T/2456801/2023
CONSTRUCTION OF DEEM STRATEGIC STORAGE RESERVOIR (MUSCAT GOVERNORATE

Brief scope of work

Introduction

Muscat Governorate is witnessing a rapid increase of potable water demand due to the increased commercial activities and associated population growth in additional to the normal population growth. In order to meet the increasing demand in Muscat Governorate, Qurayat IWP Desalination Plant (by OPWP) and Wadi Dayqah Surface Water Treatment Plant (by OWWSC) have been planned. The water will be transmitted to Deem & Amirat existing and future reservoirs as well as other distribution reservoirs.
Deem future strategic reservoir is proposed to be constructed adjacent to the existing 23,000 cum Deem reservoir as it is located at a strategic site between Qurayat and Muscat with an extension to the existing plot.

Project Objectives

The objective of the project is the creation of a storage reservoir at Deem in order to fulfil the OWWSC's security of water supply requirements by providing 48 hours storage related to production capacity and to meet the increasing potable water demand in Muscat Governorate.
Scope of Services can be briefly summarized as below:

1) Construction of 2 days storage Ground Reservoirs capacity of (150,000.0 cum), comprising of 4 reservoirs and associated works as shown in the drawings.
2) Construction of Inlet and outlet pipelines, valves, instrumentation, controls and their connections with the existing pipelines.
3) Integration with the existing source of water (Wadi Dayqah and Qurayat Tie-In Water Supply Systems).
4) Integration with the existing SCADA System (Bawshar Central Control Room, Wadi Dayqah and Qurayat Tie-In local control). Preparation of SCADA and Instrumentation Integration Drawings.
5) Construction of Valve and meters chambers.
6) Construction of Compound wall, internal roads for the proposed extended area.
7) Construction and design of Electrical Room and battery Storage etc as per the plan dimensions shown in the layout drawings and as per OWWSC requirements.
8) Construction and design of Chemical Storage Room as per the plan dimensions shown in the layout drawings and as per OWWSC requirements.
9) The Contractor while designing the baffle curtains shall run computational fluid dynamic model and shall submit to the Engineer for approval.
10) Construction of electronic micro-processor-based Leak Detection System and overflow for the al reservoirs compartments and chambers.
11) Power supply and Independent PV-Solar Power Supply /Connection to National Power Grid.
12) Survey Stations