

Price ₹ 15,000/-  
(Non-refundable)



**वाष्कोस लिमिटेड**  
**WAPCOS LIMITED**

(भारत सरकार का उपक्रम)  
जल संसाधन, नदी विकास व गंगा संरक्षण मंत्रालय  
(A Government of India Undertaking)  
Ministry of Water Resources, River Development & Ganga Rejuvenation

**ISO 9001: 2008**

- Consultancy Services
- Engineering, Procurement & Construction (EPC)

NIT No.: WAP/H-3082/CSEZ/IWMS/ZLD/2017 dated the April 03, 2017

## NOTICE INVITING TENDER FOR SELECTION OF AGENCY

**Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 Years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in Cochin Special Economic Zone (CSEZ), Kakkanad, Cochin**

**WAPCOS Limited**  
(A Government of India Undertaking)  
Project Office, Cochin Special Economic Zone,  
CSEZ Administrative Building,  
Kakkanad, Cochin – 682 037  
Telephone: 0484-2413544  
E-mail: [wapcos.csez@gmail.com](mailto:wapcos.csez@gmail.com)

NIT No.: WAP/H-3082/CSEZ/IWMS/ZLD/2017 dated the April 03, 2017

**WAPCOS Limited**  
**(A Government of India Undertaking)**  
**Project Office, Cochin Special Economic Zone,**  
**CSEZ Administrative Building,**  
**Kakkanad, Cochin – 682 037**

**NOTICE INVITING TENDER FOR DESIGN, ENGINEERING, SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND OPERATION & MAINTENANCE (O&M) FOR 5 YEARS OF ZERO LIQUID DISCHARGE (ZLD) SYSTEM WITH REVERSE OSMOSIS (RO) INCLUDING REJECT MANAGEMENT FOR COMMON EFFLUENT TREATMENT PLANT (CETP) IN CSEZ**

Cochin Special Economic Zone Authority (CSEZA), under the Ministry of Commerce and Industry, Government of India has appointed WAPCOS Limited, as '*Owner's Engineer*'. WAPCOS Limited, invites Sealed Tenders in **two cover system** from eligible, reputed and experienced companies/firms for Design, Engineering, Supply, Installation, Testing, Commissioning And Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ.

For overview of the scope, pre-qualification criteria, bidding terms and conditions, visit website <http://www.csezauthority.in>.

Interested firms/companies who meet the pre-qualification criteria may furnish their Tender with all necessary documents in sealed two cover system along with the covering letter duly signed by an authorized signatory, refundable EMD and non-refundable cost of the tender document in the form of a demand draft on or before 24.04.2017 by 15.00 hrs. at the following address:

**The Team Leader**  
**WAPCOS Limited**  
**(A Government of India Undertaking)**  
**Cochin Special Economic Zone Project Office,**  
**CSEZ Administrative Building,**  
**Kakkanad,**  
**Cochin – 682 037**  
**Telephone: 0484-2413544**  
**E-mail: [wapcos.csez@gmail.com](mailto:wapcos.csez@gmail.com)**

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## SECTION – I

### NOTICE INVITING TENDER

**NIT No.: WAP/H-3082/CSEZ/IWMS/ZLD/2017 dated the April 03, 2017**

**Subject:** NIT for Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ.

NIT in **two cover system** is invited by **The Team Leader, WAPCOS Limited, CSEZ Project Office** from eligible, reputed agencies meeting the pre-qualification and eligibility criteria for Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ, covering the scope of services specified/detailed herein in this NIT.

1	Name of work	Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ.
2	Duration of work	<ul style="list-style-type: none"><li>• Six months for Design, Engineering, Supply, Installation, Testing and Commissioning</li><li>• Sixty Months for Operation &amp; Maintenance (O&amp;M)</li></ul>
3	Tender Document	The tender document can be downloaded from <a href="http://www.csezauthority.in">www.csezauthority.in</a> from 03-04-2017 to 24-04-2017
4	Last date and time: 1. Submission of Tender 2. Opening of Technical bid	24-04-2017 at 15.00 Hrs  24-04-2017 at 15.30 Hrs
5	Date and time of financial bid opening	Shall be intimated after completion of technical bid evaluation.
6	Cost of the Tender document to be submitted along with tender	Rs 15,000/-
7	EMD to be submitted along with tender	Rs 10,00,000/-

**For any pre-bid queries, the eligible bidders may contact latest by 20.04.2017 till 15.00 hours at 0484-2413544, E-mail: [wapcos.csez@gmail.com](mailto:wapcos.csez@gmail.com) or in the Pre-bid meeting to be held on 12.04.2017 at 11.00 AM. Site visit to the existing CETP shall also be arranged on the same day.**

## SECTION - II

### 1. INTRODUCTION

Cochin Special Economic Zone (CSEZ) is a Special Economic Zone functioning under the Administrative control of the Department of Commerce, Ministry of Commerce & Industry, Government of India. The Zone acts as an export hub for the industries whose products are marketed overseas.

Cochin Special Economic Zone Authority (CSEZA) is an authority created under Special Economic Zone Act, 2005. It functions as an infrastructure facilitator of the Zone by assuming the role of a Developer of the Zone. CSEZA distributes power and water required by the industries in the Zone. It also manages a common effluent treatment plant within the Zone. CSEZA has appointed **WAPCOS Limited**, A Government of India Undertaking under the Ministry of Water Resources, River Development and Ganga Rejuvenation as '*Owner's Engineer*'.

WAPCOS intends to select an agency for Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ in an efficient manner through engagement of reputed agencies having relevant experience. The successful agency should enter into an agreement with WAPCOS Limited for the same.

### 2.ELIGIBILITY CRITERIA

- The agency should have experience in Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) of ZLD System with RO of **capacity 1.5 - 2.0 MLD** including Reject Management.
- JV/Consortium bids will not be allowed.

While submitting the bid, the applicant shall meet the conditions of eligibility described below:

Sl. No.	Eligibility criteria	Documents to be submitted
3.1	Should be a limited company/firm registered in India.	<ul style="list-style-type: none"> <li>• Certificate of incorporation</li> <li>• Memorandum of Articles of Association</li> </ul>
3.2	Annual Turnover for last three consecutive years should be minimum of Rupees Two Crores per annum	Profit and Loss Account, Balance sheet for 2013-14, 2014-15 and 2015-16.
3.3	Should have completed atleast one similar nature of work in a single contract as Prime Contractor.	Experience Certificates

### 3.0 GENERAL CONDITIONS OF CONTRACT

#### 3.1 Validity of offer

The offer shall be valid for a period of ninety days from the date of submission.

#### 3.2 EMD and cost of Tender Document

Contractor/Agency shall submit an EMD and cost of Tender Document as specified in the Tender Notice by Demand Draft from any Scheduled Bank drawn in favour of WAPCOS LTD payable at Cochin. The EMD of unsuccessful tenderers will be re-funded.

#### 3.3 Rates

The rates quoted shall include all the taxes, PF, ESI, etc. All the personnel employed by the Contractor should have PF account and ESI. Necessary proof shall be produced in the office of WAPCOS LTD. Statutory obligations like ESI, Provident Fund, Insurance, Medical expense/claim due to any accidents etc., of the personnel employed by the Contractor/Agency shall be met by the Contractor, and WAPCOS LTD./CSEZA shall not be held liable nor responsible for any such defaults. TDS shall be deducted from the Contractor's bills as per rules. The tenderer should quote the rate(s) tendered in figures as well as in words. **The rates shall be firm for the period from the date of the award of contract till the completion of Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years as per agreement and no escalation whatsoever will be allowed during this period.**

#### 3.4 Agreement

The selected agency will have to sign an agreement with WAPCOS Limited as per the format specified in Annexure B. The agreement is non-exclusive in nature. The agreement shall not restrict WAPCOS/CSEZA from contracting for identical or similar services from any other person/party.

**Duration of agreement:** This agreement shall initially be valid for a period of the contract which may be extended for an additional period unless as provided herein revoked earlier for whatever reasons. If at any stage during the tenure of this agreement, it comes to the notice of WAPCOS, directly or through some other complaint, that the agency had misrepresented the facts or submitted any false information or hidden any information, which could have affected the signing of this agreement with the agency, this agreement shall stand terminated immediately upon intimation to the agency. On completion of the tenure of the agreement, the agency shall hand over all the materials belonging to the Client or to the Client's representative and the Agency shall remove all materials belonging to them including workforce from the site without any delay. However, the agency shall continue to discharge their responsibilities on the same terms and conditions till the next agency takes over.

**Restrictions on Transfer agreement:** The agency shall not assign or transfer its right in any manner whatsoever under this agreement to a third party or enter into any agreement for sub-contracting and/or partnership relating to any subject matter of the agreement to any third party either in whole or in any part i.e. no sub-contracting/partnership/third party shall be created without the prior written consent of WAPCOS/CSEZA.

**Liability:** Except as provided in this Agreement, hereinbefore, WAPCOS shall not be liable to the Agency by virtue of termination of this agreement for any reason whatsoever for any loss or profit or on account for any expenditure, investment, leases, capital improvements or any other commitments made by the other party in connection with their business made in reliance upon or by virtue of this Agreement.

### **Suspension, Revocation or Termination of agreement**

WAPCOS on behalf of CSEZA reserves the right to suspend the operation of this agreement, at any time, due to change in its own license conditions or upon directions from the competent government authorities. In such a situation, WAPCOS/CSEZA shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Further, the suspension of the agreement will not be a cause or ground for extension of the period of the agreement and suspension period will be taken as period spent. During this period, no charges shall be payable by WAPCOS/CSEZA.

WAPCOS may, without prejudice to any other remedy available for the breach of any conditions of agreement, by a written notice of one month issued to the agency at its registered office, terminate / or suspend this agreement under any of the following circumstances:

- a) The agency failing to perform any obligation(s) under the agreement.
- b) The agency failing to rectify, within the time prescribed, any defect as may be pointed out by WAPCOS/CSEZA.
- c) Non-adherence to undertakings which CSEZA has committed to consumer.
- d) The agency going into liquidation or ordered to be wound up by competent authority.



Either party may terminate the agreement, by giving notice of at least one month in advance. The effective date of surrender of agreement will be one month counted from the date of receipt of such notice by the other party or the authority that signed the agreement on behalf of other party.

If the agency is wound up or goes into liquidation, it shall immediately (and not more than a week) inform about occurrence of such event to WAPCOS in writing. In that case, the written notice period can be reduced by WAPCOS as deemed fit under the circumstances. WAPCOS may also either decide to issue a termination notice or to continue the agreement by suitably modifying the conditions, as it feels fit under the circumstances.

It shall be the responsibility of the agency to maintain the agreed quality of service, even during the period when the notice for surrender/termination of agreement is pending and if the quality of performance is not maintained, during the said notice period, it shall be treated as material breach liable for termination at risk and consequent of agency and Security Deposit shall be forfeited, without any further notice.

Whenever breach of non-fulfilment of agreement conditions may come to the notice of WAPCOS through complaints or as a result of the regular monitoring, wherever considered appropriate WAPCOS may conduct an inquiry either suo-moto or on complaint to determine whether there has been any breach in compliance of the terms and conditions of the agreement by the agency or not. The agency shall extend all reasonable facilities and shall endeavour to remove the hindrance of every type upon such inquiry.

**Actions pursuant to Termination of Agreement:** Notwithstanding any other rights and remedies provided elsewhere in the agreement, upon termination of this agreement.

- a) Agency shall not represent the WAPCOS/CSEZA in any of its dealings.
- b) Agency shall not intentionally or otherwise commit any act(s) as would keep a third party to believe that it is still the WAPCOS/CSEZA's service provider.
- c) The expiration or termination of the Agreement for any reason whatsoever shall not affect any obligation of either Party having accrued under the Agreement prior to the expiration or termination of the Agreement and such expiration or termination shall be without prejudice to any liabilities of either Party to the other Party existing at the date of expiration or termination of the Agreement.

### **3.5 Security Deposit**

The successful bidder has to submit an Initial Security Deposit of amount equal to the 2.5% of the awarded value (including EMD) by way of DD from any Scheduled Bank in favor of WAPCOS Ltd, Cochin within 7 days of receipt of the work order and WAPCOS Ltd. shall deduct additional Security Deposit of 2.5%. The same shall be deducted equally in the running bills, which will alongwith the amount of initial security deposit already deposited, amount to 5% of the gross amount of the bill. The Security Deposit will be refunded after satisfactory completion of contract period.

### **3.6 Payment**

The Contractor / Agency shall submit the bills as per the terms of payment and payment will be made within 30 (thirty) days of receipt of the bill. All the applicable taxes and duties will be deducted from each bill.

Penalty for error/variation: In case any error or variation than what was intended for is detected in the materials supplied and work executed by the Agency and such error or variation is the result of negligence or lack of due diligence on the part of the Agency, the consequential damages thereof shall be quantified by WAPCOS/CSEZA in a reasonable manner and recovered from the Agency from payments due to them by way of penalty, subject to a maximum of 50% (fifty percent) of the fee for the respective material supplied and work. However, if the Agency submits justification for the variation to the satisfaction of WAPCOS/CSEZA, then the penalty shall not be imposed.

### **3.7 Insurance for Contractor's personnel**

The Contractor/Agency shall maintain accident insurance (Group) policy for all the personnel employed by him in the Zone. Necessary proof of this shall be produced to WAPCOS LTD./CSEZA authorities for verification. Statutory obligations like payment of PF, ESI of the personnel employed shall also be the responsibility of the Contractor/Agency and WAPCOS LTD./CSEZ shall not be held responsible for any failure by the Agency on these counts.

### **3.8 Removal of an employee from duties**

The service provided by each person engaged by the Contractor/Agency shall be satisfactory to WAPCOS LTD./CSEZA. If WAPCOS LTD./CSEZA intimates the Contractor/Agency regarding misconduct, incapability, delay in discharging duties or non-performance of any personnel employed by the Contractor, he shall be removed from his duties in the CSEZA and the Contractor/ Agency shall provide suitable substitutes immediately.

### **3.9 Assignment**

The rights and obligations arising out of this agreement shall not be assigned or transferred to a third party without prior written consent of either party.

### **3.10 Completion of tenure**

On completion of the tenure of the agreement, if not renewed, the Contractor/Agency shall handover all the materials belongings to CSEZA to WAPCOS LTD./CSEZA representative and the Contractor shall remove all materials belonging to him including the workforce without any delay.

### **3.11 Force Majeure**

If performance by either party of its duties and obligation under this agreement is prevented or delayed by circumstances of force majeure including, but not limited to fire, flood, earthquakes, strike, war, riots, insurrection, any action undertaken or restriction imposed by authority of any Government agency or court, shortage of equipment or raw materials or any other act beyond its reasonable control, the time within which the affected party must

perform shall be delayed for a period under such circumstances to a maximum of 120 days during which the parties shall use alternate methods, but after which period either party shall have the right to terminate the agreement. Determination of this agreement shall not relieve either party from the payment of the sum or performance of other duties and obligations, which may be owing to the other, as a result of the operation of this agreement prior to such termination.

### **3.12 Termination**

Notwithstanding anything contained herein, either party to this agreement shall have the right to terminate this contract by giving the other party 30 days notice in writing. If the service of the Contractor/Agency is found to be not satisfactory, the contract will be terminated with one months notice and the Contractor/Agency will not be eligible for any compensation on this account.

### **3.13 Settlement of Disputes**

In the event of any question, dispute or difference arising under this agreement or in connection there-with (except as to the matters, the decision to which is specifically provided under this agreement), the same shall be referred to the sole arbitration by a person appointed by the CMD, WAPCOS. The arbitration will be in accordance with the Arbitration and Conciliation Act 1996 and subsequent amendments till date.

The award of the arbitrator shall be final and binding on both the parties to the agreement. In the event of such an arbitrator to whom the matter is originally referred, vacating his office or being unable to act for any reason whatsoever, the CMD, WAPCOS shall appoint another person to act as an arbitrator in accordance with terms of the agreement and the person so appointed shall be entitled to proceed from the stage at which it was left out by his predecessors.

The arbitrator may from time to time with the consent of both the parties enlarge the time frame for making and publishing the award. Subject to the aforesaid, Arbitration and Conciliation Act, 1996 and the rules made there under, any modification thereof for the time being in force shall be deemed to apply to the arbitration proceeding under this clause. The venue of the arbitration proceeding shall be at Delhi or such other places as the arbitrator may decide. Courts at Delhi shall have exclusive jurisdiction with respect to any matter arising out of or in relation to such arbitration proceedings.

### **3.14 Compensation Clause**

If the Agency is engaged to execute any project based on a separate work order, WAPCOS shall be entitled to include a clause for liquidated damages as under: Should the agency fails to deliver its responsibilities within the period prescribed and agreed, WAPCOS without prejudice to other remedies available to it, shall be entitled to recover liquidated damages for breach of contract without any necessity to prove the same, a sum equivalent to 0.5% of the value of the work for each week of delay or part thereof for a period up to 10 (Ten) weeks, and thereafter at the rate of 0.7% of the value of the delayed commissioning for each week of delay or part

thereof for another TEN weeks of delay. The Agency should acknowledge that the said amount represents reasonable compensation as it is difficult to prove the quantum of damages that will be suffered by WAPCOS/CSEZA. The total value of the liquidated damages as per above shall be limited to a maximum of 12% (Twelve percent) i.e. LD shall be levied up to 20 weeks only. However, in case of delay due to reasons beyond the control of the Agency, suitable extension of time shall be granted.

Non-adherence to Service Level Agreement (SLA), which CSEZA has committed to consumer: CSEZA may also deduct the amount at actual which CSEZA may be required to pay to consumer on account of non-adherence to SLA, from agency's balance payment or security deposits, if due to failure on the part of agency, CSEZA could not meet the SLA conditions.

Without prejudice to its rights and any other remedy, WAPCOS may en-cash Security Deposit in case of any breach of terms and conditions of the agreement or in case of business loss suffered by WAPCOS/CSEZA due to failure of service on the part of agency.

### **3.15 Confidentiality of Information & Intellectual Property:**

Subject to conditions contained in this Agreement, the agency shall take all necessary steps to safeguard the privacy and confidentiality of any information about WAPCOS/CSEZA and its consumers from whom it has acquired such information by virtue of the service provided and shall use its best endeavors to secure that:

The Agency shall not retain any information related to this agreement, in any medium, and shall return all copies. All materials prepared at the request of and for WAPCOS/CSEZA shall remain the property of WAPCOS/CSEZA except with the written consent.

Neither party will use the other party's name nor marks, refer to or identify the other party in any advertising or publicity releases or promotional or marketing correspondence to others without such other party's written approval.

### **Indemnification**

The agency agrees to protect, defend, indemnify and hold harmless WAPCOS/CSEZA and its employees, officers, directors, agents or representatives from and against any and all liabilities, damages, fines, penalties and costs (including legal costs and disbursements) arising from or relating to:

- a) Any breach of any statute, regulation, direction, orders or standards from any government body, agency or regulator applicable to such party;
- b) Any breach of the terms and conditions in this agreement by the agency.

- c) Any claim of any infringement of any intellectual property right or any other right of any third party or of law by the agency;

The agency shall be fully responsible for the employment and payment of wages to its employees and shall fully comply with all laws, rules, regulations, notifications, directions orders etc. of the Government whether Central, State, Local or Municipal relating to such employment, payment of wages etc. and all others matter connected therewith and hereby indemnifies and agrees to continue indemnifying WAPCOS/CSEZA in this regard.

The employees of the Agency shall have no right for employment either with the Client during the pendency of the agreement or after, or with Agency. The personnel employed by the Agency shall at all times be employees of the Agency and all statutory dues to and obligations and liabilities in respect of such employees shall be promptly paid and discharged by it. Notwithstanding their responsibility to comply with any directions or instructions given by the Client, the personnel employed by the Agency will not, for any purposes whatsoever, be treated or deemed to be employees of Client or have any claim or right whatsoever for employment with the Client and the Client will have no obligations or liabilities whatsoever in relation to any of them or in respect of anything done or omitted to be done by any of them

This clause shall survive the termination or expiry of this Agreement.

**Relationship:** Each party understands that it is an independently owned business entity and this Agreement does not make it, its employees, associates or agents as employees, agents or legal representatives of the other party for any purpose whatsoever. Neither party has express or implied right or authority to assume or to undertake any obligation in respect of or on behalf of or in the name of the Other Party or to bind the Other Party in any manner. In case, any party, its employees, associates or agents hold out as employees, agents, or legal representatives of the other party, the former party shall forthwith upon demand make good any/all loss, cost, damage including consequential loss, suffered by the other party on this account. However, on a written consent from the WAPCOS/CSEZA, the agency may represent WAPCOS/CSEZA.

### **3.16 Jurisdiction**

Any dispute connected with this contract shall fall within the jurisdiction of Courts at Delhi/Ernakulam.

## **4.0 SPECIAL CONDITIONS OF THE CONTRACT**

### **4.1 Warranty of Material**

The equipments/materials as supplied by the agency shall have a warranty of two years and should provide letters of support from OEM (Original Equipment manufacturer) stating that their material as proposed by them will be supported for two years.

## **4.2 Guarantee of Work**

At the close of work and before issue of final certificate of total completion by WAPCOS, the Agency shall furnish a written guarantee indemnifying the WAPCOS/CSEZA against defective materials and workmanship for a period of two years after completion. The Agency shall hold themselves fully responsible for reinstallation or replace free of cost to WAPCOS/CSEZA during the Defect Liability Period as stipulated hereunder:

- a) Any defective material supplied or defective workmanship by the Agency
- b) Any material supplied by the Agency, which is proved to be damaged or destroyed as a result of defective workmanship by the Agency.

## **4.3 Taxes**

- For supply of equipments/materials, Excise Duty, CST and KVAT shall be avoided since the materials are being procured for use by CSEZ Authority. Required exemption documents and procedure shall be followed by the successful tenderer. If any documents are required from CSEZA for the same, they shall be provided.
- For installation, testing and commissioning part, service tax will be exempted as the work for CSEZA only.

## **4.4 Terms of Payment**

### **A. Design, Engineering, Supply, Installation, Testing and Commissioning**

- 10% of the total cost against submission of bank guarantee of equivalent amount
- 20% on design and engineering
- 40% on supply of materials/equipments at site
- 20% on installation, testing and commissioning
- 10% on completion of warranty period i.e. twenty four (24) months from the date of commissioning

### **B. Operation and Maintenance (O&M)**

Payment of equivalent amount shall be made on monthly basis.

## **4.5 Obligations of WAPCOS/CSEZA**

WAPCOS/CSEZA shall -

- Facilitate entry pass to all staff and personnel of the agency
- Ensure timely payment as specified elsewhere in this NIT.

## **4.6 Operation & Maintenance**

The company should provide details of manpower such as qualifications, nos required etc.

#### 4.7 Site Visit

The shortlisted agencies/companies after technical evaluation shall be required to make arrangements for site visit at their own cost to ZLD systems with RO including reject management of similar capacity installed by them for WAPCOS and CSEZA officials.

#### 4.8 Capacity Building

The selected agency/company shall be required to engage in Capacity Building through training and other suitable methods for WAPCOS and CSEZA officials.

### 5.0 SCOPE OF SERVICES

Zero Liquid Discharge (ZLD) system with RO of **capacity 2.0 MLD** including Reject Management is proposed to be installed for the tertiary treated effluent from Common Effluent Treatment Plant (CETP) of existing capacity 1.6 MLD at Cochin Special Economic Zone. The Scope of Work includes the Design, Engineering, Supply, Installation, Testing, Commissioning and Operation and Maintenance (O&M) of Zero Liquid Discharge System with RO including Reject Management for 5 years and shall cover the following:

- The proposed ZLD Option including membrane processes and reject water management should be as follows:
  - **Effluent treatment:**  
Tertiary treated effluent from CETP → Pre-treatment → RO – I (80% Recovery) → RO – II (60% Recovery) → RO – III (40% Recovery) **OR Equivalent/Vendor Specific**
  - **Reject water treatment:**  
Reject water → Polymeric based mechanical vapour recompression (MVR) (75-80% Recovery) → Double effect evaporator (55-60% Recovery) → Agitated thin film dryer (ATFD)
- Desirable TDS in Permeate at each stage – 400 mg/l
- The pre-treatment should remove suspended solids, particulate matter, organics and biological activity. It should consist of self-cleaning disk filter of size 20 μ followed by 1 μ micro-filtration to be provided prior to three stage RO system.
- The RO stage I, II and III should recover permeate of TDS concentration of 400 mg/L at 80%, 60% and 40% respectively, which should achieve a total permeate recovery of up to 95%. Further, permeate recovery from reject management system including MVR, DEE and ATFD should be also upto 95%.
- The proposed reject management system should comprise of polymeric based mechanical vapour recompression (MVR), double effect evaporator followed by agitated thin film dryer (ATFD).

- Following parameters may be considered for designing ZLD system;
  - Flow: 1500 m<sup>3</sup>/d
  - pH: 7.0 – 7.2
  - TDS: 1500 mg/l
  - SS: 10 mg/l
  - COD: 20 mg/l
  - BOD: 5 mg/l
- The major criteria for the ZLD system shall be to maximize water recovery by incurring minimum capital and O & M costs and least reject generation.
- The proposed ZLD system should be a techno-economic and environmentally sustainable treatment option with objectives of recycle and reuse of treated water for industrial purpose and prevention of discharge of partially treated water in existing pond.
- The recommendation of ZLD system should be based on assessment of available technologies such as micro-filtration (MF), ultra-filtration (UF), reverse osmosis (RO), mechanical vapour recompression (MVR), waste heat recovery (WHE), multiple effect evaporator (MEE), agitated thin film dryer (ATFD) etc. and the rationale for recommendation of proposed ZLD system should also be provided.

## **6.0 INSTRUCTIONS TO BIDDERS**

### **Submission of Tender**

Tender document can be downloaded from the web site **[www.csezauthority.in](http://www.csezauthority.in)**.

Separate Demand Draft for cost of Tender document and EMD payable at Cochin, drawn on any nationalized /scheduled Bank, in favour of WAPCOS Limited should be submitted along with the downloaded Tender Document. The fee for the tender is neither transferable nor refundable. The details of the tender fee should be clearly mentioned in the tender.

All costs & expenses associated with submission of tender shall be borne by the company submitting the tender and WAPCOS shall have no liability in any manner in this regard or if it decides to terminate the process of short-listing for any reason whatsoever.

While submitting the Qualification cum technical proposal, the applicant shall ensure that the applicant meets the conditions of eligibility described in the NIT.

Failure to comply with the requirements spelt out in NIT shall make the proposal liable to be rejected.



WAPCOS/CSEZA reserves the right to verify all statements, information and documents submitted by the applicant in response to the NIT. Failure of the WAPCOS/CSEZA to undertake such verification shall not relieve the applicant of its obligations or liabilities hereunder nor will it affect any rights of WAPCOS/CSEZA thereunder.

The tender shall be submitted by the bidder duly signed on each page of the tender document. In case the proposal is submitted on the document downloaded from official website, the bidder shall be responsible for its accuracy and correctness as per the version uploaded by WAPCOS/CSEZA and shall ensure that there are no changes caused in the content of the downloaded document. In case of any discrepancy between the downloaded or photocopied version of the NIT and the original NIT issued by the WAPCOS/CSEZA, the latter shall prevail.

The right to suspend the short-listing process or part of the process to accept or reject any or all applications at any stage of the process and / or to modify the process or any part thereof at any time without assigning any reason therefore is reserved by WAPCOS/CSEZA without any obligation or liability whatsoever.

The application will be sealed in an outer envelope which will bear the address of WAPCOS, NIT notice No., Agency name and the name and address of the agency. It shall bear on top, the following:

**“NIT-For Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ. Do not open, except in presence of the Authorised person”** and addressed to:

**Team Leader, WAPCOS Limited, Cochin Special Economic Zone Project Office, Kakkanad - 682 037**

The tender should contain the following documents.

- ✓ Tender as per the Performa in Annexure A with specified documents attached as annexure
- ✓ Tender fee and EMD in the form of DD
- ✓ A copy of the NIT signed, in the bottom of all pages as a token of acceptance of all terms and conditions.

If the envelope is not sealed and marked as instructed above, WAPCOS/CSEZA assumes no responsibility for the misplacement or premature opening of the contents of the Proposal submitted.

- (i) The aforesaid outer envelope will contain two separate sealed envelopes, one clearly marked ‘**Qualification cum technical Proposal**’ and the other clearly marked ‘**Financial Proposal**’. The envelope marked “**Qualification cum**

**technical Proposal”** along with tender fee and EMD shall contain the tender in the prescribed Forms at Annexure-B.

- (ii) The envelope marked **“Financial Proposal”** shall contain only the financial proposal in the prescribed format at Annexure-C.

The Proposal shall be made in the Forms specified in this NIT. Any attachment to such Forms must be provided on separate sheets of paper and only information that is directly relevant should be provided. This may include photocopies of the relevant pages of printed documents.

The rates quoted shall be firm throughout the period of performance of the assignment and discharge of all obligations of the Agency under the Agreement.

**Financial Proposal:** Applicants shall submit the financial proposal in the Forms at Annexure–C clearly indicating the total cost of the assignment in both figures and words, in Indian Rupees, and signed by the Applicant. In the event of any difference between figures and words, the amount indicated in words shall be taken into account. In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the lower of the two shall be taken into account.

While submitting the Financial Proposal, the Applicant shall consider the following:

- (i) All the costs associated with the assignment shall be taken into account in the Financial Proposal. These shall normally cover remuneration for all the Personnel, all administrative expenses (telephone charges, printing of documents, photocopying expenses, local travel expenses, taxes etc.) and all maintenance/modification work as detailed in normal scope of services in this NIT.  
The amount indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.
- (ii) The Financial Proposal shall take into account all expenses and tax liabilities. For the avoidance of doubt, it is clarified that all taxes shall be deemed to be included in the Financial Proposal. Further, all payments shall be subject to deduction of taxes at source as per applicable laws.
- (iii) No escalation on any account will be payable on the above amounts.
- (iv) All payments shall be made in Indian Rupees.

Bids received by WAPCOS after the specified time on the due date shall not be eligible for consideration and shall be summarily rejected.

In exceptional circumstances, WAPCOS may request the bidder’s consent for an

extension to the period of bid validity. The request and the response thereto shall be made in writing. A bidder accepting the request and granting extension will not be permitted to modify his bid.

WAPCOS is not bound to accept any NIT and reserve the right to accept or reject any NIT, and to annul the selection process and reject all NITs at any time prior to the award of the selection without assigning any reason(s) whatever and without thereby incurring any liability towards the affected participant(s) on this ground.

## **7.0 Declaration**

I/We have completely read and hereby accept the scope of work, requirements, terms & conditions and agree towards Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ, as stipulated in relevant heads in the tender document to the satisfaction of WAPCOS LTD./CSEZA at the above rates till the duration of work.

Signature of Tenderer with seal

**SECTION - III**

**ANNEXURE – A**

**CHECK LIST**

	<b>Part A</b>	<b>General Information</b>
1	Name of the company	
	Type of incorporation (Public Limited, Private Limited)	
2	Address of the registered office of the company	
3	Year incorporated	
4	Address for communication	
5	Contact person	
6	Name	
7	Designation	
8	Phone No.	
9	Fax No.	
10	Mobile No.	
11	Email address	
	<b>Part B</b>	<b>Details of tender fee</b>
	Amount of draft	₹...../-
1	Issue date	
2	D D No.	
3	Name of the bank	
4	Branch	
	<b>Part C</b>	<b>Details of EMD</b>
1	Issue date	
2	Amount	₹.
3	D.D. No.	
4	Name of the bank	
5	Branch	

**QUALIFICATION CUM TECHNICAL  
PROPOSAL**

**(Form-1)**

**Covering Letter**

(On Bidder's letter head)

(Date & Reference)

To,

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

Sir,

**Subject: Design, Engineering, Supply, Installation, Testing, Commissioning and  
Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge  
(ZLD) System with Reverse Osmosis (RO) including Reject  
Management for Common Effluent Treatment Plant (CETP) in CSEZ**

I, \_\_\_\_\_ (Bidder's name) herewith enclose the Technical Proposal for above.

I agree that this offer shall remain valid for a period of 90 (ninety) days from the due date or such further period as may be mutually agreed upon.

Yours faithfully,

(Signature, name and designation of the Bidder)

Note: The Qualification cum technical Proposal is to be submitted strictly as per forms given in the NIT.

**QUALIFICATION CUM TECHNICAL PROPOSAL  
(Form-2)**

**Abstract of Eligible Assignments of the Firm and areas of  
experience#**

Sl. No	Name of Work	Name of client	Estimated cost of project (in ₹. Crore)
1			
2			
3			

**Note:**

- The Firm should provide details of only those assignments that have been undertaken by it under its own name.
- Satisfactory completion certificate from end customer.

**(Form-3)**  
**Eligible Assignments of Firm**

Name of Firm:	
Name of the Work:	
Nature of Work	
Description of services performed by the company	
Name of client and Address:	
Name, telephone no. and fax no. of client's representative:	
Estimated capital cost of Work (₹. in lakh)	
Start date and finish date of the services (month/ year):	
Brief description of the Work:	

**Notes:**

- Use separate sheet for each Eligible Assignment.

(Form-4)

**Financial Capacity of the Firm**

<b>Sl. No.</b>	<b>Financial Year</b>	<b>Annual Revenue (₹. in crore)</b>
1		
2		
3		

**Note:**

- Please do not attach any printed Annual Financial Statement.
- This form should be signed by the auditor of the company



**FINANCIAL PROPOSAL**  
**(Form-1)**  
**Covering Letter**  
(On Bidder's letter head)

(Date and Reference)

To,  
\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

Sir,

**Subject: Design, Engineering, Supply, Installation, Testing, Commissioning and Operation & Maintenance (O&M) for 5 years of Zero Liquid Discharge (ZLD) System with Reverse Osmosis (RO) including Reject Management for Common Effluent Treatment Plant (CETP) in CSEZ**

I, \_\_\_\_\_ (Bidder's name) herewith enclose the Financial Proposal for above.

I agree that this offer shall remain valid for a period of 90 (ninety) days from the due date or such further period as may be mutually agreed upon.

Yours faithfully,  
(Signature, name and designation of the Applicant)

Note: The Financial Proposal is to be submitted strictly as per forms given in the NIT.

(Form – 2)

Description of Work	Rate (₹) (in figures and words)
<b>1. Zero Liquid Discharge (ZLD) with Membrane Processes including Pre-treatment</b>	
<b>A. Capital Cost (in ₹ Lakhs)</b>	
<b>B. O&amp;M Cost</b>	
I. Electrical Energy for pumps/ Heating etc. for each RO Stage kW/day (₹/day)	
II. Chemicals such as antiscalant, cleaning chemicals etc. (₹/day)	
III. Manpower (₹ Lakhs/Month)	
<b>2. Reject Management</b>	
<b>A. Capital Cost (in ₹ Lakhs)</b>	
<b>B. O&amp;M Cost</b>	
I. Electrical Energy for pumps/ Heating etc. for each Reject Management Unit kW/day (₹/day)	
II. Chemicals such as antiscalant, cleaning chemicals etc. (₹/day)	
III. Manpower (₹ Lakhs/Month)	
<b>3. O&amp;M for Five Years (₹ Lakhs)</b>	