File Ref. No. PUR/IICT/DMS/0756/RE/24-25 CPPP Tender ID : 2024\_CSIR\_220321\_1

Dt: 27-12-2024

Minutes of Pre-Bid Conference (PBC) held on 27-12-2024 for proposed procurement of "Supply, installation and commissioning of "AUTOMATIC METHANE POTENTIAL TESTING SYSTEM"

### Chairpersons / Members of the Technical Sub Committee (TSC) present during PBC including domain experts present during PBC:-1. Dr. N.Lingaiah, Chairman

- 2. Dr.PratyayBasak, Member
- 3. Dr.G.Jithender Reddy, Member
- 4. Sri. D. Venkateswara Rao, Member
- 5. Dr.SreepriyaVedantam, Member
- 6. IO Dr. Sameena Begum

# Representatives of the following firm attended the PBC:

1. Mr. Srinivas Kasulla, Director, M/s Arka Brenstech Pvt. Ltd has attended the

## The following points were discussed during the PBC:

The queries raised by the firm were received via email on 26.12.2024, and the same have been discussed during the PBC in the presence of the firm's representative. Each query was addressed by CSIR-IICT and the same is provided as Annexure.

All the bidders are then requested to kindly take a note of the changes if any, in tendered specifications subsequent to PBC held on 27.12.2024 before they start submitting their online bids.

Points clarified by CSIR-IICT Team during PBC:

The representatives of the participating firm/further informed that they do not have any issue or suggestion with respect to other points of tendered specifications and related requirements given in the tender document. Participating bidders have been informed that points raised by them during PBC will be examined by CSIR-IICT's **Technical Sub Committee (TSC)/Technical team** constituted for the purpose of procurement of said equipment and **post PBC changes** in tendered specifications and requirements to be agreed after due consideration of the same by TSC, <u>if any</u>, will be uploaded in **CPPP** as part of **revised/amended tendered specifications** along with CSIR-IICT website <u>www.iict.res.in</u> on or before17-01-2025. All bidders are requested kindly to take a note of the changes, if any, in tendered specifications subsequent to **PBC** held today, i.e. 27-12-2024 before they start submitting their online bids through CPPP.

(Dr.Pratyay Basak)

Member

Gettienele Jilis 29 (Dr Jithender Reddy) Member

(Dr.Sreepriya Vedantam) Member

(Sri. D. VenkateswaraRao) Member (Dr. Dr. Sameena Begum)

(Dr. A. Gangagni Rao)

(Dr N Lingaiah) Chairperson

Dt: 27-12-2024

CPPP Tender ID : 2024\_CSIR\_220321\_1

The following changes has been made in the tendered specification subsequent to PBC held on 22.08.2024

S. No.	Existing Specifications	Revised/Amended Specifications
1	<ol> <li>Biomethane Potential Testing Machine – I (Batch)         <ol> <li>The machine should be capable of handling both organic solid and liquid wastes (food waste, lignocellulosic biomass, organic industrial effluents) for comprehensive biomethane potential testing.</li> <li>The biomethane potential testing machine should be equipped with bioreactors with mixers, suitable inlet and outlet arrangement for feed in, gas collection port and digestate collection container.</li> <li>MOC of reactors: HDPE/Glass/Stainless steel</li> <li>Mode of operation: Batch</li> <li>Feeding: Manual</li> <li>No. of reactor in the set: 5 – 20</li> <li>Volume of Reactor: 1 - 2 L</li> <li>Mechanical mixing between 50 – 250 RPM (Variable Speed)</li> <li>Power supply: 220 VAC</li> <li>Operational pressure: between 0.1 to 1 bar</li> <li>Operational Temperature: between 20 °C to 75 °C with precision of ± 0.1 °C and a tolerance of ± 0.5 °C</li> </ol> </li> <li>Biogas measurement: Volumetric water displacement method with required tubing's</li> <li>Measurement resolutions: 5 – 10 ml</li> <li>HMI/PLC unit with software controlled automatic conversions and calculations</li> </ol>	<ol> <li>Biomethane Potential Testing Machine – I (Batch)         <ol> <li>The machine should be capable of handling both organic solid and liquid wastes (food waste, lignocellulosic biomass, organic industrial effluents) for comprehensive biomethane potential testing.</li> <li>The biomethane potential testing machine should be equipped with bioreactors with mixers, suitable inlet and outlet arrangement for feed in, gas collection port and digestate collection container.</li> <li>MOC of reactors: HDPE/Glass/Stainless steel</li> <li>Mode of operation: Batch</li> <li>Feeding: Manual</li> <li>No. of reactor in the set: 5 – 20</li> <li>Volume of Reactor: 0.5 - 1 L or better</li> </ol> </li> <li>Mechanical mixing between 50 – 220 RPM or better (Variable Speed)</li> <li>Power supply: 220 VAC</li> <li>Operational pressure: between: -50 mbar to 50 mbar</li> <li>Operational Temperature: between 0 °C to 60 °C with precision of ± 2 °C</li> <li>Biogas measurement: Volumetric water displacement method with required tubing's</li> <li>Measurement resolutions: 5 – 10 ml</li> </ol> <li>HMI/PLC unit with software controlled automatic conversions and calculations</li>
	Biomethane Potential Testing Machine – II (Continuous)  1. The machine should be capable of handling both organic solid and liquid wastes (food waste, lignocellulosic biomass, organic industrial effluents) for comprehensive biomethane potential testing.  2. The biomethane potential testing machine should be equipped with bioreactors with mixers, suitable inlet and outlet arrangement for feed in, gas collection port and digestate collection container. The reactor should be equipped with temperature sensors  3. Reactor Type: Continuous stirred tank reactors with	Biomethane Potential Testing Machine – II (Continuous)  1. The machine should be capable of handling both organic solid and liquid wastes (food waste, lignocellulosic biomass, organic industrial effluents) for comprehensive biomethane potential testing.  2. The biomethane potential testing machine should be equipped with bioreactors with mixers, suitable inlet and outlet arrangement for feed in, gas collection port and digestate collection container. The reactor should be equipped with temperature sensors  3. Reactor Type: Continuous stirred tank reactors
	continuous automatic feeding system, digestate collection and gas withdrawal mechanism	with continuous automatic feeding system, digestate collection and gas withdrawal

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- 4. MOC of reactors: Stainless steel
- 5. Mode of operation: Continuous
- 6. No. of reactor in the set: set of 4 or 6 or 8 reactors
- 7. Volume of Reactor: 5 10 L
- 8. Feeding: Automatic feeding with a feeder volume of  $1-2\,L$
- 9. Feed flow rate: 0.1 to 1 L/day
- 10. Mechanical mixing between 50 250 RPM (Variable Speed)
- 11. Power supply: 220 VAC
- 12. Operational pressure: between 0.1 to 1 bar
- 13. Operational Temperature: between 20 °C to 75 °C with precision of  $\pm$  0.1 °C and a tolerance of  $\pm$  0.5 °C.
- 14. Biogas measurement: Gas flowmeter with real-time monitoring system
- 15. PLC unit with Software controlled automatic conversions and calculations

#### General Requirements:

- 1. Installation to be done in CSIR-IICT followed by its demonstration to project staff
- 2. Standard operating procedure manual
- 3. Comprehensive onsite warranty for 12 months on the item and supply of spares

- mechanism
- 4. MOC of reactors: Stainless steel
- 5. Mode of operation: Continuous
- 6. No. of reactor in the set: set of 4 or 6 or 8 reactors
- 7. Volume of Reactor: 5 10 L
- 8. Feeding: Automatic feeding with a feeder volume of 1 2 L
- 9. Feed flow rate: 0.1 to 1 L/day
- 10. Mechanical mixing between 50 220 RPM or better (Variable Speed)
- 11. Power supply: 220 VAC
- Operational pressure: between: -50 mbar to 50 mbar
- 13. Operational Temperature: between 0 °C to 60 °C with precision of ±2 °C
- 14. Biogas measurement: Gas flowmeter with realtime monitoring system
- 15. PLC unit with Software controlled automatic conversions and calculations

#### General Requirements:

- 1. Installation to be done in CSIR-IICT followed by its demonstration to project staff
- 2. Standard operating procedure manual
- 3. Comprehensive onsite warranty for 12 months on the item and supply of spares

All the other tender terms remains unchanged. Bidders may please submit their bids accordingly.

(DV.Pratyay Bas Member Gelterdes Tivl 24 (Dr Jithender Reddy)

(Dr.Sreepriya Vedantam)

Member

(Sri. D. VenkateswaraRao) Member

(Dr. Dr. Sameena Begum)

(Dr. A. Gangagni Rao)

(Dr N Lingaiah) 21/12

Chairperson

### **ANNEXURE**

Response to queries for the TENDER No. - PUR/IICT/0756/24-25/EQPT Supply, Installation and commissioning of "Automatic Methane potential testing system (AMPTS) Batch and Continuous"

Sr. No.	Observation	Queries raised by M/s Arka Brenstech Pvt. Ltd	Response from IICT
1.	Warranty: At Page 64 – GCC 2.21.3	Which is to be considered 12 months or 3 Years as warranty?	Comprehensive onsite warranty for 12 months can be considered from
	The period of Warranty is 12 months on complete system from the date of	CMC charges to be considered - Y/N	the date of successful installation and
	final acceptance.	If Y then for how many years.	final acceptance of the supplied system by
	At Page 68 –		CSIR- IICT user
	General Requirements: Comprehensive onsite warranty for 12		F
	months on the item and supply of spares		
	At Page 70 –  12 months' comprehensive onsite warranty from the date of successful installation and final acceptance of the supplied system by CSIR-IICT user.		
2.	Technical Specifications Page 67 Scope of Supply and incidental	7. Volume of Reactor: 1 - 2 L	7. Volume of Reactor: 0.5 -1 L or better is accepted
	work Detailed Technical Specifications Biomethane Potential Testing Machine – I (Batch)	8. Mechanical mixing between 50 – 250 RPM (Variable Speed)	8. Mechanical mixing between 50 – 220 RPM or better (Variable Speed) is accepted
		10. Operational pressure: between 0.1 to 1 bar	10. Operational pressure between (-)50 to 50 mbar is accepted
		11. Operational Temperature: between 20 oC to 75 oC with precision of ± 0.1 oC and a tolerance of ± 0.5 oC	11. Operational Temperature: 0 to 60 'C with precision of ± 2 °C
	Technical Specifications Page 67, 68 Scope of Supply and incidental work	4.MOC of reactors: HDPE/Glass/Stainless steel	4. Stainless Steel is accepted
	Biomethane Potential Testing Machine – II (Continuous)	10.Mechanical mixing between 50 – 250 RPM (Variable Speed)	10. Mechanical mixing between 50 – 220 RPM or better (Variable Speed) is accepted
		12.Operational pressure: between - 50 – 50 mbar	12. Operational pressure between (-) 50 to 50 mbar is accepted
		13.Operational Temperature: Upto 60 'C with precision of ± 0.2 oC	13. Operational  Temperature range between 0 to 60 °C

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			with precision of ± 2 °C is accepted
4.	Bid Security/ Earnest Money Deposit Page 2 Table Bid Security (EMD) EMD is to be submitted in the form of "Bid Security Declaration (BSD)" Form as per the FORM-3 in the tender document OR Rs.80,000.00 OR USD 900.00 OR equivalent Bid Security/Earnest Money Deposit— At Page 3 (i) The amount of bid security/EMD shall be a) In case of Indigenous Bidder: NIL	Can Non-Local Content Supplier shall be eligible to submit Bid Security declaration to claim EMD Exemption?	Indian agent of foreign OEM can submit BSD. Otherwise EMD needs to be submitted.
	Delivery Period Page 63 In case of supplies from within India, the mode of transportation shall be by Road. Delivery period: 6-8 weeks from the date of Purchase Order Page 7 Delivery period required for supplying the material should be invariably specified in the quotation. The offered delivery period shall have to be strictly adhered to in case an order is placed.	Delivery Period would be 10- 12 Weeks from the date of purchase order.  • Where to specify delivery period in quotation – Technical quotation or Commercial quotation	10 – 12 weeks delivery period is acceptable  Delivery period to be mentioned in the technical quotation
	BOQ Page 39 1.32.7 The bids shall be evaluated on the basis of final landing cost which shall be arrived as under:	Arka BRENStech Pvt. Ltd. (ABPL) is an authorised distributer for the BPC Instruments (OEM from Sweden). • How BOQ shall be filed by an Authorised distributor in India. • And Billing will be done in INR.	Bid can be submitted either in foreign currency or Indian rupees by Indian agent as it is multi-currency bidding. In case of foreign currency quote LC mode will be followed
	For Goods manufactured in India/ abroad Page 39 1.32.7 The bids shall be evaluated on the basis of final landing cost which shall be arrived as under:	ABPL is an authorized distributor for BPC Instruments, the OEM based in Sweden, in India. The goods provided by ABPL are manufactured in Sweden and will be imported into India for distribution. As an authorized distributor, ABPL will handle the distribution of these goods within India, onsuring compliance with all	Already explained in preceding para. Indian agent can submit quote in foreign currency based on instruction document received from foreign OEM

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	relevant regulations, while	
	facilitating the purchase and	
	payment process in Indian Rupees	
	(INR). Whether these points (For	
	Goods manufactured abroad) will	
	be applicable to the authorised	
	distributer and based on this how	
	BOQ shall be filled?	
Page 66-67	Major items are bought from	For local items quote can
Chapter-5	Sweden.	be submitted in Indian
Price Schedule Forms	• 2-3 items shall be brought	rupees also. BOQ
	from India.	provide the option.
	• Do we have to fill both the	Please upload detailed
	forms or only one form?	price bid in pdf along
	• Billing shall be done in INR.	with the BOQ

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