TERMS OF REFERENCE (TOR)

Project Title & Code:	**Maintenance of Water System, Port of Balingoan (MPF-MOC-96-2026)**
Project Location:	**Port of Balingoan**
Approved Budget of the Contract (ABC):	***Nine Hundred Eighty-Nine Thousand, Five Hundred Two Pesos and 00/100 only (Php 989,502.00)***

I. PURPOSE AND SCOPE

The Philippine Ports Authority – Port Management Office of Misamis Oriental/Cagayan de Oro (PPA PMO MOC), through the Engineering Services Division (ESD), undertakes preventive maintenance works to ensure safe, efficient, and reliable port operations.

This project covers the maintenance, repair, rehabilitation, and improvement of the existing water distribution system and related facilities within the Port of Balingoan to ensure reliable water supply, operational efficiency, and serviceability of the port's water system.

The scope of work includes the supply of all necessary labor, materials, tools, equipment, supervision, and other incidentals required for the complete execution of the project in accordance with approved plans, technical specifications, and applicable engineering standards.

The scope involves the **supply of materials, labor, and equipment** of the **abovementioned project** to wit:

Item Description	Quantity and Size
Chemical Pre-Treatment Dosing System (50L HDPE Tank, Diaphragm Dosing Pump, Antiscalant Default	1 lot
Multimedia Sand Filter (FRP vessel, multilayer media, automatic multiport valve)	1 lot
5-Micron Cartridge Filter Housing with initial elements (6-month supply)	1 lot
High-Pressure RO Feed Pump - Vertical Multistage, SS304, with valves and piping	1 lot
Reverse Osmosis Array - 3 x BWRO 4040 membranes + 3xFRP pressure vessels (2:1 array), 500 LPH permeate at 97-98% rejection	1 lot
Control Panel - PLC + HMI touch-panel, conductivity sensors, pressure transmitters, flow meters, level switches, field wiring	1 lot
Engineering, Procurement, Construction & Installation (EPCI) Manpower and Labor	1 lot
Commissioning, Performance Testing & Operator Training (for 1 Day - Free of Charge)	1 lot

II. TECHNICAL SPECIFICATIONS

All works shall be executed in a neat, workmanlike, operationally safe, and technically sound manner acceptable to PPA PMO MOC and in accordance with applicable engineering standards, manufacturer specifications, and industry best practices for water treatment and reverse osmosis systems.

All materials, equipment, devices, accessories, and consumables to be supplied and installed shall be brand new, free from defects, and suitable for the intended application unless otherwise approved by the Procuring Entity.

Materials Requirements

The Contractor shall supply, install, test, and commission the following materials and equipment including but not limited to:

A. Chemical Pre-Treatment Dosing System
50L HDPE Chemical Tank
Diaphragm Dosing Pump
Antiscalant Dosing Assembly
Tubing, Valves, and Injection Fittings
Mounting Accessories and Supports

The dosing system shall be corrosion-resistant and suitable for continuous operation for Reverse Osmosis (RO) applications.

B. Multimedia Sand Filter System
FRP Pressure Vessel
Multi-layer Filtration Media
Automatic Multiport Valve
Necessary Piping and Accessories

The multimedia filter shall effectively remove suspended solids, sediments, and turbidity prior to membrane filtration.

C. Cartridge Filtration System
5-Micron Cartridge Filter Housing
Initial Cartridge Filter Elements (minimum six-month supply)

The cartridge filtration system shall provide final pre-filtration protection prior to the RO membranes.

D. High-Pressure RO Feed Pump Assembly
Vertical Multistage Pump
Stainless Steel 304 Construction
Isolation Valves and Check Valves
Pressure Gauges and Piping Connections

The feed pump shall be capable of delivering the required operating pressure and flow rate for the Reverse Osmosis system.

E. Reverse Osmosis (RO) System
Three (3) BWRO 4040 Membranes
Three (3) FRP Pressure Vessels
Two-stage/One-pass (2:1 Array) Configuration
Minimum 500 Liters Per Hour (LPH) Permeate Capacity
Minimum 97%–98% Salt Rejection Performance

The RO system shall be capable of continuous operation and designed for efficient permeate recovery and stable water quality output.

F. Instrumentation, Controls, and Monitoring System
PLC-Based Control Panel
HMI Touchscreen Interface
Conductivity Sensors
Pressure Transmitters
Flow Meters
Level Switches
Field Wiring and Electrical Connections

The control system shall provide automated monitoring, operation, protection, and alarm functions for the entire water treatment system.

G. Engineering, Procurement, Construction, and Installation (EPCI)

The Contractor shall provide all necessary engineering, technical supervision, manpower, tools, installation materials, consumables, and labor necessary for the complete construction, installation, integration, and operation of the water treatment system.

H. Commissioning, Testing, and Training

The Contractor shall conduct:

System testing and commissioning;
Performance testing of the RO system;
Leak testing and operational verification;
One (1) day operator orientation and training free of charge.

The Contractor shall ensure that the installed system is fully operational, stable, and compliant with the required operating parameters prior to final acceptance.

III. PROJECT REQUIREMENTS

Scope of Works

The Contractor shall:

1. Conduct site inspection and verification of existing conditions;
2. Mobilize required manpower, materials, and equipment;
3. Perform demolition/removal of damaged components where necessary;
4. Perform fabrication, installation, repair, and rehabilitation works;
5. Ensure proper alignment, installation, and finishing of all components;
6. Conduct final clean-up and disposal of debris.

All works shall conform to approved plans, specifications, manufacturer standards, and PPA PMO MOC guidelines.

Project Site

The Project Site is located at the Port of Balingoan, Misamis Oriental.

Project Duration

The project shall be completed within **sixty (60) days** from the receipt of the Notice to Proceed (NTP).

All Work Extensions and Suspensions shall be requested and made in writing and should be **properly justified** in line with existing regulations under the IRR of the Republic Act No. 12009, or the New Government Procurement Act (NGPA), and shall be subject to approval by the Port Manager.

IV. PROJECT DOCUMENTATION REQUIREMENTS

To facilitate efficient implementation and timely completion of the project, the following documents shall be required:

Procurement/Pre-Implementation Requirements

The contractor shall submit the following documents **duly notarized,** prior to implementation:

1.) Bidder's Manpower & Equipment Deployment Commitment Schedule;
2.) Bidder's Certificate of Site Inspection (CSI)

Implementation Requirements

During project implementation, the Contractor shall submit:

1.) Daily Accomplishment Reports;
2.) Daily Log of Workers and Equipment Deployment;
3.) Geotagged Progress Photos (Before, During, and After);
4.) Incident Report for delays and deficiencies;
5.) Requests for Work Suspension & Resumption, if applicable.

Punch-listing and Final Inspection Requirements

Prior to final acceptance, the Contractor shall comply with all punch-list items identified by PPA PMO MOC. Upon completion of all works, the Contractor shall formally request the Final Inspection and Billing through a written request addressed to the Port Manager of this PMO, through the ESD.

The Final Inspection shall be conducted by the designated Inspection Team and the Project-in-Charge to verify that:

1. All works have been completed in accordance with the approved plans, technical specifications, scope of work, and applicable engineering standards;
2. All punch-list items and deficiencies have been corrected and completed;
3. Workmanship and installed materials are acceptable and free from defects;
4. The project site has been properly cleaned and restored;
5. Required reports, photographs, and supporting documents have been submitted.

The Contractor shall submit the following during Final Inspection:

a. Letter Request for Final Inspection and Billing;
b. Geotagged Photo Documentation (Before, During, and After);
c. Daily Accomplishment Reports, if required;
d. As-Built Plans;
e. Affidavit certifying full payment of labor and materials;
f. Performance and Warranty Bonds with attached Original Receipt;
g. Other supporting documents as may be required by PPA PMO MOC.

Only upon satisfactory compliance and acceptance of all requirements shall the Procuring Entity issue the corresponding Certificate of Completion and Acceptance for purposes of final billing and payment processing.

V. PRICING, PROCUREMENT METHOD, & PAYMENT TERMS

The **Approved Budget for the Contract (ABC)** is ***Nine Hundred Eighty-Nine Thousand, Five Hundred Two Pesos and 00/100 only (Php 989,502.00)*, inclusive of VAT.**

This procurement shall be undertaken through **Small Value Procurement** in accordance with the NGPA.

In lieu of retention money, the Contractor is required to submit their **bank guarantee or surety bond callable on demand**, in accordance with the NGPA.

Progress Billing may be allowed once during project implementation, subject to actual accomplishment and verification by the Inspectorate Team and the ESD.

The remaining balance shall be released only upon 100% completion, final inspection, acceptance of the project, and submission of complete billing and close-out documents in accordance with existing government accounting and auditing rules and regulations.

VI. RESPONSIBILITIES OF THE CONTRACTOR

The Contractor shall:

a. Provide all necessary materials, labor, and equipment;
b. Execute all works in accordance with approved specifications;
c. Ensure safety of workers and the public during construction and provide temporary safety measures;
d. Submit required deliverables including the Daily Accomplishment Report, Work Schedule, Progress Reports with Photos;
e. Ensure proper waste disposal and site cleanliness;
f. Repair any damage caused during construction.
g. Ensure that all repaired and installed waterline components are leak-free and operational;
h. Immediately address any water leakage or damage caused during project implementation.

VII. RESPONSIBILITIES OF THE PROCURING ENTITY

This Port Management Office (PMO), thru the ESD, shall:

1.) Assign a **Project-in-Charge (PIC)** to monitor the project;
2.) Provide access to work areas;
3.) Conduct inspection and acceptance of completed works;
4.) Validate submitted reports and documents;

5.) Issuance of **Certificate of Completion and Acceptance** upon satisfactory completion, then process payment.

6.) Process payment subject to existing accounting and auditing rules.

VIII. PENALTIES FOR DELAY

For **unjustified delay**, Liquidated Damages shall be imposed at a rate of **0.10% (One-Tenth of One Percent) of the unperformed portion of the contract per calendar day of delay.**

The total Liquidated Damages shall **not exceed ten percent (10%) of the total contract price,** after which the Procuring Entity may rescind the contract in accordance with rules and regulations under the NGPA.

IX. BIDDER QUALIFICATIONS AND OTHER INFORMATION

Interested and eligible bidders must submit the following eligibility documents:

TECHNICAL DOCUMENTS	FINANCIAL DOCUMENTS
1.) Valid and updated PhilGEPS Registration Certificate, including Annex "A" and its underlying attachments; 2.) Duly Accomplished Bid Form; 3.) Certificate of Site Inspection (CSI), notarized; 4.) Manpower and Equipment Deployment Commitment Schedule, notarized; 5.) Omnibus Sworn Statement/Eligibility Declaration, notarized; 6.) Other documents deemed necessary for minimum qualification.	1.) Duly Accomplished Request for Quotation and Canvass Form

Failure to comply with the required technical and financial documents may constitute grounds for disqualification.

X. BID EVALUATION AND AWARD

The evaluation of quotations shall be undertaken in accordance with the NGPA and its IRR using the criteria of the: **Lowest Calculated and Responsive Bid (LCRB)**

The quotation with the lowest calculated price shall be evaluated based on compliance with the technical specifications, documentary requirements, scope of work, and other requirements indicated in this TOR and the Request for Quotation (RFQ).

The PPA PMO MOC, with the BAC, reserves the right to:

- Verify all submitted documents and quotations;
- Require submission of additional supporting documents for verification;
- Reject quotations that are incomplete, non-compliant, or technically deficient;
- Recommend award to the bidder with the LCRB.

This TOR takes effect upon approval by the Port Manager and remains valid until full and satisfactory completion of the project.

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