

REQUEST FOR PROPOSAL

for

**THE SUPPLY, INSTALLATION AND COMMISSIONING OF 1.5 TONNE PER
DAY MUNICIPAL WASTE PROCESSING BIOGAS PLANT WITH BIO-
ELECTRICITY AS THE APPLICATION**

ICLEI South Asia, New Delhi

Tender Reference no.: Coimbatore/CapaCITIES/01/2018

Date: 02/11/2018

Sl. No.	ITEM	PARTICULARS
1.	Name of the Authority	ICLEI South Asia
2.	Nature Of work	Design, Supply, Installation and Commissioning of Biogas plant of capacity 1500 KG per day municipal waste processing plant with Bio-electricity generation as the application.
3.	Location Of work	Coimbatore, Tamil Nadu.
4.	Mode of Tendering	Online
5.	General Terms and Conditions	Refer Tender document
6.	Scope of work and Specification	Refer Section III
7.	Documents to be submitted	Refer Eligibility Criteria
8.	Date of issue of RFP	14/11/2018
9.	Last date for Clarifications	20/11/2018
10.	Last Date and time for Submission	30/11/2018
11.	Tender opening	1/12/2018
12.	Opening of Technical Bids	On Bid Due Date (16.00 Hrs)
13.	Opening of Financial Bids (of the qualified bidders only)	Within 5 days of Bid Due Date
14.	Letter of Award (LOA)	Within 15 days of Bid Due Date
15.	Validity of Bids	180 days from Bid Due Date
16.	Signing of Agreement	Within 7 days of Award of LOA

1. GENERAL INSTRUCTIONS TO SERVICE PROVIDER

- 1.1.** For the Document Purposes, "Coimbatore City Municipal Corporation "shall be referred to as 'CCMC' and the vendor shall be referred to Service Provider.
- 1.2.** The Service Provider should have successfully handled similar work for a period of minimum 3(Three) years. The Service Provider should have experience in setting up of similar work based on Fruit and vegetable waste, Kitchen waste.
- 1.3.** While all efforts have been made to avoid errors in the drafting of the documents, the service provider is advised to check the same carefully. No claim on account of any errors detected in the documents shall be entertained.
- 1.4.** The service provider shall attach the copy of the authorization letter/power of attorney as the proof of authorization for signing on behalf of the service provider.

2. GENERAL TERMS AND CONDITIONS

- 2.1.**The tender document can be downloaded from website: <http://southasia.iclei.org/>and <http://capacitiesindia.org/> downloading the tender alone will not make the bidder eligible for the tender. The authority will verify the uploaded documents. If found not meeting the requirement the same can be rejected.
- 2.2.** Tender will be opened at, ICLEI South Asia, C-3 Lower Ground Floor, Green Park Extension, New Delhi.
- 2.3.** Technical and Commercial bids should be submitted separately in a sealed envelope addressed to Mr. Emani Kumar, Executive Director, ICLEI South Asia, C-3 Lower Ground Floor, Green Park Extension, New Delhi..
- 2.4.** Technical Bids will be opened first. After a thorough technical evaluation in line with the eligibility criteria as mentioned aforesaid, commercial bids will be opened.
- 2.5.** On opening of commercial bid, further detailed scrutiny / evaluation will be carried out. During the evaluation of commercial bids, the documents furnished by the tenderers will be scrutinized in detail. Any tender, found as not fulfilling the eligibility criteria will be rejected at this stage and such offers will not be considered for further processing. The commercial bid of only those tenderers who have been qualified during the scrutiny and technical evaluation will be opened separately on a specified date (with due

intimation to the qualified bidders) and further processed, as per tender procedure/ stipulations.

- 2.6. Intending tenderers may inspect the site before submitting the tenders, with the prior permission of ICLEI South Asia.
- 2.7. The tender accepting authority is not bound to accept the lowest or any other tender and reserves the authority to reject any or all the tenders received without assigning any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
- 2.8. The tender accepting authority also reserves the right to alter the scope/or reduce quantum of work before issue of work order and the tenderer shall not have any claim what so ever on this account.
- 2.9. The tender accepting authority reserves the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
- 2.10. Canvassing directly or indirectly, in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.
- 2.11. The tender accepting authority reserves the option to give preferences to the offers in accordance with the policies of the Government from time to time.
- 2.12. On concluding the tender, an agreement shall be drawn with the successful tenderer.

3. SCOPE OF WORK

3.1. Design, Supply, Installation and Commissioning of Biogas plant of capacity 1500 Kg/day municipal waste processing unit. The Biogas generated should be used to generate bio-electricity. All the necessary plant and machinery as mentioned below in Section 3.4 to be supplied prior to the commissioning of the plant.

3.2. Eligibility Criteria:

Sl. No.	Eligibility criteria	Document and proof of eligibility
1.	The bidder may be one of the following entities: a) Private company (registered under Companies Act)	Company Registration Certificate as a proof of existence from the past 3 years.

	b) Public Sector entity c) NGO (registered)	
2.	The bidder must have adequate qualification and experience of installation and operation of biomethanation (biogas) plant, preferably biphasic biomethanation plant of one ton per day capacity. At least 2 such plants should have been successfully run for 2 years continuously. Experience of biphasic biomethanation plant of minimum 2 years would be given additional marks.	Work orders of at least 2 projects with similar nature of work operational since 12 months. At least 1 project to be of higher capacity. Completion certificates of at least 2 biogas plants successfully operational and commissioned of minimum 1 TPD to be submitted.
3.	The bidder must have completed projects worth minimum Rs. 50 lakh annually for the last 2 years (as shown in their audited balance sheet).	audited balance sheet
4.	Should have experience of managing biowaste	Should have experience in operation and Maintenance of Fruit and vegetable waste. Must submit operation and maintenance contract work order for the same of any capacity.

3.3. Minimum Technical specifications

The bidder shall guarantee the following:

Sl. No.	Particulars	Value	Unit
1.	Biowaste intake Minimum	1500	Kg/d
2.	Gas generation Minimum	110	Cum/MT
3.	Electricity generation Minimum	140	Kwh/d

- Obtain all statutory clearances
- Ensure Project Commissioning: 6 months from award of contract

- Provide on the job O & M training to four CCMC identified operators from trial runs and two months post commissioning
 - Agree to the defects liability period of one year from the date of commissioning, including warranty of one year on all supplies
 - Guarantee handling waste of 1500 Kg/day delivered to site, failing which a penalty of Rs. 1000/Tonne shall be paid by the vendor.
 - Guarantee generation of gas which would be mentioned in the technical documents. In case of failure, service provider would be liable to pay penalty.
 - 6 months operation of plant, post commissioning, along with proven gas generation nad electricity generation
- Offers not conforming to the minimum guarantee will be summarily rejected**

3.4. Bill of quantities

Sl. No.	Particulars	Specification	Min Qty
1.	Excavation	If required	1
2.	Platform Scale	As per requirement	
3.	Pre-sorting unit	As per requirement	1
4.	Crusher	500 kg/hour min.	1
5.	Feed piping	HDPE/PVC with required connectors, bends and valves	1
6.	Feed Pump	As per requirement	2
7.	Feed Tank	Civil Structure with volume 2 m ³	1
8.	Agitator-Mixer in Feed Tank + Digester	As per requirement	2
9.	MS Bio Digester - Fixed Dome	MS structure with 80 m ³ volume holding capacity and 15 m ³ Gas holding	1
10.	Platform for Engine, Scrubber, Blower	As per requirement	1
11.	Slurry collection Tank	Civil Structure with volume 3 m ³	1
12.	Balloon Shed	As per requirement	1
13.	Single Membrane Balloon	As per requirement	1
14.	Balloon Erection	As per requirement	1
15.	Booster / Blower	As per requirement	1
16.	Solid liquid separator	As per requirement	1
17.	Moisture Traps	As per requirement	2

18.	Gas Piping	HDPE/UPVC with required connectors, bends and valves	1
19.	H ₂ S Scrubber	As per requirement	1
20.	Surge Vessel	As per requirement	1
21.	Flame Arrester	As per requirement	1
22.	Manual Flare	As per requirement	1
23.	Biogas flow meter + Slurry flow meter	As per requirement	2
24.	Generator 15KVA	As per requirement	1
25.	Slurry pipe	HDPE/PVC with required connectors, bends and valves	1
26.	Bio gas Engine and Pressure regulating valve	100% Biogas Engine with Alternator	1
27.	Erection and commissioning	As per requirement	1
28.	Sludge management unit	As per requirement	1
29.	Grid Interfacing	As per requirement	1
30.	Filter Press	As per requirement	1
31.	Filter Press pumping unit	As per requirement	2
32.	Access Roads (if needed)	As per requirement	1
33.	Building	As per requirement	1

3.5. Battery Limits

CMC Limits

Sl. No.	Particulars		Specifications
1.	Feed-stock / Waste	:	At the inlet of Feed Mixing tank
2.	Auxiliary Water	:	Near Biogas Plant
3.	Auxiliary Power	:	At one point near Biogas Plant

Supplier Limits

Sl. No.	Particulars		Specification
1.	Effluent management	:	As per TNPCB norms
2.	Electrical Power	:	At metering point HT side
3.	Instrumentation	:	Complete
4.	Gas Piping	:	At the generator inlet

4. GENERAL COMMERCIAL TERMS

4.1. Site Conditions

CCMC shall ensure that the following site conditions and facilities are provided except where specifically mentioned:

- a. Approach road and right of way
The CCMC shall be responsible for providing unencumbered land and right of way for construction and erection for laying pipelines and cables/transmission lines including motorable road beyond the scope of the supplier.
- b. Construction Water
The CCMC shall endeavour to provide construction water on cost basis at one point in the site. The cost shall be as per the commercial prevailing at the time. It is the supplier responsibility to arrange water in case, the CCMC is unable to provide the same. No claims shall be entertained at a later date on this regard.
- c. Site office/ lodging and other facilities
The supplier shall make arrangements for the accommodation of their personnel. The site office may be erected at the project location. The supplier shall make provision of water and electricity. The site shall be kept in sanitary conditions at all time
- d. Inputs for commissioning, stabilisation & performance trials
CCMC shall provide the required segregated biodegradable waste for commissioning. All others- fuel, water, start-up power, etc for commissioning, performance trials etc shall be arranged by the Supplier.
- e. Sub vendors
The equipment shall be fabricated in the Supplier's place or any sub Supplier place and in view of the overall responsibility for the expeditious completion of supply and supervision of erection and commissioning by the Supplier. The supplier shall be free to choose their sub-Supplier from the vendor list given along with the technical offer. The quality shall be as per the Quality Assurance Plan submitted by the Supplier. CCMC reserves the right to witness such testing at vendors works and supplier shall facilitate the same.
- f. Additions to scope of work
The scope of work is restricted to the battery limits specified in this RFP and subsequent minutes of meeting/ clarification letters. Any subsequent additions or alterations shall be acceptable to the Supplier at mutually agreed prices and completion period. It is the responsibility of the Bidder to confirm if the variations are accepted.

g. Warranty

The Supplier warrants that the goods supplied by the Supplier's shall be brand new and of good quality, workmanship. During the warranty period which shall be 12 months from the actual date of commissioning or 18 months from the date of supply whichever is later, (however, if for reasons attributable to the Supplier, the scheduled date of completion is extended, warranty period shall automatically stand extended by equivalent period), the Supplier shall rectify or replace within reasonable time any part of the goods found defective due to faulty workmanship, improper design and sub-standard quality of raw materials. Supplier shall not be liable to replace such defective parts if the performance of the goods can be achieved by proper rectification. The warranty period for the replaced parts shall be extended by new period proportionately or equal to half of the warranty period as may be longer.

Notwithstanding anything contained in this clause the Supplier's warranty shall stand discharged in the event

- Purchaser does not operate the goods as per-operating instructions of the Supplier
- The goods are put to improper use or use not in accordance with the provisions contained herein
- The goods are not maintained in accordance with the maintenance instructions of the Supplier
- The inputs required for proper operations or the goods not as per parameters specified in the technical offer
- The defects in the goods arise due to improper handling or due to other alien bodies entering the operations
- Other particles such as sand, encrusting water, undesired oil etc., come in contact with the goods and which is generally known to damage the goods
- Any replacements or repairs carried out by the Purchaser without authorization of Supplier
- In respect of equipment where dispatch after readiness is delayed due to specific instruction or lack of instructions from, the warranty shall be limited to 18 months from the date of readiness for dispatch of equipment as notified by Supplier
- Supplier obligations or warranty shall not extend in any event, beyond period of 12 months from the date of commissioning.

h. Quality assurance plan and other mandated submission

The vendor shall submit all documents, drawings, specification, Operation manual and Quality Assurance Plan within 15 days from the effective date of order and the same shall be reviewed by CCMC/PMC appointed by CCMC

within one week. The equipment shall be procured/fabricated upon receipt of approval from CCMC.

i. Painting

Painting of equipment shall be done as per standard colour codes and as per Supplier standards.

j. Progress reports

Supplier shall submit fortnight progress reports of the Project. The said Project report shall be in the format as may be mutually agreed upon Between the Supplier and Purchaser.

k. General

Any condition or other matters pertaining to this offer not expressly stipulated shall be a matter of mutual discussions and agreement at the time of accepting the order.

l. Force majeure

Neither parties shall be liable to each other, if default in performance of its any of the obligations arises or if the parties, their sub-Supplier/sub - Vendors are prevented from discharging their respective obligations under the order for causes beyond their reasonable control including but not limited to war (whether declared or not), invasion, act of enemies, hostilities, riots, civil commotion, labour disturbance leading to strike, strike, lockouts, layoffs, mutiny, insurrection, rebellion, revolution, epidemics, major accidents, sabotage, fire, earthquake, floods, government orders and restrictions, legal enactment, , lack of transport facilities due to regional/national strike by the Transporter's, major damage to or major breakdown of plant and machinery and equipment, terrorism etc.

m. Excess material

The Contractor reserves the right to remove the excess material during the construction and or on completion of the project. This is subject to approval from CCMC. The CCMC shall generally not deny approval to the removal provided it is not necessary for the working of the plant.

n. Consequential damages

Neither party shall at any time be liable to the other for any loss of profits or any similar indirect damages, howsoever described, incurred or suffered by either party in respect of the supplies forming part of the biogas based power plant.

o. Governing laws

The Design & Engineering and procurement and supply of components forming part of biogas based power plant and supervision of erection and commissioning shall be governed by Indian law and regulations.

p. Changes in work/law

If there is any change in the scope and/or nature of work, during the execution of this order because of change in Indian government's ruling/regulations /order an adjustment in terms including but not limited to prices, deliveries, etc., the terms of the order shall be negotiated.

Supplier are not obliged to proceed with the changes until Supplier have received the purchaser's written approval of the proposed changes as well as adjustments, if any in terms of the order.

q. Arbitration

In case of any disputes/differences between the parties, the matter will be subjected to resolution through amicable talks. In case of failure to resolve amicably, matter will be subjected to arbitration. Dispute will be subjected to jurisdiction of courts in New Delhi.

r. Compliance with laws

Supplier undertakes to comply with all legal provisions, rules and regulations in respect of manufacture and supply of the equipment

Purchaser undertakes to comply with all other necessary regulations, rules and laws as may be required. Purchaser shall facilitate as feasible, for the supplier to obtain necessary approvals as may be required in respect of the biogas based power plant.

s. Secrecy

The purchaser shall treat all the data and information as confidential and shall not disclose it to any third party without prior written consent from Supplier. All the information such as drawings, designs, manuals, etc., to be supplied by Supplier under this Agreement shall be treated as confidential information.

5. LIABILITY OF SERVICE PROVIDER

5.1. Subject to the limit of liability, Service Provider shall indemnify and hold harmless CCMC and its employees against any liability, claims, losses or damages sustained by it or them by reason of any breach of contract, wrongful act or negligence by Service Provider or any of its employees engaged in the operation of the services to CCMC. vendor shall be held responsible and shall indemnify and hold harmless the CCMC and all its employees, personnel, etc for any behavioral issues of service providers employees in CCMC premise including but not limited to harassment of women, children, local public, contractors, agencies, etc in CCMC premise

5.2. Service provider is responsible for all liabilities arising out of any damages caused to CCMC property.

5.3. Service Provider, its employees or agents, shall not be liable to CCMC in any circumstances or to any extent whatever in respect of any loss or damage suffered by CCMC unless: (i) written notice of the breach of contract, negligence or wrongful act on the part of Service Provider alleged to have resulted in the loss or damage is received by Service Provider within thirty (30) days of its occurrence becoming aware of by CMC, and (ii) any claim or legal proceedings by CCMC against Service Provider arising hereunder in respect of any loss, damage or injury, is brought to the notice of Service Provider by CCMC, within four weeks from the date thereof.

6. CONFIDENTIALITY

Each of Service Provider and CCMC shall not, and shall ensure that its employees and agents shall not, disclose, divulge and / or disseminate to any third party, any Confidential Information of the other party (including, without limitation, the Assignment Instructions, Schedules and other subsequent contracts). This obligation will not apply to information, which is or becomes public knowledge through no fault of the parties or was already known to or becomes known to the receiving party without any obligation of confidentiality, as well as information, which the parties might be required to disclose under applicable law or by order of competent judicial or governmental authority.

7. FINANCIALS AND PAYMENT TERMS

Financial proposal for the scope mentioned above and comprising all the minimum technical components as specified in section 3.4. The unit cost of each component should be mentioned as per the BOQ.

The payment terms is as follows

1. Performance guarantee of 10% of total contract value shall be deducted at the onset of the payment and shall be refunded after the completion of commissioning of the plant.
2. The selected bidder should provide a bank guarantee of 10% of total cost of construction at the time of acceptance of work order, which shall be returned to the tenderer after commissioning the plant.
3. Upon commissioning, a second bank guarantee of 10% of the total cost of the plant shall be provided to Coimbatore City Municipal Corporation, to be refunded after successful operation until the defect liability period of 24 months.
 - Five Percent on submission of ready to Manufacture/ Construction drawings, Piping drawings, Manufacturer specifications, Quality Assurance

protocols, O & M manual, Recommended Spares list, Lab testing procedures. (Note: This instalment is paid only after receipt of all documents. No part payment is allowed)

- Twenty Percent on completion of all civil works required for the project
- Thirty five percent on completion of installation, pressure testing and readiness to test run
- Twenty percent upon successful demonstration of guaranteed intake and gas generation
- Twenty percent within 3 months of successful working of plant. For the demonstration of success, the plant shall generate the 95% of the guaranteed gas generation and the electricity generation shall be 80% of the guaranteed energy generation.

8. EVALUATION OF BIDS

As part of the evaluation, the Proposal/s shall be checked for responsiveness with the requirements of the RFP and only those Proposals which are found to be responsive would be further evaluated in accordance with the criteria set out in this RFP document.

The Proposal would be responsive if it meets the following conditions:

- It is received /deemed to be received by the Bid Due Date including any extension thereof
- It is signed, sealed and marked as stipulated
- It contains all the information, documents and certificate(s) and requirements as requested in the RFP.
- It mentions the validity period of six months
- It provides information in reasonable detail. ("Reasonable Detail" means that, but for minor deviations, the information can be reviewed and evaluated by CCMC without communication with the Bidder). CCMC reserves the right to determine whether the information has been provided in reasonable detail.
- There are no inconsistencies between the Proposal and the supporting documents.

Tenders shall be invited from reputed manufacturers of Anaerobic Digestors. The tenderer shall be asked to confirm

- a. **Net guaranteed energy/day for the system ----- E**
- b. **Project implementation period in days -----T**

The price bid shall consist of two parts-

- a. The total cost of the system -----A
- b. O & M cost per year-----B

The evaluation shall be based on the lowest effective cost derived from the formula

$$\text{Evaluated cost} = A + B - 6.35 \cdot (E \cdot 180) + 1800 \cdot T$$

where A and B are in Rupees

During the actual implementation, a penalty equivalent to the actual delay in days shall be levied (1800 x delay days). Similarly, in case of shortfall in guaranteed energy, the penalty shall be levied at 150% of the LTIIA energy tariff shall be charged (1.5 x 6.35 x energy shortfall).

If need be, the O & M period may be extended in agreement with the Operator.

A Proposal that is substantially responsive is one that conforms to the preceding requirements without material deviation or reservation. A material deviation or reservation is one:

- a. which affects in any substantial way, the scope, quality, or performance of the Project, or
- b. which limits in any substantial way, inconsistent with the RFP, CCMC's rights or the Bidder's obligations under the Agreement,
or
- c. which would affect unfairly the competitive position of other Bidders presenting substantially responsive Proposals.

The Financial Offer of only the Qualified Bidder/s shall be opened. A table of bidders and their guaranteed energy as well as project cost is prepared. The ratio of project cost/ energy is computed. The list of qualified bidders is sorted on an ascending order of project cost/ energy ratio. The bidder with lowest ratio of cost to energy shall be called the Preferred Bidder and awarded the Contract. In case of non acceptance of the offer by the Preferred Bidder as above, the Project shall be awarded to the Bidder with the second lowest ratio.

The bidder shall submit detailed design basis, design calculations, drawings, line estimates in order to substantiate the concept in accordance with National codes or practices. It is the responsibility of the successful bidder to satisfy and validate its design. However, CCMC reserves the right to suggest reasonable modifications to the design, operational manuals etc submitted by the successful bidder and such suggestions shall be incorporated and executed by the Successful Bidder, without any price implication on CCMC. It is also suggested that the Bidder may visit the project area, and carry out necessary data acquisition as may be necessary to conduct the preliminary designs.

CCMC reserves the right to reject any Proposal, if:

- a. at any time, a material misrepresentation is made or discovered; or
- b. the Bidder does not respond promptly and diligently to requests for supplemental information required for the evaluation of the Proposal.

In the event of acceptance of the Preferred Bidder of the Project with or without negotiations, CCMC shall declare the Preferred Bidder as the Successful Bidder. CCMC will notify the Successful Bidder through a Letter of Award (LoA) that its Proposal has been accepted.

The Successful Bidder shall also furnish Performance Guarantee by way of an irrevocable Bank Guarantee or Demand draft, in favour of Commissioner, CCMC, as required under the Agreement.

Failure of the Successful Bidder to comply with the requirements shall constitute sufficient grounds for the annulment of the LoA, and forfeiture of the EMD. In such an event, CCMC reserves the right to

- a. either invite the Bidder with the second lowest ratio
- b. take any such measures as may be deemed fit in the sole discretion of CCMC, including annulment of the bidding process.

Notwithstanding anything contained in this RFP, CCMC reserves the right to accept or reject any Proposal, or to annul the bidding process or reject all Proposals, at any time without any liability or any obligation for such rejection or annulment, without assigning any reasons thereof.

Appendix-Financial offer

Date:

ORIGINAL

The Commissioner
Coimbatore Municipal Corporation
Coimbatore

Sub: Waste to Energy Project for Coimbatore

Ref: Your Notification No. _____ dated _____

Sir/Madam,

Having gone through this RFP document and having fully understood the Scope of Work for the Project as set out by CMC in the RFP, we are pleased to inform our quote for the complete scope as in the RFP.

Sl. No.	Particulars	To be filled by Vendor
1.	Supply, erection and commissioning of 1.5 TPD biogas plant - A	
2.	Operation of the plant for 6 months Rs. -----/Month - B	
3.	Net guaranteed energy/day for the system - E	
4.	Project implementation period in days - T	

Rs. [insert amount in figures and in words]

Minimum Guaranteed Electrical Energy generation/Ton -----kWh

We have reviewed all the terms and conditions of the Request for Proposal would undertake to abide by all the terms and conditions contained therein. We hereby declare that there are, and shall be, no deviations from the stated terms in the RFP Document.

Our offer is valid for a period of six months from the Bid Due Date

Yours faithfully,

For and on behalf of (Name of Bidder)

Duly signed by the Authorised Signatory of the Bidder

(Name, Designation and Address of the Authorised Signatory)