MACS’s Agharkar Research Institute (ARI), Pune, India (an autonomous body under Department of Science and Technology, Govt. of India), would like to procure the following equipment for its day-to-day research for time bound projects. The technical specifications are given in Chapter 4: Schedule of Requirement / Specifications and Allied Technical details are appended herewith.

| Item | Supply and Installation of Ultra-Pure Water Purification System with essential accessories & spares etc. (with buy-back of existing Pre-Treatment Water Purification System - Part 'A' & Part 'B') |

**Tender Enquiry No.** : 20/2016-17/LTI/NR/Bioenergy/PI-584

**Date of Tender Enquiry** : 28th September, 2016

**Due Date & Time** : 18th October, 2016 upto 10.00 a.m. (For submission of Bids)

**Opening of Technical Bids** : 18th October, 2016 at 11.30 am

Prospective Bidders may download the tender documents from ARI’s website www.aripune.org and submit their offers to The Director, Agharkar Research Institute, G.G. Agarkar Road, Pune - 411 004, India.

**NOTE :-**

The following details appeared on CPPP under "Basic details" may be read as :

1) General Technical Evaluation Allowed : Yes
2) Item wise Technical Evaluation Allowed : Yes
3) Is multi-currency allowed for BOQ : Yes
4) Is multi-currency allowed for Fee : Yes
<table>
<thead>
<tr>
<th>CHAPTER INDEX</th>
<th>PG. Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER 1 : Invitation for Bids</td>
<td>3</td>
</tr>
<tr>
<td>CHAPTER 2 : Instruction to Bidders</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER 3 : Conditions of Contract</td>
<td>10</td>
</tr>
<tr>
<td>CHAPTER 4 : Schedule of requirements, specifications and Allied technical details</td>
<td>13</td>
</tr>
<tr>
<td>CHAPTER 5 : Bill of Materials and Price Schedule</td>
<td>15</td>
</tr>
<tr>
<td>CHAPTER 6 : Bid Security Form</td>
<td>16</td>
</tr>
<tr>
<td>CHAPTER 7 : Eligibility Criteria for Bidders</td>
<td>17</td>
</tr>
<tr>
<td>CHAPTER 8 : Annexure-I</td>
<td>18</td>
</tr>
</tbody>
</table>
Chapter 1

INVITATION FOR BIDS

MACS’s Agharkar Research Institute (ARI), Pune, India (an autonomous body under Department of Science and Technology, Govt. of India), invites sealed tenders for the supply, installation, commissioning and satisfactory working, demonstration and training of the Ultra-Pure Water Purification System with essential accessories & spares etc. (with buy-back of existing Pre-Treatment Water Purification System - Part ‘A’ & Part ‘B’). The Technical Specifications are given in Chapter 4 of this tender document.

1. The Bidders are requested to give detailed tender in two Bids consisting of:
   Part I  Technical Bid
   Part II  Commercial Bid

2. The tender document is available at a Tender Cost of Rs.100/- (Rupees One Hundred only) which is not refundable. If the tender document is downloaded from the website of the Institute, www.aripune.org, the bidders may include a demand draft/cheque drawn in favour of Director, ARI, payable at Pune at par. The bidders may also pay the tender fee in cash in the accounts section of ARI and attach the receipt to the bid document while submitting the bids. The tender documents can also be requested from the Institute either on e-mail or as a printed copy.

3. The schedule of submission of bids and opening of the bids is as follows:
   i) The tender documents should be dropped in the PURCHASE QUOTATION BOX located in a corridor of Administration Department of ARI. All tenders received by hand/post/courier will also be dropped in the Tender Box after duly recording in a register and authenticated by Administrative Officer.
   ii) The Bid opening will be as follows:
       Place: Normally in the Committee Room, ARI, Pune 411 004. The security personnel will have the information of any change in the venue
       Time and date of submission : 18th October, 2016 upto 10.00 a.m.
       Time and date of opening Technical Bid : 18th October, 2016, at 11.30 a.m.

4. Two Bid System:

Two bid system should be followed for this Tender. The bidder must submit the offer in two separate sealed envelopes. Both the Technical and Commercial Bid envelopes should be properly sealed and clearly marked as Envelope 1-Technical Bid and Envelope 2-Commercial Bid. Both these envelopes should be placed in a third envelope, properly sealed and subscribed with the following information:

   i) Tender Reference Number :
   ii) Due date :
   iii) Name of the Vendor :

and addressed to Director, Agharkar Research Institute, G.G. Agarkar Road, Pune - 411 004.

5. Tenders which are submitted without following the two-bid Offer System will summarily be rejected.
6. Envelope No. 1: shall contain “Technical Bid” and Earnest Money Deposit (EMD). **No price information should be included in this Technical bid.** Technical Bid should comprise the following:

   a. Full technical details and components of the equipment. All products and services asked in the tender should be included. All pages of the quotation should be numbered. If the total number of pages of the quotation is 25, individual pages should be numbered as 1 of 25, 2 of 25, and so on. Each page of the bid and any corrections/striking's/overwriting's should bear proper seal and signature of the authorized person of the firm. **Unsigned Tenders shall be rejected.**

   b. A Demand Draft/Bank Guarantee of **Rs.24,000/- (Rs. Twenty Four Thousand only) OR US$ 360.00 (US$ Three Hundred Sixty only)** in case of overseas bidders towards Earnest Money Deposit.

   c. An Undertaking to agree to give a security deposit/Performance guarantee amounting to 10% of the purchase order value by way of Demand Draft/Bank Guarantee in favour of the Director, Agharkar Research Institute, Pune 4., in case of being the successful bidder, from a bank acceptable to the Institute, preferably a Nationalized bank. The validity of the security deposit should be delivery period plus warranty period plus sixty days.

   d. The import license is covered under OGL policy of 2015-2020.

   e. BTN No, Country of Origin, port of shipment, address on which the order should be placed, No. of packing, approximate weight and volume of the consignment.

   f. If the bid is for branded makes, authorization letter from principals clearly indicating that the vendor is authorized to sell and provide services towards the items mentioned in this tender.

   g. If the bid is from an Indian agent of a foreign manufacturer, a valid authorization letter from the principals, including the manufacturer's/principal's address and the Banker's details.

   h. Agreements/Purchase orders/Completion certificates, if any, for similar equipment supplied to the institute(s) under DST, details of such supplies for the preceding three years should be given together with the price eventually or finally paid.

   i. Solvency certificate (not later than 12 months) issued by scheduled nationalized bank with which bidder holds the current account.

   j. Copy of VAT/LST/CST/WCT No. /PAN No./ and TIN No. allotted by the concerned authorities. If registered with National Small Scale Industries Corporation, the registration number, purpose of registration and the validity period of the registration and a copy of DGS&D registration, wherever applicable, should also be provided in Technical Bid.

   k. A copy of the un-priced commercial bid (Please see Chapter 5 – Price Schedule).

   l. Compliance sheet with any deviation with reference to the terms and specifications.

   m. List of organizations to whom similar equipment/ same model was supplied in the last 3 years

7. The item should be supplied with user manuals and service manuals including technical drawings should be provided to operate the system without any problem.

8. The purpose of certain specific conditions is to get or procure best equipment/service etc. The opinion of the Technical Committee shall be the guiding factor for technical short-listing.

9. The Technical committee will have the option to short-list products which have higher specifications than what are specified in the tender.
10. **The Commercial Bid should contain:**
   a. Price schedule complete in all respects with proper seal and signature of authorized person.
   b. Prices should be quoted for each item separately for insurance claim or replacement, if necessary
   c. The optional and any other essential items/accessories required for maintenance of the equipment for the next 10 years should be specified in the offer separately.
   d. Comprehensive AMC for post-warranty period should be specified
   e. Discount offered should be mentioned clearly in the commercial bid only
   f. The Bidders are requested to quote for Educational Institutional Price for equipment and software

11. Pre-bid meeting will be arranged as per necessity, for which details will be published as and when such a meeting is proposed.

12. The bid can be submitted in person or through post/courier (ARI will not be responsible for delayed/late quotations submitted/sent by post/courier etc. resulting in disqualification/rejection any bid) so as to reach ARI on or before the due date and time. Fax/E-mail/telegraphic/Telex tenders will not be considered unless asked for.

13. **Date of opening of Tenders:**
   a. The technical bids will be opened on the date and time indicated in the tender document in the presence of the bidders who decide to be present. The bidders' representatives shall sign an attendance sheet/register as a proof of having attended the meeting.
   b. The make and model of the quote will be announced in the meeting
   c. The technical bids will be evaluated to short-list the eligible bidders.

14. **Opening of Commercial Bids**
   a. The commercial bids will be opened only of the technical qualified bidders. The date of opening of the commercial bids will be communicated to the qualified bidders, whose representatives can remain present while opening the commercial bids. The bidders' representatives shall sign an attendance sheet/register as a proof of having attended the meeting.
   b. The commercial bids of those bidders who were found technically deficient and are not qualified as per the tender as adjudged by the indenter/technical committee will be returned without opening.
   c. The bidder's name, bid prices, discounts, and such other details considered appropriate by the institute authorities will be announced at the time of the opening.

15. ARI reserves the right to accept the offer in full or parts or reject the offer summarily or partly.
16. The procurement of **Ultra-Pure Water Purification System with essential accessories & spares etc.** is on the basis of buy back of existing Water Purification System - Part 'A' & Part 'B' on **"AS IS WHERE IS BASIS"**. The details of existing Water Purification Systems - Part 'A' & Part 'B' (items to be trade out) are as per Annexure – I.

17. The existing Water Purification System - Part 'A' & Part 'B' is available for inspection in the institute during office hours i.e. 9.00 a.m. to 5.30 p.m. except Saturday, Sunday and Govt. Holidays.

18. The bidders are requested to submit their buy-back offer in separate envelope along with the commercial bid mentioning on the envelope that **"Buy-Back offer for Existing Water Purification Systems - Part 'A' & Part 'B'"**.

19. The Director, ARI reserves the right to trade or not to trade the existing described Water Purification Systems - Part 'A' & Part 'B' while purchasing the new. Therefore the bidders are requested to frame their Commercial bid accordingly covering both the options.

20. The successful bidder has to arrange to collect the trade out items from the institute within 15 days from the date of successful installation of brand new "Ultra-Pure Water Purification System" on as is where is basis at their own cost, failing which the successful bidder shall not have any claim on such trade out item. In that case, the further action towards the disposal of such trade out item shall be decided as per ARI Procedure and decision of Director, ARI, Pune. No labour or transportation will be provided by the institute for such trade out item.
Chapter 2

INSTRUCTIONS TO BIDDERS

1. General

1. The Bidders are requested to go through the tender document, schedule of items terms and conditions carefully before submitting the bids.

2. Bidders should quote strictly in accordance with the requirements. The Bidders’ conditions printed on the reverse of the tender/quote or anywhere else in the document shall not be binding on ARI.

3. Bidders shall adhere to the procedures and processes laid down in this document shall follow fair and ethical practices of trade.

4. For branded items, only the authorized distributors/dealers/resellers are eligible to bid. In this case, the authorization certificate to this effect, issued by principles should be submitted along with the bid.

5. The tenders must be clearly written or typed without any cancellations/corrections or overwriting.

6. The makes/brand and name and address of the manufacturer, country of origin, country and port of shipment and currency in which rates are quoted are to be mentioned.

7. Conditional offers will not be accepted.

8. If more than one model is quoted by the bidders, the model which best suits the specifications will be selected by the indenter/technical committee and the commercial bid of only that model will be taken for comparative statement of quotations.

9. Based on the list of installations provided by the bidder, ARI will have its option to obtain details of the equipment, their performance, after sales service, etc. for evaluation of the tender, directly from the concerned labs/scientists, etc.

2. Modification of bids

2.1 At any time prior to the deadline for submission of bids, ARI may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder may modify the bid document.

2.2 The modifications will be posted on the website of the institute and the bidders are expected to look for any such modifications and they will be binding on them.

3. Bid preparation

3.1 The Tender document must be accompanied by Earnest Money Deposit as indicated earlier in the form of Demand Draft on any Nationalized Bank or Govt. approved banks (ICICI, Axis, HDFC Bank) drawn in favour of Director, ARI, payable at Pune. The EMD can be submitted either by the bidder or the Indian agent.

3.2 The Earnest Money Deposit can be also given in the form of Bank Guarantee from a Nationalized Bank with a validity of six months. No interest is payable on EMD.

3.3 The EMD/BG will be returned to the bidders/agents whose offer is not accepted by ARI within a week of opening the commercial bids of qualified bidders. In case of bidders whose offer is accepted, the EMD will be returned after submission of Security Deposit in the form of Bank Guarantee. However, if the return of EMD is delayed for any reason, no interest/penalty shall be payable to the bidders.
3.4 Bidders who submit the bids on behalf of their principals should enclose a valid agency letter issued by the Principal.

3.5 The successful bidder, on award of contract/order, must send the contract acceptance/order acceptance along with Security deposit as per 7(c) of Chapter 1 within 21 days of award of contract. The order acknowledgement/acceptance shall be marked on the original purchase order itself, to avoid any dispute and deviation later on. The order acknowledgement/acceptance so marked may be sent by fax to ARI for further processing, followed subsequently by sending the original copy by post/courier. The order acknowledgement/acceptance may also be scanned and sent by e-mail.

3.6 The EMD of successful bidders will be released within one week after installation and submission of security deposit/bank guarantee equivalent to 10% of the order value.

3.7 In case of bids in Foreign Currency, the Indian Representative / dealer can submit EMD/Security Deposit in Indian Rupees.

3.8 EMD shall be forfeited:
   3.8.1. If the bidder withdraws the bid during the period of bid validity specified in the tender.
   3.8.2. In case a successful bidder fails to furnish the Security Deposit/Performance Guarantee

4. Amalgamations, Acquisitions etc.
   In the event of Manufacturer/supplier proposes for amalgamation, acquisition or sale of its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfilment of contractual obligations, i.e. Supply, installation, commissioning, warranty, maintenance, replacement of parts, supply of spares and accessories as per requirement. An undertaking to this effect should be submitted.

5. Bid Validity
   5.1 Bids shall be valid for a period of 120 days from the date of opening the Technical bid.
   5.2 ARI may request the bidder to extend the validity. The bidder is free not to accept the request and in such an eventuality the EMD will be returned to the bidder. A bidder agreeing to the request for extension will not claim any price increase.
   5.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

6. Submission of Bids
   6.1 Bids shall be submitted to ARI before the time and date specified in the tender. In case the date happens to be a holiday, the date of submission will be the next immediate working day.
   6.2 ARI may extend the deadline for submission of bids, which will be suitably modified on the website.

7. Late Bids
   7.1. ARI will not be responsible for late delivery of tenders.
   7.2. Similarly, tenders received via FAX/e-mail/telegraph/telex will not be accepted.
8. **Opening of Commercial Bids and Evaluation**

8.1. Commercial bids of only short-listed bidders will be opened in presence of the representatives of the bidders who decide to remain present during the bid opening, at a date and which will be informed in advance by e-mail.

8.2. The bidder’s representatives who are present for the tender opening will sign in an attendance register/sheet.

8.3. The bidder's name, bid prices, discounts, and other details as found appropriate by the authorities will be announced at the time of the opening of commercial bids.

9. **Award of Contract**

9.1. ARI shall award the contract to eligible bidders whose bid has been determined as the lowest evaluated bid.

9.2. If more than one bidder quotes same lowest price, ARI reserves the right to award the contract either to any one or both.

9.3. ARI reserves the right at the time of the award of contract to increase or decrease the quantity of items specified in the Schedule of requirements without any change in price or other terms and conditions.

9.4. Firms which have failed to fulfill contractual obligations earlier are likely to be rejected and no communication will be entertained in this regard.

10. **Cargo Consolidation and Custom Clearance**

ARI has contract with Freight Forwarder and Custom House agent for all imports. Please note that all the consignments have to be routed through their associates only. *Acceptance of this condition should be indicated in the bid.* The details will be provided with the purchase order.

11. **Corrupt and Fraudulent Practices**

The bidders should exercise highest standards of ethics and fair practices. At any stage, if the Institute comes to know of any fraudulent or corrupt practices, the ARI reserves the right to cancel the contract at any stage before the delivery of the goods.

12. **Interpretation of the clauses in the Tender/Contract Document**

In case of dispute/ambiguity in the interpretation of any of the clauses in the Tender Document, the interpretation of Director, ARI shall be final.

13. A bidder has a right to question the bidding conditions, bidding process and / or rejection of its bid, as per the provision of rule 160 (ii) of GFR 2005.
Chapter 3

CONDITIONS OF CONTRACT

1. Price

1.1. The price quoted shall be considered final and no price escalation will be permitted.

1.2. In case of foreign currency bids, the price criteria should be on FOB basis.

1.3. Packaging, forwarding, freight, insurance, commissioning charges, if any, extra may be quoted separately in commercial bid.

1.4. In case the quote is Ex-works/FOB based, estimated insurance coverage charges may please be indicated.

1.5. CIF, Mumbai value both by Airfreight and Ocean freight.

1.6. In case of foreign quote, the mode of dispatch should be by Air Post Parcel/Ocean freight/Air Freight and on Freight to pay basis only. The approximate dimensions of the packages and weight of the consignment are to be indicated.

1.7. In case of INR bids, the price criteria should be on FOR, ARI, Pune. Govt. levies like central excise duty, sales tax, LBT, WCT etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should therefore be quoted accordingly giving the basic price, Central Excise Duty, VAT/Central Sales Tax etc. if any. Please note that ARI will supply exemption certificates for the above government levies, wherever applicable. ARI is exempted from payment of Excise duty vide Govt. Notification No. 10/97 Central Excise dated 1st March 1997.

1.8. ARI is also exempt from payment of Custom Duty vide Govt. Notification No. 51/96- Customs dated 23rd July 1996. However, as per the Govt. of India further notification No. 24/2002-Customs dated 1st March 2002 and notification No. 19/2006-Customs dated 1-3-2006 Custom Duty is levied on all imports meant for the Institute. Since the suppliers are requested to quote only on FOB basis, freight, insurance and custom duty as applicable to the Institutes will be paid by us.

1.9. Bidders may also bid for high sea sales.

1.10. Please provide TIN no. of the firm along with the CST/WCT No. allotted by the concerned authorities. Also provide VAT registration, ECC No. /Excise Registration may be provided.

2. Bank Charges

All bank charges inside India will be borne by the institute. All bank charges outside India will be to the sellers account. For all amendments to the contract document, including in L/C, if requested by the beneficiary, the charges will be to the beneficiary’s account.

3. Agency Commission and Services

The Indian Agency Commission is payable in Indian currency only. The percentage of Indian Agency Commission shall be clearly indicated and will be paid after the receipt of the consignment in good condition and satisfactory installation and commissioning of the ordered equipment.
4. **Delivery schedule**

The bidders may please note that the delivery of the system should be strictly within three months from the date of placing firm order.

5. **Pre-installation**

The bidder has to state in detail the Electrical power/UPS requirements, floor space, Head room, foundation needed and also to state whether air-conditioned environment is need to house the instrument and to run the tests. Such pre-installation requirements may be mentioned in technical bid. Subsequently, before the equipment is received in the Institute, the bidder shall confirm that the pre-installation requirements are sufficient for installation of the equipment. The bidder should be continuously monitoring the pre-installation requirements and see that everything is ready before the equipment is taken to the site for installation.

6. **Installation**

6.1. Bidder shall be responsible for installation/demonstration wherever applicable and for after sale service during the warranty and thereafter.

6.2. Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site.

7. **Warranty and Support**

7.1. The items covered by the schedule of requirement shall carry minimum one year comprehensive warranty from the date of acceptance of the equipment by the institute. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts.

7.2. The defects, if any, during the warranty period should be rectified free of cost. If this involves import of components, the resulting costs including those of customs, import, transport etc. should be borne by the vendor.

7.3. The software upgrades, if any, should be provided free of cost during the warranty period.

7.4. The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on approved price list basis.

7.5. The AMC charges after warranty period are to be quoted by the bidders in the Commercial offer. This price could be one of the criteria for arriving at a successful bidder.

7.6. Vendor should indemnify, protect and save ARI against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademark, copyright etc. or such other statutory infringements in respect of all the equipment supplied by him.

7.7. In case of imports the insurance will be done by ARI. In case of Rupee transaction, the equipment to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at ARI.
8. Payment

8.1. For indigenous items, “100% payment shall be made within 30 days after delivery, installation, commissioning and on acceptance as per Purchase Order at site. If no Bank Guarantee as per Clause No. 7(c) of Chapter 1 is submitted along with the order acceptance in that case 90% payment shall be paid after delivery, installation, commissioning and on acceptance as per Purchase Order and balance 10% will be paid after expiry of warranty period plus sixty days”.

8.2 For imported items, “90% payment shall be made by sight draft/irrevocable Letter of Credit established in favour of the supplier through the State Bank of India, Deccan Gymkhana Branch, Pune 411 004 (India) for the order value, excluding the Agency Commission due to the Indian agent against the presentation of shipping documents. Balance 10% will be released after completion of satisfactory installation, commissioning, demonstration of the system, after imparting training. However Letter of Credit/Sight Draft arrangement will be made for 100% of order value. If no bank guarantee as per Clause No. 7(c) of Chapter 1 is submitted with the order acceptance by the supplier in that case balance 10% will be paid after expiry of warranty period plus sixty days.

8.3 All bank charges inside India including opening of L/C shall be to ARI’s account whereas all charges outside India to Beneficiary’s account only.

8.4 The Indian Agency Commission will be paid in INR only after successful installation, commissioning and satisfactory demonstration and acceptance of the items by the user and after receipt of the performance security.

9. Penalty for delays

9.1. Since time is the essence of the contract, delivery period mentioned in the Purchase order should be strictly adhered to. Otherwise the bidder will forfeit the EMD and also LD clause will be enforced.

9.2. If the supplier fails to supply, install and commission the system as per the specifications mentioned in the order within the due date, the supplier is liable to pay liquidated damages of 1% of the order value per every week of delay subject to a maximum of 10% beyond the due date.

9.3. ARI reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties, if any, will be deducted from the Security Deposit.

9.4. Disputes, legal matters, court matters, if any, shall be subject to Pune Jurisdiction only.

10. Force Majeure

The Institute may consider relaxing the penalty and delivery requirements, as specified in this document if and to the extent that the delay in performance or other failure to perform its obligations under the contract is the result of a Force Majeure.

Force Majeure is defined as an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, storms etc.) acts of states, the direct and indirect consequences of wars, hostilities, national emergencies, civil commotion and strikes at successful bidder’s premises.

11. Arbitration

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc. shall be referred by either party after issuance of 30 days’ notice in writing to the other party clearly mentioning the nature of dispute to a single arbitrator acceptable to both the parties. The venue for arbitration shall be ARI, Pune. The jurisdiction of the courts shall be Pune, Maharashtra, India.
## Chapter 4

### SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED TECHNICAL DETAILS

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supply &amp; Installation of Ultra-Pure Water Purification System with essential accessories &amp; spares etc.</td>
<td>One</td>
</tr>
</tbody>
</table>

**GENERAL:**
The water purification system should be able to provide pure (Type-II) and ultra-pure (Type-I) water, required for routine microbiology and molecular biology work.

**TECHNICAL SPECIFICATIONS:**

**Feed Water acceptance:** Conductivity: < 2000uS/cm; Fouling Index (SDI) : < 12; Total Chlorine : < 3 ppm; TOC : < 2000 ppb

**Type II Water Quality**
Product Water delivery: Not less than 5 Litters/hrs.; Resistivity: 10 to 15 MΩ.cm at 25°C; TOC (ppb): < 30 ppb

**Type I Water Quality**
Ultra-Pure Water Flow rate: 0.05 to 2 L/min (Programmable flow rare) rate; Ultra-Pure Water delivery: 18.2 MΩ.cm at 25°C; TOC : < 5 ppb; Microorganisms : < 1cfu/mL Particulates < 0.22 um: < 1 ml

Reservoir: >25L capacity (must prevent growth of microbes/ algae), rust/corrosion proof.

**Type II System requirement**

- Pre Filter: Single Compact pretreatment unit containing 5 & 1 Micron depth filter with low voltage & Pump with noise levels of less than 50 decibels. This should have the facility to mount on the table or wall.
- Pretreatment Cartridge: Three in One Pre-treatment Cartridge with 1) antiscalping compound to control the hardness of water 2) Activated Carbon filter to control the free chlorine 3) 0.5 Micron Pretreatment Cartridge Depth filter to control the particulate load.
- RO Membrane: 1) The system should have a high Flux thin RO Membrane with min. 200 Dalton's cutoff & water quality monitoring after every purification stage to monitor the process of RO rejection in percentage%. Conductivity before (Feed Conductivity) & after RO Membrane 2). System should have with temperature feedback mechanism to get a constant flow rate of RO irrespective of feed water temperature 3) System should equipped with high waste recovery loop to reduce the water wastage to the drain. 4) Reverse osmosis Permeate divert valve which will divert low quality water to RO Membrane the drain automatically.
- Electro Deionization Module : 1)Mixed bed ion exchange resin filled electro ionization module with auto regeneration by a weak electric current, eliminating the need for chemical regeneration or replacement of DI resin cartridges. 2) EDI (ElectroDcionization) module that should not require softening pre-treatment. 3) Carbon beads at cathode of the EDI module to prevent scaling of the module on a long run.
- UV Lamp: UV lamp 254 nm to remove germicidal effect before entering the tank
- Display both compensated and non-compensated temperature accurate within ± 0.10C.
Sr. No. | Description | Qty.
--- | --- | ---
Contd. ……

**Type I System requirement**
- Pretreatment Pack: Pure water, pre-treatment pack, which is chosen based on the feed water source.
- UV Lamp in Ultra-pure Loop: 17 watt, low pressure mercury vapor lamp made of ultrapure quartz with dual wavelength (185 and 254 nm). The lamp has an electro polished 316L SS housing
- Polishing Cartridge: Application Specific cartridges to remove ionic and organic contaminants to trace levels
- TOC Monitor: Separate Built in TOC monitor with a 0.5 mL Quartz cell and UV lamp which accurately measures TOC online from 1-999 ppb.
- Point of Delivery Unit: 1) Point of delivery unit with the polishing filters at the point of use. Option of connecting 3 units with the main water production unit. 2) Multi color monitor displaying: Resistivity, TOC level of water in reservoir, volume dispensed and other alarms, printing to be directly accessible from the point 0 delivery unit. 3) Adjustable height and rotating arm-adjustable to any glass ware
- System Display Alarm & Indication Parameters: 1) In built in large display to ensure the system parameters are displayed all the times such as Feed Conductivity, Permeate conductivity, Type II Conductivity, RO rejection in % tanks level Type I Conductivity, TOC Monitoring temperature both compensated & non-compensated value & Consumable status. 2) Auto diagnostic facility with No Error and Alarm Code and real time clock 10 log reports with date and time to ensure complete traceability. 3) Automatic Cleaning, Rising, and Flush mode.
- Water production unit that can be placed either on the bench, under the bench or on the wall
- Provide spare pre-filter cartridges to run the system for 2 years
- Plumbing work related to water inlet and drain outlet should be carried out during installation by the supplier
- Compliance statement for specifications is a must.
- Warranty (Minimum One year or more)
## Chapter 5

**BILL OF MATERIALS AND PRICE SCHEDULE**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Catalogue No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Unit Price</th>
<th>Duties+Taxes</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Installation charges if any : ____________________________________________________

Packing & Forwarding charges if any : ____________________________________________

Insurance charges if any : ______________________________________________________

Transport charges if any : _____________________________________________________

Other charges if any (please specify) : __________________________________________

**GRAND TOTAL** : ______________________________________________________________

---

### Buy-back Offer for existing Water Purification System as follows :

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Particulars</th>
<th>Qty.</th>
<th>Amount (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Existing Water Purification System – Part 'A' &amp; Part 'B' (Details as mentioned in the Annexure - I)</td>
<td>1 No.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Rs. (In words) : ___________________________________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 6

BID SECURITY FORM

Whereas ..................................................* (hereinafter called “the Bidder”) has submitted its bid dated .................................................. (date of submission of bid) for the supply of .......................................................... (name and/or description of the goods) (hereinafter called “the Bid”).

KNOW ALL PEOPLE by these presents that WE .......................................................... (name of the bank) of .......................................................... (name of country), having our registered office at .......................................................... (address of bank) (hereinafter called “the Bank”), are bound unto .......................................................... (name of Purchaser) (hereinafter called “the Purchaser”) in the sum of .......................................................... for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this .......................................................... day of .......................................................... 20 .......................................................... THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or

2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
   a) fails or refuses to execute the Contract Form if required; or
   b) fails or refuses to furnish the performance security, in accordance with the Instruction  
      to Bidders

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or condition.

This guarantee shall remain in force up to and including sixty (60) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

* Name of Bidder

(Signature of the Bank)
Chapter 7

CHECK LIST: ELIGIBILITY CRITERIA FOR BIDDERS

The bidders are requested to complete the check list by striking out non-applicable options. The bidders are requested to confirm / ensure that the details of the same has been enclosed/ included in the bid. Also please ensure that the written reply on bidder’s letter head with reference to below mentioned Sr. No. 3, 11 to 17 is enclosed.

1. Two separate bids dully filled in and signed in sealed envelopes (a) Technical And (b) Commercial
   YES/NO

2. The Demand Draft/ BG for Rs. --------- towards EMD is enclosed
   YES/NO

3. Undertaking that successful bidder agrees to give a 10% security deposit/ Performance Bank guarantee
   YES/NO

4. Authorization letter from the Principals
   YES/NO

5. Self-attested Sales Tax Registration certificate (CST/VAT etc.)
   YES/NO

6. Solvency certificate issued by scheduled/nationalized bank with which The bidder holds the account
   YES/NO

7. Copy of PAN No. allotted by the relevant authorities
   YES/NO

8. A List of deliverables
   YES/NO

9. Copy of ISO 9002 or equivalent certificate
   YES/NO

10. Copy of DGS & D Registration, if any
    YES/NO

11. Compliance sheet with deviations with respect to the terms
    YES/NO

12. Acceptance of our Cargo Agent
    YES/NO

13. Bank charges outside India to the vendors account
    YES/NO

14. LD Clause agreeable
    YES/NO

15. Supply of spares for 10 years
    YES/NO

16. Free replacement during the warranty period
    YES/NO

17. Amalgamations/agreements: Successor agreeable to fulfill all contractual Obligations
    YES/NO

Place: Signature of Authorized signatory & Seal

Date :
Chapter 8

Annexure – I

The details of existing Pre-Treatment Water Purification System are as follows:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Date of Purchase</th>
<th>Purchase Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part &quot;A&quot;</td>
<td>Pre-Treatment Water Purification System Model : Arium 61315 Make : Sartorius AG, Germany I.D. No.: ARI/APEQ/668/WPS-3 Location : Bioenergy Unit</td>
<td>One No.</td>
<td>29/03/2004</td>
<td>Euro 3,684=00 Rs. 2,40,952=30</td>
</tr>
<tr>
<td>Part &quot;B&quot;</td>
<td>Pre-Treatment Water Purification System (Analytical Grade Water System) Model : Arium 611 VF Make : Sartorius AG, Germany I.D. No.: ARI/APEQ/668/WPS-5 Location : Bioenergy Unit</td>
<td>One No.</td>
<td>29/03/2004</td>
<td>Euro 2,150=00 Rs. 1,55,892=00</td>
</tr>
</tbody>
</table>