

Price ₹ 5000/-
(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/O&M/IWMS/2017 dated the March 03, 2017

NOTICE INVITING TENDER FOR SELECTION OF AGENCY

OPERATION AND MAINTENANCE (O&M) OF INTEGRATED WATER MANAGEMENT SYSTEM (IWMS) - WATER TREATMENT PLANT (WTP), COMMON EFFLUENT TREATMENT PLANT (CETP) AND INCINERATOR 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

NIT No.: WAP/H-3082/CSEZ/O&M/IWMS/2017 dated the March 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 OPERATION AND MAINTENANCE (O&M) OF
INTEGRATED WATER MANAGEMENT SYSTEM (IWMS) - WATER
TREATMENT PLANT (WTP), COMMON EFFLUENT TREATMENT PLANT
(CETP) AND INCINERATOR FOR 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 Operation And Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator 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 20.03.2017 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

CONTENTS

Section I

Notice Inviting Tender (NIT)

Section II

1. Introduction
2. General objectives of the contract
3. Eligibility criteria
4. General terms and conditions
5. Special conditions of contract
6. Scope of Services
7. Instructions to bidders
8. Declaration

Section III Annexures

1. Annexure A : Checklist/Format of application form
2. Annexure B : Format of Agreement
3. Annexure C : Format of Qualification cum Technical proposal
4. Annexure D : Format of Financial proposal

.....

SECTION – I

NOTICE INVITING TENDER

NIT No.: WAP/H-3082/CSEZ/O&M/IWMS/2017 dated the March 03, 2017

Subject: NIT for providing Operation And Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator 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 providing Operation And Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator in CSEZ, starting from 01.04.2017 for a period of thirty-one months covering the scope of services specified/detailed herein in this NIT.

1	Name of work	Operation And Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator in CSEZ.
2	Duration of work	Thirty-one months starting from 01.04.2017
3	Tender Document	The tender document can be downloaded from www.csezauthority.in from 03-03-2017 to 20-03-2017
4	Last date and time of Submission of Tender	20-03-2017 at 15.00 Hrs
5	Date and time of technical bid opening	Shall be intimated after completion of evaluation.
6	Cost of the Tender document to be submitted along with tender	₹ 5000/-
7	EMD to be submitted along with tender	₹ 1,25,000/-
8	Estimated value of the tender	₹ 75.00 Lakhs

For any pre-bid queries, the eligible bidders may contact latest by 15.03.2017 till 15.00 hours at 0484-2413544, E-mail: wapcos.csez@gmail.com

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 O&M of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator 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 O&M of IWMS.

2. GENERAL OBJECTIVES

The Operation, Maintenance and Management envisages all the required tasks to ensure:

- Most efficient, effective and optimum usage of IWMS.
- Regular operation and maintenance of IWMS.
- Compliance of safety rules and regulations.
- Preventive maintenance / scheduled maintenance.
- Break down maintenance.
- Maximum service to consumers for maintaining uninterrupted supply of treated water and treatment of effluent to meet the standards.
- Maintenance of proper records of operation and maintenance (Log book, registers, check list etc as in practice).
- Preparation of reports and monitoring of IWMS.

3. ELIGIBILITY CRITERIA

While submitting the proposal, the applicant shall ensure that the applicant meets the conditions of eligibility described below:

Sl. No.	Eligibility criteria	Document to be submitted
3.1	Should be a registered company/firm registered in India	Certificate of registration
3.2	Annual Turnover for last three consecutive years should be minimum of Rupees Thirty lakhs per annum	Profit and Loss Account, Balance sheet for 2013-14, 2014-15 and 2015-16.
3.3	<ul style="list-style-type: none">• Should have minimum three years experience in similar works.• Experience in similar works in the state of Kerala will be given preference.	Experience Certificates

The selected agency should have minimum manpower and facilities as detailed elsewhere in this document and have the capability to provide additional manpower as and when required by WAPCOS.

- **JV/Consortium bids will not be allowed.**

4.0 GENERAL CONDITIONS OF CONTRACT

4.1 Validity of offer

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

4.2 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.

4.3 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 rates shall be firm for the period from the date of the award of contract till the completion of O&M works as per agreement and no escalation whatsoever will be allowed during this period.**

4.4 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 from 1st day of April 2017 for thirty one months 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 O&M 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 O&M agency, this agreement shall stand terminated immediately upon intimation to the O&M agency. On completion of the tenure of the agreement, the O&M agency shall hand over all the materials belonging to the Client or to the Client's representative and the O&M Agency shall remove all materials belonging to them including workforce from the site without any delay. However, the O&M agency shall continue to discharge their responsibilities on the same terms and conditions till the next O&M agency takes over.

Restrictions on Transfer agreement: The O&M 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 O&M 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 months issued to the O&M agency at its registered office, terminate / or suspend this agreement under any of the following

circumstances:

- a) The O&M agency failing to perform any obligation(s) under the agreement.
- b) The O&M 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 O&M 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 O&M 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 O&M 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 O&M 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 O&M agency or not. The O&M 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) O&M Agency shall not represent the WAPCOS/CSEZA in any of its dealings.
- b) O&M 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.

4.5 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.

4.6 Payment

The Contractor / Agency shall submit the bills at the end of every month and payment will be made within 30 (thirty) days of receipt of the bill subject to verification of attendance. All the applicable taxes and duties will be deducted from each bill. No advance payment of fees shall be admissible except in exceptional cases such as procurement of high value items.

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

4.7 Conveyance

The Contractor shall provide 2-wheelers to his personnel for easy movement inside the zone, intake well, local material purchases etc. Necessary expenses towards maintenance of the vehicle also shall be considered in the rates.

4.8 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.

4.9 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.

4.10 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.

4.11 Completion of tenure

On completion of the tenure of the agreement, if not renewed, the Contractor/Agency shall handover all the materials belonging to CSEZA to WAPCOS LTD./CSEZA representative and the Contractor shall remove all materials belonging to him including the workforce without any delay. However, the Contractor shall continue to discharge their responsibilities till the next Contractor takes over the duty and the Contractor shall train the staff of the new Contractor.

4.12 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 of 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.

4.13 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.

4.14 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.

4.15 Compensation Clause

If the O&M Agency is engaged to execute any project based on a separate work order, the WAPCOS shall be entitled to include a clause for liquidated damages as under: Should the O&M 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 O&M 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 O&M 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 O&M agency's balance payment or security deposits, if due to failure on the part of O&M agency, CSEZA could not meet the SLA conditions.

Without prejudice to its rights and any other remedy, WAPCOS may en-cash PBG 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 O&M agency.

4.16 Confidentiality of Information & Intellectual Property:

Subject to conditions contained in this Agreement, the O&M 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:

No person acting on behalf of the O&M agency or the O&M agency itself divulges

or uses any such information except as may be necessary in the course of operation, maintenance and management of the power distribution system.

No person seeks such information other than is necessary, for the purpose of commissioning of any project in relation to power distribution.

Provided, the above para shall not apply where WAPCOS/CSEZA has consented in writing to such information being divulged or used and such information is divulged or used in accordance with the terms of that consent; or the information is already open to the public.

The O&M agency shall take necessary steps to ensure that the O&M agency itself and any person(s) acting on its behalf observe confidentiality of client/consumer information.

The O&M agency shall, prior to commencement of this agreement, confirm in writing to WAPCOS/CSEZA that the O&M agency has taken all necessary steps to ensure that it and its employees shall observe confidentiality of customer information.

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

Intellectual Property: The intellectual property rights of any solution/software offered to and implemented by WAPCOS/CSEZA and all documents, raw data, research, processes, technology, film, artwork, engravings, dies, paper tapes, magnetic media, programs, designs and inventions (collectively referred to as the "information") conceived of, collected, completed or produced in the course of performance of the contract by the O&M agency, for CSEZA or provided to the O&M agency by CSEZA shall be the exclusive property of CSEZA and shall be kept confidential.

The O&M agency, including all personnel shall not disclose, divulge, share, discuss, lend, license or sell to any third party any information, data, databases, documents, software, proprietary information, taxpayer information or technical material supplied to or by WAPCOS/CSEZA in the performance of the Agreement.

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 O&M 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 governmental body, agency or regulator applicable to such party;
- b) Any breach of the terms and conditions in this agreement by the O&M 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 O&M agency;

The O&M 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 Govt. 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 O&M Agency shall have no right for employment either with the Client during the pendency of the agreement or after, or with O&M Agency. The personnel employed by the O&M Agency shall at all times be employees of the O&M 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 O&M 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 O&M

agency may represent WAPCOS/CSEZA.

4.17 Jurisdiction

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

5 SPECIAL CONDITIONS OF THE CONTRACT

Provisioning of Service

Whenever O&M agency proposes to source equipments from any new vendor then the O&M agency should provide letters of support from that OEM (Original Equipment manufacturer) stating that their products / solution as proposed by them will be supported for at least next one year, extendable to three years.

Maintenance support

The O&M agency shall provide to WAPCOS/CSEZA 24 hours, 7 days a week service. The consumers can register complaints to O&M agency directly, which shall be attended by the O&M agency without delay. For emergency case specifically for situation where critical equipment or part of network is down, the O&M agency shall ensure that the consultation, assistance, advice and execution of work within minimum time period or as specified in standard of performance. In other cases, the complaint must be attended not later than specified in standard of performance.

The O&M agency shall source spares directly from the Original equipment manufacturer to address any equipment related problem within 12 hours in the same city and within shortest time for outstation site.

The O&M agency will depute appropriate resources to monitor and manage the progress of the project.

The O&M agency shall carry out periodical preventive visit to WTP, CETP and Incinerator.

The liability to insure the spares and tools, if any, in the possession of the O&M agency will be of the O&M agency and the liability for any loss or damage due to any fire, burglary, theft, etc. will be that of the O&M agency.

WAPCOS/CSEZA reserves the right to engage the O&M agency on mutual terms and conditions for various support systems as agreed between the parties for improving and providing support, either fully or partially such as:

- a) Single window interface for all its requirements for provisioning and operation.
- b) Fast provisioning of the services.
- c) Reliable quality services during operations.

- d) In case of fault, attending the same within reasonable period of time and with desired promptness.
- e) For providing improved services to customers.

Charges:

The charges by the WAPCOS/CSEZA for the services are the sole prerogative of the WAPCOS/CSEZA and the O&M agency shall not represent to consumers any charges other than those as prescribed by the statute and approval of CSEZA for charging to the Services.

If any specific decisions taken by the WAPCOS/CSEZA is for a particular case only, then the O&M agency is not authorized to quote the same to other parties unless and until the same has been authorized by WAPCOS /CSEZA.

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.

6. SCOPE OF SERVICES

Scope of services in general shall cover the following:

6.1 Water Treatment Plant (WTP)

General Responsibilities

- a) The water from Intake well at Edachira is to be pumped to the Treatment Plant at CSEZ. The raw water should be treated as per the prescribed norms, collected in a clear water sump and pumped to the overhead water tank, from where treated water is to be distributed to various units in CSEZ through gravity mains. Uninterrupted supply of quality water, treated as per CPHEEO manual, is to be ensured to all the units in the CSEZ.
- b) The Contractor has to handle an intake water of 3.78 MLD and treated water of 2.25 MLD of clear water is to be distributed to various units in CSEZ after taking into account various losses, by the Contractor on three shift per day basis.
- c) The operation and maintenance of intake well, pump house, raw water pumping main, water treatment plant and distribution lines shall be done by the Contractor with utmost care and as per standard Engineering practices. If any leakage is found,

it should be repaired immediately. Proper records of pumping, sampling, inventory, preventive maintenance, breakdown maintenance, etc. shall be maintained in perfect condition as directed by WAPCOS LTD./CSEZA.

- d) The maintenance of all raw water and treated water flow meters are to be done and daily reading of raw water flow meter, treated water flow meter and individual flow meters of the units shall be taken by the Contractor and records kept as directed by WAPCOS LTD./CSEZA.
- e) Co-ordination and synchronization among intake well and WTP shall be done by the Contractor.
- f) The contractor shall bear the expenses for dismantling replacement of damaged/faulty equipments in position with new equipment along with necessary plumbing and piping modifications. The expense for installation of additional equipment as spares shall also be included.
- g) The Contractor has to maintain daily record of supply of water, which shall be jointly signed by the representative of Contractor and CSEZA/WAPCOS LTD.
- h) If water cannot be supplied because of the failure of line/pump/DG set, Water treatment plant due to improper operation and/or maintenance, the Contractor will be held responsible and has to pay penalty for consequential damages.
- i) The contractor has to do general cleaning and upkeeping of the plant premises inside and 5m all around the compound and to the entrance. The scope of cleaning includes clearing of grown bushes and weeds, clearing of debris in and around plant, floor cleaning, keeping hygienic atmosphere, gardening etc. The clearing and disposal of bushes, weeds and other debris shall be ensured to be carried out periodically at least once in 15 days.
- j) Cleaning of tanks/sumps at WTP and SDF-16, 17, 43 & Office cum Warehouse building (Plot No.17) shall be undertaken as a part of preventive maintenance and this work shall be executed once in 3 months.
- k) The contractor scope includes testing of consumer water meters to ensure correct functioning. The meters shall be tested at the testing facility provided at Water Treatment Plant as and when required as directed by Engineer-in-charge.
- l) Minimum Staff pattern required for the O&M of the water supply system and the minimum qualification & experience of personnel shall be as follows:-

SI No.	Category	Requirement and Area of Operation	Educational Qualification & Experience
1.	Operators	One person/ shift 8 hours for operation of Raw water pump house.	Diploma holder with minimum 3 years experience in the similar field
2.	Plant Operator In WTP	One Person per shift in Operations for WTP	Diploma holder with minimum 3 years experience in the similar field.
3.	Helpers	Two persons (One in Day shift of 12 hours and One in Night shift of 12 hours)	1-year experience in the similar field.
5.	Meter Reader	One person in general shift for monitoring WTP Meter reading (Daily)	ITI/ITC Certificate holder

Note

1. The contractor shall provide the minimum manpower regularly as stipulated above. The Contractor has to deploy additional workmen of various categories as required (electricians, mechanics, fitters, plumbers) in case of need and during any urgency/emergency and for preventive/breakdown maintenance of all connected equipment, machinery, piping, valves, electricals, etc. The total rate quoted shall cover all the above exigencies and no additional payment will be made for the same. Any manpower to be replaced/additional requirement/deployed for O&M works should be done by obtaining prior approval of WAPCOS.
2. The supervisor will be entirely responsible for all activities, reporting and maintaining all records.
3. Penalty shall be imposed @ ₹ 1000/- per event, in case of observing unattended water overflows from the overhead tanks of WTP, SDF 16,17,43 A & Office cum Warehouse building (Plot No.17).

Contractor's staff and their conduct, etc.

- a) All employees shall be of Indian Nationality and the Contractor shall give temporary and permanent address of the employees to WAPCOS LTD/CSEZA. Convicted or penalized persons shall not be employed.
- b) The Contractor will have to provide identification badge to his employee as approved by

WAPCOS LTD/CSEZA.

- c) The Contractor shall arrange for substitutes relievers during any leave granted to the staff at his own cost.
- d) Regular salaries should be ensured to the staff and any discontent Union-co-operation from the side of the staff on account of non-receipt of salaries in time cannot be allowed. CSEZA/WAPCOS LTD will not take any liability in this respect.

Handling of Chemicals

Safety and facilities to the staff for handling of chemicals and equipments is of utmost importance. Handling of chemicals needs special attention. The Contractor's personnel shall observe the following guidelines strictly while handling the chemicals.

A. Aluminium & Lime

Alum & Lime in block/powder form or in liquid form will be issued by CSEZA/WAPCOS LTD. Rubber apron, gloves and boots must be used by the personnel, which will be provided by CSEZA/WAPCOS LTD.

B. Chlorine

Chlorine vapor is extremely hazardous. To avoid prolonged inhaling of chlorine gas, gas masks may be used. Caustic soda solution shall be kept ready for quick relief. It is essential that all operators working with chemical are considered to be familiar with the dangers of chlorine gas. It is imperative to have protection equipments always readily available at site.

Maintenance and submission of records to WAPCOS LTD./CSEZA

The Contractor shall maintain various records as per prescribed format and submit the same once in a week. The details are as below:

- Quantity and hours of Raw Water Pumping with Log book
- Electricity consumption of various electrical equipments at Intake well & WTP
- Consumption of Diesel during running of Diesel Generator at Intake well
- Discharge of each filter bed along with hourly head loss records and its cumulative figures
- Input to treatment plant along with hourly raw water, flow meter reading
- Maintaining daily up to date running of filters
- Results of Jar tests for deciding alum dose
- Record of routine and occasional Laboratory tests

- Log book of Wash Tank Filling Pump
- Quantity of wash water consumed in each filter washing and total consumed in a day.
- Daily Power factor report at Intake well and WTP.
- Record of chemicals received, consumed and balance available.
- Record of break-down occurred and maintenance carried out, showing operating time lost, spare parts consumed etc.

Monitoring Instruments and Alarm/Indicators

General monitoring devices and alarm features are required to be in operation as under and need to be kept clean and tidy.

- Electromagnetic flow meter at WTP to monitor the pumping capacity
- Float operated mechanical flow meter with indicator at WTP outlet channel to monitor discharge of treated water
- Level measurement indicator for alum and lime tanks
- Level switch at water tank filling suction sump for automatic start-stop of wash pump with alarm
- Level indicator in clear water reservoir
- Alarm for low pressure in chlorine toners
- Loss of head and rate of flow indicators in Filter house
- Various pressure gauges
- Tripping of all electric motors
- Leak detectors and audio-visual alarm for chlorine

Periodic Maintenance/Break-down maintenance

Mechanical & Plant

a) The Contractor shall carry out periodic maintenance as per maintenance schedule approved by the Engineer-in-charge. Periodic maintenance shall also include daily observation for any malfunction and clearing the equipment U tanks in WTP and intake well. The periodic maintenance shall include:

- Changing of gland packing of pumps
- Changing of gear box oil
- Greasing of bearings
- Changing of leaky gaskets,
- Removal of sludge from telescopic bleeding arrangement, etc.

b) The representative of the Contractor/Agency shall attend to the work of dismantling, repair and reinstallation of the equipments/pipeline as soon as a failure is noticed. Any laxity in this regard shall be at the risk and responsibility of the Contractor / Agency. Minimum spares and consumables required for breakdown maintenance will be available at CSEZA Store. Any, extra spares required for the proper maintenance shall

be arranged by the Contractor, which shall be reimbursed. Manpower payment for such maintenance is to be made by the Contractor, which shall be included in the monthly rates quoted.

c) The supply of all consumables required in the plant (for eg: gaskets, bolts and nuts, lubricants, gear box oil, gloves, safety appliances, hoses, cans & containers, measuring jars, pH paper, other testing accessories, etc. shall be supplied by WAPCOS LTD./CSEZ and it is the responsibility of the Contractor to keep proper records of the items issued and keeping them in good condition.

d) Pump Motor Sets: Performance test shall be carried out once in 6 (six) months.

The test shall include termination of discharge and efficiency of the pump motor set. The discharge shall be measured by reading the delivery of electromagnetic flow meter and valve operation. The tests shall be carried out by running one pump. All the test equipment required except watt meters and CTS shall be arranged by the Contractor. The observation and results shall be submitted in triplicate to WAPCOS LTD./CSEZA.

e) Routine rectification: Following minor works shall be included in routine rectification.

- Cleaning and replacement of bearings
- Replacement of pressure gauges
- Replacement of coupling and bushes of couplings
- Spot welding, brazing and soldering

The Agency shall submit the statement of machinery repairs every month along with probable repairs required, along with his monthly O&M bill. The Agency shall submit details of all works done against works scheduled during the shutdown taken in the month.

Leakage, if any, in the raw water main shall be repaired immediately and recorded.

- Inspection of air valve, sluice valve, etc, attending the leakages, scouring of the line by opening the scour valves, etc. are to be carried out as and when required and as directed by WAPCOS LTD./CSEZ. Round the clock vigil should be exercised in detecting and rectifying defects in raw water pumping main. Leak detected/reported in the pipelines are to be attended immediately.
- Tightening of lugs and checking glands of both HT & LT cables
- Cleaning of panel boards & components,
- Rectifying loose connections
- Replacement of fuses including D.O. fuse

Electrical

Please refer scope separately detailed.

Specifications

Detailed specifications for Operation & maintenance and routine rectification at Intake well, Treatment plant, Generator, Pipelines, etc. are as under:

Intake Well cum Pump house, Generator and Raw Water Pumping Main.

The raw river water, collected into the intake well, will be pumped directly to the Water Treatment Plant of 2.25 MLD output capacity through 200 mm dia DI pipeline. Pump house of Intake well accommodates two pumps of 25 HP and two pumps of 50 HP respectively.

Keeping general cleanliness, including sweeping, cleaning and washing the floors of pump house and generator including cleaning the walls, ceiling, sumps, ladders, window glasses, as well as plant surrounding areas etc. shall be the responsibility of the Contractor.

Principle of operation of Raw water pumps and relevant systems should be:

- Starting and stopping shall be kept to the minimum.
- Running of pump for the supply of raw water will be as per requirement of water for the units, which shall be got confirmed from the WTP, through coordination of the various operating staff.
- Occasionally used machinery like Generator, etc. shall be test operated once in a day for atleast half an hour to keep the machinery in order.
- Checking all operations of gantry in Intake well shall be carried out atleast once in a day during non-operation period.

Water Treatment Plant

Aeration fountain, raw water channel, flashmixer, clariflocculator, clarified water channel, filter house pure water channel and clear water reservoir, all bypass arrangements, chemical works, chlorine stores, laboratory, wash water tank, area lighting and all electrical and mechanical equipment installed for satisfactory performance of water treatment plant, should be maintained and operated for efficient use.

Periodic cleaning of all components mentioned above should be done.

Proper administration of alum and lime solution and chlorine solution at raw water channel and aerator bottom sump including transportation of the chemical solution, adjusting the flows as required, filling the alum and lime solution tanks, mixing and replacement of pipes, etc. fall in the duty of the Contractor/Agency.

The responsibilities of the Contractor with respect to various equipments/systems shall also include the following:-

A. Flash Mixer

- Maintaining electrical/mechanical equipments used for flash mixer along with its day to day use for satisfactory performance.
- Desludging the flash mixer, whenever required.

B. Clariflocculator

- Maintaining electrical/mechanical equipment of Clariflocculator in proper and good condition. Periodic electrical/mechanical maintenance for Clariflocculator.
- Periodic desludging the clariflocculator such that after bleeding of sludge, clear water will come out through the desludging valve. This should be done without affecting the smooth movement of the clarifier bridge and scrapper assembly.
- Operation of the flocculator such that the floc will be formed in the flocculation zone slowly.
- Removing algae growth/scum, if any and impurities from flocculator zone from time to time.

C. Filters

- Maintaining the 3 beds of the filter with operating gallery always in proper working condition.
- Carrying out the back washing with air and water, whenever necessary.
- Chlorination
- The chlorinators shall always be kept in working condition.
- Disinfection shall be done as per the prescribed standards.
- All the rules and regulations laid down by Explosives Department of Government of India shall be followed by the operating personnel.

D. Chemical House

- Handling of chemicals should be done carefully.
- Material reconciliation from time to time is to be submitted to Engineer-in- Charge. [Alumina Ferric (commercial) in the form of cakes/blocks/crushed piece sand Hydrated Lime (CaOH₂) in powder form in bags will be supplied by CSEZ/WAPCOS LTD.]
- Excess consumption beyond 5% more than the test result dosage shall be replaced by the Contractor at his own cost.
- Neatness and cleanliness is to be maintained in handling the chemicals without wastage.

E. Plant Monitoring

- a) Maintaining the laboratory located in chemical house in good condition.

- b) Maintaining the account of various materials received and consumed for performing various tests in the laboratory.
- c) Maintaining register for various parameters as indicated below:
 - Turbidity and pH of Raw water, Settled water, Filtered water, Final chlorinated water
 - Dose of Alum solution on the basis of Jar Test
 - Dose of lime solution
 - Chlorine dose to raw and filtered water
 - Trial alum dose for day to day application
 - Residual chlorine in water
 - Raw water at collection basin at Aerator
 - At clear water reservoir

F. Clear Water and OH Reservoirs at WTP site

- Maintaining all the premises in proper and good condition.
- Cleaning the reservoirs as and when felt necessary by the Engineer-in-charge
- Checking over flowing of the tanks.
- Keeping all the ventilation cowls, manholes, etc. clean and in good condition in Pure Water Pumping Main and Distribution system
- Operation of control valves in the pipeline for adjustment off lows to various areas and Inspection of air valves and scouring of the line by opening the scour valves.
- Exercising round the clock vigil in detecting and rectifying defects in the pipeline. Leaks detected/reported in the pipelines to be attended immediately.

G. Area Lighting

- a) Daily on-off operation and routine cleaning of all light fixtures, ceiling fans, exhaust fans and allied fittings.
- b) Keeping all the above cited electrical fittings in good working condition. The Contractor has to attend to the minor electrical defects for satisfactory performance.
- c) Greasing/Oiling to ceiling/exhaust fans. Grease / Oil will be supplied by CSEZA/WAPCOS LTD.

H. Miscellaneous

- a) Assistance in weighing of truck of alum, lime, etc. at nearby weighbridge/at site and stacking the same neatly in chemical go down. Such receipt of alum and lime in WTP may occur at any time during the day. After unloading, challan shall be signed by a person not below rank of supervisor/chemist as a token of receipt. Such receipt of

materials should be maintained in the register and produced to Engineer-in-Charge after every receipt of such material.

- b) Assistance in unloading, loading and stacking of chlorine tonners. Each chlorine tonner should be weighed for which facilities are already provided in the chlorine tonner storage shed. Empty and filled toners shall be marked and stacked separately. If any chlorine tonner is found to contain less than 930 kg of liquid chlorine, the same should be reported to Engineer-in-charge in writing immediately.
- c) Entry in the Register of tonner received, sent for refilling and consumed. Challan to be signed by a person not below the rank of supervisor/chemist as a token of receipt.
- d) Clearing of Aerator trays, collection basin, flash mixer, and clariflocculator by emptying it before and after monsoon in such a phased manner that by passes could be used to keep continuous supply of water.
- e) Checking all operations of gantry atleast once in a day during non-operation period.
- f) Algae removal from walls of collection basin, flume channel, flash mixer, settled water channel, clariflocculator, etc. as and when instructed by Engineer-in-charge.
- g) Packing and mechanical mixing of filters and with bleaching powder, if required as and when instructed by the Engineer-in-charge.
- h) The telephone expenses for the pump operator at Edachira Pump House shall be reimbursed with the condition that the person shall have a post-paid mobile connection in his own name and the total bill amount (including taxes) shall not exceed ₹ 250/- per month. The phone bills in original shall be submitted to Team Leader for reimbursement.

Scope of Work - Electrical (WTP, intake well pump house at Edachira and all related system & accessories)

A. Daily Routine activities

- 1 Visual inspection of electrical panel boards, Motors, local electrical starters and report and rectify any abnormalities, loose connections, overheating/overloading, mechanical stuckup etc. Register the details in the maintenance logbook identifying the actions taken and spares/materials used item wise and equipment wise.
- 2. Read and record the electrical meters reading (current, voltage, power factor, etc.) of panel boards and critical motors & machinery.
- 3. General cleaning of electrical panel rooms.

4. Troubleshoot the defects and faults such as motor not starting/no availability of power supply/etc and correct the same.

B. Preventive Maintenance Activities

Monthly

1. Cleaning of panel boards/starters and motors.
2. Checking and correctness of loose connections at motors, panel boards, cables and cable joints/terminations.
3. Inspect and verify functional performance of switches, MCCBs, components and starter contactors & timers, relays (whether tripping or not) and report and rectify the defects if any and replace components if required.
4. Identify and report major preventive maintenance if any to be attended and major replacements / spare parts/ components if any required to be taken up.
5. Maintain and record all the preventive maintenance activities area wise/equipment wise detailing the actions taken and spare parts used.
6. Verify the earthing system and correct for loose connections etc. record earth resistance in logbook

Yearly

1. All activities listed out in the monthly preventive maintenance.
2. Testing of all protective relays by secondary current injection test using over current test kit and verify the correct tripping of all relays and report and rectify any abnormality. Replace the faulty relays and check and correct the relay setting and record in the log book.
3. Detailed checkup of all components of panel boards, starters, switches MCCBs etc for any abnormality, over heating etc and correct the faults. Replace faulty/defective components.
4. Overhaul the motors which are identified to be overhauled and replace bearings, fan cover, foundation lugs and rewind the motors where needed.
5. Verify the earthing system and correct for loose connections etc. record earth resistance in logbook.
6. Record the details and spares used in logbook.

C. Break down Maintenance

1. Attend all failure/not working calls and correct immediately.
2. Troubleshoot and correct defects in panel boards, starters and components, Overheating, loose connections etc and correct the same.
3. Attend and rectify failures such as motors not working/burnt, motor starters/panel board components not working/electric power supply failure, motor rewinding and overhaul, replacements of starters/panels on account of major faults/repairs etc.

Common Notes for electrical works

1. Where motors and to be overhauled or rewound outside, then the cost of the same will be reimbursed on actual basis on production of valid bills.
2. For doing all the other maintenance activities there will not be any extra payment towards labor involve mentor associated activities. However where new materials equipment spares etc are required for replacements, the cost of such material supply will be reimbursed if the Contractor is asked to supply these items.
3. All details to be recorded on the maintenance log book.

6.2 Scope of Work – Common Effluent Treatment Plant (CETP) and Incinerator

The scope of work will cover providing manpower as specified and carrying out Operation and Maintenance of Common Effluent Treatment System including Common Effluent Treatment Plant with all its associated items like centrifuge, laboratory etc. sewerage network with intermediate sumps & pumps, Incinerator, Pressure jetting cum suction equipment, etc., all as per the norms prescribed by Kerala State Pollution Control Board, ensuring proper treatment to the effluent, maintaining all related equipments, timely collection of effluent samples & testing, etc.

The Operation & Maintenance envisages all the required tasks for:

- Regular operation and maintenance of Common Effluent Treatment Plant, Sewerage line network system, Incinerator and Pressure jetting-cum-suction equipment.
- Compliance to safety rules and regulations as prescribed by Kerala State Pollution Control Board.
- Preventive maintenance of all equipments including electrical works
- Breakdown maintenance of all equipments including electrical works

- Extending maximum service to units in CSEZ for uninterrupted treatment of their effluents.
 - Maintaining proper records of operation & maintenance, inventories of spares, chemicals, etc.
 - Monthly billing of the units in CSEZ.
 - General cleaning and up keeping of the plant and sump premises including pump houses and buildings
- ✓ The staff of Agency/Contractor have to look after the operation of Common Effluent Treatment Plant, Sewerage line network system, Incinerator and Pressure jetting-cum- suction equipment and keep record of pumping, sampling, breakdown maintenance, preventive maintenance, inventory, etc. and maintain necessary records at site.
- ✓ Minimum personnel to be engaged by the Contractor/Agency and their qualification and experience are as follows:

SI No.	Category	Requirement and Area of Operation	Educational Qualification & Experience
1.	Operators	One person for a shift 8 hours (3 shifts) for CETP plant & operation of Zero Effluent Discharge Pumps	Diploma holder with minimum 3 years experience in the similar field.
2.	Helpers	One person/shift of 8 hours for CETP and network system	1 year experience in the similar field.
3.	Operator	One person in general shift for monitoring sewage line network system, checking of manholes, operation of centrifuge, etc. and assisting the driver in operation of pressure jetting cum suction equipment	ITI/ITC Certificate holder with minimum 5 years experience in the similar field.
4.	Operator cum Electrician	One person in single shift of 8 hours for Incinerator operation and for entire electrical scope of works specified (only one shift in one day)	ITI/ITC Certificate holder with 2 year experience in Wastewater Treatment and electrical works
5.	Driver	One person. Minimum three days per week for the operation of pressure jetting cum suction equipment in places wherever necessary as directed by WAPCOS/CSEZA. In addition to this, as and when required, the driver	Heavy vehicle driving licence holder

		shall be made available for any emergency works as per the request from WAPCOS/CSEZA.	
6.	Unskilled labour	One person in general shift for cleaning the grown bushes in CETP and various sump premises, gardening, cleaning, assisting and to undertake all other miscellaneous works as directed by WAPCOS/CSEZA.	

All the above specified minimum personnel shall be available at site including all holidays and Sundays. If the Contractor has to sanction leave to any of the above minimum personnel, alternate persons shall be provided by contractor as leave replacement, without any extra cost to WAPCOS /CSEZA.

Note

1. The contractor shall provide the minimum manpower regularly as stipulated above. The Contractor has to deploy additional workmen of various categories as required (electricians, mechanics, fitters, plumbers) in case of need and during any urgency/emergency and for preventive/breakdown maintenance of all connected equipment, machinery, piping, valves, electricals, etc. The total rate quoted shall cover all the above exigencies and no additional payment will be made for the same.
 2. The supervisor will be entirely responsible for all activities, reporting and maintaining all records.
 3. Penalty shall be imposed @ ₹ 2000/- per event, while observing unauthorized by passes and letting untreated effluent to flow directly to rain water stream.
- ✓ All employees shall be of Indian Nationality. Convicted or penalized persons shall not be employed. Regular salaries should be ensured to the staff. WAPCOS /CSEZA will not take any liability in this respect. Contractor/Agency will have to provide identification badge and uniform with Personal Protective Equipment (PPE), wherever required to each staff as approved by WAPCOS/CSEZA.
 - ✓ The Contractor/Agency shall carry out the day-to-day maintenance activities of normally minor nature such as
 - Gland changing of pumps
 - Oil change of gear boxes

- Greasing of bearings in various electro-mechanical equipments such as pumps, aerators
- Change of leaky gaskets in pipe flanges, etc.

Periodic cleaning of various tanks in the CETP shall be done by the Contractor once in 3 months or earlier, if so required, or as directed by WAPCOS/CSEZA.

- ✓ Removal of sludge from the outlet of centrifuge and disposed as per stipulated norms of KPCB. Removal of the Rubber Waste and other wastes collected from the screen chamber and other units of CETP are also to be disposed as directed by WAPCOS/CSEZA. Penalty shall be imposed @ ₹ 2000/- per event, while observing unauthorized disposal of sludge.
- ✓ Maintenance jobs required to be attended by Supplier/Manufacturer of the equipment due to manufacturer's defect, etc. shall be immediately intimated by the Agency to WAPCOS/CSEZA as and when they are necessitated.
- ✓ Break-down and preventive maintenance
The representative of the Contractor/ Agency like fitters/electricians/plumber/mechanic, etc. as required, shall report for the dismantling, repair and reinstallation of the equipments/pipeline within one hour as intimated by WAPCOS/CSEZA for any break-down or preventive maintenance work. Any violation shall be at the risk and responsibility of the Contractor/Agency. Minimum spares and consumables required for breakdown maintenance shall be available at Store. However, extra spares required for the proper maintenance shall be arranged by the Contractor, which shall be reimbursed. Payment for such skilled/unskilled worker shall be the responsibility of the Contractor/Agency, which shall be included in the quoted rate per month.
- ✓ The Agency/Contractor has to maintain all the equipment/machinery/plant and its surroundings in proper and good condition and shall operate as per applicable Engineering practices. Any failure/damage of the equipment/plant due to the fault of operation will be recovered from the agency. All necessary tools for routine maintenance will be provided by Contractor.
- ✓ The supply of all consumables like lubricants, gear box oil, gloves, safety appliances, hoses, cans and containers, measuring jars, pH paper and other testing

accessories and petty consumables like gaskets, nuts & bolts etc required in the plant shall be supplied borne by the Contractor with no additional cost upto ₹ 10,000/-.

- ✓ The consumables like glasswares, chemicals etc for CETP laboratory has to be procured from reputed suppliers and cost for the same shall be borne by the Contractor.
- ✓ The chemicals required for the treatment shall be supplied by WAPCOS/CSEZA at CETP. The contractor shall intimate to WAPCOS/CSEZA well in advance about the requirement of the chemicals and shall keep a stock register for chemicals used in plant.
- ✓ The electricity bill shall be borne by WAPCOS/CSEZA.
- ✓ The following details/records shall be maintained at site by the Agency as directed by WAPCOS/CSEZA.

A	EFFLUENT LINE SYSTEM		
	a)	Monitoring of preliminary treatment in Individual units	One unit/day
	b)	Collection of effluent from individual units	One sample/day
	c)	Physical verification of outlet point of each individual units, Intermediate Sumps, etc.	Daily
B	COMMON EFFLUENT TREATMENT PLANT		
	a)	Details such as: <ol style="list-style-type: none"> i. Flow rate of effluent ii. Flow rate of sludge iii. Solids settled iv. Sample collection v. Others if any 	Daily Daily Daily Daily As directed by WAPCOS/CSEZ
	b)	Consumption of chemicals like coagulant, lime, DAP, Urea etc.	Daily
	c)	Collection of effluents from individual treatment units in CETP	Daily
	d)	Details of glass wares used in laboratory	Weekly
	e)	Details of chemicals used in laboratory	Weekly
	f)	Electrical parameters /reading of various equipment	Daily
	g)	Preventive maintenance	As per maintenance schedule as directed by

			WAPCOS/CSEZ
	h)	Breakdown maintenance	As directed by WAPCOS/CSEZ

- ✓ Basic amenities like toilets, bathrooms, etc. shall be provided for the contractor's operating staff. However, lockers, etc. required for safe custody of the dress/other belongings of the operating staff shall be provided by the Contractor/Agency.
- ✓ Contractor/Agency shall arrange for substitute during any leave granted to the staff at his own cost.
- ✓ The Contractor shall run and supervise the operation of Common Effluent Treatment System and ensure that the outlet effluent characteristics fall within the parameters stipulated by Kerala State Pollution Control Board. Any violation shall be at the risk and responsibility of the Contractor.
- ✓ The contractor/Agency shall assist WAPCOS/CSEZA to liaise with the Pollution Control Board in matters connected with Air Pollution/Effluent from the CETP and also obtain consent from the Pollution Control Board against air discharge/discharge of effluent to river etc.
- ✓ The CETP operating capacity is being augmented with the addition of some balancing equipments. The Contractor/Agency shall pump, treat the total effluent of the augmented plant, capacity of which will be approximately 2000 Cum/day i.e 2 MLD.
- ✓ Pump Motor Sets: Performance test shall be carried out once in 6 (six) months. The test shall include determination of discharge and efficiency of the pump motor set. The discharge shall be measured by reading the delivery of electromagnetic flow meter and valve operation. The tests shall be carried out by running one pump. All the test equipment required except watt meters and CTS shall be arranged by the Contractor. The observation and results shall be submitted in triplicate to WAPCOS/CSEZA.

Routine rectification: Following minor works shall be included in routine rectification.

- Cleaning and replacement of bearings
- Replacement of pressure gauges
- Replacement of coupling and bushes of couplings

- Spot welding, brazing and soldering
- The Agency shall submit the statement of machinery repairs every month along with probable repairs required, along with his monthly O&M bill.
- The Agency shall also submit details of all works done against works scheduled during the shutdown taken in the month.
- Leakage, if any, in the CETP shall be repaired immediately and recorded.
- Inspection of air valve, sluice valve, etc, attending the leakages, scouring of the line by opening the scour valves, etc. are to be carried out as and when required and as directed by WAPCOS/CSEZA.
- Round the clock vigil should be exercised in detecting and rectifying defects in CETP.
- Leak detected/reported in the pipelines are to be attended immediately.
- ✓ The contractor has to do general cleaning and upkeeping of the plant premises. The scope of cleaning includes clearing of grown bushes and weeds, clearing of debris in and around CETP Plant, Incinerator Shed, Pressure Jetting Vehicle shed, Plant Building, Operator room, and all sides of equalization tank, primary and secondary clarifiers, aerator tank, activated carbon and sand filters, bio-towers, sloping portions towards CETP on the road leading to substation, all around and in zero-discharge pond, floor cleaning, keeping hygienic atmosphere, gardening etc. In addition to the above, the contractor shall clear the bushes and weeds grown in all around the 5 m premises and at the entrance of Tata, Vishal and Mak sumps. The clearing and disposal of bushes, weeds and other debris shall be ensured to be carried out periodically **at least once in 15 days**.

SCOPE OF WORK - ELECTRICAL (CETP, GARDEN PUMPHOUSE, INCINERATOR, SEWERAGE NETWORK AND ALL RELATED SYSTEM & ACCESSORIES)

A. Daily Routine activities

1. Visual inspection of electrical panel boards, Motors, local electrical starters and report and rectify any abnormalities, loose connections, overheating/overloading, mechanical stuckup etc. Register the details in the maintenance logbook

identifying the actions taken and spares/materials used item wise and equipment wise.

2. Read and record the electrical meters reading (current, voltage, power factor, KW, KWh etc.) of panel boards and critical motors & machinery.
3. General cleaning of electrical panel rooms.
4. Trouble shoot the defects and faults such as motor not starting/ no availability of power supply/ etc and correct the same.

B. Preventive Maintenance Activities

Monthly

1. Cleaning of panel boards/starters and motors.
2. Checking and correctness of loose connections at motors, panel boards, cables and cable joints/terminations.
3. Inspect and verify functional performance of switches, MCCBs, components and starter contactors & timers, relays (whether tripping or not) and report and rectify the defects if any and replace components if required.
4. Identify and report major preventive maintenance if any to be attended and major replacements/spare parts/components if any required to be taken up.
5. Maintain and record all the preventive maintenance activities area wise/equipment wise detailing the actions taken and spare parts used.
6. Verify the earthing system and correct for loose connections etc. Record earth resistance in log book.

Yearly

1. All activities listed out in the monthly preventive maintenance.
2. Testing of all protective relays by secondary current injection test using over current test kit and verify the correct tripping of all relays and report and rectify any abnormality. Replace the faulty relays and check and correct the relay setting and record in the log book.
3. Detailed check up of all components of panel boards, starters, switches MCCBs etc for any abnormality, overheating etc and correction of the faults. Replacement of faulty/defective components.

4. Overhaul the motors which are identified to be overhauled and replace bearings, fan cover, foundation lugs and rewind the motors where needed.
5. Verify the earthing system and correct for loose connections etc. record earth resistance in log book.
6. Record the details and spares used in logbook.

C. Break Down Maintenance

1. Attend all failure/not working calls and correct immediately.
2. Troubleshoot and correct defects in panel boards, starters and components, Overheating, loose connections etc and correct the same.
3. Attend and rectify failures such as motors not working/burnt, motor starters panel board components not working, electric power supply failure, motor rewinding and overhaul, replacements of starters/panels on account of major faults/repairs etc.

Common Notes for electrical works

1. Where motors need to be overhauled or rewound outside, then the cost of the same will be reimbursed on actual basis on production of valid bills.
2. For doing all the other maintenance activities there will not be any extra payment towards labour involved in mentor associated activities. However where new materials equipment spare sets are required for replacements, the cost of such material supply will be reimbursed if the Contractor is asked to supply these items.
3. All details to be recorded on the maintenance logbook.

Important Note Common to All

Failure to comply with the scope of work, or not undertaking the works as directed by the Team Leader, WAPCOS shall have the right to get it done through other agencies, and the cost towards the same will be deducted from the monthly payment due to the contractor.

7. INSTRUCTIONS TO BIDDERS

Submission of Application

Tender document can be downloaded from the web site www.csezaauthority.in.

Separate Demand Draft of ₹ 5,000/- (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 application form.

All costs & expenses associated with submission of tender shall be borne by the company submitting the application 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 bidder shall ensure that the bidder 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 document. In case the proposal is submitted on the document downloaded from official website, the applicant 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 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., O&M Agency name and the name and address of the applicant. It shall bear on top, the following:

“NIT-For selection of O&M agency for Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator in CSEZ. Do not open, except in presence of the Authorised person” and addressed to:

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

The tender should contain the following documents.

- ✓ Tender and Checklist 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, 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”** alongwith tender fee and EMD shall contain the Application in the prescribed Forms at Annexure-C.
- (ii) The envelope marked **“Financial Proposal”** shall contain only the financial proposal in the prescribed format at Annexure-D.

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 O&M Agency under the Agreement.

Financial Proposal: Bidders shall submit the financial proposal in the Forms at Annexure–D 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 Bidder 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.)
- (ii) 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.
- (iii) 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.
- (iv) The above is a **lumpsum contract** and the successful bidder shall not be entitled to any additional payment whatsoever including reimbursement of expenses of whatsoever nature. However, travel expenses outside Ernakulam District made with the approval of WAPCOS/CSEZA shall be reimbursed by WAPCOS/CSEZA on actual basis.
- (v) No escalation on any account will be payable on the above amounts.
- (vi) 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. The bidder may refuse the request without forfeiting his bid security. 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.

8. Declaration

I/We have completely read and hereby accept the scope of work, requirements, terms & conditions and agree to operate and maintain the Integrated Water Management System (WTP, CETP with Incinerator System), supplying regular staff and supply additional labour whenever required for break down, maintenance and preventive maintenance 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

	Part A	General Information
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	
	Part B	Details of tender fee
	Amount of draft	₹...../-
1	Issue date	
2	D D No.	
3	Name of the bank	
4	Branch	
	Part C	Details of EMD
1	Issue date	
2	Amount	₹
3	D.D. No.	
4	Name of the bank	
5	Branch	

ANNEXURE – B

AGREEMENT PROFORMA

(To be furnished on ₹ 100/- stamp paper)

To be executed on non-judicial stamp worth ₹.100/- and continuation sheets on ledger papers and two copies on ordinary paper to be submitted neatly type-written sheets on one side of the paper in single line spacing.

A G R E E M E N T

THIS AGREEMENT IS MADE on this day of 2017 BETWEEN WAPCOS Limited, A Government of India Undertaking, having its office at 76-C, Sector-18, Gurugram, Haryana – 122 015 represented by its Chief Scientist, _____ S/o....., aged years residing at(hereinafter referred to as the ‘WAPCOS’ or ‘Client’ which expression shall, unless repugnant to the context or meaning thereof, includes its successors and assigns) of one part and M/s....., a company incorporated under the Indian Companies Act, 1956, having its registered office at represented by (Designation), agedyears, S/o..... residing at (hereinafter referred to as ‘O&M Agency’ which expression shall, unless repugnant to the context or meaning thereof, includes its successors, administrators, liquidators and assigns or legal representatives) of the other part.

WHEREAS the Client invited NIT for “Operation And Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator in CSEZ” for a period of thirty one months starting from 01.04.2017 vide NIT No.: WAP/H-3082/CSEZ/O&M/IWMS/2017 dated 03.03.2017 and the O&M Agency submitted a bid for the same giving rates/amounts accepting the terms and conditions of the NIT document.

AND WHEREAS the said bid submitted by the O&M Agency has been accepted by the Client vide Letter of Acceptance No..... dated issued to the O&M Agency while accepting their offer.

NOW THIS AGREEMENT WITNESSETH and the parties hereby agree as follows:

1. The bid submitted by the O&M Agency for the scope of services/work specified in the NIT at the rates/amounts specified in consideration of all the

- terms and conditions in the NIT is accepted.
2. It shall be valid for a period of three years from the date of signing unless revoked earlier. Further extensions will be considered as per the provisions of NIT.
 3. The O&M Agency agreed to abide by and fulfill all the terms and provisions of the said conditions of contract in default thereof forfeit and pay to WAPCOS the sum of money mentioned in the said conditions.
 4. It is mutually agreed that the offer in its entirety shall form part of this agreement. Apart from the offer, the following shall also form part of the agreement.
 - a) M/s..... letter No. dated enclosing the offer, requisite details for satisfying the minimum qualification criteria. (Attachment – I)
 - b) WAPCOS’s Letter of Acceptance No..... dated (Attachment – II)
 - c) Acceptance of Letter of Acceptance by M/s..... letter No. (Attachment – III)

MEMORANDUM

- a. General description of work:
Operation and Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator in CSEZ for a period of thirty one months
- b. Accepted contract amount Rs.
- c. Security Deposit Rs.
- d. Time allowed for commencement of service 15 days from the date of issue of LOA
- e. Contract period From to
- f. Schedule sheets

IN WITNESS WHEREOF ON BEHALF OF THE O&M AGENCY, and on behalf of WAPCOS Limited, the Chief Scientist has set his/her hand and seal and common seal has been hereunto affixed the day and year first written above.

On behalf of the O&M Agency

Signed, sealed and delivered by

Shri.....

(Common seal of M/s.....)

Signed and affixed seal of individual firm and common seal in the presence of :

- 1) Signature with address:
- 2) Signature with address:

On behalf of WAPCOS Limited

Signed, sealed and delivered

Signed and affixed seal of individual firm and common seal of WAPCOS Limited in the presence of:

- 1) Signature with address:

- 2) Signature with address:

**QUALIFICATION CUM
TECHNICAL PROPOSAL**

(Form-1)

Covering Letter

(On Bidder's letter head)

(Date & Reference)

To,

Sir,

Subject: Selection of O&M Agency for Operation And Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator 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 Applicant)

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 project	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

Sl. No.	Financial Year	Annual Revenue (₹. in lakh)
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: Selection of O&M Agency for Operation and Maintenance (O&M) of Integrated Water Management System (IWMS) - Water Treatment Plant (WTP), Common Effluent Treatment Plant (CETP) and Incinerator 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 Bidder)

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

FINANCIAL PROPOSAL

Description of Work	Rate (₹) / month	Rate (₹) for 31 months
	In Figures and words	In Figures and words
<p>A. O&M of IWMS – Water Treatment & Supply System (WTP)</p> <p>Operation and Maintenance of Integrated Water Management System (Water treatment & Supply System) in 3 shifts (24 hrs. per day) and carrying out duties as given in the Scope of Work specified in the tender, including deputing personnel of all categories (mechanical, electrical, plumbing & fitting) for breakdown maintenance, preventive maintenance and for any replacement re-fixing works as specified in the tender document.</p>		
<p>B. O&M for IWMS – Common Effluent Treatment Plant (CETP) and Incinerator</p> <p>Operation and Maintenance of Integrated Water Management System (Common Effluent Treatment Plant and Incinerator System) in 3 shifts (24 hrs. per day) and carrying out duties as given in the Scope of Work specified in the tender, including deputing personnel of all categories (mechanical, electrical, plumbing & fitting) for break down maintenance, preventive maintenance and for any replacement/re-fixing works as specified in the tender document.</p>		
Total (A+B)		

Signature of the Tenderer with seal

In addition to the above lump sum rate quoted, we hereby quote the following rates for providing services personnel which shall be used for pro-rata payment based on requirement of addition/deletion from the minimum specified staff in the scope of work.

Category	Rate (₹)/month	
	In Figures	In words
Operator		
Helper		
Supervisor Cum Chemist		

Signature of Tenderer with seal