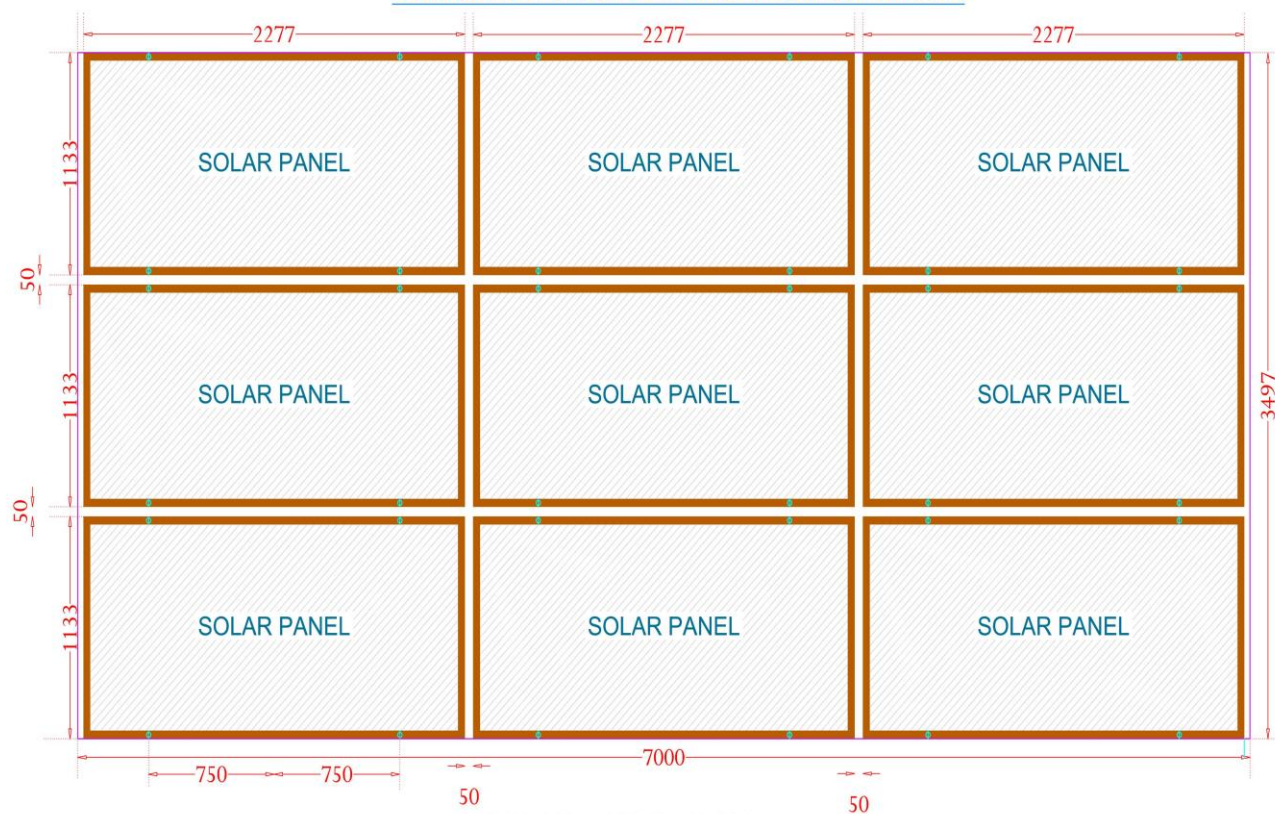
MEMBER NAME	NUMBER OF MEMBER	MEMBER(SECTION)	LENGTH (MM)	WIDTH (MM)	UNIT WT (KG/M)	WT/PC (KG)	TOTAL WT (KG)	REMARK
BP1	6	PL-10MM THK	250	250	78.5	4.91	29.44	BASE PLATE
BP2	24	PL-6MM THK	150	75	47.1	0.53	12.72	STIFFENER PLATE
BP3	12	PL-8MM THK	200	200	62.8	2.51	30.14	TOP BASE PLATE
BP4	16	PL-6MM THK	200	150	47.1	1.41	22.61	CROSS BRACING BASE PLATE
S1	3	SHS-72X72X4MM THK	3025	NIL	8.22	24.87	74.60	SQUARE HOLLOW SECTION(COLUMN)
S2	3	SHS-72X72X4MM THK	2015	NIL	8.22	16.56	49.69	SQUARE HOLLOW SECTION(COLUMN)
S3	2	RHS-96X48X4.8MM THK	7000	NIL	9.66	67.62	135.24	RECTANGULAR HOLLOW SECTION(RAFTER)
S4	11	ISA 50X50X5	3775	NIL	3.8	14.35	157.80	EQUAL ANGLE SECTION (PURLIN)
S5	18	ISA 50X50X5	150	NIL	3.8	0.57	10.26	EQUAL ANGLE SECTION (PURLIN) SUPPORT
LC1	2	LOCKING CHANNEL	3500	NIL	1.8	6.30	12.60	LOCKING CHANNEL(2 SX40X3)
LC2	2	LOCKING CHANNEL	7000	NIL	1.8	12.60	25.20	LOCKING CHANNEL(2 SX40X3)
					TOTAL WEIGHT		560.29	
					FOUNDATION 16MM J BOLT		108.00	FOUNDATION 16MM J BOLT
NUT BOLT SIZE		QTY						
M-12X30		50						PURLINE TO RAFTER CONNECTION BOLT 6X3-3
ANTI THEFT		36						RANDI TO PURLIN 26



PAGE-06

©DESIGN BY DESIGN DEFINE ©DESIGN BY DESIGN DEFINE ©DESIGN BY DESIGN DEFINE ©DESIGN BY DESIGN DEFINE ©DESIGN BY DESIGN DEFINE ©DESIGN BY DESIGN DEFINE

**DRAWING, DESIGN OF SOLAR POWER PLANT FOR COMMUNITY IRRIGATION SYSTEM
AND CHHATTISGARH GAON GANGA YOJNA**



SOLAR PANEL PLAN

ANNEXURE – VI**e - Price Bid
PART-A****(Schedule of Rates for SPV AC Surface Pumps)***(e-bidding as per Specifications & Scope of Work of Tender No. 200500/CREDA/SCIP-CGGY/2026-27 Dated : 28.09.2026)*

Survey, Supply, Installation and Commissioning of **Solar Photovoltaic Pumps including five years of comprehensive on-site warranty and comprehensive operations & maintenance** anywhere in the State of Chhattisgarh.

SN	Item Code	Particulars	Unit	Unit Rate for Supply Installation, Commissioning of Items/ work including civil and other allied works including 5 Year Onsite Warranty and COM at Site (in Rs) ex. GST
1	2	3	4	5
1	A1	Supply, I&C of 7.5 HP/min. 7800 watt AC Solar Surface Pump	Nos.	
2	A2	Supply, I&C of 10HP/ min. 9600 watt AC Solar Surface Pump	Nos.	
3	A3	Supply, I&C of 15HP/min 14400 watt AC Solar Surface Pump	Nos.	
4	A4	Supply, I&C of 20HP/ min. 24000 watt AC Solar Surface Pump	Nos.	
5	A5	G.I Chain Link fencing with double sided MS gate as per Specification in tender	Meter	

IMPORTANT INSTRUCTION: Bidder has to upload duly filled, sealed and signed copy of the price bid in Envelop C of 'required attachments' on the e - bidding portal.

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 andanyother job required toproperly execute the work with 5 years Onsite warranty as mentioned in the bid document (Above rates applicable for pump models for each category as per MNRE and CREDA Specifications stated in 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).

Note: In this regard if there is any change in the composition ratio of good sand services by any Authority/ Courts, same shall be applicable.

There shall be no escalation of rates under any circumstances.

Signature of the Authorized Signatory:.....

Seal of Company :

Date :

e - Price Bid**PART-A1****(Schedule of Rates for SPV AC Surface Pumps)***(e-bidding as per Specifications & Scope of Work of Tender No. 200500/CREDA/SCIP-CGGY/2026-27 Dated : 28.09.2026)*

Survey, Supply, Installation and Commissioning of **Solar Photovoltaic Pumps including 05 years of comprehensive on-site warranty and comprehensive operations & maintenance** anywhere in the State of Chhattisgarh.

S.N.	Item Code	Particulars	Unit	Unit Rate for Supply with comprehensive 5 Year on-site warranty at Site (in Rs) Ex. GST
1	2	3	4	5
1	A1.1	Supply of Pump of 7.5HP/ min 7800 watt AC Solar Surface Pump	Nos.	
2	A1.2	Supply of VFD Controller for 7.5HP/min 7800 Watt AC Solar Surface Pump	Nos.	
3	A1.3	Supply of Pump of 10HP/ min 9600 watt AC Solar Surface Pump	Nos.	
4	A1.4	Supply of VFD Controller for 10HP/ min 9600 watt AC Solar Surface Pump	Nos.	
5	A1.5	Supply of Pump of 15HP/ min 14400 watt AC Solar Surface Pump	Nos.	
6	A1.6	Supply of VFD Controller for 15 HP/min 14400 watt AC Solar Surface Pump	Nos.	
7	A1.7	Supply of Pumps of 20 HP/min 24000 watt AC Solar Surface Pump	Nos.	
8	A1.8	Supply of VFD Controller for 20 HP/ min 24000 watt AC Solar Surface Pump	Nos.	
9	A1.09	Supply, I&C of 10HP/min. 9600 watt AC Solar Submersible Pump	Nos.	
10	A1.10	Supply, I&C of 20HP/ min.24000 watt AC Solar Submersible Pump	Nos.	
11	A1.11	Supply of VFD/ Controller for 10HP/min 9600 watt AC Solar Submersible Pump	Nos.	
12	A1.12	Supply of VFD/ Controller for 20HP/ min. 24000 watt AC Solar Submersible Pump	Nos.	

IMPORTANT INSTRUCTION: Bidder has to upload duly filled, sealed and signed copy of the price bid in Envelop C of 'required attachments' on the e - bidding portal.

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 Onsite warranty as mentioned in the bid document (Above rates applicable for pump models for each category as per MNRE and CREDA Specifications stated in 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).

Note: In this regard if there is any change in the composition ratio of good sand services by any Authority/ Courts, same shall be applicable.

There shall be no escalation of rates under any circumstances.

Signature of the Authorized Signatory:.....

Seal of Company :

Date :

PART-B**(for supply, installation, Commissioning & Testing of Water Distribution Network)**

Schedule of Rates for Water distribution network of Solar Community irrigation Scheme & Chhattisgarh Gaon Ganga Yojana.

(e-bidding as per Specifications & Scope of Work of Tender No. 200500/CREDA/SCIP-CGGY/2026-27 Dated : 28.09.2026)

Survey, Supply, Installation & Commissioning and testing water distribution network of the Solar Community Irrigation System & Chhattisgarh Gaon Ganga Yojana anywhere in the State of Chhattisgarh.

S.N.	Particulars	Unit	Base rate of PHED SOR (In %) (as per Amendment 2022 SOR) Ex GST	Rate for Supply & installation & Commissioning (In %) Above/ below
A	B	C	D	E
B1	Survey, Supply, Installation & Commissioning and testing water distribution network of the Solar Community Irrigation System and Chhattisgarh Gaon Ganga Yojana with 05 Year Onsite Warranty	%	100	

IMPORTANT INSTTTRUCTION: Bidder has to upload duly filled, sealed and signed copy of the price bid in Envelop C of 'required attachements' on the e - bidding portal.

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 Onsite warranty as mentioned in the bid document (Above rates applicable for pump models for each category as per MNRE and CREDA Specifications stated in 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).

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

There shall be no escalation of rates under any circumstances.

Signature of the Authorized Signatory :

Seal of Company :

Date :

PART-B1**(for supply, installation, Commissioning & Testing of Water distribution network)**

Schedule of Rates for Water distribution network of Solar Community irrigation Scheme & Chhattisgarh Gaon Ganga Yojana.

(e-bidding as per Specifications & Scope of Work of Tender No. 200500/CREDA/SCIP-CGGY/2026-27 Dated : 28.09.2026)

Survey, Supply, Installation & Commissioning and testing water distribution network of the Solar Community Irrigation System & Chhattisgarh Gaon Ganga Yojana anywhere in the State of Chhattisgarh.

S.N.	Particulars	CMC Cost for 5 Years per system (In Rs.) (Per Hectare)
A	B	C
B1.1	Survey, Supply, Installation & Commissioning and testing water distribution network of the Solar Community Irrigation System	

IMPORTANT INSTRUCTION: Bidder has to upload duly filled, sealed and signed copy of the price bid in Envelop C of 'required attachments' on the e - bidding portal.

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 CMC work with 5 years Onsite warranty as mentioned in the bid document (Above rates applicable for pump models for each category as per MNRE and CREDA Specifications stated in 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).

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

There shall be no escalation of rates under any circumstances.

Signature of the Authorized Signatory :

Seal of Company :

Date :

PART-C**(For Supply, Installation & Commissioning and allied civil works)**

Schedule of Rates for allied civil works of Solar Community Irrigation Scheme & Chhattisgarh Gaon Ganga Yojana.

(e-bidding as per Specifications & Scope of Work of Tender No. 200500/CREDA/SCIP-CGGY/2026-27 Dated : 28.09.2026)

Survey, Supply, Installation & Commissioning and testing of all allied civil works of Solar Community irrigation Scheme & Chhattisgarh Gaon Ganga Yojana anywhere in the State of Chhattisgarh.

S.N.	Particulars	Unit	Base rate of PWD 2026 SOR (In %) Ex.GST	Rate for Supply, installation & Commissioning (In %) Above/ below
A	B	C	D	E
C1	Any Civil Work mentioned in CGPWD SOR 2026	%	100	

IMPORTANT INSTRUCTION: Bidder has to upload duly filled, sealed and signed copy of the price bid in Envelop C of 'required attachments' on the e - bidding portal.

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 Onsite warranty as mentioned in the bid document (Above rates applicable for pump models for each category as per MNRE and CREDA Specifications stated in 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).

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

There shall be no escalation of rates under any circumstances.

Signature of the Authorized Signatory :

Seal of Company :

Date :

ANNEXURE – VII**STANDARDS FOR SOLAR POWERED IRRIGATION SYSTEMS**

Component	Standard	Description
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
4. Junction Box/ Fuses/ Cut-Offs	IEC 62790: 2014	Junction boxes for Photovoltaic modules – Safety requirements and tests
	UL 2579	UL 2579: Low Voltage Fuses- Fuses for Photovoltaic systems, wherever required
5. Connectors	UL 4248-18	Fuse Holders- Part 18: Photovoltaic Systems
	IEC 62852: 2014	Connectors for DC-application in photovoltaic Systems- Safety requirement test
6. Controllers	UL 6703	Connectors for use in Photovoltaic Systems
	IEC 61683:1999	Photovoltaic Systems- Power Conditions-Procedure for measuring efficiency
	IEC 60068-2-1: 2007	Environmental testing- Part 2-1: Tests- Test A : Cold
	IEC 60068-2-2: 2007	Environmental testing- Part 2-1: Tests- Test B : Dry heat
	IEC 60068-2-14: 2009	Environmental testing- Part 2-14, Test- Test-N: Change of temperature
	IEC 60068-2-30: 2005	Environmental testing-Part 2:30 Tests -Db: Damp heat, cyclic (12 h+ 12 h cycle)
	IEC 60529 : 2013	Degrees of protection provided by enclosures (IP Code)
7. Wires, Cable and Cords	UL 1581	Reference Standard for Electrical Wire, Cables and Flexible Cords
	UL 4703	Photovoltaic Wire

Note :

1. All pump systems mentioned under this tender should qualify the bench mark performance specified at specification for Solar Photo Voltaic Water Pumping Systems (Total water and Liter/Watt peak/Day requirement).
2. Submitted Test Reports / Acknowledgement should also include above standards.

CREDA Logo to be pasted on SPV modules of SCIP & CGGY



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. 200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026 also referred to as “Service Contract”) is made on the ____th day of ____ 2026.

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 bya 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 Community Irrigation Scheme & Chhattisgarh Gaon Ganga Yojana with its all allied works and for installation, commissioning and comprehensive operation & maintenance of Solar Community Irrigation Scheme with its all allied works with 5 Year Onsite Warranty.

Wide Tender No. 200500/CREDA/SCIP&IGGY/2026-27 Dated: 28.09.2026 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 Community Irrigation Scheme & Chhattisgarh Gaon Ganga Yojana with its all allied works” 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 Community Irrigation Scheme with its all allied works and Annexure therein, engineering documents, detailed specifications of BOS & drawings, so far they relate to the Tender No. 200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026 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 Community Irrigation System & Chhattisgarh Gaon Ganga Yojana 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 Community Irrigation System & Chhattisgarh Gaon Ganga Yojana by the related vendors, to whom the Bidder 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 Community Irrigation Scheme with its all allied works 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 Community Irrigation 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 -

Not with standing anything mentioned in the specifications of subsequent approval or acceptance of the Solar Community Irrigation Scheme with its all allied works 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 -

- 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 Sanction 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. SI shall have to submit JCCs within **60 days** after Installation and Commissioning of

Solar Community Irrigation System Systems in District Office of CREDA.

- 16) Contractor shall provide 05 year Onsite warranty in installed Solar Community Irrigation Scheme with all allied works from the date of commissioning as per the terms & conditions prescribed in the Tender No.200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026
- 17) **DECLARATION OF CONFLICT OF INTEREST –**
- a. Any regular employee working or worked on basis of contract or through placement agency cannot work directly or indirectly in any scheme of CREDA. If such a person is found working with any SI or through sublet then, such SI shall be blacklisted for three years.
 - b. The bidder shall not be permitted to Bid for the work if the section of HO CREDA (responsible for implementation of work) in which his near relative is posted. Furthermore, the successful bidder shall not be given work in the district in which his near relative is posted. The bidder shall also intimate the names of his near relatives working in CREDA. Bidder shall also intimate the name of persons who are working with him in any capacity and who are near relatives to any employee in CREDA. Any breach of this condition by SI would render himself liable to be blacklisted for three years and removed from approved list of SIs in CREDA.
Note:- By the term near relatives are meant Wife, Husband, Parents and son, Brother, Sister, Brother-in-law, Father-in-law, and Mother-in-law etc.
 - c. Bidder must produce an affidavit (Annexure – IV) stating the names of retired/removed employee of CREDA (if any) in his employment who retired /removed within last two years, if in case there is no such person in his employment, his affidavit should clearly state this fact. This affidavit is mandatory, if it is not produced along with the bid, the bid shall be rejected.
- 18) (a) The contractor shall arrange insurance coverage for the materials & components and Solar Community irrigation & Chhattisgarh Gaon Ganga Yojana with all allied works 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 Community irrigation & Chhattisgarh Gaon Ganga Yojana with its all allied works and module during CMC 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 High Court of Chhattisgarh.

"Herewith everything and anything contained in Tender document no. 200500/CREDA/SCIP&CGGY/2026 Dated: 28.09.2026 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**

Signed on behalf of CREDA

Name :

Name:

Designation :

Designation: **Chief Engineer**

Witness:

1. Name:-.....

2. Name:-.....

Address:-.....

Address:-.....

.....

.....

.....

.....

Ref. Bid Document No.:_____.

DECLARATION FOR USING SAME MAKE OF EQUIPMENTS AS PER THE TEST CERTIFICATE

From:

M/s _____

Sub: Declaration for using same make of equipment's as per the test certificate

We are agreeing to accept that the same make of solar panels, Pumps, Charge controller UPVC/ HDEP Pipe for which the test report is to be submitted under this Bid to CREDA, is as per Guidelines and Procedures mentioned in the bid and will be supplied by us. We declare to procure the components mentioned above only from the Vendors registered with CREDA.

In case if some different make of solar panels, Pumps, Charge controller UPVC/ HDEP Pipe will be supplied during the implementation or CMC period, we will submit the test report for that particular make component(s). We also agree that such test reports shall be issued by the National Institute of Solar Energy and any other lab accredited by NABL for testing of SPV system as per MNRE specifications and testing procedure.

Name of Authorized Signatory

Signature of suppliers

(With stamp)

ANNEXURE-XI

**BASE RATES/SOR FOR SOLAR COMMUNITY IRRIGATION SCHEME & CHHATTISGARH
GAON GANGA YOJANA**

**SOR FOR THE PROJECT WORKS SHALL BE AS PER THE PREVAILLING RATES OF CGPWD 2026
& CG PHED AMENDMENT 2022 SOR**

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 Bidder 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 highlight his bid

PLACE :

DATE :

SIGNATURE OF BIDDER

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

SCHEDULE - II**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 : Yes/No
Rate/amount of rebate/discount
- c) If conditional State condition : Yes/No
05. **PAYMENT TERMS:**
Whether CREDA's terms of payment is acceptable to Bidder : Yes/No
06. **COMPLETION PERIOD OF WORK:**
Whether Bidder 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 warranty 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 BIDDER

DATE:

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

SCHEDULE - III

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 Community Irrigation System (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 Bidder 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 Bidder 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. | Whether all testing facilities are available.
(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.) | : | Yes/No |

PLACE

SIGNATURE OF BIDDER

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY

SEAL

SCHEDULE - IV

TECHNICAL DEVIATIONS

From,
Bidder 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 -

Sl.No.	Condition	Clause No. of Tender document	Page No. of Tender document	Statement of deviations and variations
---------------	------------------	--	--	---

-

-

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

DATE

SIGNATURE OF BIDDER

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.

SITE CLEARANCE CERTIFICATE For CGGY

01. Name of Site :
(Proposed Pond Village For Water refilling)
02. Name of Anicut / River / Water Source :
to lift the water for Pond filling
03. Availability of Water in :
Anicut / River / Water Source (in MCM)
04. Area of Pond in Hectare (approx) :
05. Required water level increase in pond :
per week in CMS.
06. Required Nos. of SPV Surface :
Pump & Capacity in HP
07. Total Head (Suction + Delivery) :
(as per site condition)
08. Required Water Discharge Per Pump : LPD
09. Size & Length of Pipe Line :MM & Mtr
10. Pond use for irrigation purpose if yes then :
Proposed area for Irrigation in Hectare.
11. Type & Size of Control room available or required :
12. Layout of available shadow free space :
Selected for installation of SPV/
Modules = _____ M².
13. Name of beneficiary's contact person & his :
Mobile No. who shall be responsible for
Installation & commissioning of SPV Pump &
Pipe Line etc.
14. Fencing required Yes or No. if yes then mention :
req. in RM
15. if any Trouble in site :

It is hereby certified that site is technically clear for installation as on date & other relevant details are attached.

Beneficiary/Sarpanch/Beneficiary Department Representative

Representative of Company/Surveyor

(Signature & Seal)

(Signature & Seal)

Assistant Engineer/District Incharge
CREDA, District Office
(Signature & Seal)

SITE CLEARANCE CERTIFICATE For SCIP

01. Name of Site :
(Proposed Pond Village For Water refilling)
02. Name of Anicut / River / Water Source :
to lift the water for Pond filling
03. Availability of Water in :
Anicut / River / Water Source (in MCM)
04. Area of Pond in Hectare (approx) :
05. Required water level increase in pond :
per week in CMS.
06. Required Nos. of SPV Surface :
Pump & Capacity in HP
07. Total Head (Suction + Delivery) :
(as per site condition)
08. Required Water Discharge Per Pump : LPD
09. Size & Length of Pipe Line :MM & Mtr
10. Pond use for irrigation purpose if yes then :
Proposed area for Irrigation in Hectare.
11. Type & Size of Control room available or required :
12. Layout of available shadow free space :
Selected for installation of SPV/
Modules = _____ M².
13. Name of beneficiary's contact person & his :
Mobile No. who shall be responsible for
Installation & commissioning of SPV Pump &
Pipe Line etc.
14. Fencing required Yes or No. if yes then mention :
req. in RM
15. if any Trouble in site :

It is hereby certified that site is technically clear for installation as on date & other relevant details are attached.

Beneficiary/Sarpanch/Beneficiary Department Representative

Representative of Company/Surveyor

(Signature & Seal)

(Signature & Seal)

Assistant Engineer/District Incharge
CREDA, District Office
(Signature & Seal)

End