

	OMAN WATER & WASTEWATER SERVICES COMPANY CORPORATE MANAGEMENT SYSTEM
Brief scope of work	

**Project Name: Consultancy Services for Design and Construction Supervision for
“Nizwa – Manah TE Line Project”**

SUMMARY OF SCOPE FOR WORK:

The brief scope of the project is divided into the followings:

- a. Concept design.
- b. Preliminary Design
- c. Detailed design
- d. PIAD
- e. Tender Document
- f. Supervision

The Consultant shall design the works in accordance with NWS (OWWSC) standards and specifications policies, procedures, manuals, and requirements refer to (SECTION 08: APPENDICES table of contents) as applicable.

A. Concept design of TE Line

The consultant shall carry out the following:

- Data collection.
- Topographic survey
- Site survey for all the customers location
- At least three options of Concept design of Nizwa - Manah TE Supply System.
- Hydraulic assessment of the existing TE network to be integrated with the new system.
- Analysis of the existing / potential future customers and their future expected demands within the project area.
- Value Engineering workshop
- Concept design report including estimated cost for each option.

B. Preliminary design of TE Line

The consultant shall carry out the following:

- The consultant shall carry out Preliminary design based on the approved concept design of the network including transmission and distribution lines, pipe branches, customers connections chambers, laterals ...etc.
- Produce drawings for all the details of the network for the pipe laying, Chambers, manholes as drain pits for Washouts, pump stations etc.
- Obtain design NOC's.

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- Collection and verification of the final road levels to be used for the final levels of the manholes and chambers.
- HAZOP analysis for STP and PS & LS, Value of Engineering, Design Review workshop

C. Detailed design of TE Line

The consultant shall carry out detailed design based on the approved concept Preliminary design, obtain required NOCs, Preparation of BOQ and scope of the work, includes but not limited to Treated Effluent networks and TE Pump station or booster Pump Station, Hydraulic analysis proposed system, HAZOP Workshop and detailed design Report.

D. Tender preparation for:

- Preparation of construction tender documents for the Procurement and Construction for Nizwa-Manah TE Supply System.
- Respond to bidder's clarification and Evaluation of bids received (both technical and commercial);
- Compilation of final contract documents after the award.
- Consultant is responsible to collect all existing underground utility services data from all authorities and this should be done before finalization of the Tender drawings for the TE line in order to minimize clashing with other utilities and submitted for approval to NWS (OWWSC).

E. Preparing Pre-Investment Appraisal Document (PIAD)

This is for the construction of TE line which is required to be sent to APSR for final capital allowance as it is part of the price control submission.

F. Supervision

The consultant shall carry out the supervision for the construction works as per approved the detailed design in the tender drawings with all technical reviews necessary for the materials selections and installation works as well to provide the supervision rate for each stage of the project and to be in accordance with the tendering philosophy approved by the NWS (OWWSC).

IMPORTANT NOTES:

1. The Consultant staff assigned for the services shall be with adequate experience in such type of projects which includes TE Network system including Lifting / Pumping stations, TE Networks,
2. Data Collection of Data (physical validation and physical data collection for data required for designs), update of existing sewerage systems within the project boundary, identification of all underground services/structures/chambers by trail pits, location of ground water table to assess the requirement of dewatering during construction etc.

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3. Data Collection such as / As-built /requirements and collection form other utilities and validation of data provided.
4. The Consultant shall collect Authorities requirements and conditions and to be considered in his proposed designs.
5. All required Topographical Survey.
6. All required Geotechnical investigation.
7. Trial pits required for identification of existing services to ensure the Constructability. A minimum of 50 Numbers of trial pits shall be conducted by the Consultant for critical locations which shall be proposed by the Consultant and approved by Nama Water Services.
8. Information folder is only for information. The Consultant shall not base his design on such information. The Consultant is responsible to collect all required data, information, As-built drawings etc. and validate physically, the correctness and accuracy is his responsibility.
9. Connections to existing system shall be based on actual physical data/information collection by the Consultant, and he shall obtain Nama Water Services / Authorities (O&M / QHSE) permissions.
10. Connection to existing system shall be described in detail in Drawing's, scope of works as well as in the related Items in the Bill of Quantities.
11. The consultant shall prepare detailed design connection sheets for all TE Connections within the project boundaries.
12. Preparation of Concept design, not limited to Cost estimates, Design calculations, diagrams, sketches, drawings. Reports etc. (minimum 3 alternatives shall be submitted).
13. Preparation of Preliminary designs not limited to Bill of Quantities, calculations Designs, drawings. Reports etc. Hydraulic designs / models in WaterGEMS software (or equivalent) /format.
14. Preparation of Detailed designs not limited to Bill of Quantities, Priced Bill of Quantities, Design calculations, drawings. Reports etc. Final Hydraulic designs / models in WaterGEMS software/format.
15. Obtaining of all Design NOCs (Design non-objection certificates): The Consultant shall take into consideration that obtained NOCs means the scope is completed and the Consultant shall **revise** his design based on the conditions provided in the NOCs.
16. Coordination with other concerned stakeholders in the Project.
17. Preparation of Tender Documents (Approved for construction).
18. Submission of Priced Bill of quantities.
19. Reports etc.
20. Presentation etc.

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21. All submittals shall be in addition to Hard Copies PDF , Word, AutoCAD digital Copies and searchable.
22. Post-award Design support during the construction stage – The scope of this design support includes corrections or modifications for any mistakes or overlooked in the Design to be carried out without additional cost. For any additional design required it will be payable as per Daily rates in the contract.
23. Preparation /submission of Reports, presentations etc.
24. Preparation /submission of Minutes of Meetings.
25. Preparation of Documentation System for the Project / submission Documents / Records and Documentation etc.
26. Arrangement, coordinating, managing, attending of meetings, workshops and Value Engineering etc.
27. Any other scope to complete the scope to meet the desired services in professional way.
28. Design Workshops as needed.
29. Value Engineering: Three Value Engineering workshops, First after Concept, second After Preliminary, The Third after detailed design for Constructability and methodology of Construction / Project Implementation.
30. HAZOP workshop for the proposed / upgraded Lifting / Pumping Stations.

CONSTRUCTION SUPERVISION SERVICES:

The scope of the supervision services required shall include but are not limited to:

1. Review, issue comments, recommend and approve all designs prepared by the Construction Contractor/s.
2. Supervise and manage the construction of all works during the Contract/s' construction periods.

The required supervision services shall include but are not limited to the tasks described under “4. Detailed Scope of Consultant services” in the Section 03: Terms of Reference and Scope of Work / Services.

Components shall not be limited to the above. All components necessary for the efficient working of the Treated Effluent pipeline system should be considered and included.

Time for Completion of the Works

The whole Contract period for completion the works is One Thousand One Hundred and Eighty (1180) days from commencement Date.