

**US-Pakistan Center for Advanced Studies in Water
Mehran University of Engineering and Technology, Jamshoro
Management Contract for Production and Marketing of Safe Drinking Water**

Guideline for Proposal Preparation and Submission including Technical Aspects of RO Plant

1. Introduction

Ensuring provision of safe drinking water to population remains a top priority for the Federal and Provincial governments for several reasons, but most importantly because access to safe drinking water is a human right and prerequisite for achieving sustainable growth and development. Meeting the SDG 6.1 target of *providing safe drinking water to all population by 2030* will be a huge challenge for the public water utilities. But, at the same time, this challenge offers an opportunity for the private sector to invest in bottled water industry which is steadily growing but meeting only a fraction of the total drinking water demand.

The available evidence suggests that the bottled water is a rapidly growing segment of the beverages sector in Pakistan. The market is still very young but growing rapidly due to growth in urban population and increased demand for safe drinking water. Against this background, the US-Pakistan Center for Advanced Studies in Water (US-PCASW—herein after referred as Center) at Mehran University of Engineering and Technology, Jamshoro, has installed a modern RO plant for supplying safe drinking water (under the brand name of *Mehran Water*) to population in and around Hyderabad-Jamshoro areas.

2. RO Plant, Water Treatment Process and Other Facilities

The Center has already procured and installed a water treatment plant with a treatment capacity of 20,000 gallons per day, together with the following equipment.

- Multimedia Sand Filter
- Activated Carbon Filter
- Micron-Cartridge Filter Housing
- High-Pressure Reverse Osmosis (RO) Membranes Feed Pumps
- RO Membrane Elements
- Chemical and Mineral Dosing Pumps
- Feed and Produced Water Tanks
- Ozone Generator and Ozone Contact Tank
- UV Sterilizers
- Automatic Bottle filling Equipment of 19 Liters Bottle

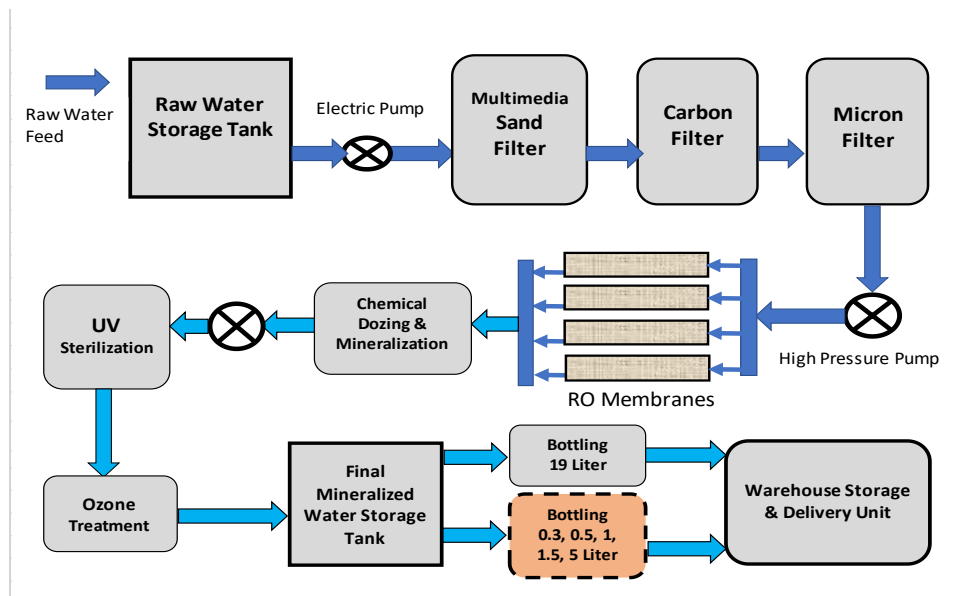
The project will follow a Reverse Osmosis (RO) membrane-based water treatment process. A schematic presentation of this process is presented in Exhibit 1 below. The process will consist of the following steps.

- Step 1: Suspended solids and organic matter are removed by pumping the raw water through multimedia sand filter, activated carbon filter and micron filter.

- Step 2: Salinity and dissolved solids are removed by pushing the water at high pressure through RO membranes.
- Step 3: Controlled chemical dosing with required minerals is applied for addition of minerals.
- Step 4: Bacteria or pathogens are removed/killed by disinfecting using UV and Ozone treatment.
- Step 5: The produced mineralized water is stored in a tank, and bottles will be filled by using automatic bottle filling plant

The automatic and controlled filling machine is integrated with the RO treatment facility for automatic filling and capping of bottles of only 19 liters. A provision has been made for expanding plant's capacity to supply drinking water in bottles of different sizes ranging from 0.33 to 19 liters.

Exhibit 1: Schematic presentation of Reverse Osmosis Process



Other facilities and infrastructure existing at the plant site include the following.

- One underground water storage tank of capacity of 30,000 gallons, and two tanks of 1000 gallons' capacity of each; one for the feed water storage and other for clear water/treated water storage
- A 4" ϕ pipeline connecting the underground storage tanks to MUET water supply system
- Plant building--where the RO plant is installed (covered area including warehouse: 12,000 sq. feet)
- A newly renovated office building (covered area: 2000 sq. Feet)
- Availability of raw water (surface water), electricity, gas and other similar facilities
- A parking lot (area: 5,000 sq. Feet)
- University security services
- Laboratory facility

3. Call for Proposals

The Center would like to engage the services of an experienced company/firm (herein after referred as Management Contractor--MC)to manage all operations of the RO plant, but more specifically the following: (i) regular O&M of the RO plant, (ii) procurement of 19 liters water bottles with brand name and labels as prescribed by the Center, (iii) production and bottling of water as per quality standards defined by the Center, and (iv) marketing/sale of 19 liters bottles (under the brand name of *Mehran Water*) through a well-established network of distributors and retailers. Other auxiliary functions may include developing and implementing an effective marketing strategy, procuring necessary goods and services, and managing quality control as per standards and processes defined by the Center etc.The management contract will be for a period of three years, but to be renewed each year based on meeting the performance criteria as mutually agreed by both parties and reflected in the contract agreement.

4. Eligibility Criteria

Companies meeting the following criteria are invited to submit their proposals.

- Registration with Income Tax and Sales Tax authorities (whichever is applicable).
- Must have five years of experience in providing services similar to those called for in the RFP.
- Having annual business turnover of Rs 50 lacs.
- Solid financial capacity of the firm.

5. Responsibilities of Parties

The MC will be responsible for managing all operations ranging from production to sale of safe drinking water to consumers. This will entail the following, among other things:

- Making operational decisions necessary for smooth running of the business
- Regular O&M of the plant
- Market study and analysis
- Procurement of goods and services, including dispensable water bottles and water treatment chemicals
- Recruitment and placement of staff
- Maintenance of offices and facilities
- Design and implementation of sales promotion campaign
- Logistical arrangements to support different distribution channels
- Purchasing of raw water and other services from the Center on actual-cost basis
- Water quality management (see section 6 below)

The Center will be responsible for the following.

- Setting water quality standards and guidelines (see section 6 below)
- Monitoring water quality throughout the production and distribution chain
- Provision of raw water and other utilities to company on actual-cost basis
- Provide all manuals, spare parts list, data books, drawings and other documentation received from the Plant's manufacturer, including technical specification of other on-site facilities
- Replacing all major equipment teardowns and overhauls covered under the manufacturer guarantee period.

All email or telephonic enquiries to seek further clarification on technical aspects of the RO plant and other on-site facilities can be a directed to Prof. Dr. Rasool Bux Mahar, Deputy Director, USPCAS-W,

MUET (Cell: 0334-2610651, email: dd.uspcasw@admin.mueta.edu.pk), or Dr. Tanveer Ahmed (Cell: 0333-2738613, email: tanveer.uspcasw@admin.mueta.edu.pk).

6. Water Quality Management

The MC will ensure the supply of safe drinking water as per water quality standards defined by the Pakistan Environment Agency in 2008, and other guidelines as communicated to MC by the Center in writing. If new standards are issued by the government agency during the course of this project, the MC will need to comply with those. Following water quality tests are mandatory, but a comprehensive water testing process and parameters and schedule as well as format for submission of results will be explained in the contract agreement.

- Test 1: Detailed analysis as per the requirements of NSDWQ 2008. Frequency: Each month after commissioning of the system.
- Test 2: Analysis of minerals as per guidelines established by the Center. Frequency: Twice a month.
- Test 3: Routine test (E-coli, TDS). Frequency: Daily.

7. Preparation of Proposals

The eligible companies should submit their proposals consisting of the following documentation in the order mentioned below. We recognize that some of the elements mentioned below may be subject to revision or course correction during the implementation phase, but their presentation will help in assessing company's approach and competencies towards managing a successful business.

- *Section 1. Profile of the Company*: Provide an over view of your company, its history, description of services, client portfolio--especially those relevant to the services requested in this RFP, core team details, certifications, and financial strength etc. The following supporting documentation is required: (i) NTN / Income Tax Certificate, (ii) Professional Tax Certificate, (iii) GST Registration Certificate (if applicable), (iv) evidence for 5 years of working experience in providing similar services, and (vi) earnest money of Rs. 100,000.00 to be submitted in the form of a pay order drawn in favor of the US-PCASW--this amount will be returned back to unsuccessful bidders within four weeks of the opening of the tenders.
- *Section 2. Plan for Management and O&M of the plant*: Provide a plan describing how the overall operations will be sequenced and managed, including regular O&M of the plant. You may also wish to include details of your managerial and technical staff, different contracts to be executed with other parties, types of goods and services to be procured, and measures to be taken to avoid breakdown in operations etc.
- *Section 3. Business Plan*: Provide description of key elements of the business development plan. For example, within the context of existing water supply and demand analysis, what physical production and sales targets will be set? How these targets will grow over next five years? How you will introduce the product in the market in the presence of several other brands? Provide a brief analysis of costs and pricing scheme. Most importantly, outline the steps the company will take to implement the business plan.

- *Section 4. Marketing and Sales promotion Strategy:* How you will differentiate the product under discussion from other brands in the market to capture larger market share. Provide listing of sales promotion activities and associated marketing budget.
- *Section 5. Distribution Network and Logistics:* Provide details how the company will get the product from production plant to consumers (distribution channels). Will it be through the retail network or distribution agents or direct supply to consumers or e-marketing or any other method etc? How much volume will be handled under each method? What logistical arrangements will be made in support of each distribution channel, and specify company's capacities in making such arrangements?
- *Section 6. Expectations from the Center:* The bidding company should highlight expectations in terms of technical and administrative support needed from the Center, if any, which would help this business venture grow.
- *Section 7. Payment of Annual Fee:* The proposal should clearly mention the amount the MC would be willing to pay to the Center, annually. The fee will have two components: (1) fixed fee or rental fee for using the services and facilities, and (2) variable fee defined in terms of %age of the revenues generated.

8. Submission of Proposals

The procurement of said services will follow a single stage-two-envelop method. The Center reserves the right to reject any or all proposals and may cancel the tender process at any time prior to the acceptance of a proposal.

The proposals and cost data contained therein should remain valid for 90 days from the date of opening of proposal.

All prices should be quoted inclusive of all applicable duties and taxes.

Incomplete proposals will be rejected, and not considered for any further review.

Interested and eligible companies may submit their proposals in sealed envelope by close of business on 30th May 2019 at the following address.

Procurement Manager
USPCAS-W
Mehran University of Engineering and Technology, Jamshoro,
Tel. No. 022-2109148 Email: ag.kandhir@admin.muet.edu.pk