

بە تۆرۆت 4

ئۆزگەرتىش ۋە تەكشۈرۈش ھۆكۈمىتى

بۇ ھۆكۈمەت ھۆججەت ۋە تەكشۈرۈش ھۆكۈمىتى ئارقىلىق تەكشۈرۈلگەن.

Each Applicant must fill in this form

Financial Data for Previous 3 Years “MVR Equivalent”			
	Year 2022:	Year 2021:	Year 2020:

Information from Balance Sheet

Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			
Working Capital			

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three years, as indicated above, complying with the following conditions:

- All such documents reflect the financial situation of the Bidder.
- Historic financial statements must be complete, including all notes to the financial statements.

- Historic financial statements must correspond to accounting periods

Average Annual Turnover

Each Bidder must fill in this form

Annual Turnover Data for the Last 3 Years		
Year	Amount Currency	MVR Equivalent
2022		
2021		
2020		
Average Annual Turnover		

The information supplied should be the Annual Turnover of the Bidder in terms of the amounts billed to clients for each year for contracts in progress or completed at the end of the period reported.

Line of Credit Letter

“letterhead of the Bank/Financing Institution/Supplier”

“date”

To: *“Name and address of the Contractor”*

Dear,

You have requested {name of the bank/financing institution) to establish a line of credit for the purpose of executing {insert Name and identification of Project}.

We hereby undertake to establish a line of credit for the aforementioned purpose, in the amount of {insert amount}, effective upon receipt of evidence that you have been selected as successful bidder.

This line of credit will be valid through the duration of the contract awarded to you.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Specification and Description

The bidder shall provide a service and parts warranty for a period of **12 Months**.

1. Scope

This part specifies the requirements for Reverse Osmosis Plant. The following clauses specify general requirements and standards of workmanship for the equipment and installations.

2. General features

- a. 3 Phase Connection required for the RO Plant to be installed by the Bidder.
- b. RO Plant Connections to the Fresh Water Tanks** to be installed by the Bidder.
- c. Hull through required for Intake and Reject to be made by the Bidder. In addition to the hull through for the Intake and Reject, an extra 2 hull through on both hulls with the cap to be done by the bidder.
- d. **Only SS 316 Grade** Screws / Bolts and **SS 316 Grade** Frames to be used for RO Plant Platform and installation of the plants.
- e. Commissioning of the Plant. Produced water must meet the drinking water requirements of the Utility Regulatory Authority of Maldives and water quality test must be done by the Bidder and the test results must be provided to the Client.
- f. As Built drawings of plumbing and electrical, printed, and soft copy (PDF and AutoCAD) should be provided at the end of the work.
- g. Any additional requirements for installation must be covered by the Bidder.
- h. Parts catalogue must be provided.
- i. A service and operational manual is to be provided.
- j. Specification of the RO Plant must meet the quotation provided by the bidder during the bidding process.
- k. The bidder must complete the registration of the RO Plant at the Utility Regulatory Authority.
- l. The bidder must provide basic operational training to 3 staff selected by the Client.

**** Fresh Water 2 Tanks at the Research Vessel "Thimaaveshi". Each tank Capacity is 3117 Liters. Two Tanks are stand-alone on both Hulls.**

3. Specific information and Reference Standards of the RO Plant

Specific Information

RO Plant	3 Tons x 2 RO Plants Semi-Automatic System
Production Capacity	Minimum 125 ltrs / hours (3 cbm/day)
Product Quality	<250 ppm TDS mg/l

The following standards must meet:

- a. The RO plant must be equipped with pressure sand filters to minimize the content of coarse materials such as grit, debris, and suspended solids collected by the plant intake and to protect downstream filtration facilities from solids overloading. Once the filter media head losses reach a preset maximum level, the filter must be taken out of service and media backwash must be activated.
- b. The RO plant must be equipped with Automatic Disinfectors – UV / Chemical.
- c. The RO plant must be equipped with product water physical parameters display.
- d. The RO plant must be equipped with double pass filtration.
- e. Single Wash out from the plant.
- f. Pressure Gauge for Intake
- g. Filter Media: The Contractor must provide the type, uniformity, size, depth of filter media used as pretreatment filters.
- h. Backwash, that usually applies combination of filtered water and air, must be initiated by a timer or when the threshold trans membrane pressure is reached, to periodically remove solids that accumulate on the feed side of the membrane. Chemically enhanced backwash (CEB) must be initiated when organic deposits and biofilm accumulate on the membrane surface.
- i. All membrane pre-treatment systems must be equipped with integrity testing features that allow the detection of occasional breaks or punctures in the membrane fibers, membrane modules, piping, and connectors; and other problems that could occur during membrane production, installation, or operation.
- j. High-pressure feed pumps must be used to deliver source water to the RO membranes at the pressure required for membrane separation of the fresh water from the salts.
- k. High Pressure Switch to be installed.
- l. Bulk meter to be installed by the contractor.
- m. Time Totalizer to be installed for counting the working hours of the high-pressure pump or the RO System

- n. RO systems must be equipped with membrane flushing systems to automatically flush vessels in the RO trains on shutdown to remove residual concentrate and prevent RO membranes from fouling and degradation.
- o. During the testing, commissioning, and defects liability period, if the water quality and process parameters given by URA regulation cannot be reached, the Contractor must modify the mechanical, hydraulic, electrical components of the plant, operation procedures and the chemical dosing parameters to achieve the required performance of the plant.
- p. All membrane pre-treatment systems must be equipped with integrity testing features that allow the detection of occasional breaks or punctures in the membrane fibers, membrane modules, piping, and connectors; and other problems that could occur during membrane production, installation, or operation.

In addition, all the wirings, fittings and technical specifications of RO plant shall comply with the minimum standards set by the respective regulator.

The Contractor must provide the configuration and full specification for all the components of the RO module including the certification to the standards mentioned above.

TECHNICAL DETAILS (TO BE COMPLETED BY THE BIDDER)

DESCRIPTION	REQUIRED	TO BE COMPLETED BY BIDDER
RO PLANT MODEL		
RO PLANT QUANTITY	2 Stand Alone Plant	
RO PLANT CAPACITY	3 Tons	
PRODUCTION CAPACITY	Minimum 125 ltrs / hours (3 cbm/day)	
PRODUCT QUALITY	<250 ppm TDS mg/l	
FILTER	Sand Filter System	
AUTOMATIC DISINFECTOR	UV / Chemical	
DISPLAY	Product Water Physical Parameter Display	
RO SYSTEM PASS	Double Pass System	
FILTER MEDIA	Sand Filter and Activated Carbon Filter	
PRE-TREATMENT MODULES	Auto Backwash System	
FEED PUMP		
HIGH PRESSURE PUMP	Multistage	
NOs OF MEMBRANE		
PRESSURE GAUGES		
HIGH PRESSURE SWITCH		
PRESSURE CONTROL VALVE		
PANEL BOX	Digital Panel Box	
PIPING	U-PVC	
RO Frame	SS 316 Grade	