



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.: +91-9425253564

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

E-BID DOCUMENT No. 102565/CREDA/RE-VI/BG/2022-23 DT. 16-06-2022

UNIQUE TENDER ID - 102565

**E-TENDER FOR STANDARDIZATION OF RATES FOR DESIGN/SUPPLY,
CONSTRUCTION/FABRICATION, INSTALLATION & COMMISSIONING OF VARIOUS TYPES OF
BIOGAS PLANTS AT VARIOUS LOCATIONS IN THE STATE OF CHHATTISGARH**

Particulars	From Date & Time	To Date & Time	Place
Date of Issue of Notice Inviting BID	16-06-2022 05:00pm	-----	-----
Period of availability of bidding document at website	16-06-2022 05:00pm	05-07-2022 05:00pm	www.creda.co.in/Tenders https://eproc.cgstate.gov.in
Submission of pre-bid queries in writing	16-06-2022 05:00pm	22-06-2022 05:00pm	To be submitted hard copy at CREDA, HO Raipur or through email at credatendercell@gmail.com
Submission of Online Bid (Technical + e-Price Bid)	16-06-2022 05:00pm	05-07-2022 05:00pm	https://eproc.cgstate.gov.in
Opening of Technical Bid	06-07-2022 12:00 Noon Onwards		At CREDA, HO Raipur
Opening of e- Price Bid	After Conclusion of Technical evaluation and declaration of eligible bidders		At CREDA, HO Raipur

Note: If any govt. holiday declared, above mentioned activities will be carried out on next working day.

Bid Document Cost– Rs.10,000.00 + 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 also be downloaded from our website www.creda.co.in or from Chhattisgarh e-Procurement portal i.e. <https://eproc.cgstate.gov.in>.

TABLE OF CONTENTS

Sr. No.	Description	Page No.
1	Cover Page	1
2	Table of Contents	2
3	Notice Inviting Bid	3
4	Check List for Submission of Documents	4
5	Detail of EMD and Bid Document fee	5
6	Undertaking of the Bidder	6
7	Section – 1: Instruction for Bidders	7- 11
7.1	Eligibility Criteria	7 - 8
7.2	Bidding Process/ EMD/Submission of Documents/Specification Amendments/GST& PAN	8
7.3	The Bid/Analysis of Rate /Validity/ Terms & Condition/CREDA Reserves the Right/Registration of Bidder	9
7.4	Pre-Bid queries submission in writing/Engineering Documents/Inspection	10
7.5	Mandatory Deduction/ Mandatory Employment/ Tax Obligation/Corrupt or Fraudulent practices	11
8	Section – 2: General Conditions of the Contract	12 - 19
8.1	Definitions/proof of manufacturer/Contract Document/Manner of Execution	12 - 13
8.2	Variations, Additions & Omissions	13
8.3	Inspection/Completion work /Eligible SI Default Liability/Force Majeure/Rejection of works	14-15
8.4	Extension of Time/Make of Equipment/Warranty	15
8.5	Terms of Payment/Penalty for Delay in Completion of Contract/ Security Deposit/Insurance/ Penalty due from the eligible SI/responsibility of Eligible SI/contractor's	16
8.6	Responsibility to rectify the loss and damage/Responsibility towards the workman or out siders/Non-Assignments/Certificates not to affect rights of CREDA	17
8.7	Correspondence/ Declaration of conflict of interest/Bid Evaluation Criteria	18
8.8	Evaluation of price bid/Allocation of target/Bid Rejection	19
9	Section – 3: Scope of Work	20 - 21
10	Section – 4: Technical Specifications for Biogas Plant/Systems	22 - 28
	Volume and dimensions of digester and gasholder	22
	A. Technical Specifications of HDPE/FRP material based pre-fabricated Biogas Plants	23 - 25
	B. Institutional/Community Type Floating Dome KVIC model	26 - 27
	Bio-gas Plant Appliances	28
11	Section – 5: Annexures, specifications, Forms	29 - 31
	Annexure-I e-price Bid for FRP type Pre- Fabricated Biogas Plant	29
	Annexure-II e-price Bid for HDPE type Pre- Fabricated Biogas Plant	30
	Annexure-III e-price Bid for KVIC type Biogas Plant	31
	Annexure-IV e -price Bid for additional accessories/spare parts	32 - 33
12	Annexure-V–Contract Agreement	34– 38
13	Annexure – VI –Format for the affidavit (Declaration of conflict of interest)	39- 40
14	Annexure –VII- Experience Certificate	41
15	Annexure – VIII - Benchmark Cost &Drawing for 10,25 & 35 Cum KVIC Model Biogas Plants	42 - 50
16	Annexure – IX –Format for Biogas Training Certificate	51
17	Schedule –I Part-A General Information	52
18	Schedule –I Part-B Commercial Information	53
19	Schedule –I Part-C Technical Information	54
20	Schedule –II- Past Experience	55

NOTICE INVITING BID

CREDA invites bids from experienced System Integrators (SIs)/Manufacturers or Vendors of Pre-fabricated Biogas Plants/Civil Contractors registered in CREDA for Standardization of rates for Design/Supply, Construction, Installation & Commissioning of various types of Biogas Plants as per specifications of CREDA on Turn-key basis at various locations of Chhattisgarh as per following details:

S.No	Name of Items	Cost of Bid Document (In INR)	EMD (In INR)	Essentials
1.	Supply, Installation & Commissioning of Pre-fabricated FRP & HDPE type Biogas Plants of 2, 3, 4, 6 & 10 Cum. capacity , including accessories as per specifications of CREDA on Turn-Key basis at various locations in Chhattisgarh	Rs. 10,000.00 + 18% GST = Rs. 11,800.00	Rs 5,00,000.00	As per clause no.1-A to 1-H of Eligibility Criteria (Page no.7)
2.	Design/Supply, Construction, Fabrication, Installation & Commissioning of KVIC Model(Institutional/Community) Biogas Plants of 10, 25 & 35 Cum. Capacity, including accessories as per specifications of CREDA on Turn-Key basis at various locations in Chhattisgarh			

Expected Quantity - 336 nos. for family type (2, 3, 4 & 6 Cum.) and 224 nos. for institutional type (10, 25 & 35 Cum.) Biogas plants. However these quantities may be changed as per demand or availability of budget.

Important Events and time schedule for this bid are as follows -

Particulars	From Date & Time	To Date & Time	Place
Date of Issue of Notice Inviting BID	16-06-2022 05:00pm	-----	-----
Period of availability of bidding document at website	16-06-2022 05:00pm	05-07-2022 05:00pm	www.creda.co.in/Tenders https://eproc.cgstate.gov.in
Submission of pre-bid queries in writing	16-06-2022 05:00pm	22-06-2022 05:00pm	To be submitted hard copy at CREDA, HO Raipur or through email at credatendercell@gmail.com
Submission of Online Bid (Technical + e-Price Bid)	16-06-2022 05:00pm	05-07-2022 05:00pm	https://eproc.cgstate.gov.in
Opening of Technical Bid	06-07-2022 12:00 Noon Onwards		At CREDA, HO Raipur
Opening of e- Price Bid	After Conclusion of Technical evaluation and declaration of eligible bidders		At CREDA, HO Raipur

Technical & Price Bid shall be submitted online only at <https://eproc.cgstate.gov.in> however Technical bid will have to be submitted in hard copy also for records only to Chief Engineer (RE -V) Section, Near Energy Education Park VIP Road, Raipur. If there is any discrepancy in the e-Bid and hard copy only the e-bid shall be valid. 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://eproc.cgstate.gov.in>)

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

The Bidder should have to deposit Bid document cost along with EMD through Demand Draft/Pay Order or NEFT/RTGS in the account of CREDA as mentioned above.

Bidders are requested to submit Pre-Bid queries with their suggestions/objections/ reservations if any with details so as to avoid any confusion and to ensure clarity and transparency regarding the Bid.

Any Addendum/Corrigendum/Amendment Notice if arises will only be uploaded on CREDA's Website.

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

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

CHECK LIST

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	Complied (For Office Use Only)
1.	A. Pre-Qualification	Earnest Money Deposit EMD + Tender Document Fee submission Form of the bidder confirmed by CREDA (as on page-5)	
2.		Scanned Copy of Undertaking of the Bidder as mentioned on Page – 6 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 black listed company.	
6.		Declaration of conflict of interest-by bidder about any relatives working with CREDA and Affidavit as per Annexure-VI (Hard Copy to be submitted as per Clause 4d, Section – 1)	
7.		Copy of Registration: Certificate as System Integrator/Vendor of Pre-fabricated Biogas Plant/Civil Contractor of CREDA as valid at the time of submission of bid.	
8.	B. Technical and Financial-Qualification	Copy of Approved Test Reports in the name of bidder/manufacturer as per eligibility criteria clause 1D.	
9.		Original Net Worth Certificate duly signed by Chartered Accountant as on 31.03.2021	
10.		Copy of Certificate for last three consecutive year's turn over	
11.		Copy of ITRs for last three Financial Years of the Bidder	
12.		Completion and performance certificates of Biogas plants installed/Constructed by the Bidder in Govt. Scheme of any state OR market mode scheme as a proof of minimum experience in prescribed format (Annexure-VII) in last three financial year	
13.		Proof of the being eligible manufacturer of Pre-Fabricated Biogas Plant (if applicable)	
14.		Manufacturer Authorization Certificates of all components of Biogas plant	
15.		Technical Data Sheet for each component showing full technical details.	
16.		Declaration for using same make of equipment's as per the test certificate.	

Details of EMD and Tender Document Fee

Tender No. and Date	
Name of the Bidder	
Bidder's Bank Account Details	
(i) Name of the bank	
(ii) Branch	
(iii) IFSC 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 of A/c	CREDA
Bank & Branch Name	ICICI Bank, Pachpedi Naka, Raipur
Bank Account Number	134601000400
Branch IFSC 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 4(d).**

UNDERTAKING OF THE BIDDER

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 open for One Hundred Eighty (180) days from the due date of submission thereof and not to make any modifications in its terms and conditions.

A sum of Rs **Five Lakh** is hereby forwarded as earnest money in the form of RTGS/NEFT payable to CREDA at Raipur (C.G.). If I/We, fail to commence or complete the work ordered in specified time 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 therefrom 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.

We are registered in GST vide registration No._____. And our 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. MINIMUM EXPERIENCE

Bidders must have minimum experience of construction /installation of Biogas plants in last three financial years i.e. 2019-20, 2020-21 and 2021-22 as per the details mentioned below –

S.No.	Type of Bio Gas plants	Minimum No. Of Plant Installed
1	Deen-bandhu/ KVIC type/ Pre Fab	4

Original experience Certificates should be in prescribed format (as per Annexure - VII) only. Work order, L.O.I. / L.O.A. and experience certificates in other format will not be acceptable.

- B.** Bidders must have a positive net worth as on 31-03-2021. They shall have to submit a certificate duly signed by a qualified and registered Chartered Accountant as a proof.
- C.** Bidders should have an aggregate turnover of minimum Rs. 50 Lakhs since last three Financial Years i.e. 2019-20, 2020-21 and 2021-22.
- D. For pre-fabricated Bio-gas plants,** bidders shall have to produce original copy of approved and valid test reports and/or acknowledgement of the test reports issued by approved test Centre (like BDTC, SPRERI, SSNIRE, IITs or similar organization) as per MNRE specified specification in the name of manufacturer/bidder. Bidders have to submit the specification, design drawings (which their manufacturer have submitted to approved test Centre for approval) of its pre-fabricated biogas system with their seal and signature.
- In case the bidder has submitted acknowledgement for the test reports at time of bid, then such bidder shall have to submit the test report before issuance of work order. CREDA reserves the right to not allocate any work to the bidders whose test reports are not submitted.
- E.** Bidders who are Debarred/Blacklisted by CREDA or any other Govt Agency/ Department / UT in India, will not be allowed to participate in this bid. A self-declaration should be submitted by the bidder to this effect, failing which bid shall be rejected even if it is found that they have succeeded by false information their bid will be rejected and suitable legal action may be initiated against them.
- F.** The bidder should have trained supervisor/ Turn Key Worker in biogas technology as per CREDA Norms (as per Annexure-IX) OR they should have trained man power experienced in biogas plant construction (training certificates issued by BDTC or CREDA must be presented as a proof of the same). The manpower should comprise of a team of BDTC/CREDA trained supervisors and masons. The bidder will have to compulsorily furnish a certificate having name of team members, their experience certificates, training certificates, agreements etc.
- G.** Bidder shall have valid registration as System Integrator (SIs)/Vendor of Pre-fabricated Biogas Plants/Civil Contractor at the time of submission of bid.
- H. Additional Eligibility Criteria-** Even though the bidders meet the above qualifying criteria, they are subject to be disqualified and may be debarred if they have:
- Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
 - 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

- c. 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. 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 05.07.2022**. Bids submitted after scheduled time and date shall not be considered.

3. EMD & BID DOCUMENT FEE -

Earnest Money Deposit of Rs. Five Lakhs submitted in the form of Demand Draft/Pay Order or RTGS/NEFT as mentioned in the NIT vide no. 4181/CREDA/RE-VI/BG/2022-23 Date: 15/06/2022. EMD submitted in any other form e.g. **Cash/Bank Guarantee/FDR /TDR etc. shall not be accepted.**

4. 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. 04 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 04 on **05-07-2022 by 05:00 P.M** at Head Office, CREDA. 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 – Technical and Financial Qualification Documents.

Note: The documents submitted in hard copy (offline) to CREDA Head Office must match with those submitted in the Chhattisgarh e-Procurement portal. Any document other than the uploaded document shall not be considered. CREDA's tender 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 record keeping by CREDA.

5. SPECIFICATION AMENDMENTS -

The Specifications of Biogas Systems and accessories should be as per prevailing MNRE & CREDA norms, as specified in the bid. If any amendments are issued by MNRE/CREDA in due course of time, in this context, then those shall be applicable under this bid.

6. GST & PAN -

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

7. THE BID -

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 16-06-2022 to 05:00 PM dated 05-07-2022**. Nobody is authorized to receive or grant receipt for Bid delivered on behalf of CREDA. **Bid received through any other means shall not be considered and shall be rejected.**

8. 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. The benchmark costs for various types of biogas plants have been given as per Annexure - VIII keeping in view the local site conditions of Chhattisgarh State as per CREDA's past experiences.

9. REGISTRATION OF BIDDER -

Bid shall be rejected of all those bidders who are not registered with CREDA at the time of submission of bid.

10. 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 **for two years** from the date of finalization; however CREDA shall have liberty to increase or decrease the validity period, if needed.

11. 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 uploaded along with the technical offer.
- c. Bidders are also instructed to check each and every item and upload the documents as applicable and required to be uploaded on the bidding portal. Incomplete bid submission may result in rejection of the entire bid.

12. 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 2022-23 & 2023-24 and shall be valid till 31-03-2024. 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 the biogas plant even after the issuance of sanction order as per the site conditions and demand.

13. COMMUNICATIONS -

- a. All the communication between Bidder and CREDA shall be in writing. Notice sent by other Electronic means such as email 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 Telegraph/Fax/Email/Post/Courier or open offers etc. received shall be summarily rejected.

14. BID DOCUMENT FEE AND EARNEST MONEY-

- a. Each bidder should submit Bid Document Fee and Earnest Money Deposit (EMD) 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 transition only as mentioned in the Bid No. **102565/CREDA/RE-VI/BG/2022-23 Dated 16-06-2022.**
- b. Bid Document Fee & EMD submitted in any other form e.g. **Bank Guarantee/FDR /TDR etc. shall not be accepted.**

15. PRE-BID QUERIES SUBMISSION IN WRITING -

- 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 **05:00 PM on 22-06-2022.** 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>.

16. 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 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.

17. PRICE OF SUPPLY OF BIOGAS SYSTEM WITH DESIGN/ SUPPLY, CONSTRUCTION/ FABRICATION, INSTALLATION, COMMISSIONING AND TESTING ETC.-

- a. The Price quoted for the biogas system of all types/capacities shall be for design/construction (supply in case of prefabricated units at desired site), installation, commissioning and testing, etc. including provision of all associated accessories like burner, pipe, gate valve, water remover etc. The prices shall be filled exactly as **per Price Bid enclosed.**
- b. GST shall be paid extra as per applicable rate. Any change in GST shall become applicable during the period of contract.
- c. In this regard if there is any change in the composition ratio of goods and services by any Authority/ Courts, same shall be applicable.

18. ENGINEERING DOCUMENT -

Bidders shall have to submit engineering documents with technical details, drawings, Specifications of components and make etc. to CREDA for approval, in case of pre-fabricated biogas plants. Works may be started out only after approval of the Engineering Document and their samples by the competent authority of CREDA.

19. INSPECTIONS -

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

20. MANDATORY DEDUCTION -

This deduction is the one percent of 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.

21. 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).

22. TAX OBLIGATIONS -

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

23. JURISDICTION OF THE COURT -

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

24. CORRUPT OR FRAUDULENT PRACTICES -

- a. CREDA requires the bidder 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 (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 bidding process and throughout the negotiation or award of contract.

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 Chief Engineer / Superintending Engineer.
- b. **"Work"** shall mean any work entrusted to the Bidder as mentioned in the scope of work and work order.
- c. The **"Engineer in charge"** shall mean the Engineer or Engineers authorized by CREDA, CREDA for the purpose of this contract. Inspecting Authority shall mean any Engineering person or personnel authorized by CREDA to supervise, inspect and monitor the erection of the Biogas Plant.
- d. **"The Eligible SI/Contractor"** 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.
- g. **Bidder of Chhattisgarh State:** Bidder registered as a Pvt. Ltd. / Ltd. / Partnership / Proprietorship firm incorporated / registered in the State of Chhattisgarh shall be treated as Bidder of Chhattisgarh.

2. PROOF OF MANUFACTURER -

Those bidders who are also manufacturers of an important component of Bio-gas plants such as burners, gate valves, pipes, water remover, paint, gas balloon etc. as well as of whole pre-fabricated biogas system, shall have to submit proof of their factory, SSI Registration and list of Machineries and Equipment.

3. CONTRACT DOCUMENT -

The term "Contract" shall mean and include the General conditions, specifications, schedules, drawings and sanction 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 -

- 4.A. Execution of work shall be carried out 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.
- 4.B. Successful Bidder / Bidder here-in-after called the **SI** (System Integrator)
 - a. Conduct a detailed survey of site and submit site details after receipt of LOI from CREDA after due verification and signatures of Sarpanch/Sachiv/CMO of concerned Local body and signatures of AE/EE/Officer In Charge of Concerned Department,

with Site Clearance, layout etc. and other necessary documents (*beneficiary application form with all enclosures in case of family type and form with enclosures and undertaking from Self Help Groups (SHGs) or any other entity approved by the Collector (District Administration)/ CREDA in case of Institutional/Community type Biogas plants*) and submit the survey details in concerned District Office of CREDA in prescribed manner.

- b. Engineer-in-Charge of District Office of CREDA shall examine these applications/ Proposals. After his/her satisfaction will forward details with his recommendations to EE of Concerned Regional Office of CREDA. Engineer-in-Charge may visit the site if he/she is not satisfied with survey report.
 - c. In case Engineer-in-Charge of District Office of CREDA finds the site not suitable for installation/construction of Biogas plant, he/she will inform concerned beneficiary organisation / department accordingly and request for alternative site /necessary action.
 - d. Executive Engineer of concerned Regional Office 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.
 - e. After satisfaction, the Executive Engineer will approve the plans and forward to Head Office for issuance of work orders.
 - f. Head Office, CREDA will be final authority to approve or reject site finalisation recommended by Regional Offices.
 - g. Concerned CE of CREDA, after his satisfaction, shall issue the work order to eligible SI for installation of Bio-gas plant.
 - h. Work order will be given to the chosen System Integrator only after execution of the agreement with CREDA.
 - i. After issuance of LOI/Work Order(s), Executive Engineer of concerned Regional Office CREDA will finally approve site layout in writing in prescribed format
 - j. The SI shall start work within **07 days** after the date of approval of site layout.
- 4.C.** All the materials required for the installation of Biogas Plant as per Work Order issued shall be kept at site in the custody of the SI/Contractor. CREDA shall not be responsible for any loss or damage of any material during the installation.
- 4.D.** After work is started CREDA will carry out inspections at various stages. CREDA reserves the right to monitor and inspect the installation progress at any time without prior intimation to SI and carry out the testing of certain materials such as brick, cement (Cube test), reinforcement bars, pipes and plant accessories through an independent third party as per standard test protocols.
- 4.E.** After completion of the construction work, the arrangement of required dung for initial feeding will have to be arranged by the bidder.
- 4.F.** After installation, joint inspection will be done in presence of beneficiary, SI and CREDA and after successful commissioning of Biogas Plant followed by its successful **one month operation**, a JCC will be signed and the payment claim will be forwarded for payments as per 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, supervise and test during installation and commissioning. Such inspection will not relieve the eligible SI from their obligations under this contract.
- b. Material can be inspected before dispatch or in transit by the authorized representatives of CREDA at the factory / godown at the cost of the eligible SI, if desired by CREDA.
- c. CREDA will undertake real time performance and quality test of randomly selected Biogas Plant and its components during the course of execution as per CREDA specifications and guidelines to ensure quality and performance of Biogas Plants and components.

7. COMPLETION OF WORK -

Time being the essence of contract, the installation of the Biogas Plant shall be completed within the time schedule prescribed in the work order. The successful demonstration of production of gas, post installation of the biogas system along with all associated accessories will be termed as Completion of work. **The approximate time schedule for construction & commissioning of the Family type Biogas plant will be 55 days and for Institutional/ Community type Biogas Plant will be 95 days. (As per details provided under 'Scope of Works', page -21)**

8. ELIGIBLE SYSTEM INTEGRATOR'S DEFAULT LIABILITY -

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

- a. If in the opinion of the CREDA, the eligible SI fails to complete the work within the time specified in the sanction 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 or installation of the Biogas Systems 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.
- 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 clause 14 of section-2 until the work is completed.

9. FORCE MAJEURE -

The eligible SI shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE such as of God, acts of public, enemy, LWE problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that if SI shall submit delay notice with appropriate cause of delay to the CREDA in writing within **15 days** of force majeure. CREDA shall verify the facts and may grant such extension as facts justify. Delay in supply of any accessories of Biogas Plants etc. 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 till further orders.** The eligible SI on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible SI fails to do so CREDA may -

- a. At its option replace or rectify such defective materials and/or work and recover the extra cost so involved from the eligible SI plus **15%** service charges of the cost of such rectification, from the eligible SI and/ or terminate the contract for balance work/ supplies with enforcement of penalty **as stated above.**
- b. Defective materials/workmanship will not be accepted under any conditions and shall be rejected outright without compensation. The eligible SI shall be liable for any loss/damage sustained by CREDA due to defective work **with enforcement of penalty as stated above.**

11. EXTENSION OF THE TIME -

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

Chief Executive Officer, CREDA has full right for unconditional time extension.

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

- a. The Biogas Plant & Other accessories should be as per CREDA specifications.
- b. The eligible SI has to ensure that equipment's 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. Valid Test certificates for all major equipment's should be submitted to the Engineer-in-charge of the works before installation of the same.
- c. The bidder should mention the make of the biogas materials like burners, gate valves, pipes, water remover, paint, gas balloon etc. as well as of whole pre-fabricated biogas system.

13. WARRANTEE PERIOD AND POST INSTALLATION SERVICES -

- a. The work done/material supplied by the Contractor should be warranted for satisfactory operation and against any defect in material and workmanship including digester, dome, supply lines, burners, gate valves, balloon etc. and other balance of equipment, at least for a period of **5(five) years**, from the date of commissioning of the biogas systems as per scope of work. The civil construction should be such that there should not be any leakage in the digester.
- b. The above warrantee certificates shall be furnished to the CREDA for approval. Any defect noticed during this period should be rectified by the supplier free of cost upon written notice from CREDA provided such defects may be due to bad workmanship or bad materials used.
- c. The warrantee period shall be extended by the period during which the plant remains non-operative due to reasons within control of the Contractors.
- d. This warrantee must be an unconditional onsite warrantee and the Contractor will have to replace the defective material or undertake repair works within **5 days** positively from the date of information given to him.
- e. Care should necessarily be taken to make the Biogas system operational, on receipt of the report of the fault/non-operational status, within a week. If the biogas system is not made operational within **5 days** CREDA may rectify the same at the cost of SI/Contractor and the warrantee period shall be extended for a month for the same.
- f. This warrantee must be an unconditional onsite warrantee and the Contractor will have to replace the defective material within **5 days** positively from the date of information given to him.

14. TERMS OF PAYMENT -

The following terms of payment shall apply for the bid: -

- a. **95%** shall be released after Supply, Installation, commissioning, satisfactory performance & operation of Bio-gas plant at site for **Thirty (30) days** with proper handing over.
- b. Balance **5%** of the eligible payment shall be retained by CREDA as Security Deposit for a period of five years (**60 months**) of functionality period.
- c. GST shall be paid extra as applicable.

15. 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 sanction order or any extension granted there to, CREDA will recover from the SI as penalty a sum of **One percent (1%)** of the system price excluding GST/Tax for every delayed system per month. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **Five Percent(5%)** of the cost.
- b. Review of the progress of installation of Biogas System allocated to SI/Contractors shall be done time to time by CREDA and if the progress of installation is found unsatisfactory, the allocation of entire remaining uninstalled biogas plants or their part can be re-allocated to other SI as per discretion of CREDA.

16. SECURITY DEPOSIT (SD) -

- a. The Earnest Money shall be retained by CREDA up to the duration of validity of tender, after agreement is done to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be required by CREDA.
- b. Beside this **5%** of the cost shall also be retained as SD during the five years of warrantee period. No interest shall be payable on the SD.
- c. Period for which EMD and SD are to be retained may be extended in case the warrantee period is extended due to non-performance of the system.
- d. 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.

17. INSURANCE -

The eligible SI shall arrange insurance coverage for the materials and biogas plant 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.

18. PENALTY DUE FROM THE ELIGIBLE SI -

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

19. RESPONSIBILITY OF ELIGIBLE SI/CONTRACTOR -

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

20. RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE -

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

21. RESPONSIBILITY TOWARDS THE WORKMAN OR OUTSIDERS -

- a. **The eligible SI shall have to take insurance coverage from any authorized Insurance Company against Workmen compensation due under Workmen Compensation Act and submit copy of the insurance document before issuance of Work Order.**
- b. The eligible SI shall ensure all safety measures during execution and repairs of the work. CREDA, will, in no case be responsible for any accident fatal or non-fatal, caused to any workman or outsider in course of transport or execution or repairs of work.
- c. All the expenditure including treatment or compensation will be entirely borne by the eligible SIs. The eligible SI shall also be responsible for any claims of the workers including, labour payments PF, Accidental Insurance, Gratuity, ESI & other legal obligations.
- d. CREDA shall have all rights to deduct such claims of payments from SI in case of complaints of such violations.

22. NON-ASSIGNMENTS -

- a. The eligible bidder shall not assign or transfer or sublet the Work Orders issued as per this contract or any part thereof without the prior approval of CREDA. This can be allowed only as per policy of CREDA.
- b. If eligible bidder transfer/assign/sublet full or any part of work allocated to him without prior permission from CREDA in writing to any third party shall be liable to debar/black listed from any Bid/Activity of CREDA till further orders.

23. 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.

24. 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.

25. LAWS GOVERNING CONTRACT -

The contract shall be constituted according to and subject to the Laws of India applicable specifically & in general and jurisdiction of the High Court of Bilaspur, Chhattisgarh.

26. 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.

27. 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.

28. 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.

29. 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.

30. 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 - VI) 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.

31. 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 reserves 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.

32. EVALUATION OF PRICE BID -

Price bid shall be evaluated on the basis of quoted rates. The L-1 rates for each item will be finalized and L-1 rates for the entire bid will be prepared and approved by the competent authority of CREDA. However, CREDA shall have discretionary power to amend/lower the rates.

33. ALLOCATION OF TARGETS AND AREA OF WORK.

- a. Minimum 10% of works will be allotted to L1 Bidder in any or all categories. However, this quantities can be further changed as per discretion of CREDA. Allocation to L1 bidder shall be in proportion to the targets given by agencies and progress of the previously assigned works.
- b. Balance unallocated work shall be allotted among eligible bidders who will give their consent to CREDA approved rates.
- c. Area of work shall be anywhere within State of Chhattisgarh. L1 Bidders will also have to work in LWE districts.
- d. **Increase or decrease in allocations shall be decided at 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 Biogas Plants 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 plants or their part of can be re-allocated to other SI as per discretion of CREDA.**

34. 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 later 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 SI)

SECTION - 3

SCOPE OF WORK

The scope of work of the bidder in brief will be as follows-

1. Survey of Sites, design, supply, installation & commissioning of Bio-gas plant as per design and specifications approved by CREDA and concerned agency, on turnkey basis. Five years onsite unconditional warrantee for manufacturing defects shall be required for each of the system after successful commissioning and proper handing over.
2. **The scope of work shall also include the following :**
 - 2.1 The bidder shall verify the details of beneficiary from the list provided by CREDA.
 - 2.2 After the above identification process, a site survey shall be done by the SI/Contractor in order to assess the cattle population, dung yield and selection of optimum size & type of biogas plant configuration as per beneficiary/SHG/Gothan/SBM official and site conditions. A photo of cattle as a proof of sufficient plant feed source shall have to be submitted.
 - 2.3 Submission of site clearance certificate after the completion of above activities shall be submitted to the concerned CREDA District/Regional office.
 - 2.4 A layout plan of the site should also be submitted to the concerned CREDA office for approval clearly indicating the identified location for installation of Biogas plant.
 - 2.5 For domestic Biogas plants, SI/Contractor shall submit Application Form in prescribed manner in CREDA along with necessary documents and processing fee for approval & further process of application and also SI/Contractor shall furnish all necessary information to beneficiary/SHGs/SBM official(s).
 - 2.6 After allocation of work from CREDA, detailed planning designing, supply, installation & commissioning of Biogas plant of required capacities and type shall be as per approved design and specifications.
 - 2.7 Applying epoxy paint in the plant as per the technical specifications of biogas plant accessories mentioned in this bid.
 - 2.8 Arrangements and feeding of dung.
 - 2.9 Commissioning of biogas plant with all necessary accessories, demonstration and training of beneficiary.
 - 2.10 SI/Contractor shall have to ensure a 30-days successful trial run of the installed Biogas plant.
 - 2.11 After commissioning, each biogas plant will be provided with a code, approved by CREDA, on a metal plate affixed to it. Five Photographs with geo-tagging will be taken by SI/Contractor in the manner prescribed by CREDA.
 - 2.12 SI/Contractor shall also be responsible to complete all paper formalities related to the biogas plant concerned with beneficiary/SHG/SBM.
 - 2.13 SI/Contractor shall have to provide User Manuals and Warrantee Cards to beneficiaries.
 - 2.14 SI/Contractor shall have to provide quarterly monitoring report of actual ground conditions for every installation.
 - 2.15 SI/Contractor shall have to provide prompt service facilities to customers/beneficiaries.
 - 2.16 SI/Contractor shall have to bear the risk liability of all personnel associated with

the implementation and realization of the project.

- 2.17 Training of at least two persons nominated by user, on various aspects of design, safety and maintenance of the offered system after commissioning of the system. The outlet tank should be covered/ made safe by suitable enclosures/fencing etc.
- 2.18 The Contractor shall run the system on trial basis and shall closely monitor the performance of the system before handing over the system.
- 2.19 The SI/Contractor shall have to submit JCCs along with all photographs and required enclosures within **30 days** of successful demonstration of trial run of the Biogas Plant(s) in District Office of CREDA.
- 2.20 The SI/Contractor will have to utilize the already existing trained manpower available in the State (SEWs/Masons etc.) under guidance of CREDA.
- 2.21 Approx. Time schedule for construction of biogas plants-

S. No.	Activity	Institutional/Community Type Plant
1	Layout & Excavation	7 – 10 days (Layout will be provided done by Junior Engineer, CREDA)
2	Construction	35 days
3	Curing and Initial Dung Feeding	10 days
4	Commissioning (When Biogas production begins from Plant)	40 days
Total Duration		95 days

SECTION – 4**TECHNICAL SPECIFICATION FOR BIOGAS PLANTS/SYSTEMS**

[Reference –MNRE OM No. 18-1/2014-BE (NBMMP) dated 26th November 2014]

Volumes and dimensions of digester and gasholder for KVIC floating dome/ Gasholder design type biogas plant for 30 days, 40 days and 55 days Hydraulic Retention Time (HRT) as already specified for various States/regions of the country.

S.NO	Capacity of Biogas Plant (M ³ /day)	HRT (days)	Volume of Plant digester(M ³)	Volume of Gas Holder (M ³)
1.	1	30	1.500	0.600
2.	2	30	3.000	1.200
3.	3	30	4.500	1.800
4.	4	30	6.000	2.400
5.	6	30	9.000	3.600
6.	8	30	12.000	4.800
7.	10	30	16.000	6.000
40 days				
1.	1	40	2.000	0.600
2.	2	40	4.000	1.200
3.	3	40	6.000	1.800
4.	4	40	8.000	2.400
5.	6	40	12.000	3.600
6.	8	40	16.000	4.800
7.	10	40	20.000	6.000
55 days				
1.	1	55	2.650	0.600
2.	2	55	5.000	1.200
3.	3	55	8.000	1.800
4.	4	55	10.000	2.400
5.	6	55	15.000	3.600
6.	8	55	20.000	4.800
7.	10	55	25.000	6.000

Note: 1. Cattle dung has been considered the main feed material for design consideration of the above type of biogas plants.

Note: 2. The biogas plants of size 1 cubic metre to 6 cubic metre per day only would be eligible for CFA under the NBMMP. (if there is any sanction and provision for the same)

A. Technical Specifications of HDPE/ FRP material based pre-fabricated biogas plant.

1. General Specification:

Family size HDPE make Pre-fabricated biogas plant with Central guide pipe, spring mechanism, inlet pipe, inlet connections, outlet pipe, outlet connections, Gas pipe and Biogas Double Burner.

2. Material Construction:

- 2.1 Material of construction used should be broadly in line with specifications of materials as per IS:12701:1996 relating to rotational moulded polyethylene tanks and for Fibre glass Reinforced Plastic (FRP) material the specifications should be as per IS:12986:1990 of BIS, New Delhi.
- 2.2 The material of construction of Biogas digester and Gasholder shall be such that it does not impart any colour, odour nor any toxic effect and it shall not contaminate biogas slurry.
- 2.3 Polyethylene resin to be used for the manufacturing of Biogas digester and Biogas holder should be of rotational moulding grade.
- 2.4 The Biogas Digester and Biogas Holder shall be manufactured from carbon black compounded polyethylene.
 - (a) The percentage of carbon black content in the material shall be within 2.0 to 3.0.
 - (b) The dispersion of carbon black shall be satisfactory.
- 2.5 The materials like polyethylene, FRP, PVC etc. should be UV treated and thickness of biogas plant digester, gasholder and water jacket would be as given below under point 5, 6 and 7.
- 2.6 **The materials to be used for prefabrication/ construction of such Biogas plants to be guaranteed by the manufacturers to have minimum useful life of 10 years.**

3. Gas generations Capacity:

1.0 to 6.0 cubic metre per day for consideration under the National Biogas and Manure Management Programme of the Ministry of New and Renewable Energy (MNRE). The Family Size Biogas plants up to 10 cubic metre per day biogas generation may be considered for the purpose of setting Standards. However, biogas plants of 1 to 6 cubic metre size would be eligible for MNRE, CFA under the NBMM programme.

4. Overall Dimensions:

For KVIC floating Gasholder type biogas plants as per CREDA/MNRE standard.

5. Biogas Digester:

The HDPE/ FRP material based Floating Dome KVIC design pre-fabricated portable model Biogas plants should have broad features/ specifications as under:

The digester shall be made of minimum 4.50 mm to 5.50 mm average wall and bottom thickness or digester, Gasholder, inlet & outlet pipe for 2 to 6 cubic metre capacity Biogas plants and higher for higher capacity plants in the range of average thickness from 6.6 mm to 8.2 mm for 6 to 10 cubic metre capacity biogas plants, with provisions for inlet and outlet

connections as above. There will be all provisions of partition wall for Biogas plants above 3 Cubic Metre capacity. It shall also have provision to fix Central guide and Gas holder structure. Wherever, water jacket is provided, the thickness of water jacket should be at least 4.40 mm.

6. Biogas Holder:

It shall be made of 4.40 mm average minimum thickness with provision for outlet connections and higher thickness for higher capacity biogas plants as mentioned above under point 4. It shall also have provisions to accommodate extra weight in case of variation in end use point distance. It must have arrangements to connect ½" (12.7 mm) Gas outlet connection. The minimum weight of the HDPE/FRP Etc. Gasholder shall be maintained in relation to the Biogas Plant capacity and pressure of the gas required for transporting it from plant site to the kitchen/end use point.

7. Central guide pipe:

Such Biogas plants shall have central guide pipe made of Stainless steel with minimum thickness of 2.00 mm, Central guide pipe shall be made in such a way that holds spider and also such that allow spring to move vertically up/down smoothly.

8. Spring Spider Mechanism:

It shall be provided with black corrosion resistant paint and with proper spring index which exerts sufficient pressure to displace biogas at 100 to 150 mm of water column. Spider made of SMC material with the provision to connect with central guide pipe. It shall fit on to the Biogas holder in such a way that make Biogas holder's up/down movement freely and smoothly.

9. Inlet Pipe: Inlet pipe shall be of minimum 4" UPVC/PVC.

10. Inlet Connections:

Inlet connections shall be of 4" UPVC/PVC with adequate gaskets and check nut.

11. Outlet Connection:

Outlet connection shall be moulded and shall be an integral part of Biogas Digester; it shall be compatible with 4" flexible UPVC/PVC pipe and joint may be finished in such a way that no leakage of biogas plant slurry take place during the life span of the plant.

12. Gas Outlet Valve:

Gas outlet valve shall be of minimum ½" (12.7 mm) with inside threaded connections and leaving no chance of gas leakage at the base of joint with Gasholder.

13. Gas outlet connection:

It shall be ½" (12.7 mm) PVC/ UPVC connection with adequate gasket and check.

14. Gas Outlet Pipe:

Gas outlet pipe shall be of HDPE 16-20 mm.

15. Finishing:

The internal and external surface of the Biogas Digester and Biogas Holder shall be smooth, clean and free from other hidden internal defects, such as air bubbles, pits and metallic or other foreign material inclusions. The mould parting line and excess material near the Top Rim of Digester and Gas holder shall be cut and finished to the required level. Defects in fabrication if any, like air bubbles and pits at mould parting line and at top rim of the Biogas Digester shall be checked by hot-air filler rod welding method leaving no chance of leakage.

16. Marking:

All the Biogas plants produced shall be distinctly marked with the following information:

- a) Manufacturer's name, initials or recognized trade mark;
- b) Product Code and Capacity in Cubic Metre along with daily quantity in Kg. of cattle dung to be fed. As well as serial number along with serial number of the unit/manufacturing line.
- c) Lot or Batch number and year of manufacture.
- d) All the plant produced would be given a distinction lot Number serial number as a mark of identification by the Manufacturer and moulded on the external surface clearly visible after installation.
- e) The above detail from a to d shall be moulded on the external surface of the Biogas Digester during manufacture.

17. Installation: Installation and commissioning of Biogas plants shall be done by the company/manufacturer's authorized and trained personnel. The beneficiaries of biogas plants shall be provided "Operation and maintenance" manual in the printed form/ version along with warranty and guarantee clauses.

18. The standard specifications for the construction of Solid-State Deen-bandhu Fixed dome biogas plants shall be as per the details as approved for field trials.

The constructional material like bricks, cement, concrete, sand etc. would be as per the BIS Standard-Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi. Similarly the kind and quality of material should be conforming to the ISI Standards as mentioned above.

19. The manufacturers are bound to carry out any further required change(s) in this approved model of biogas plants, as and when felt necessary and asked by the Ministry (MNRE), including those required for formulating a new ISI Standard for Standardization of such models of Biogas plants.

B. Institutional/ Community type Floating Dome KVIC Model

[Reference –BDTC, DAVV, Center of Energy Studies and Research, Indore]

KVIC Digester, It is well known as Khadi and Village Industries Commission (KVIC) design, It consists of two parts (i) Digester or pit, (ii) the gas holder or the gas collectors. It consists of a digester or pit which is for fermentation and a floating drum for the collection of gas.

All the other Standard Biogas Material used for construction of KVIC model Biogas plant should be as per the drawing & design attached in this bid (Page no. 48 - 50). All the parameter in the drawing design attached should be strictly followed.

Floating Drum Design:-The brief details of the different components are indicated below:-

- a. **Foundation**:-It is a compact base made of cement concrete and stone chips/brick ballast etc. The top surface of the foundation is smoothed by cement plaster to prevent any seepage.
- b. **Digester**:- The digester is a cylindrical tank made of bricks and cement mortar or RCC. It is located on the top surface of foundation which also forms an integral part of the bottom of the digester. The inside of the digester is smoothed by cement plaster. A ledge is built into the digester at a depth equal to that of gas holder's height. This arrests the gas holder from going down when no gas is, left in it and thus prevents the slurry from entering the gas pipe. Further, it guides all gas bubbles from the digester into the gas holder.
- c. **Guide Frame**:-It consists of central guide pipes fitted in a frame made of angle iron. It guides free up and down movement of the gas holder.
- d. **Dome** - It is in the shape of a frustum of a sphere and forms the cover of the digester. This is constructed from bricks and cement only. The space enclosed by the dome serve to hold part of the gas produced during the fermentation of contents in the digester.
- e. **Floating Gas Holder**:-The gas holder consists of an inverted drum made of mild steel sheet or FRP. The mild steel gas holder shall be painted with one primer coat of red oxide as per IS 2074: 1979 and two coats of black enamel paint as per IS 5661:1970. The gas holder floats up and down on a central guide pipe situated in the centre of the digester. The gas holder is rotated to break the scum-formed on the surface of the slurry in the digester. The gas holder helps in storing the gas and maintaining constant pressure.
- f. **Inlet and Outlet** - The level of inlet shall be higher to that of outlet to ensure proper flow. The mixing tank may be made of brick masonry stone or other local material or RCC. The volume of the mixing tank shall be more than the daily input of the slurry.
- g. **Bio-Gas Outlet Pipe** - The gas outlet pipe is located in the top portion of the gas holder through which the gas flows out.

Sr. No	Particular	Capacity of biogas plants (cum)		
		10	25	35
DIGESTER				
1.	Excavation Width(in Mtr)	3.36	4.61	5.36
2.	Excavation Depth(in Mtr)	3.32	3.32	3.32
3.	Foundation Width(in Mtr)	3.36	4.61	5.36
4	Height of digester(in Mtr)	3.40	3.40	3.40
5.	Height of digester outer wall above guide frame (in Mtr)	1.85	1.85	1.85
6.	Height of digester inner wall above guide frame(in Mtr)	1.25	1.25	1.25
7.	Digester dia (inner) (in Mtr)	2.75	4.00	4.75
8.	Digester dia (Outer) (in Mtr)	3.21	4.46	5.21
Gas Holder				
9.	Gas Holder dia. (in Mtr)	2.60	4.40	5.15
10.	Gas Holder Height (in Mtr)	1.25	1.25	1.25
Inlet Tank				
11.	Inlet tank inner dia. (in Mtr)	0.90	1.50	1.76
12.	Inlet tank height (in Mtr)	0.90	0.90	0.90
13.	Length of inlet pipe (in Mtr)	3.70	4.00	4.00
14.	Length of outlet pipe (in Mtr)	3.70	4.00	4.00
15.	G.I. pipe for guide pipe having 40 mm dia (in Mtr)	2.40	2.40	2.40
16.	M.S. pipe for gas holder (in Mtr)	1.50	1.90	2.15

Bio-gas Plant Appliances

In order to give safe, efficient and economic utilization of the biogas obtained from the Biogas Plants the specification given in the IS - 8749: 2002, Indian Standard Biogas Stove -Specifications (Second revision) shall be followed in manufacturing techniques, for materials, design, maintenance and finish. The thermal efficiency shall not be below 55% for each burner of the Biogas Stove.

The SI/Bidder would ensure that the Standard Biogas Burners/Stoves are available to all the beneficiaries either in advance or just-in-time of the commissioning of biogas plants so that there is no chance of any mismatch of timing in the first time biogas generation from the biogas plant and its use by the beneficiaries.

New and innovative technology development in biogas saving such as high thermal efficiency Biogas Burners, high efficiency dual biogas saving such as high thermal efficiency Biogas Burners, higher efficiency biogas stoves burners for Biogas and LPG, good quality biogas pressure boosters would also be considered for deployment based on merits under CREDA's guidance. All other materials such as Brass ball type valve with teflon packing, HDPE pipes, Gate valves, Epoxy Paint, etc. should be as per MNRE specifications.

SECTION – 5 ANNEXURES, SPECIFICATIONS, FORMS

Annexure-I**e-Price Bid for FRP Type Pre- Fabricated Bio-gas Plants**

S No	Item Code	Description	UOM	Cost of the System (with Supply Installation and Commissioning) (excl. GST) (in INR)
1	2	3	4	5
1	A 1	Supply Installation Commissioning of FRP Type Biogas Plant of Capacity 2 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
2	A 2	Supply Installation Commissioning of FRP Type Biogas Plant of Capacity 3 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
3	A 3	Supply Installation Commissioning of FRP Type Biogas Plant of Capacity 4 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
4	A 4	Supply Installation Commissioning of FRP Type Biogas Plant of Capacity 6 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
5	A 5	Supply Installation Commissioning of FRP Type Biogas Plant of Capacity 10 Cum with all standard Biogas plant accessories enumerated in this bid	LS	

Note:

1. In above mentioned Biogas plants, all standard Biogas plant includes accessories like burners (Stainless Steel) including brass nipple and rubber tube with two additional knobs (IS8749 latest revision), HDPE gas pipe (IS - 4984) of standard length up to 30 m and Technical Specifications enumerated in this bid, at various locations in Chhattisgarh.
2. If the requirement of gas pipe at the site is more than standard length, then same will be provided at approved bid rates and will be payable on actual measurement basis.

L1 will be compared as rate quoted in column-5.

Signature of bidder

Seal

Annexure-II**e-Price Bid for HDPE Type Pre- Fabricated Bio-gas Plants**

S No	Item Code	Description	UOM	Cost of the System (with Supply Installation and Commissioning) (excl. GST) (in INR)
1	2	3	4	5
1	B 1	Supply Installation Commissioning of HDPE Type Biogas Plant of Capacity 2 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
2	B 2	Supply Installation Commissioning of HDPE Type Biogas Plant of Capacity 3 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
3	B 3	Supply Installation Commissioning of HDPE Type Biogas Plant of Capacity 4 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
4	B 4	Supply Installation Commissioning of HDPE Type Biogas Plant of Capacity 6 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
5	B 5	Supply Installation Commissioning of HDPE Type Biogas Plant of Capacity 10 Cum with all standard Biogas plant accessories enumerated in this bid	LS	

Note:

1. In above mentioned Biogas plants, all standard Biogas plant includes accessories like burners (Stainless Steel) including brass nipple and rubber tube with two additional knobs (IS8749 latest revision), HDPE gas pipe (IS - 4984) of standard length up to 30 m and Technical Specifications enumerated in this bid, at various locations in Chhattisgarh.
2. If the requirement of gas pipe at the site is more than standard length, then same will be provided at approved bid rates and will be payable on actual measurement basis.

L1 will be compared as rate quoted in column-5.

Signature of bidder

Seal

e-Price Bid for KVIC Type Bio-gas Plants

S. No	Item Code	Description	UOM	Cost of the System (with Supply Installation & Commissioning) (excl. GST) (in INR)
1	2	3	4	5
1	C 1	Supply Installation Commissioning of Institutional or Community Floating Dome KVIC Type Biogas Plant of Capacity 10 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
2	C 2	Supply Installation Commissioning of Institutional or Community Floating Dome KVIC Type Biogas Plant of Capacity 25 Cum with all standard Biogas plant accessories enumerated in this bid	LS	
3	C 3	Supply Installation Commissioning of Institutional or Community Floating Dome KVIC Type Biogas Plant of Capacity 35 Cum with all standard Biogas plant accessories enumerated in this bid	LS	

Note:

1. In above mentioned Biogas plants, all standard Biogas plant includes accessories like burners (Stainless Steel) including brass nipple and rubber tube with two additional knobs (IS8749 latest revision), HDPE gas pipe (IS - 4984) of standard length up to 30 m and Technical Specifications enumerated in this bid, at various locations in Chhattisgarh.
2. If the requirement of gas pipe at the site is more than standard length, then same will be provided at approved bid rates and will be payable on actual measurement basis.

L1 will be compared as rate quoted in column-5.

Signature of bidder

Seal

Annexure-IV**e- Price Bid for additional accessories/spare parts**

S.No	Item Code	Description	UOM	Cost of Item (excl. GST) (in INR)
1	2	3	4	5
1	D 1	Biogas double burner 450 L per h rating (900L per h for 2 burners app 32cft per hr)	Nos	
2	D 2.1	Biogas Canteen Burner 16cft per hr	Nos	
3	D 2.2	Biogas Canteen Burner 18cft per hr	Nos	
4	D 2.3	Biogas Canteen Burner 20cft per hr	Nos	
5	D 3.1	Brass ball type valve with Teflon coating of 20 mm	Nos	
6	D 3.2	Brass ball type valve with Teflon coating of 25 mm	Nos	
7	D 3.3	Brass ball type valve with Teflon coating of 50mm	Nos	
8	D 4	Biogas lamp (100 CP 4 to 5 cft per hr)	Nos	
9	D 5.1	HDPE pipe of minimum strength 10kg per cm ² as in IS 4984 1995 or as per latest technical specifications with size 20 mm dia	meter	
10	D 5.2	HDPE pipe of minimum strength 10kg per cm ² as in IS 4984 1995 or as per latest technical specifications with size 25 mm dia	meter	
11	D 5.3	HDPE pipe of minimum strength 10kg per cm ² as in IS 4984 1995 or as per latest technical specifications with size 37.5 mm dia	meter	
12	D 5.4	HDPE pipe of minimum strength 10kg per cm ² as in IS 4984 1995 or as per latest technical specifications with size 50 mm dia	meter	
13	D 6	Epoxy paint (min water based epoxy percentage 30%)	litre	
14	D 7.1	Water remover For 2 to 6 Cum Biogas plants	Nos	
15	D 7.2	Water remover For 10 to 35 Cum Biogas plants	Nos	
16	D 8	Providing Chain link steel wire fabric made of 4 mm dia GI wire of required width in mesh to concrete or wooden or angle iron posts including securing and screwing with 2 mm dia GI wire GI staples GI U nails or steel pins aperture 50X50mm etc complete as required	meter	
17	D 9	Pressure regulator	Nos	
18	D 10	Ball cock of burner	Nos	
19	D 11	Knob for biogas burner	Nos	
20	D 12	Flexible Rubber tube (3/8" size) suitable for biogas burner	meter	
21	D 13	Casted yoke for burner (cast iron)	Nos	
22	D 14	Casted yoke for burner (brass)	Nos	
23	D 15.1	Motorized Mixer for 10 to 25 m ³ Biogas plant with three blade gear motor	Nos	
24	D 15.2	Motorized Mixer for 35 m ³ Biogas plant with three blade gear motor	Nos	

S.No	Item Code	Description	UOM	Cost of Item (excl. GST) (in INR)
1	2	3	4	5
25	D 16	Gas distribution meter	Nos	
26	D 17.1	Biogas Booster Pump(output capacity -1.5 m3 per hr)	Nos	
27	D 17.2	Biogas Booster Pump(output capacity - 10 m3 per hr)	Nos	
28	D 18.1	Scrubber System for removal of CO ₂ for capacities as under For 10 cum. Biogas plant	Nos	
29	D 18.2	Scrubber System for removal of CO ₂ for capacities as under For 25 cum. Biogas plant	Nos	
30	D 18.3	Scrubber System for removal of CO ₂ for capacities as under For 35 cum. Biogas plant	Nos	
31	D 19.1	Biogas Storage Balloon of superior make made up of Neoprene Rubber confirming to latest BIS/PESO Specifications0.5 Cum	Nos	
32	D 19.2	Biogas Storage Balloon of superior make made up of Neoprene Rubber confirming to latest BIS/PESO Specifications1 Cum	Nos	
33	D 19.3	Biogas Storage Balloon of superior make made up of Neoprene Rubber confirming to latest BIS/PESO Specifications2 Cum	Nos	
34	D 19.4	Biogas Storage Balloon of superior make made up of Neoprene Rubber confirming to latest BIS/PESO Specifications 5 Cum	Nos	
35	D 19.5	Biogas Storage Balloon of superior make made up of Neoprene Rubber confirming to latest BIS/PESO Specifications 10 Cum	Nos	

The above rates are F.O.R. anywhere in Chhattisgarh State, roadworthy packing, loading, unloading, and all types of incidental expenses, insurance and warrantee as mentioned in the bid document.

L1 will be compared as rate quoted in column-5.

Date:

Signature of bidder
Seal

CONTRACT AGREEMENT

CONTRACT AGREEMENT BETWEEN Chief Engineer Chhattisgarh State Renewable Energy Development Agency (CREDA) Raipur AND M/s..... Represented byTHIS CONTRACT AGREEMENT against Bid No. 102565/CREDA/RE-VI/BG/2022-23 DT. 16-06-2022 (also referred to as "Service Contract") is made on the -----day of ---- ----- 2022.

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 Design/Supply, Construction, Installation & Commissioning of various types of Biogas Plants as per specifications of CREDA on Turn-key basis at various locations of Chhattisgarh.

Vide Bid No. _____/CREDA/RE-VI/BG/2022-23 DATE- 16-06-2022on the terms and conditions herein contained and the rates approved by the CREDA (Letter No..... dated annexed here to) have been duly accepted and whereas the necessary security deposit shall be furnished in accordance with the provisions of the Bid 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 toor 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 and commissioning of "**Biogas Plants**" as described in Bid document. (Annexed to the agreement).
- 2) The NIT (Notice Inviting Bid), 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 Biogas Plants and Annexure there in, engineering documents, detailed specifications of accessories & drawings, so far they relate to the Bid No. 102565/CREDA/RE-VI/BG/2022-23 DATE-16-06-2022 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 Bid 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 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 sanction 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 or installation of the Biogas Systems 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.
 - 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 bid 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 Biogas Plants etc. 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 Bid/ 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 Biogas Plant as may be reasonable but without prejudice to other terms and conditions of the contract.

Chief Executive Officer, CREDA has full right for unconditional time extension.

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 percent (1%)** of the system price excluding GST/Tax for every delayed system per month. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **Five Percent (5%)** of the cost.

However, imposition of such penalty shall be discretion of CREDA. This penalty may be decrease, increase or waived off due to various justified reasons on ground with recommendations of field staff on record. Period declared as lockdown or local quarantine /containment zones due to Covid-19 pandemic shall be waived off for the purpose of penalty.

Review of the progress of installation of Biogas System allocated to SI/Contractors shall be done time to time by CREDA and if the progress of installation is found unsatisfactory, the allocation of entire remaining uninstalled biogas plants 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 and other pending payments of any project under CREDA.

13) ELIGIBLE SI/CONTRACTOR'S RESPONSIBILITY -

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of the Biogas Plant 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/plant/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 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, labour payments PF, Accidental Insurance, Gratuity, ESI & other legal obligations.
- d. CREDA shall have all rights to deduct such claims of payments from SI in case of complaints of such violations.

16) Contractor shall provide 05 years Warrantee in installed biogas plant from the date of commissioning as per the terms & conditions prescribed in the Bid No. 102565/CREDA/RE-VI/BG/2022-23 DT. 16-06-2022

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 – VI) 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) The eligible SI shall arrange insurance coverage for the materials and biogas plant 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.

19) The contractor shall abide by the terms and conditions, rules, guidelines, construction practices, safety precautions etc. stipulated in the Bid 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 Bid document no. 102565/CREDA/RE-VI/BG/2022-23 DT. 16-06-2022 is part of this agreement which has been dully signed by both bidder and authorised signatory of CREDA".

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

Signed & sealed on behalf of the above

Named contractor

Name:.....

Designation:.....

Signed on behalf of CREDA

Name:

Designation:

Witness:

1. Name:-.....

2. Name:-.....

Address:-.....

Address

.....

.....

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 ofresident 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 bid no. 102565/CREDA/RE-VI/BG/2022-23 DT. 16-06-2022 issued by Chhattisgarh State Renewable Energy Development Agency (CREDA) (authority inviting bids) for Design, Supply, Installation and Commissioning with 5 years comprehensive maintenance of Biogas Plants of different capacities at different locations in 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:

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

Annexure-VII**EXPERIENCE CERTIFICATE ON THE OFFICIAL LETTER HEAD OF CONCERNED GOVERNMENT
DEPARTMENT WITH SEAL AND SIGN BY AUTHORIZED SIGNATORY**

Ref. No.....

Date.....

CERTIFICATE OF CONSTRUCTION/ INSTALLATION OF BIOGAS PLANTS

This is to certify that **Name of Bidder, Address of Registered Office** has successfully completed the work of Design/Supply, Construction/Installation & Commissioning of**Nos.** of Capacity**Cum.** Biogas Plants under (.....Scheme) against various sanction of Name of Agency at various locations in.....State, as per following details –

S. No.	Capacity & Type of Biogas Plants (Family Type/Institutional Type)	Year & Scheme	Total no. of Biogas Systems	Remarks
Total Capacity				

The workmanship of the above constructed/installed Biogas is found satisfactory/is in successful operation with satisfactory performance.
(Strike out whichever is not applicable)

Seal & Sign
(Authorised Signatory)

Annexure-VIII

Benchmark Cost & Drawing of KVIC Model Biogas Plants for 10,25 & 35 Cum

A- Benchmark Cost

Abstract for 10M3 , With 2 Manure Pits						
On the basis of MP PWD, SOR 2020						
Item No	Items	Unit	Rate (Rs)	10	Amount	Remark
2..1	Surface Dressing		8.0	500.0	4015.0	
2.6	Excavation for foundation up to required depth including disposing up to 50 M lead and lift up to 1.50 M, laying, dewatering, compaction etc.:	m ³	129.0	80.0	10320.0	
2..10	Extra for every additional lift of 1.5m or part thereof in all type of soil	m ³	44.0	80.0	3520.0	
4.4.2	Providing and laying PCC 1:3:6 in foundation including mixing, laying, removing finishing, shuttering and curing	m ³	3890.0	8.0	31120.0	
4..16	Extra for laying concrete in or under foul position	m ³	109.0	8.0	872.0	
5.2.1	Providing and laying RCC 1:1.5:3 in foundation and walls including mixing, laying, removing finishing and curing.	m ³	5865.0	18.5	108502.5	
	Extra for laying concrete in or under foul position	m ³	109.0	18.5	2016.5	
5.9.13	P/F formwork i.e. centering & shuttering for all heights for all RCC	m ²	264.0	284.0	74976.0	
6.5.2	P/L Brick masonry in cement mortars 1:6 including finishing, curing etc. complete.	m ³	4155.0	10.5	43627.5	
5.16.3	Providing bending, placing and binding of reinforcement of various dia for RCC work as per details drawings and schedule including binding wires and supporting as required.	MT	62900.0	1.0	62900.0	
13.3.1	Providing and laying 20 mm thick plaster where necessary under layer of 12 mm and 8 mm in cement mortars 1:4 including finishing, curing etc. complete.	m ²	215.0	180.0	38700.0	
13..10	Extra for neat cement Punning.	m ²	30.0	180.0	5400.0	
16.2.3	Providing and fixing 200mm dia PVC 6 kg pressure pipe for inlet and outlet including necessary fittings, cutting etc. complete.	rm	8.0	559.0	4472.0	
10..1	Fabricating and erecting of Gasholder as per details drawings and item included of MS sheet and various Angles iron, flates, MS pipe, GI pipe etc. including necessary cutting, welding, shifting, placing in position, nut bolts etc.	MT	65000.0	0.8	52000.0	
					442441.5	

R. S. PAWAR
PROJECT OFFICER
BDIC, CESR, INDORE

Abstract for 10 M3 , With 4 Manure Pits					
On the basis of MP PWD, SOR 2020					
Sr. No.	Items	Unit	Rate (Rs)	Quantity and Amount	
				10	Amount
					442441.5
10.1	Fabricating and fixing of Gasholder Truss	MT	65000.0	0.2	11700.0
13.5	P/applying of water proofing cement paint in two coats on wall surface if requires, including Primer,rubbing, cleaning and base coat of primer etc.	m ²	48.0	70.0	3360.0
13.67.2 13.69 13.56.1	P/applying of anti-corrosive ,Water Resistance paint (apoxy) in two coats on steel surface if requires, including two coats of steel primer, rubbing, cleaning etc.	m ²	191.0	57.0	10887.0
18.7.9	GI Pipe 125mm dia	m	1.5		0.0
18.12.1.4	P/F of gun metal full way gate valve 50 mm	No.	976.0		0.0
19	Loading unloading plateorm without shed		Additional	Estimate	
					468388.5

R. S. PAWAR
PROJECT OFFICER
BDTC, CESR, INDORE

Abstract for 25 M3 , With 4 Manure Pits						
On the basis of MP PWD, SOR 2020						
Item No	Items	Unit	Rate (Rs)	Quantity and Amount		Remark
				25	Amount	
2..1	Surface Dressing		8.03	500.0	4015.0	
2.6	Excavation for foundation up to required depth including disposing up to 50 M lead and lift up to 1.50 M, laying, dewatering, compaction etc.:	m ³	129.0	171.0	22059.0	
2.10	Extra for every additional lift of 1.5m or part thereof in all type of soil	m ³	44.0	171.0	7524.0	0.29 times
4.4.2	Providing and laying PCC 1:3:6 in foundation including mixing, laying, removing finishing, shuttering and curing	m ³	3890.0	6.0	23340.0	
4.16	Extra for laying concrete in or under foul position	m ³	109.0	12.5	1362.5	
5.2.1	Providing and laying RCC 1:1.5:3 in foundation and walls including mixing, laying, removing finishing and curing.	m ³	5865.0	24.2	141933.0	
	Extra for laying concrete in or under foul position	m ³	109.0	33.3	3624.3	
5.9.13	P/F formwork i.e. centering & shuttering for all heights for all RCC	m ²	264.0	153.0	40392.0	
6.5.2	P/L Brick masonry in cement mortars 1:6 including finishing, curing etc. complete.	m ³	4155.0	18.2	75745.7	
5.16.3	Providing bending, placing and binding of reinforcement of various dia for RCC work as per details drawings and schedule including binding wires and supporting as required.	MT	62900.0	1.5	94350.0	
13.3.1	Providing and laying 20 mm thick plaster where necessary under layer of 12 mm and 8 mm in cement mortars 1:4 including finishing, curing etc. complete.	m ²	215.0	240.0	51600.0	
13.10	Extra for neat cement Punning.	m ²	30.0	240.0	7200.0	
16.2.3	Providing and fixing 200mm dia PVC 6 kg pressure pipe for inlet and outlet including necessary fittings, cutting etc. complete.	rm	559.0	14.0	7826.0	
10..1	Fabricating and erecting of Gasholder as per details drawings and item included of MS sheet and various Angles iron, flates, MS pipe, GI pipe etc. including necessary cutting, welding, shifting, placing in position, nut bolts etc.	MT	65000.0	1.3	84500.0	

R. S. PAWAR
PROJECT OFFICER
BDTC, CESR, INDORE

565471.4

Abstrct for 25 M3 , With 4 Manure Pits						
On the basis of MP PWD, SOR 2020						
Sr. No.	Items	Unit	Rate (Rs)	Quantity and Amount		
				25	Amount	
					565471.4	
10.1	Fabricating and fixing of Gasholder Truss	MT	65000.0	0.30	19500.0	
13.5	P/applying of water proofing cement paint in two coats on wall surface if requires, including Primer,rubbing, cleaning and base coat of primer etc.	m ²	48.0	85.0	4080.0	
13.67.2 13.69 13.56.1	P/applying of anti-corrosive , Water Resistance paint (apoxy) in two coats on steel surface if requires, including two coats of steel primer, rubbing, cleaning etc.	m ²	191.0	75.0	14325.0	
18.7.9	GI Pipe 125mm dia	m	1.5	2791.0	4186.5	
18.12.1.4	P/F of gun metal full way gate valve 50 mm	No.	976.0	1.0	976.0	
15	Providing and fixing ms bolt	kg	62.9	20.0	1258.0	
19	Loading unloading plateorm without shed		Additional	Estimate		
					609796.9	

R.S. PAWAR
PROJECT OFFICER
BDTC. CESR. INDORE

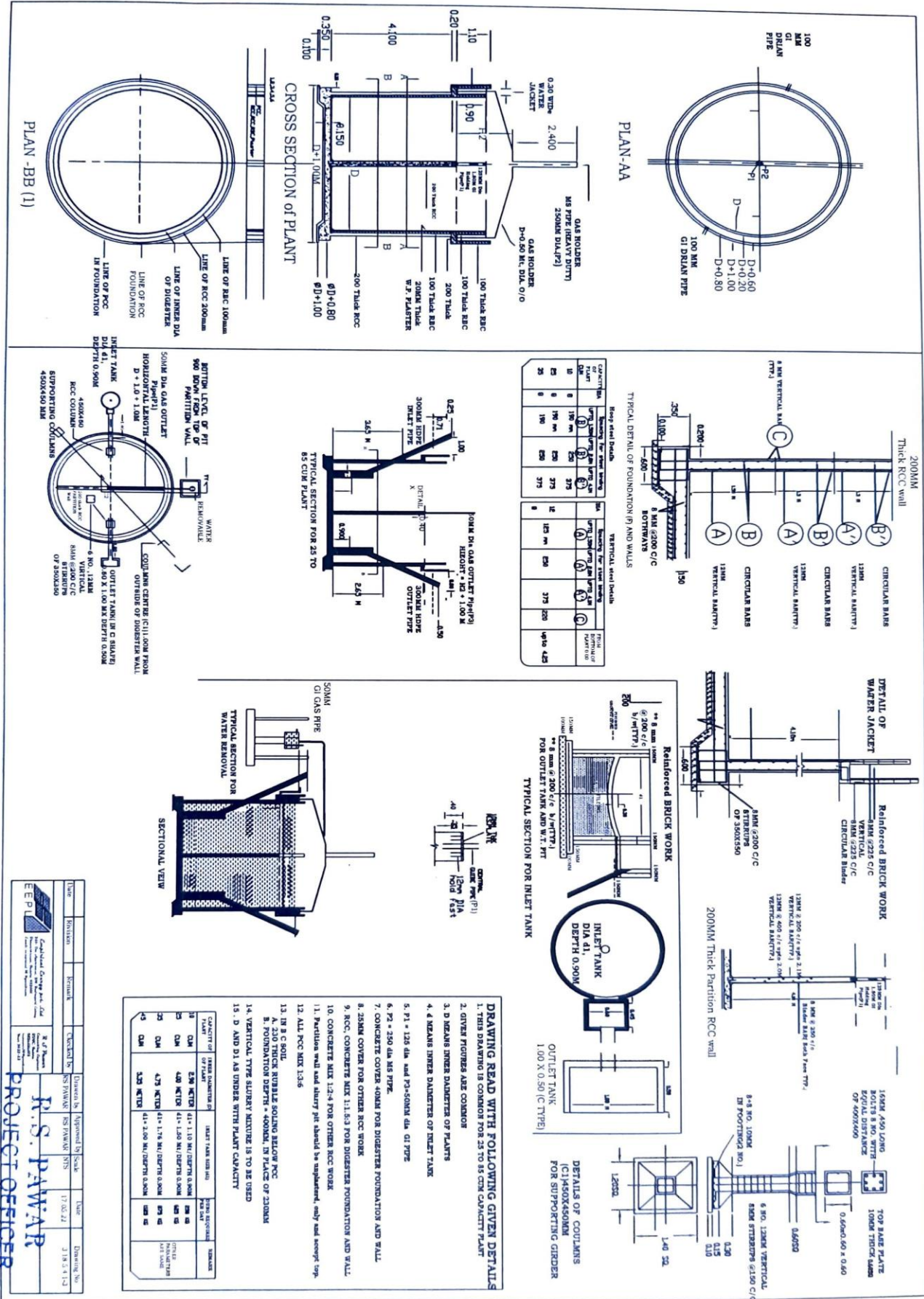
Abstract for 35 M3 , With 4 Manure Pits						
On the basis of MP PWD, SOR 2020						
Item No	Items	Unit	Rate (Rs)	Quantity and Amount		Remark
				35	Amount	
2..1	Surface Dressing		8.0	500.0	4015.0	
2..6	Excavation for foundation up to required depth including disposing up to 50 M lead and lift up to 1.50 M, laying, dewatering, compaction etc.:	m ³	129.0	223.0	28767.0	
2..10	Extra for every additional lift of 1.5m or part thereof in all type of soil	m ³	44.0	223.0	9812.0	0.29 times
4.4.2	Providing and laying PCC 1:3:6 in foundation including mixing, laying, removing finishing, shuttering and curing	m ³	3890.0	8.0	31120.0	
4..16	Extra for laying concrete in or under foul position	m ³	109.0	8.0	872.0	
5.2.1	Providing and laying RCC 1:1.5:3 in foundation and walls including mixing, laying, removing finishing and curing.	m ³	5865.0	28.5	167152.5	
	Extra for laying concrete in or under foul position	m ³	109.0	28.5	3106.5	
5.9.13	P/F formwork i.e. centering & shuttering for all heights for all RCC	m ²	264.0	190.0	50160.0	
6.5.2	P/L Brick masonry in cement mortars 1:6 including finishing, curing etc. complete.	m ³	4155.0	24.0	99720.0	
5.16.3	Providing bending, placing and binding of reinforcement of various dia for RCC work as per details drawings and schedule including binding wires and supporting as required.	MT	62900.0	1.7	106930.0	
13.3.1	Providing and laying 20 mm thick plaster where necessary under layer of 12 mm and 8 mm in cement mortars 1:4 including finishing, curing etc. complete.	m ²	215.0	250.0	53750.0	
13..10	Extra for neat cement Punning.	m ²	30.0	250.0	7500.0	
16.2.3	Providing and fixing 200mm dia PVC 6 kg pressure pipe for inlet and outlet including necessary fittings, cutting etc. complete.	rm	559.0	14.0	7826.0	
10..1	Fabricating and erecting of Gasholder as per details drawings and item included of MS sheet and various Angles iron, flates, MS pipe, GI pipe etc. including necessary cutting, welding, shifting, placing in position, nut bolts etc.	MT	65000.0	1.5	97500.0	
					668231.0	

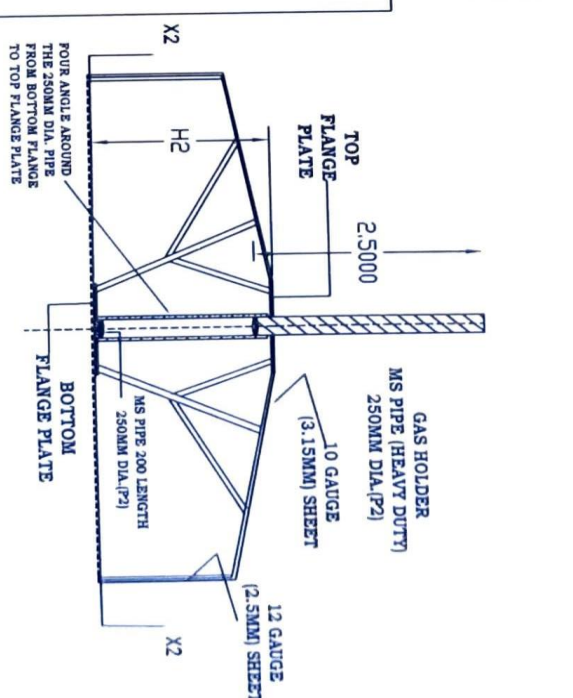
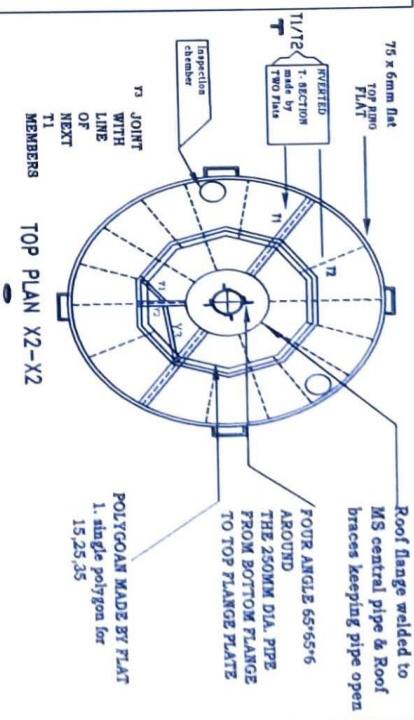
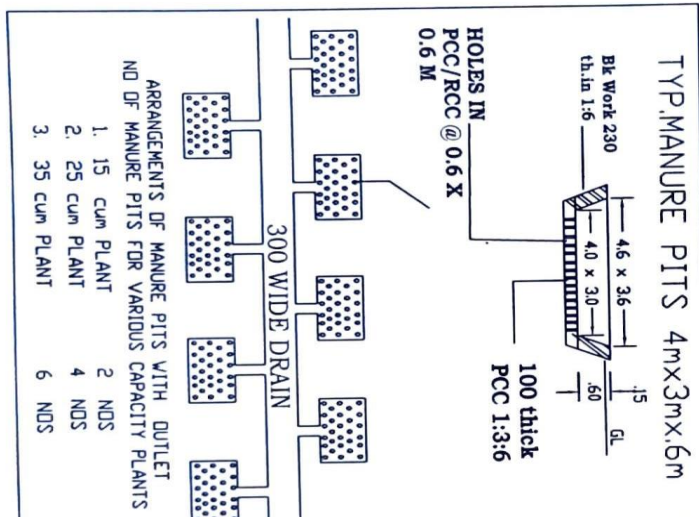
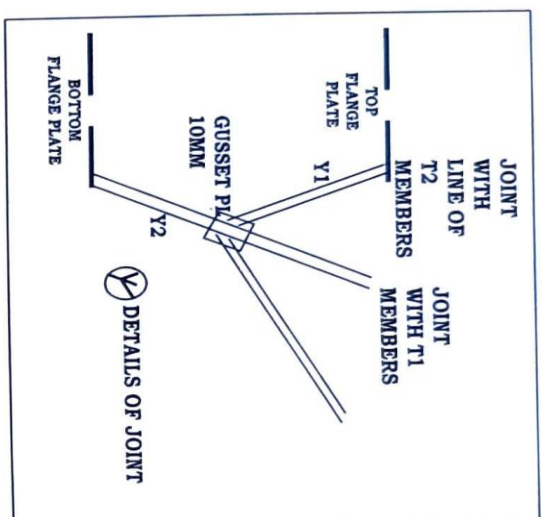
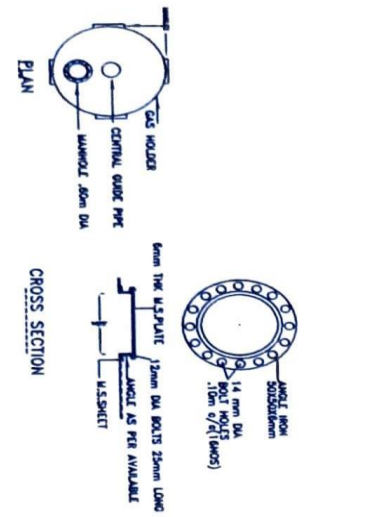
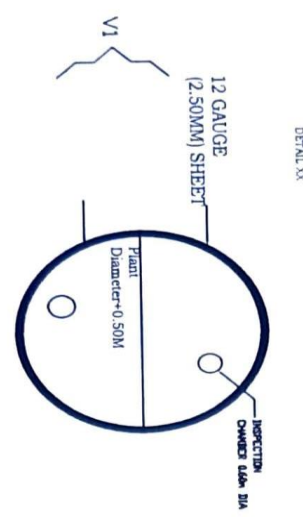
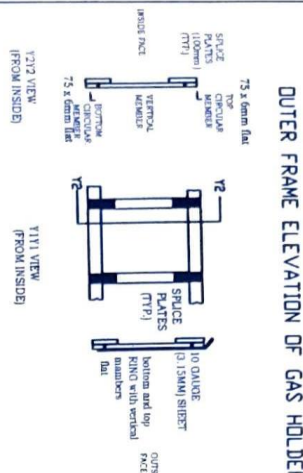
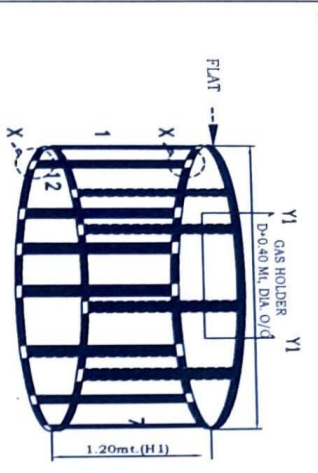
R.S. PAWAR
PROJECT OFFICER
BDTC. CESR. INDORE

Abstract for 35 M3 , With 4 Manure Pits					
On the basis of MP PWD, SOR 2020					
Sr. No.	Items	Unit	Rate (Rs)	Quantity and	
				35	Amount
					668231.0
10.1	Fabricating and fixing of Gasholder Truss	MT	65000.0	0.2	11700.0
13.5	P/applying of water proofing cement paint in two coats on wall surface if requires, including Primer,rubbing, cleaning and base coat of primer etc.	m ²	48.0	100.0	4800.0
13.67.2 13.69 13.56.1	P/applying of anti-corrosive , Water Resistance paint (apoxy) in two coats on steel surface if requires, including two coats of steel primer, rubbing, cleaning etc.	m ²	191.0	100.0	19100.0
18.7.9	GI Pipe 125mm dia	m	1.5	2791.000	4186.5
18.12.1.4	P/F of gun metal full way gate valve 50 mm	No.	1.0	976.0	976.0
15	Providing and fixing ms bolt	kg	62.9	20.0	1258.0
19	Loading unloading plateorm without shed		Additional	Estimate	
					710251.5

R.S. PAWAR
PROJECT OFFICER
BDTC, CESR, INDORE

B- Drawing of 10,25& 35 Cum. KVIC Model Biogas Plant





Date	Revision	Remarks	Checked by	Drawn by	Scale	Date	Sheet No.

PROJECT OFFICER
BDTC, CESR, MUDORE

MATERIAL SPECIFICATION For 10 Cum.

1. GAS HOLDER SHEET 10/12 GAUGE MS SHEET
2. VERTICAL MEMBERS V1 50 X 6 MM FLAT
3. HORIZONTAL MEMBER T1/T2 63 X 5 MM FLAT
4. POLYGON 50 X 5 MM FLAT
5. Y JUNCTION Y1/Y2/Y3 50 X 6 MM FLAT

GAS HOLDER		NOS. OF MEMBERS		POLYGOALS		TOP/BOTTOM FLANGE PLT		JUNCTION	
H2	M3	DIA	V1	T1	T2	POLYGOALS	FLANGE PLT	JUNCTION	
1.50	25	4.40	12	12	11	6	SIDES DIA.600 10MM	3	3

MATERIAL SPECIFICATION FOR 25M3

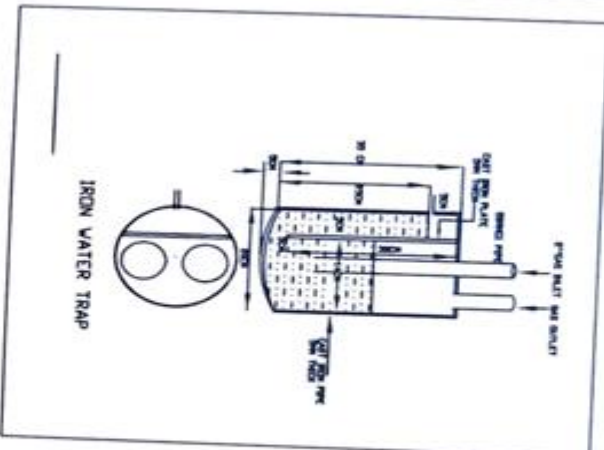
1. GAS HOLDER SHEET 10/12 GAUGE MS SHEET
2. VERTICAL MEMBERS V1 65 X 6 MM FLAT
3. HORIZONTAL MEMBER T1/T2 63 X 5 MM FLAT
4. POLYGON 65 X 5 MM FLAT
5. Y JUNCTION Y1/Y2/Y3 50 X 6 MM FLAT

GAS HOLDER		NOS. OF MEMBERS		POLYGOALS		TOP/BOTTOM FLANGE PLT		JUNCTION	
H2	M3	DIA	V1	T1	T2	POLYGOALS	FLANGE PLT	JUNCTION	
1.50	25	4.40	12	12	11	6	SIDES DIA.600 10MM	3	3

MATERIAL SPECIFICATION FOR 35M3

1. GAS HOLDER SHEET 10/12 GAUGE MS SHEET
2. VERTICAL MEMBERS V1 65 X 6 MM FLAT
3. HORIZONTAL MEMBER T1/T2 63 X 5 MM FLAT
4. POLYGON 65 X 5 MM FLAT
5. Y JUNCTION Y1/Y2/Y3 50 X 6 MM FLAT

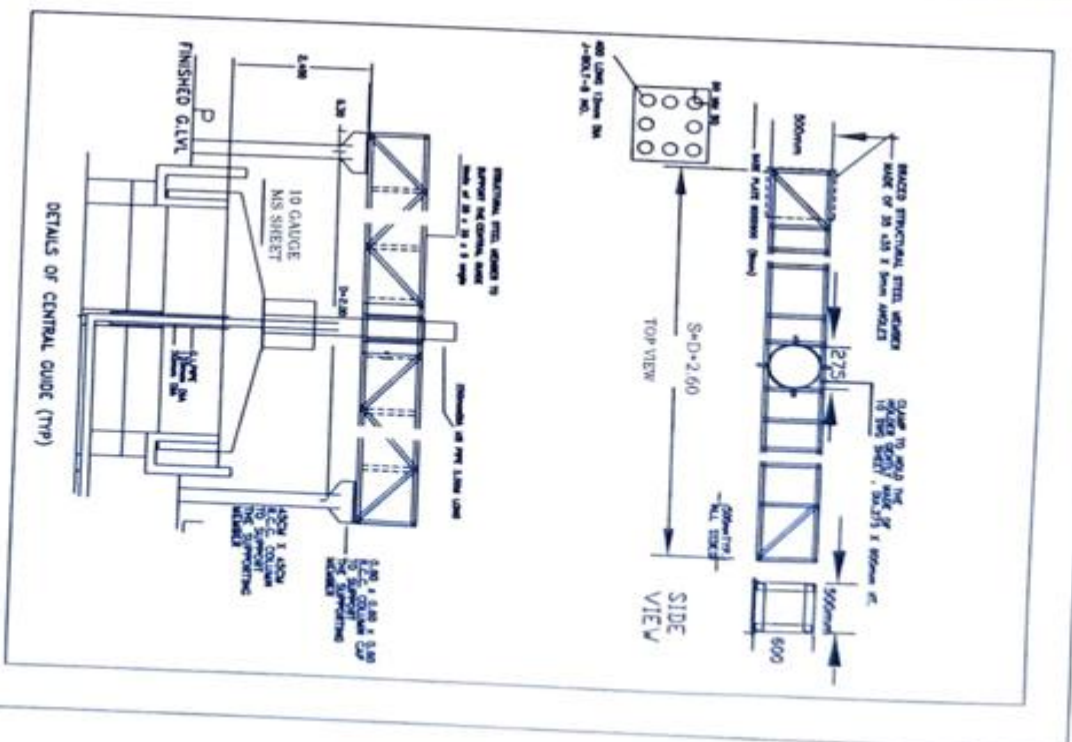
GAS HOLDER		NOS. OF MEMBERS		POLYGOALS		TOP/BOTTOM FLANGE PLT		JUNCTION	
H2	M3	DIA	V1	T1	T2	POLYGOALS	FLANGE PLT	JUNCTION	
1.50	35	5.15	12	12	11	6	SIDES DIA.600 10MM	3	3



DRAWING READ WITH FOLLOWING GIVEN DETAILS

1. THIS DRAWING IS COMMON FOR 25 TO 35 CUM CAPACITY PLANT
1. OTHER PROVISION ARE COMMON
2. 0 BEANS INNER DIAMETER OF PLANTS
4. 4 BEANS INNER DIAMETER OF DRAIN TANK.
5. 11 - 128 dia. and 75-105MM dia. CP PIPE.
6. 75 - 250 dia. MS PIPE.
7. CONCRETE COVER 40MM FOR SUBSTRATE FORMATION AND WALL.
8. 25MM COVERS FOR OTHER RCC WORK.
9. RCC. CONCRETE MIX 1:1.5:3 FOR SUBSTRATE FORMATION AND WALL.
10. CONCRETE MIX 1:2:4 FOR OTHER RCC WORK.
11. Foundation wall and slurry pit should be waterproofed, only and except top.
12. ALL RCC MIX 1:2:4
13. 10 M.C. COIL.
14. 250 THICK BRISBLE ROLLING ROLLER.
15. FORMATION SLOPE = 400MM. IN PLACE OF 200MM.
16. VERTICAL TYPE SUBSTRATE MIXTURE IS TO BE USED.
17. D AND DI AS PER WITH PLANT CAPACITY.




ITEM NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
01	MS SHEET	SQ. M	480.00	10/12 GAUGE
02	MS PIPE	M	414.71	65 X 6 MM
03	MS PIPE	M	97.00	63 X 5 MM
04	MS PIPE	M	100.00	50 X 6 MM
05	MS PIPE	M	100.00	50 X 5 MM



Sl. No.	Particulars	Quantity	Unit	Rate	Amount
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

Annexure-IX

Format for Biogas Training Certificate

	<p>छत्तीसगढ़ राज्य अक्षय ऊर्जा विकास अभिकरण (क्रेडा) (ऊर्जा विभाग, छत्तीसगढ़ शासन) व्ही.आई.पी.(एयरपोर्ट) रोड, ऊर्जा पार्क के पास, ग्राम-फुण्डहर, रायपुर (छ.ग.) फोन: 8370009925</p> <p>बायोगैस विकास एवं प्रशिक्षण केन्द्र, इन्दौर ऊर्जा अध्ययन एवं शोध केन्द्र (CESR) देवी अहिल्या विश्वविद्यालय, खण्डवा रोड, इन्दौर (म.प्र.), फोन: 0731-2462366 फैक्स: 0731-2467378</p>	
<p>प्रमाण-पत्र</p>		
<p>प्रमाणित किया जाता है कि</p>		
<p>श्री/ श्रीमती/सुश्री/कु. _____</p>		
<p>संस्था _____ द्वारा</p>		
<p>छत्तीसगढ़ राज्य अक्षय ऊर्जा विकास अभिकरण (क्रेडा) एवं बायोगैस विकास एवं प्रशिक्षण केन्द्र, CESR, इन्दौर के संयुक्त तत्वाधान से रायपुर (छ.ग.) में आयोजित</p>		
<p>TKW (टर्न-की वर्कर)/बायोगैस सुपरवाइजर प्रशिक्षण कार्यक्रम वर्ष 2019-20</p>		
<p>में दिनांक 08 से 22 जुलाई 2019 तक सफलतापूर्वक प्रशिक्षण प्राप्त किया ।</p>		
<p>सहयोग:</p>		
<p> नवीन एवं नवीकरणीय ऊर्जा मंत्रालय भारत सरकार, नई दिल्ली</p>		
<p>_____</p> <p>प्रशिक्षण प्रभारी (बी.डी.टी.सी., इन्दौर)</p>	<p>_____</p> <p>_____</p> <p>(क्रेडा, _____)</p>	<p>_____</p> <p>समन्वयक एवं निदेशक (बी.डी.टी.सी., इन्दौर)</p>

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 :
- e) 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 :

SIGNATURE OF BIDDER

NAME IN FULL

DATE :

DESIGNATION/STATUS

FIRM/COMPANY SEAL

SCHEDULE - I

PART 'B' : COMMERCIAL INFORMATION

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

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

PLACE:

SIGNATURE OF BIDDER

DATE:

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

SCHEDULE - I

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 : Yes/No
from other State Nodal Agency or from other Organization for Biogas Planting
systems (if yes, give details) enclosed.
- 03. Whether pamphlets/technical details literatures along with drawing etc. : Yes/No
furnished with the offer (if yes, give details)
- 04. Whether the bidder agrees to furnish material test certificates in : Yes/No
respect of chemical composition and physical properties from Govt./
Govt. approved lab with each batch of supplies.
- 05. Whether the bidder has furnished details of manufacturing : Yes/No
equipments and short history of plant (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. : Yes/No
If so, give details and in case of non-availability of facilities indicate
approved lab available in surrounding areas where tests are proposed to be conducted.

PLACE

SIGNATURE OF BIDDER

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY

SEAL

SCHEDULE - II

PAST EXPERIENCE

From :

Bidder's Name & Address -

To,

**The SE,
CREDA, HO,
Raipur**

Sub - Performance/Past Experience.

Dear Sir,

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

Sl. No.	Purchaser's Name & Address	Order No. Date	Ordered Quantity	Qty. supplied/ Installed/ Constructed (Nos.)	Value of Order	Status

PLACE

DATE

SIGNATURE OF BIDDER

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

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

END