

**TERMS OF REFERENCE FOR THE PROCUREMENT
OF
SIX (6) UNITS BRACKISH WATER REVERSE OSMOSIS SYSTEM
FOR
QUEZON CITY-DISASTER RISK REDUCTION MANAGEMENT OFFICE**

I. RATIONALE

Upon the passage of Republic Act 10121 known as the DISASTER RISK REDUCTION MANAGEMENT ACT of 2010, the mandate to combat the adverse effect of natural and unnatural calamities in adherence with the international standards has been set. Such mandate holds accountable all government agencies from the national and local government units, up to the level of the barangay, to provide “top priority and take adequate and appropriate measures in disaster risk reduction management (R.A.10121 – Section9, k)

Quezon City has a land area of 161.12 sq. km or 16,112.8 hectares. It is more than four times the size of Manila City nearly six times the expanse of Makati, and more than 14 times bigger than Mandaluyong. It is almost one-fourth the expanse of Metro Manila.

Quezon city is exposed to natural hazards such as Earthquake, Liquefaction, Typhoons, Landslides and Floods. The potential for natural disasters becomes a pressing concern for the safety of the residents especially when potable drinking water is contaminated or disrupted or cut off due to such events. One of the primary objectives of the City during emergency is provide efficient potable drinking water located in strategic sites of each six districts of the city.

In recent disaster and calamities or unnatural circumstances one of the basic necessities that are affected is water distribution either through interruption and/or damage pipelines due to such events. The Mobile Treatment purifier / Brackish Water Reverse Osmosis is considered one of the essential equipment during disasters of many countries. These Brackish Water Reverse Osmosis contains sub-system and is capable of turning stagnant and brackish into a potable drinking water which is suitable during disasters.

II. PROJECT OBJECTIVES

The Project Objectives are as follows:

1. To provide potable safe drinking water for short and long period of time during disaster.
2. To provide each of the six district a mobile brackish water reverse osmosis readily available as a source of potable safe drinking water and convert taint water to potable water during disaster and/or water interruption.
3. To provide BWRO that is capable of dispensing Thirty Thousand (30,000) liters/day of safe drinking water.
4. To provide and respond immediately the need of barangays and communities especially in the most affected areas within the city.

III. SCOPE OF WORK

1. Provide and deliver six (6) units of Brackish Water System. One (1) per district in key areas that is suitable to respond during emergencies.
2. Provide technical training for sixteen (16) working hours for 2 personnel per district with a maximum 12 participants for six (6) district.
3. To provide six (6) Brackish Water Systems with the minimum requirements as follows:
 - Scope of supply, test and inspection of the fresh water generator.
 - To install the brackish water system per district.
 - Raw Water Quality / FWG can produce safe potable water from feed source of brackish water up to 5,000 TDS within the feed water range 4-32°.
 - Product is capable of flow rate of more than 2.2 m³/hr. and more 4m³/hr.
 - Must provide several sub-system and accessories.
 - Must provide design related to FWG based on simplicity, mobility and reliability and ease maintainability.
4. Must provide at least one on the listed below on all materials, test, manufacturing, test and inspection of the equipment shall be accordance with the following standards to ensure safe drinking water:

- JIS, Japanese Industrial Standards
 - ANSI, American Standard Institute
 - ISO, International Organization for Standardization
 - WHO, Guidelines for drinking Water Quality
5. Must provide Fresh Water Generator that can produce fresh potable water from seawater, brackish water, and/or and polluted fresh river and pond. Consist of pre-treatment sub-system, pressurization sub-system, product storage and delivery sub-system and control sub-system.
 6. Must provide Maintenance and consumption cost for one (1) year.

IV. PROJECT STANDARDS AND REQUIREMENTS

1. Prospective bidders must have delivered relevant project for a minimum period of two (2) years.
2. As part of the requirement in RA 9184, the bidder must have completed a government contract that is SIMILAR in nature to this project within two (2) years equivalent to at least fifty percent (50%) of the ABC.
3. The Bidder must submit the following documents as part of the bidding documents:
 - a. A certificate from University of the Philippines Natural Science Research Institute / Microbiological research and Services Laboratory indicating that it has passed the Coliform test of water sample under Department of Health Philippines National for Drinking Water.
 - b. Equipment listing and complete specification.
 - c. A product capability and flow rate system specification.
 - d. A maintenance program for one (1) year.

Noted By:



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