

## MINUTES OF PRE-BID MEETING

**NAME OF THE WORK: SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF MULTI EFFECT EVAPORATOR FOR ZERO LIQUID DISCHARGE PLANT AT COCHIN SPECIAL ECONOMIC ZONE.**

**Tender No: NIT No.: WAP/ENVT/H-3082/CSEZ/2019-20/22; Dated 06.09.2019**

**Date & Time:** 13.09.2019 at 15:00 Hours

**Venue:** WAPCOS Limited, CSEZ Project Office, Kakkanad

### **Members Present:**

1. M/s. Membrane Group India
2. M/s. SS Techno Limited

### **Email Received:**

3. Murugappa Organo Water Solutions Pvt Ltd.
4. Chemin Enviro Systems Private Limited.

<b>Sl. No</b>	<b>Queries</b>	<b>Replies</b>
<b>I.</b>	<b>M/s. Membrane Group India</b>	
1.	<b>SECTION– II: Selection and Qualifying Criteria.</b> For Eligibility Criteria, Please allow similar work including Supply Installation and Commissioning of Multiple effect evaporator followed by and ATFD system for 60 KLD RO reject without crystalizer.	Supply Installation and Commissioning of Multiple effect evaporator followed by ATFD system shall be considered as “similar work”.
2.	<b>SECTION– II 4.1 Terms of Payment:</b> It indicate Warranty of plant 2 Years from the date of trail run. As most of the equipments like pump, Blower, boiler comes under warranty of 1 Year so we requested, Warranty Clause to be revise to 1 year and Performance Bank Guarantee also.	The Defect Liability Period (DLP) shall be for a period of 12 months with effect from the date of successful completion of trial run for equipment’s like pump, Blower, boiler etc. Performance Guarantee shall be 2 years for the performance of the entire plant.
3.	<b>SECTION III, 3.0 TECHNICAL SPECIFICATION,</b> During Inspection Lodging and Boarding shall be Born by successful bidder but TA and DA scope need to clarify.	Bidder shall arrange lodging and local transportation at the site. TA and DA shall be in the Scope of the Bidder.
4.	<b>SECTION III, 3.0 TECHNICAL SPECIFICATION,</b> S. No 24: Defect Liability Period of shall be for a period of 24 months after trial run of 1 month and successful commissioning of entire plant. Manufacturing, installation and operational	The Defect Liability Period (DLP) shall be for a period of 12 months with effect from the date of successful completion of trial run for equipment’s like pump, Blower, boiler.

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	defects shall be covered under the Defect Liability Period.	Performance Guarantee shall be 2 years for the performance of the entire plant.
5.	<b>SECTION III, 3.0 TECHNICAL SPECIFICATION,</b> S. No 30: All clearances / approvals from Pollution Control Board or any other Government Authority shall be the responsibility of the bidder	Clearances / approvals from Pollution Control Board or any other Government Authority shall be in client's scope; the selected Bidder has to provide all necessary assistance such as technical details/ presentation(s) etc., to the Client in this regard.
6.	Technical specifications for steam boiler, Page no 35. Maximum steam output (F & A 100 deg. C) 2500 kg/hr Please confirm whether capacity can be reduce as per actual steam requirement? Also Non-IBR Type Boiler of 2 Nos (2W) 850 Kg/hr each capacity can be meet the requirement.	NIT Condition Prevails. Boiler should be IBR certified only.
7.	<b>Section III S. No. 31., Page No.29:</b> The selected bidder shall liaison with the civil works contractor during the execution of the civil works and undertake supervision during the execution of civil works in order to ensure full compliance in accordance with the designs and drawings submitted by the bidder.	NIT Condition Prevails.
8.	<b>Section III 4.0 General Specifications</b> Battery Limit Page no: 37 Electricity: During construction of the plant up to completion and successful commissioning, the electricity & diesel charges shall be borne by the bidder. The power tariff per unit may be considered as per the latest prevailing circulars of Kerala State Electricity Regulatory Commission (KSERC) as amended from time to time. The current tariff is Fixed Charges at Rs. 150/KVA/month plus Rs. 6.00 per unit.	During construction of the plant up to completion and successful commissioning, the electricity & diesel charges shall be borne by the bidder. CSEZ has a substation and the power - can be supplied from the substation.
<b>II</b>	<b>SS Techno Limited</b>	
9.	We have successfully commissioned more than 250 systems. In our ZLD technology the last effect of evaporator itself act as a crystallizer, so separate crystallizer is not required. We can provide the reference of Multiple effect evaporator followed by ATFD system and	Supply Installation and Commissioning of Multiple effect evaporator followed by ATFD system shall be considered as "similar work".

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	Multiple effect evaporator followed by Pusher Centrifuge to fulfil your qualification criteria.	
10.	<p><b>Section III</b>  <b>2.0</b>  Page no:26  Please note that our offered ZLD plants operate on 24 hrs. basis. The CIP (Cleaning-In-Place) for the system will be once in 15 days using chemicals only. No manual / physical cleaning would be required.</p>	Time operation shall consider 20 hrs, for smooth operation.
11.	<p><b>Section III</b>  <b>3.4</b>  Page no:27  As per our policy we can not provide detailed fabrication drawing as it is proprietary information of SSTL</p>	Bidder has to prepare and submit all civil foundations, structural drawings and loading data of each and every plant & machinery, piping, electrical cabling, instrumentation, circuit drawing, layout drawing, isometric drawings, equipment layout drawings etc. for approval.
12.	<p><b>Section III</b>  <b>3.24</b>  <b>Page no: 29</b>  The offered equipment/s are warranted for trouble free operation, mechanical workmanship and material for a period of 12 months from the date of commissioning or 15 months from the date of dispatch/ readiness of equipment/material, whichever is earlier. The warrantee is valid subject to routine proper maintenance of plant by you.  The standard warrantee clause of original manufacturer shall be applicable for all the bought out items like blowers, motor, pumps, instruments etc., The warrantee shall not be applicable for consumable ,Mechanical Seals / rubbers / plastics / glass /electrical / electronic items / rotary equipment, etc.  The warrantee shall preclude any claim direct or indirect consequential or liquidated damages arising out of said contract and our liability shall be limited to repair / replace any of the defective components at our option.</p>	The Defect Liability Period (DLP) shall be for a period of 12 months with effect from the date of successful completion of trial run for equipment's like pump, Blower, boiler. Performance Guarantee shall be 2 years for the performance of the entire plant.
13.	<p><b>Section III</b>  <b>3.26</b>  Page no: 29  All the bidders are required to include preliminary engineering drawings such as Layout Plan, Hydraulic Flow Diagram, Piping &amp; Instrumentation (P&amp;I) Diagram in their technical</p>	NIT Condition Prevails.

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	<p>bid along with Process Calculations, Hydraulic Calculations, Pipe Sizing calculations and any other necessary details. For assessment of site conditions and actual topography, bidders are advised to visit site before bidding.</p> <p>As per our policy concern we can not provide process calculations, Hydraulic calculations and Pipe size calculations as they are proprietary information of SSTL but we guarantee the performance of equipment.</p>	
14.	<p><b>Section III</b> <b>3.31</b> Page no: 29 The selected bidder shall liaison with the civil works contractor during the execution of the civil works and undertake supervision during the execution of civil works in order to ensure full compliance in accordance with the designs and drawings submitted by the bidder. We will provide civil load list and GA drawing. If supervision is required then extra charge will be attracted</p>	<p>All the civil drawings has to be prepared by Bidder. The structural design shall be done by WAPCOS. Bidder shall be also required to monitor the civil works from time to time, whether the same is as per their requirements.</p>
15.	<p><b>Section III</b> <b>Plant and Machinery</b> Page no:30 Change in details for: Tube MOC &amp; type – SS316Ti (Seamless) For calendria 1,2 &amp; 3 Tube dia is 38.1 mm For calendria 1,2 &amp; 3 Tube thickness is 1.6 mm Recirculation Pumps with motors Type: Axial flow pumps Crystallizer Condenser tube MOC: SS 316Ti (seamless)</p>	<p>NIT Condition Prevails.</p>
16.	<p><b>Submission of Drawings / design sheets / Data sheets</b> Page no: 50 Detailed Design Calculation sheets for electrical and mechanical works / equipment.</p>	<p>Detailed Design Calculation sheets for electrical and mechanical works / equipment has to be provided.</p>
17.	<p><b>Prerequisites after completion of supply of equipment</b> Page no: 51,88 Bidder shall make arrangements for proper storage of the equipment supplied by him at site before being installed at their respective positions. All materials and requirements shall be stored properly to the satisfaction of the Engineer so that physical handling and climatic conditions do</p>	<p>The same shall be in Bidder Scope.</p>

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	not affect the equipment.	
18.	<p><b>Pump Specifications</b> Lifting Chain Page no: 57 Each pump should be provided with SS 304 lifting chain of adequate strength. One end of the chain shall be attached to the pump and the other end fixed near the upper bracket for guide wire/rail assembly by means of SS 304 Shackle. We shall provide Lifting lugs only</p>	NIT Condition Prevails.
19.	<p><b>Pump Specifications:</b> Change in Foundation Nuts &amp; Bolts Page no: 57 Please note that all foundation nuts &amp; bolts for ZLD shall be Grade 10.9 instead of SS316</p>	NIT Condition Prevails.
20.	<p><b>Penalty Clause</b> Page no: 109 Any deviation from the assured recovery as proposed by the bidder for the RO system shall invite penalty at the rate of 200% over and above the actual cost involved in the treatment of the difference in the assured and actual quantities.</p>	The point has been deleted.
<b>III</b>	<b>Chemin Enviro Systems Private Limited</b>	
21.	<p><b>Page No. 05, - EMD &amp; Tender Fees</b> We have registered under MSME, with reference to the tender conditions shall we submit the MSME registration certificate instead of EMD &amp; Tender fee DD. Please Confirm.</p>	Bidder has to provide MSME Certificate for EMD & Tender fees exemption.
22.	<p><b>Page no. 19 &amp; Page No. 22, - Instruction for Bid Submission</b> We need a clarifications regarding the offline mode of technical bids submission. Because Page No. 19 instructions found for only the online submission. Kindly clarify if there is any option to submit the technical bid as offline too.</p>	The EMD and Tender Fee submission shall be in offline mode. The Technical and Financial proposal submission shall be online.
23.	<p><b>Page No. 26 - Feed Characteristics</b> We need a inlet Sulphate salt Percentage. Based on this we can arrive the Sulphate recovery rate and proportionate steam consumption. Please confirm.</p>	70% of the waste water (raw effluent) is from Textile industry.
24.	<p><b>Page No. 27 - General Scope of Work</b> During the period of Erection and Commissioning, cost of the Utilities like Power, Water and Steam etc. are the exception from our Scope. Kindly confirm</p>	NIT Condition Prevails.
25.	<p><b>Page No. 29 - Defect Liability period</b> We provide the defect liability period for 12 motnhs from the completion date of</p>	The Defect Liability Period (DLP) shall be for a period of 12 months with effect from the date of successful

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	commissioning. Its only covered for Manufacturing and Installation defects. Not Considered for Operational defects Kindly confirm.	completion of trial run for equipment's like pump, Blower, boiler. Performance Guarantee shall be 2 years for the performance of the entire plant.
26.	<b>Page No. 26, Point No. 02 - Scope of the Work</b> We have Considered Condensate Tanks are in RCC. It's a Client Scope. Kindly clarify.	Civil work shall be in – Client's scope.
27.	<b>Page No. 33 - ATFD</b> Heat Transfer Area - Min 25Sq. Mtr Shall we modify/design this area as per the system requirement. As per our design its comes between 12-15 Sq.mtr Only. Please Confirm.	The design modification for ATFD may be Vendor specific. However, suitable justification for the deviation from the tender specifications should be submitted.
28.	<b>Page No. 46 to 49</b> At the time of technical bid submission, Shall we proceed the reputed makes for some items instead of the mentioned table after getting the approval from WAPCOS/CSEZA. Please Confirm.	Vendor may propose other reputed makes or equivalent along with suitable justification. However, final decision shall be of WAPCOS/CSEZA.
29.	<b>Page No. 120 - Contract Data</b> In Point No. 7, After Completion of construction of the plant, the ZLD system with RO and RMS will be put on trial run for 2 months. After successful completion of trail period the bidder will carry out O & M works for 5 years.	The Point has been deleted.
30.	<b>Page No. 121 - Contract Data</b> In Point no. 11, Insurance We covered the insurance for the materials at the time of transportation and also covered the personal as well as the safety insurance for the site working persons during the work period. Please Confirm.	NIT Condition Prevails.
31.	<b>Page No 29 and Page No.120</b> Page No.29: Trial Run of the Plant -1 Month & Page No.120 the Trial run period of the plant was 2 Months.	Trial Run of the RMS Plant -1 Month.
<b>IV</b>	<b>Murugappa Organo Water Solutions Pvt Ltd</b>	
32.	We have reference of MEE with AFTD but without Crystallizer centrifuge for capacity as mentioned in tender. Kindly let us know whether the same shall be considered for PQR. Based on your confirmation we shall take up for further process.	Supply Installation and Commissioning of Multiple effect evaporator followed by ATFD system shall be considered as "similar work".

Sd/-

**General Manager (SEZ)**