

# Company Experience

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# **MEMCO Profile & Experience**

# 1. MEMCO Profile & Experience

## About Us

Since our inception, Mazoun Electro-Mechanical Co. (MEMCO) has been driven to provide a professional engineering services for the water industry within the Sultanate of Oman. Our experience in electromechanical engineering has been varied and now encompasses: Water & Wastewater Treatment Stations, Desalination Plants, Instrumentation & Control Systems (SCADA), leak detection, and various industrial applications as a main EPC (Turnkey Basis) provider.

The key to our present level of success is illustrated by our team's ability and commitment to provide an exceptional level of service to our clients and to maintain this ability will be one of the main the critical success factors in our company's philosophy.

## Our Vision

"To expand our core business within the Sultanate of Oman and to become an active participant and leader in the development of the EPC industry in the Omani Market".

## Mission

"To identify business opportunities in a proactive manner, invest in these opportunities in a way that strengthens and complements MEMCO's position, and to deliver added value services through utilizing core competencies, knowledge and expertise".

## Our Range of Services

MEMCO has a reputation for professional excellence and reliability, built up through more than 10 successful years of operation in the Sultanate of Oman.

We provide every stage of electrical and mechanical work, from design, and system installation, to maintenance and repair work. Our dedicated team of multi-disciplined, highly qualified engineers, office-based technical staff, and administrative personnel means we provide exceptional project management and top quality workmanship. We complete projects on time and within budget, and provide full after sales support.

This professional excellence combined with our personal approach has won us a consistently high level of repeat business over the past decade, with a continually expanding client base of prestigious local and national organisations that includes PAEW, Haya, CCED, and many more.

## Mechanical Works:

From tender stage through design, installation and commissioning, MEMCO's has a track record of managing successful projects that win a high level of repeat business across all sectors. However that's not the sole reason for our success.

Our experience in mechanical Services cover the following:

- M & E Contracts of Pumping Station (Supply, Installation and Commissioning).
- Hydraulic Analysis of Surge.
- Surge Protection System.
- Welding Consumable, Equipment & Accessories.
- Safety Systems of Rotating Equipment (IPS).
- Leak Detection Equipment.
- Maintenance of Rotating Equipment.

## Electrical Works

From domestic installations to more complex and sophisticated commercial and industrial systems, we design, commission and manage a wide range of electrical projects.

Thanks to the depth and diversity of our expertise and experience, we have a thorough understanding of our customers' requirements and can develop complete solutions for all types of installation.

Our experience in electrical Services cover the following:

- Design, build, implement electrical supply systems for industrial plants , pump stations , desalination plants starting from load study Passing through Earthing and lightning systems , cable and cable tray systems , cable test , termination and commissioning
- Electrical study and execute for pump stations, supply, installing and commissioning for LV, MV electrical motors and related control and operation systems.
- Supply Install and commissioning for MV switchgear, protection relay study and settings.
- Design, supply, Install and commissioning for LV switchgear and distribution boards.
- Design, supply, Install and commissioning for AMF, Feeder pillar, power generator.
- Supply, Install and commissioning for AC-UPS, DC-battery charger.
- Supply, Install, commissioning for MV, LV VFD'S and soft starters.
- Troubleshoot process for electrical systems (VFD, soft starter, switchgear, control panels) .
- MV, LV, control cables testing and termination.
- Coordinates the work of consultants and operators at the plants.
- Study and execute for internal electrical supply and lighting.
- External road lighting study and execution.

## Control Systems & Instrumentation

MEMCO has deep experience designing and developing control systems starting from simple control concepts, ending with most complicated type of DCS systems with ability of remote monitoring and controlling.

Our experience in Control Systems and Instrumentation Services cover the following:

- Design, build, implement and modify graphical user interfaces for real time monitoring and automated operation of site processes and equipment
- Review and recommend revisions of programs necessitated by process and equipment changes
- Troubleshoot process control system components
- Provides feedback, identifies opportunities for improvement and works to resolve problems
- Supervise operational control and integration of SCADA systems in a variety of control schemes that monitor and control the water and water desalination system
- Applies and adjusts automatic control functions to maintain high system performance
- Develops scripts for database tools, reports and data analysis
- Supply and install and commission for all type of instrumentation related to water variables measurement as flow, pressure, and temperature and water quality as PH, Conductivity, and Turbidity.
- Design and develop most required types of remote monitoring units using all type of data connectivity like Radio, GPRS, 3G, Fibre Optic, and Leased Line.

## Our Partners

During the course of last few years, MEMCO has managed to establish an excellent working partnership with worldwide leading companies such:

- Channel Partner with **Flowserve** providing a full range of water Pumps and mechanical seals.
- Channel Partner with **ABB** providing Instrumentation, Control Systems (SCADA), and VFDs Motor.
- Channel Partner with **BECKHOFF** a global provider of open automation systems based on advanced. PC Control technology.
- Channel Partner with **BURKERT** one of the world's leading manufacturers of measurement and control systems for liquids and gases.
- Channel Partner with **GPI** a globally respected brand for its high-quality fuel transfer pumps, fuel meters, flow meters and Industrial instrumentation for fluid transfer pump and liquid flow meter.
- Exclusive representative of **HMS Networks** is the leading independent supplier of solutions for industrial communication and IIoT with products offered under the Anybus®, IXXAT® and eWON® Intesis® brands.
- Alliance integration Partner of **Schneider Electric** Systems Integration Network to provide real-time automation hardware, software, and services in integrated solutions for homes, buildings, data centers, infrastructure and industries.
- Authorized distributor for **Wilo**, providing a range of pumps for water management applications (potable water and wastewater)

## MEMCO in Media

The collage features several media snippets:

- Zawya:** "Mazoun Electro-Mechanical Engineering Company Paves The Way For Development In The Water Utilities Sector In Oman".
- Al-Raya:** "مؤتمر لتقدمة الإنتر وميكانيكية، تنظم لدوة لتنمية موارد المياه".
- Al-Naba:** "مؤتمر لتقدمة الإنتر وميكانيكية، تنظم لدوة لتنمية موارد المياه".
- Times Oman:** "Forum discusses key issues in water sector".
- AME info.com:** "Mazoun Electro-Mechanical Engineering Company organizes Seminar on Water Development".

The large photo at the bottom shows a group of men in a conference room, with the caption: "Paving the way for development in the sector of the water and energy industry in Oman, Mazoun Electro-Mechanical Engineering Company (MEMCO) organised the second edition of the annual seminar with the collaboration with the global ABB company, on development in the water sector, and reviewed the latest".

## Project Reference and Description

MEMCO have been engaged in the construction of an additional tanker filling station in the Sharqiyah region. This five pump station ensures that water is transferred to across the numerous sub-areas within the wider districts. Also accredited with providing a water supply design to Al Qurayat, MEMCO played a major role as a consultant to the main contractor. Other commendable projects include the central desalination plant at Sur Water Scheme and the water conductivity and monitoring systems on the Barka Pumping Stations.

The following are sample of past & current experience in implementing and executing MEP projects across the Sultanate of Oman.

## Current Projects “On Going”

<b><i>Project Name:</i> CALL OFF CONTRACT FOR SUPPLY AND SERVICES FOR INSTRUMENTATION AND AUTOMATION ITEMS</b>			
<b>Project Number</b>	T/2443908/2022	<b>Contract Value</b>	210,387.901 OMR
<b>Client</b>	Nama Water Services	<b>Project Status</b>	In-progress
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"><li>• Supply of Electromagnetic Flow Meters.</li><li>• Installation of the Flow Meters.</li><li>• Integration of Flow Meters to Existing PLCs &amp; SCADA.</li><li>• Supply of suitable DI module to function as Pulse Counter Module for the existing PLCs.</li><li>• Supply of DI &amp; AI modules for the existing PLCs.</li><li>• Supply and Commissioning Data Loggers.</li><li>• Supply and Commissioning of Mini PLC/RTU for multi-purpose &amp; applications.</li><li>• 24V DC Power supply system, including battery.</li></ul>			



**Project Name: TENDER 4/2022 Construction of water distr. network in Wadi Endam Al Mudaibi Willayat**

<b>Project Number</b>	TENDER 4/2022	<b>Contract Value</b>	101,805.730 OMR
<b>Client</b>	TARGET LLC	<b>Project Status</b>	In-progress
<b>Consultant</b>	INTERNATIONAL CONSULTING ENGINEERING LLC	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

- We are responsible for upgrading of an existing Al-Habat Pump Station by replacing the existing pumps with 3 new pumps along with their electrical connections.
- To supply, installation and commissioning of 3 Booster Pumps inside the Booster pump station along with its ancillary components like, pipes, fittings, valves, dismantling joints, electrical cables, required instruments and SCADA works as it mentioned in the BOQ. To supply, install and commission Main LV Switchboard and 1 distribution board panels that are related to the Pump Station and for the outdoor lighting panel along with its cables that are mentioned in the BOQ. To provide a provision of a power supply with an outdoor tariff metering panel. To supply, install and commission an electromagnetic flowmeter on the discharge pipe of the Booster Pump Station and a Surge vessel with a capacity of 1m<sup>3</sup>.

**Project Name: TENDER 3/2022 CONSTRUCTION OF WATER DISTRIBUTION NETWORKS IN AL ALOO IN YANQUL WILAYAT**

<b>Project Number</b>	TENDER 3/2022	<b>Contract Value</b>	103,212.200 OMR
<b>Client</b>	TARGET LLC	<b>Project Status</b>	In-progress
<b>Consultant</b>	INTERNATIONAL CONSULTING ENGINEERING LLC	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

- We are responsible for supplying, installation and commissioning of 3 Booster Pumps inside the Booster Pump station along with its ancillary components like, pipes, fittings, valves, dismantling joints, electrical cables, required instruments and SCADA works and Firefighting detection system, as it mentioned in the BOQ.
- To supply, install and commission Main LV Switchboard and 2 distribution board panels that are related to the Pump Station and for the outdoor lighting panel along with its cables that are mentioned in the BOQ. To provide a provision of a power supply with an outdoor tariff metering panel. To supply, install and commission an electromagnetic flowmeter on the discharge pipe of the Booster Pump Station and a Surge vessel with a capacity of 5m<sup>3</sup>.

**Project Name: Tender No. 12/2021 Short Term Upgrading of Pump Station in Barka (Somhan & Hufri Pump Station) in South Al Batinah Governorate**

<b>Project Number</b>	TENDER 12/2021	<b>Contract Value</b>	782,424.257 OMR
<b>Client</b>	Nama Water Services	<b>Project Status</b>	In-progress
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

Improve existing Somahn & Hafri Pump Stations in Willayat Barka in Bathina South Governorate to secure water distribution on existing potable water networks.

Execution of works shall include but not limited to the construction (Supply, Installation & Commissioning) of the following:

Scope of Work of Part (A) for New Somhan Pump Station

- Supply and install of standby generator with electrical power supply of 415v, three phase with capacity of 750KW for the new pumps
- Auto change over throughout Automatic Transfer Switch (ATS) system
- Cabling, cable trays and earthing to accommodate 3 pumps sets
- Relay setting calculations and MV/LV protection settings, energizing, commissioning and testing of pump station as per DCRP regulations.
- Modifying the MCC panels to accommodate the new pump sets with all the electrical accessories ( circuit breakers, controls and motor drives)
- All control and alarm signals will be integrating with the existing SCADA system

New Somhan Pump Station is divided into two distribution lines:

Part 1: The existing distribution will pump to New Rumais ET & Al-Fulij ET.

Part 2: The new distribution line will be constructed to provide supply for Haram ET & Rumais ET

Part 1:

- Supply and Install 1 pump and motor with Head: 100m and flow: 360 m3/h with VFD
- Pumping system in New Somhan Gr 1 will work as 2 duty pumps and 1 standby.
- The scope of works will be adding additional pump and motor to the existing system
- Design, supply and install of suction & delivery spools, valves, instruments and pipework to accommodate the new pump set
- Surge analysis by studying the pressure transients caused by a change in the piping due to the new pumps.
- Upgradation and enhancing of switch gear to withstand the new electrical capacity with necessary cabling
- Part 2:
- Supply and Install 2 pump and motor with Head: 142m and flow: 750 m3/h with VFD
- Pumping system in New Somhan Gr 2 will work as 2 duty pumps and Old Somhan Station will act as a stand by station for the mentioned pumps.

The scope of works will be adding additional 2 pumps and motor to the existing plinth while introducing a new distribution pipework to the station

- Design, supply and install of suction & delivery spools, valves, instruments and pipework to accommodate the new pump sets
- Civil work will be required to do concrete coring in New Somhan Pump Station to allow the new discharge header to pass to the designated tapping point of the existing distribution line.
- Construction of Isolation Valve chamber before the tapping point

- Surge analysis by studying the pressure transients caused by a change in the piping due to the new pumps.
- Upgradation and enhancing of switch gear to withstand the new electrical capacity with necessary cabling.

Scope of Work for Part (B) for Al-Hafri Pump Station

- Supply and Install two new pump sets with Head: 140m and Flow: 500 m3/h with soft starter drives
- Pumping system will contain 3 pumps in total, working on 2 duty pumps and 1 standby.
- The two new pumps will replace the existing 2 pumps and act in duty condition while the existing remaining pump will be on standby.
- Design, supply and install suction & discharge spools such as Valves, Instrument and pipework to accommodate the new pump set
- Surge analysis by studying the pressure transients caused by a change in the piping due to the new pumps.
- Upgradation and enhancing of switch gear to withstand the new electrical capacity
- Reviewing the power supply of the pump station and check if it is necessary to be upgraded up to 1000Kva
- Instruments and pumps will be connected to SCADA system by integrating the existing Somhan system and Central Control Room (CCR)

**Project Name: SUPPLY AND INSTALLATION OF ONE COMMON COOLING WATER PUMP AND MOTOR SET AT MAJIS'S COMMON COOLING WATER SYSTEM FACILITY (17/2022)**

<b>Project Number</b>	17/2022	<b>Contract Value</b>	485,794.440 OMR
<b>Client</b>	Majis Industrial Services	<b>Project Status</b>	In-progress
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

Supply And Installation Of One Common Cooling Water Pump and Motor Set At Majis's Common Cooling Water System Facility (17/2022)

Supply and install one self-lubricated CCWS pump with its motor, according to the specifications

Integrating pump instrument signals in the existing CCWS SCADA system for control and monitoring

Creating assets tags and maintenance plans as per Majis's Central Maintenance Management systems (CMMS)

<b><u>Project Name:</u> REINFORCEMENT OF AL SHARQIYAH WATER TRANSMISSION SYSTEM.</b>			
<b>Project Number</b>	93/2018	<b>Contract Value</b>	2,418,303.278 OMR
<b>Client</b>	Nama Water Services	<b>Project Status</b>	In-progress
<b>Consultant</b>	Khatib & Alami and Partners Consulting Architects & Engineers	<b>Contractor</b>	China Geo-Engineering Corporation International Ltd. (CGCINT)
<b>Supply Scope and Delivered Value</b>			
<p>The project objective is to supply the governorate of Al Sharqiyah North with potable water till 2040.</p> <ul style="list-style-type: none"> <li>• Source of Water for the Proposed System: New IWP Asilah Desalination Plant</li> <li>• Source of Water for the Existing System: IWP Sur Desalination Plant</li> <li>• The new proposed Water Supply System consists of a series of new pipelines, reservoirs and pumping stations starting from new desalination plant at Asilah IWP (under-construction by ADC) and parallel to the existing system (supplied from Sur desalination plant) until Mudaybi area.</li> <li>• This newly proposed system is essential to meet the population growth of downstream areas and the correspondingly increasing demands.</li> <li>• The completion of this project will increase the security of supply facing any interruption due to shortage or old system failure.</li> <li>• The complete operation of this project will minimize the reliance on ground water from well fields (namely at Jaalan and Al Kamil), currently being the main source of water along with the existing desalination plant at Sur, and keep them for emergency use only.</li> </ul> <p>Supply and Fittings of the Following:</p> <ul style="list-style-type: none"> <li>• CS Pipes &amp; Fittings</li> <li>• Control mentoring system CMS</li> </ul>			

<b><u>Project Name:</u> REINFORCEMENT OF AL SHARQIYAH WATER TRANSMISSION SYSTEM (FLUSHING &amp; DISINFECTION OF TRANSMISSION PIPELINES).</b>			
<b>Project Number</b>	093/2018 - Oman Water and Wastewater Services Company (OWWSC)	<b>Contract Value</b>	91,072.890 OMR
<b>Client</b>	Hunan Industrial Equipment Installation Co. LTD	<b>Project Status</b>	In-progress
<b>Consultant</b>	Khatib & Alami and Partners Consulting Architects & Engineers	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b>Supply Scope and Delivered Value</b>			
<p>Flushing &amp; Disinfection of Transmission Pipelines for Al Sharqiyah Water Transmission System for the 13 Alignments.</p>			

**Project Name: FRAMEWORK CONTRACT FOR THE IMPLEMENTATION AND SCADA INTEGRATION JOBS**

<b>Project Number</b>	48/2017	<b>Contract Value</b>	1,440,359.920 OMR
<b>Client</b>	Nama Water Services	<b>Project Status</b>	In-progress
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

Engineering, Procurement, Installation and commissioning of Control Panels and all associated programming works for 160 location including the following:

- 1- Redundant PLC architecture, have been considered for Pump Stations (including Booster Pump Stations)
- 2- Standalone PLC architecture, have been considered for the stations :
  - Reservoirs
  - TFSs
- 3- Remote I/O architecture, have been considered on demand

The new PLCs will be integrated with NCC national SCADA and RCC regional SCADA, all signals will be available in SCADA.

- Put control philosophy for the project and test all hard ware signals to control panel and commissioning of Flow Control Valves and Motor Operated Valves with complete coordination supervision.
- Programming and commissioning all Communication works
- Engineering, Supply and, install, test Fiber optic patch panels.

**Project Name: OPERATION AND MAINTENANCE OF PUMPING STATIONS, RESERVOIRS AND ASSOCIATED SYSTEMS AND BUILDINGS AT DAKHLIYAH, BATINAH SOUTH, BATINAH NORTH AND BURAIMI GOVERNORATES**

<b>Project Number</b>	44/2020	<b>Contract Value</b>	11,267,887.000 OMR
<b>Client</b>	Nama Water Services	<b>Project Status</b>	In-progress
<b>Consultant</b>	-	<b>Contractor</b>	JV Flown Modern Enterprise Co. (FME) & Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

The purpose of the contract is to engage a qualified Contractor having expertise in the operation and maintenance of water systems and electromechanical equipment of similar nature for Operation and Maintenance of Pumping Stations, Reservoirs and associated systems and buildings for Public Authority for Water period of five (5) years

- Joint Venture Agreement between The Flown Modern Enterprises L.L.C. & Mazoun Electro-mechanical Co L.L.C.
- The Cooperation Agreement covers construction, operation & maintenance. financing and management of the project provided by the Flown L.L.C and consultancy, technical support of the project provided by Mazoun L.L.C.

## Completed Projects

<b><u>Project Name:</u> CONSTRUCTION OF SEWER AND TREATED EFFLUENT (TE) CONNECTIONS TO ROYAL PROPERTIES (RCA/RE/RGO) AND AIRPORT HEIGHT PROPERTIES</b>			
<b>Project Number</b>	2000536/2018	<b>Contract Value</b>	1,519,435.360 OMR
<b>Client</b>	Haya Water Oman	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Hassan Alam for OWWSC/Haya
<b>Supply Scope and Delivered Value</b>			
<p>The main purpose of this project is to construct House connection, Sewer, Treated Effluent network for Airport Heights &amp; Royal Estates for individual customers within the project area</p> <p>Supply, Install and Testing TE Pipe Lines (PN16), valve chambers and customer connections including required civil, mechanical, electrical, instrumentation, control works, accessories, and ancillaries for completion the work as per drawings, standards and specifications.</p> <p>Supply, Installation &amp; Commissioning of the Following:</p> <ul style="list-style-type: none"> <li>• Gravity sewer network/s.</li> <li>• Gravity sewer manholes.</li> <li>• House connection and rider sewers.</li> <li>• Property &amp; Discharge Chambers.</li> <li>• Treated Effluent (TE) network for:</li> <li>• Isolation Valve chambers.</li> <li>• Air Valve chambers.</li> <li>• Washout Valve chambers.</li> <li>• Customer chamber.</li> <li>• All related ICA works for TE customer chambers.</li> </ul>			

<b><u>Project Name:</u> REINFORCEMENT OF BATINAH WATER TRANSMISSION PIPELINE (RBWTP 55/2018)</b>			
<b>Project Number</b>	55/2018	<b>Contract Value</b>	900,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Metito Overseas Limited
<b>Supply Scope and Delivered Value</b>			
<p>Phase- I upgrade of the transmission main connecting North and South Batinah has been planned</p> <p>Phase- II which is to ensure that the entire Barka - Sohar system is capable of meeting the normal operation demands, surplus water transfer from one plant to connected areas of other plant and emergency transfer of water.</p> <p>Supply of ABB flow meter for construction works for water transmission system from Sohar to Dhahirah governorate.</p>			



<b><u>Project Name:</u> INSTALLATION, COMMISSIONING AND TRIAL OPERATION FOR ELECTROMECHANICAL ITEMS FOR SOHAR DHAHIRAH</b>			
<b>Project Number</b>	06/2017	<b>Contract Value</b>	615,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Metito Overseas Limited
<b>Supply Scope and Delivered Value</b>			
<p>Installation, commissioning and trial operation for the electro-mechanical work items in 4 new pumps stations and also install, commissioning and trial operation of Mechanical Works of Electro-Chlorination system IR Sohar and Ibri city 2 full unit.</p> <p>Installation of surge system (Surge Vessels, Vented Surge Vessels, compressors, control panel, etc....) with piping, valves, instruments &amp; all accessories for 04 new Pump Stations as follows.</p> <p>Installation, commissioning and trial operation for Electrical &amp;Mechanicals Works at Dank &amp; Dhahirah IR.</p> <p>Installation of Instruments items in all pump stations shall be included on MOV's scope of works.</p> <p>Trial operation for 3 months till get the handing over certificate &amp; PAC successfully.</p>			

<b><u>Project Name:</u> CONSTRUCTION OF FRONTIER CAMPS: AIN AL HILWA/AL SAFA</b>			
<b>Project Number</b>	24/2017	<b>Contract Value</b>	100,000.000 OMR
<b>Client</b>	Al Nahdha Al Omaniah Co. LLC	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b>Supply Scope and Delivered Value</b>			
<p>Design &amp; Supply of 2 no. of sewage treatment plant to achieve ultimate treatment capacity of 18 m3/day/each of domestic sewage.</p> <p>Supply of all Interconnection pipes, valves &amp; fittings.</p> <p>Supervision for installation and commissioning.</p>			

**Project Name: RREINFORCEMENT OF THE EXISTING AD DAKHILIYAH WATER TANSMISSION SYSTEM (PHASE 1 - SHORT TERM WORKS)**



<b>Project Number</b>	81/2017	<b>Contract Value</b>	3,309,962.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	ENERGOPROJEKT ENTEL L.L.C.	<b>Contractor</b>	SEDE/ECCP

### Supply Scope and Delivered Value

- The aim of this project is to improve existing potable water to supply to Governorate of Ad Dakhiliyah by improving/reinforcing the existing pump stations as MPS, BPS1, BPS2 and BPS3.
- MEMCO Scope is Design, Supply, Installation, Completion, Testing and Commissioning. As well as Start-Up and Training of PAW team for Electro-mechanical, Chlorination, SCADA and Instrumentations Works.

And the planned improvements will comprise, but not limited to the following works:

- Reinforcements of the existing pump stations including Main Pump Station (MPS), Booster Pump Station 1 (BPS1), Booster Pump Station 2 (BPS2) and Booster Pump Station 3 (BPS3), as per below details,
- Replacement of the existing chlorination systems within the pump stations with the new electro-chlorination systems.

#### - Main Pump Station (MPS)

Scope of work is upgrading of the Main Pump Station (MPS) which includes,

- . Replacement of the existing pumps with the new pumps so that the total flow of MPS will be increased to 5,864 m<sup>3</sup>/h.
- . Design, procurement, installation and commissioning of new electro-chlorination system including all related works.
- . SCADA & Instrumentation works and integration of SCADA system at central control stations in MPS and Bawsher CCR.

#### - Booster Pump Station 1 (BPS1)

Scope of work is upgrading of the Booster Pump Station 1 (BPS1) which includes,

- . Replacement of the existing pumps with the new pumps so that the total flow of BPS1 will be increased to approximate 5,319 m<sup>3</sup>/h.
- . Design, procurement, installation and commissioning of new electro-chlorination system including all related works.
- . SCADA & Instrumentation works and integration of SCADA system at central control stations in MPS and Bawsher CCR.

#### - Booster Pump Station 2 (BPS2)

Scope of work is upgrading of the Booster Pump Station 2 (BPS2) which includes,

- . Replacement of the existing pumps with the new pumps so that the total flow of BPS2 will be increased to approximate 4,657 m<sup>3</sup>/h.
- . Design, procurement, installation and commissioning of new electro-chlorination system including all related works.
- . SCADA & Instrumentation works and integration of SCADA system at central control stations in MPS and Bawsher CCR.

- **Booster Pump Station 3 (BPS3)**

Scope of work is upgrading of the Booster Pump Station 3 (BPS3) which includes,

- . Design, procurement, installation and commissioning of new electro-chlorination system including all related works.
- . Installation, testing and commissioning of the new surge vessel capacity of 28 m<sup>3</sup> including associate works.
- . SCADA & Instrumentation works and integration of SCADA system at central control station Bawsher CCR.

- **Other Works**

- . Replacement of existing DN600 PSV and DN800 MOV with new DN800 PN16 PSV and DN600 PN16 MOV, with all associated works and materials, on BPS 1 inlet line.
- . Supply and all installation work of Two Conduits and Fibre Optic cable along the new MS ND1400mm pipeline (BPS-3 To BPT).

<b><u>Project Name:</u> SUPPLY OF ETECTRICAL SPARES FOR AL DHAHIRAH GOVERNORATE</b>			
<b>Project Number</b>	29/2019	<b>Contract Value</b>	59,832.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	<b>Completed</b>
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>• Switchgear low voltage Maintenance</li> <li>• Switchgear medium voltage Maintenance</li> <li>• protection relay of switchgear medium voltage /Replacement with programing</li> <li>• Rewinding Motor.</li> <li>• Supply Low voltage Spare parts.</li> </ul>			

<b><u>Project Name:</u> COUNTRYWIDE DATA MONITORING/HISTORIAN SYSTEM, DESIGN AND WORKS AT COUNTRY CONTROL ROOM IN MUSCAT GOVERNORATE</b>			
<b>Project Number</b>	61/2014	<b>Contract Value</b>	499,800.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	<b>Completed</b>
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b>Supply Scope and Delivered Value</b>			
<p>Phase wise project implementation</p> <p>7 Geographical areas integrated to the National Control Centre</p> <ul style="list-style-type: none"> <li>• Adh Dakhliyah</li> <li>• Al Wusta</li> <li>• Al Buraymi, North Batinah</li> <li>• Ash Sharqiyah</li> <li>• Ad Dhahirah</li> <li>• Al Khoud, South Batina</li> <li>• Muscat</li> </ul> <p>Highly Available (redundant) OSIsoft PI historian implementation for data management and online historization</p> <p>Web server implementation (PI Vision) allowing organization wide access to real time and historical operations and analytical data</p>			

Redundant regional OSIsoft PI Collectors and iFix SCADA in each region

Thin and thick client implementation for data monitoring through KPI utilization, reporting and visualization

Cyber security compliant architecture with automated backups and industry standard best practices

This project will provide complete operational oversight through the elimination of data silos and a centralized & standardized data management infrastructure

Implementation of Operations and Management KPI's

- Implementation of asset analytics and KPI's to ensure asset health and longevity whilst maintaining optimal operating conditions.

**Project Name: CAPACITY ENHANCEMENT IN BARKHA PUMPING STATION**

<b>Project Number</b>	30/2018	<b>Contract Value</b>	241,068.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

- Supply and installation of pumps to strengthen the pumping capacity of the main pumping station in Baraka

**Project Name: FRAMEWORK CONTRACT FOR THE IMPLEMENTATION OF DISTRICT METERING POINTS**

<b>Project Number</b>	64/2016	<b>Contract Value</b>	125,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Al Aman Technical Enterprises

**Supply Scope and Delivered Value**

- Supply and install all the required devices and services as per the BoQ including
  - o Battery Operated Electro-mechanical Flow Meters
  - o Pressure transmitters

- o Data logger as per the design
- o Communication devices if required as per the design
- Establish the communication to the National SCADA Control Centre
- Required engineering and configuration works in the existing SCADA system for the new DMPs
- Complete integration of the DMP to the existing SCADA
- Testing and commissioning for each new DMP.
- The following data shall be available as a minimum measuring parameters:
  - A. instantaneous Flow Rate in m<sup>3</sup>/Hour
  - B. instantaneous Water Pressure in Bar
  - C. total Flow Value in m<sup>3</sup>' (configurable to Forward, reverse or/and bidirectional net flow).
- All the equipment, instruments, hardware, software etc.

<b><u>Project Name:</u> SUPPLYING OF VARIOUS PUMPS DHAHERA</b>			
<b>Project Number</b>	85/2018	<b>Contract Value</b>	209,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Al Ansari Trading Enterprise LLC
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>• Supplying Of Various Pumps Dhahera</li> </ul>			

<b><u>Project Name:</u> SUPPLYING OF VARIOUS PUMPS DHAHERA</b>			
<b>Project Number</b>	-	<b>Contract Value</b>	90,386.000 OMR
<b>Client</b>	Sint Overseas LLC	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. L.L.C
<b>Supply Scope and Delivered Value</b>			
Portable Water Pipeline Connection of MOD Shafa Camp with PAW Water Distribution Network			
<ul style="list-style-type: none"> <li>• Under take the Design of the complete pump station (Pumps, valves, Pipes ...etc.)</li> <li>• Undertake Transient Hydraulic Study includes the following:</li> </ul>			

- Mathematical Constructed model of the system that includes all relevant hydraulically connected components.
- Confirmation of pump head requirements or achievable flowrates from selected pumps.
- Computer simulation that determine the extent and magnitude of surge pressures due to pump and valve operation.
- Calibration of any surge suppression equipment requirements, where shown to be necessary (surge vessels and/or others).
- Recommend location of any major necessary air valves.
- Recommend any other remedial measures to ensure the system operates in a predictable, safe and secure manner.
- Supply of 2 No. surge vessels including caged ladder, platform, Suitability sized manhole / door with davit arm / hinges and top handrail with internal Epoxy coating & the following accessories:
- Heavy Duty, two stage stationary reciprocating oil lubricated piston air compressors with a maximum working pressure of 15 Bar. Suitable for safe area installation including Unloading Valve with Y/D Starter, Integrated receiver tank, LV Motor, IEC approval.
- Installation of the air piping system connecting the main surge vessel to the compressed air system
- Supply installation and commissioning for MCC PANEL contain the following :
  - Incomer breaker is considered JP MCCB, J6kA with Adjustable Thermal
  - Adjustable Magnetic release.
  - Outgoing breakers are considered JP MCCB, J6kA with Fixed thermal fixed magnetic release.
  - Phase Indication Lamps, Ammeter with ASS & Voltmeter with VSS are considered for the incomer.

<b><u>Project Name:</u> SOHAR AD'DAHIRA</b>			
<b>Project Number</b>	06/2017	<b>Contract Value</b>	267,329.077 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Societe Egyptienne D'Enterprises (SEDE)
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>● Supply of ABB flow meter for construction works for water transmission system from Sohar to Dhahirah governorate.</li> </ul>			

<b><i>Project Name: ORDERING OF NEW CIRCULATION PUMPS FOR MPS 2&amp;3</i></b>			
<b>Project Number</b>	-	<b>Contract Value</b>	27,059.175 OMR
<b>Client</b>	Haya Water	<b>Project Status</b>	Completed
<b>Consultant</b>		<b>Contractor</b>	Mazoun Electromechanical Co. L.L.C
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>Supply and install of 6 Vertical Flowserve Mag drive (INNOMAG) centrifugal chemical circulation pumps as a replacement of existing Korean banded pumps located in OCU system designed to circulate chemicals inside the tank at Haya Main Pump stations 2 &amp; 3.</li> </ul>			

<b><i>Project Name: REPLACEMENT OF FAULTY UPS SYSTEM AT B4 PUMPING STATION AND SEAFRONT PUMPING STATION 1 &amp; 2</i></b>			
<b>Project Number</b>	-	<b>Contract Value</b>	28,000.000 OMR
<b>Client</b>	Haya Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. L.L.C
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>Supply 2kva UPS</li> </ul>			

<b><i>Project Name: WATER TRANSMISSION PIPELINE FROM THE WATER TREATMENT PLANT WADI DAYQAH DAM AT MAZARI IN WILAYAT QURAYYAT TO DEEM RESERVOIR IN GOVERNORATE</i></b>			
<b>Project Number</b>	135/2012	<b>Contract Value</b>	5,709,770.00 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	AAW	<b>Contractor</b>	ECCP
<b>Project Description and Value Delivered</b>			

Engineering, Procurement, Installation and commissioning of Pumps, Piping, valves, water hammer protection system, Tanker filling Station, instrumentation, and SCADA, and all associated LV&MV electrical works.

- Main pumps 1242 m<sup>3</sup>/hr @ 207m (3 Duty + 1 standby) complete with electrical. Motors including hydraulic calculations, pump and motor selection etc...
- Water hammer protection system including Surge analysis study , for pressure vessels and pipeline, main vessels with cat ladder , pipe fitting ,valves, air compressors with air piping , level indicators, level switches, Safety valves control panel cables, etc...
- Pump Houses Piping and valves up to end of wall pieces or 1 meter out of the building wall of each pump house including pipe fitting with gaskets, bolts , and any required jointing material and pipe supports.
- High Voltage and Low voltage Switchgear MCC's, 24 V.DC. Source battery charger and batteries including designing drawing electrical calculations with all necessary interfacing with SCADA.
- Power and Control Cables, Cable Trays, etc...
- Overhead Crane including all girders, steel runway beams Power Cables, Flex Cables and Control Panels.
- Cat and Mouse Mechanical level indicators for Ground Reservoir.
- All pipe work of Tanker filling Stations include Prepaid card system vender machines.
- Put control philosophy for the project and prepare all hard ware signals to SCADA calibrate and commissioning of Flow Control Valves and Motor Operated Valves with complete coordination supervision.
- Design, supply , install , programming and commissioning all SCADA and Communication works
- Engineering, Supply and, install, test Fibre optic cable.

**Project Name: PROVISION & INSTALLATION OF TANKER LOADING CONTROL AND AUTOMATION SYSTEMS IN THE SERVICE AREAS OF PAEW**

<b>Project Number</b>	134/2012	<b>Contract Value</b>	2,301,454.827 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

***Project Description and Value Delivered***



- The system is to upgrade the old existed water vending machines with a regional and master SCADA system by installing a PLC with all related I/Os at each site and connect this PLC via GPRS network to the regional SCADA station and in turn connect the regional system to main SCADA offices in Muscat over GPRS or 3G technology.
- The total number of all locations are 438 distributed over 7 regions as illustrated in the architecture bellow, and the PLC at each site is connected to card identification system to authorize the water filling for each buyer.
- All process at site will be transferred to the regional system over GPRS by daily bases and also an automatic reports for delivered water quantity will be generated by the regional SCADA system and will be send to the main SCADA system by email.
- On each at site alarm, SMS will be also generated and forwarded to the responsible technicians to inform him what the problem is and at which site.
- Also our scope of build and supply, a charging terminal which will add units to the authorized cards, this unit is a PC with card reader and our own built software to manage this cards issuing and recharging.

**Project Name: SUPPLYING OF SPARE PARTS FOR VFD BPS3 AND BPS4**

<b>Project Number</b>	BPS3 AND BPS4	<b>Contract Value</b>	92,883.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Supply Scope and Delivered Value**

- Supply , installation and commissioning of spare parts for VFD type ABB ACS 800 for pump station
- We have 2 pump station BPS3 and BPS4
- BPS3 and BPS4 each have five numbers VFD ACS 800( variable frequency drive ) which in service since year 2009
- Each VFD drive pump motor at variable speed to control water flow as per required demand ,VFD supplied from low voltage transformer 415 volt
- After 9 years of operation its required to do major service by replacement of some parts like DC capacitors , some control cables and electronic boards , in addition to cooling fans which required to replace each 5 years at most
- After replace old parts with new one will do required test and configuration for notify customer or operator with next date to do maintenance procedure next time.

<b><u>Project Name:</u> SUPPLYING PIPES AND FITTINGS FOR ECCP DAKHILIYAH</b>			
<b>Project Number</b>	81/2017	<b>Contract Value</b>	148,447.016 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	SEDE/ECCP
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>MEMCO scope in this order is limited only to supply of CS Pipes &amp; Fittings (on behalf of SEDE/ECCP) which is based on their final BOQ &amp; related sub-contract.</li> </ul>			

<b><u>Project Name:</u> SUPPLY OF SPARES FOR TFS AUTOMATION SYSTEM</b>			
<b>Project Number</b>	99/2018	<b>Contract Value</b>	40,937.850 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Delta International
<b>Supply Scope and Delivered Value</b>			
<ul style="list-style-type: none"> <li>Suitable Valve Kit for the existing (Burkert or Equivalent) brass valves.</li> <li>Solenoid Coils suitable for the existing Burkert valves or Equivalent</li> <li>Spare CPU for the existing Control Panel (AC500-eCO ,ABB or equivalent)</li> <li>Digital I/O Module for the existing control panel</li> <li>Fixed Range Flow Meters with Ceramic Rotors, as per specifications</li> <li>Ceramic Flow sensors (Wheel fan), Tremic or equivalent</li> <li>Flow meter coils suitable for item above</li> <li>GPRS/3G Communication module , Flexy2O1,WON or equivalent</li> <li>External Antenna</li> <li>230Vac Relay,CR-M 230AC4,ABB or equivalent</li> <li>Socket Plug for the connection of electrical components according to DIN EN 175301-803 (previously DIN 43650, Form A) Burkert or equivalent</li> </ul>			

<b><u>Project Name:</u> SUPPLY OF SPARES FOR TFS AUTOMATION SYSTEM</b>			
<b>Project Number</b>	99/2018	<b>Contract Value</b>	169,665.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

## Supply Scope and Delivered Value

- Suitable spare Valve Kit for the existing (Danfoss or Equivalent) brass valves.
- Solinoid Coils suitable for the existing Danfoss valves or Equivalent
- Flow meter coils suitable for the existing flow meters or Equivalent
- Spare HMI, Bechhoff or equivalent
- Card Readers compatible with the existing system or equivalent, complete with all interfaces and cables, suitable for charging terminals
- Card Readers compatible with the existing control panel or equivalent, complete with all interfaces and cables, suitable for control panels
- Power Supply 5A-24V DC,CP-E 24/5.0,ABB or equivalent
- Power Supply 2.5A-24V DC,CP-E 24/2.5,ABB or equivalent
- Power Supply 3A-5V DC,CP-E 5/3.0,ABB or equivalent
- Water Vending Machine Complete with all accessories and instruments and as per specifications.
- Stainless Steel Spare Valves for the Vending Machine.
- Suitable spare Valve Kit for the proposed SS valves.
- Solinoid Coils suitable for the proposed new valves in no 2 above
- 3Cx1.5 Copper Cable, PVC Insulated for the valves
- 2Cx1.5 Copper Cable, PVC Insulated for the emergency push buttons

**Project Name: SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ONE PUMP WITH MOTOR FOR QURAYAT PUMPING STATION**

<b>Project Number</b>	75/2013	<b>Contract Value</b>	46,337.025 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

***Project Description and Value Delivered***

- Engineer Procurement, installation, and commission of one pump with motor, pipe works, SCADA and other related accessories with a capacity of 230 m3/hour at 120 meters head.

**Project Name: PROVISION OF PIPELINE LEAK DETECTION SYSTEM**

<b>Project Number</b>	CCED-13-516	<b>Contract Value</b>	25,950.000 OMR
<b>Client</b>	CC Energy Development S.A.L	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

***Project Description and Value Delivered***

- The main project objective is to design a Leak Detection System (LDS) based on SCADA and controlling software which will read the data of the Oil pipeline such as: flow, pressure and temperature over the OPC server from Siemens PCS7 DCS system.
- All of this data will be integrated in the new system and many equations will be executed to sense any leak over 83KM pipeline and give the approximate position of this leak.
- The project includes installing one server which will read all required data over the OPC server and will make all necessary mathematical equations and will deliver the results to two work stations located in two deferent locations and all communications are over redundant FO network.

**Project Name:** UPGRADE 8 EXISTING PUMP'S SUCTION AND DISCHARGE VALVES FOR ("RECOVERY UNIT") AT AROMATICS PLANT LOCATED IN SOHAR, SULTANATE OF OMAN

<b>Project Number</b>	PROJ/252/14	<b>Contract Value</b>	220,000.000 OMR
<b>Client</b>	ORPIC	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

**Project Description and Value Delivered**

- The Scope of Work covered under this CONTRACT comprises the engineering, procurement and supply of materials, installation & various construction activities, testing and commissioning of the modified valves. Also to upgrade the installed gearbox operated suction and discharge valves of P-A3004 A/B/C&D to Motor Operated Valves. These gate valves were installed in Aromatics Plant during construction phase at 2008.
- The detailed design, procurement, construction and commissioning for modifying 8 numbers of gear box operated gate valves for 4 pumps suction and discharge valves at Aromatics Plant in A3000 Recovery Unit.
- The modification for the valves is to replace the existing gearboxes arrangement with new actuators assembly to be MOVs (Motor Operated Valves). The existing gate valves are as follow:
- Four valves size are 36" gearbox operated gate valve (Suction Valves of Pump P-A3004 A/B/C&D)
- Four valves size are 30" gearbox operated gate valve (Discharge Valves of Pump P-A3004 A/B/C&D)
- The following are major repairs/replacement & installation works to be executed by Mazoun as mentioned below:
  - Replace the old gear boxes arrangement with new actuators.
  - Modify the existing valves to be fixed with new MOV arrangement.
  - Supply and Installation of the new actuators assembly.
  - Supply and Install new cable trays for Power and Control cables and provide necessary support to locate the trays.
  - Laying the electrical & control cables in the trays as per Orpic Plant philosophy.
  - Supply and Install Remote Hard Switches (20 m distance) arrangement.
  - Glanding and Termination of power cables and control cables.
  - DCS & ESD modification as per Orpic existing (DCS &ESD operational philosophy)
  - Commissioning of all the eight valves.
  - Updating the existing P&ID"s and develop a new power, DCS, ESD and logic diagrams.

<b><u>Project Name:</u> BUILD, OWN, AND OPERATE SWRO PLANT AT AL-KHALOUF (400 M3/DAY)</b>			
<b>Project Number</b>	67-2013	<b>Contract Value</b>	394,200.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

***Project Description and Value Delivered***

- Our project scope is to design & supply water treatment plant 400M3/day including full design of sea water intake along with all civil works and operation & maintenance procedures.
- Mazoun RO plant project in Al Kholoof is a fully automated SCADA system which had been executed carefully to ensure maximum reliability and continuous functionality.
- The project is to produce pure drinking water from sea water and this process involves several stages:
- First of all, the sea water is pumped to a large tank where it is flooding to another tank as a first stage of filtration.
- Then, the sea water is pumped into several multimedia filters where they isolate suspended solids from the water as a second stage of filtration.
- After that, the water is pumped with high pressure into the membranes for ultra-filtration. These membranes can filter the water from a very small particles measured in micrometer. This stage is consider as the third stage of filtration.
- Throughout these stages, several chemicals are dosed as per international standards and it's monitored to ensure the quality of the water.

<b><u>Project Name:</u> WATER DISTRIBUTION NETWORK FOR WILAYAT DAMA WA AT TAIYYIN</b>			
<b>Project Number</b>	134-2012	<b>Contract Value</b>	11,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

***Project Description and Value Delivered***

- Our scoop in Kabbah project was to design built and put in operation a PLC system to control Tank filling depending on a new hydrostatic level transmitter and existed pump, also to control the chlorine injection system according to flow rate and chlorine rate to get a static ratio for chlorine in the potable water.

- The system is equipped with panel HMI for all readings and historical data, this data is registered on the PLC SD card following all alarms and abnormal readings beside all totalizing and chlorine value in timely manner. The system is equipped with GPRS modem for sending SMS messages in case of defined alarms to the client technicians.

<b><i>Project Name:</i></b> PROPOSAL FOR SUPPLY AND DELIVERY OF MONITORING EQUIPMENT FOR PAEW			
<b>Project Number</b>	94/2012	<b>Contract Value</b>	175,245.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b><i>Project Description and Value Delivered</i></b>			
<ul style="list-style-type: none"> <li>• Insertion Probes (ABB AquaProb) Qty:25</li> <li>• Portable Ultrasonic Flowmeters (Hydreka) Qty:20</li> <li>• Pressure Guages (Wika) Qty:40</li> <li>• Ruggedized Laptops (Dell Latitude) Qty:20</li> <li>• Guaging Rods (ABB) Qty:17</li> </ul>			

<b><i>Project Name:</i></b> CONSTRUCTION & INSTALLATION OF BOOSTER PUMP STATIONS AND OTHER ASSOCIATED WORKS AT SITE LOCATIONS AT WILAYAET SUR			
<b>Project Number</b>	108/2012	<b>Contract Value</b>	160,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	-	<b>Contractor</b>	Mazoun Electromechanical Co. LLC
<b><i>Project Description and Value Delivered</i></b>			
<ul style="list-style-type: none"> <li>• The project comprises of the construction and installation of booster pump stations at five sites in Wilayat Sur in South Alsharqiyah governorate. The locations of the new booster pumps are, Bilad Sur, Abo Kala, Al kahraba, Al eija, and Al murtafa. Each location will include the installation of a HDPE fabricated kiosk with RCC basement for the installation of two pumps and control system at agreed levels. The pump house design will be above the ground with suitable elevation from the surface ground.</li> <li>• For each location the work will also include the design, supply, installation, testing and commissioning of the two centrifugal pumps with motors &amp; Variable Frequency Drive and other related accessories with a capacity of 25 l/s each at 30 meters head.</li> </ul>			

- The work will also include the supply and installation of electrical control panel with monitoring facilities such as volt meter, ampere meter, power meter, running hours meter etc. and light indicators at each location.

**Project Name: CONSTRUCTION OF ADDITIONAL TANKER FILLING STATION IN AL-SHARQIAH REGION**

<b>Project Number</b>	105/2010	<b>Contract Value</b>	1,185,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	Energoprojekt Entel LLC	<b>Contractor</b>	Societe Egyptian D'Entrprises

***Project Description and Value Delivered***

- 5 pumping station transfer through pipeline water to 5 different locations (10 pumps units with motors from 18 KW up to 160 KW low voltage)
- Pipe works fitting , valves inside pump station
- Domestic Pumps
- Sump pumps
- 4 Surge Protection Systems
- 11 Tanker Filling Stations (3 bays)
- 2 Overhead EOT Cranes (capacity 3.2 Ton )
- 2 Monorail Cranes (capacity 3.2 Ton )
- Low voltage Switchgear MCC's, Capacitors,
- Street Pole lights

**Project Name: WATER SUPPLY SCHEME TO QURAYAT**

<b>Project Number</b>	228/2008	<b>Contract Value</b>	1,090,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	Mott MacDonal & Company	<b>Contractor</b>	Target LLC

***Project Description and Value Delivered***

- Main Forwarding pumps complete with electrical. Motors including hydraulic calculations like duty point NPSH calculation pump and motor selection etc...
- Fire Fighting Pumps and related piping works.
- Domestic water pumps and related pipe works.
- Sump Pumps.
- Water hammer protection system including Surge analysis study , for pressure vessels and pipeline, main vessels with cat ladder , pipe fitting ,valves, air compressors with air piping , level indicators, level switches, Safety valves control panel cables, etc...



- Pump Houses Piping and valves up to end of wall pieces or 1 meter out of the building wall of each pump house including pipe fitting with gaskets, bolts , and any required jointing material and pipe supports.
- Low voltage Switchgear MCC's, Capacitors, 30 V.DC. Source battery charger and batteries including designing drawing electrical calculations colorations study protection study, with all necessary interfacing with SCADA.
- Power and Control Cables, Cable Trays, etc...
- Overhead Crane including all girders, steel runway beams Power Cables, Flex Cables and Control Panels.
- Cat and Mouse Mechanical level indicators for all Ground Reservoir.
- All pipe work of Tanker filling Stations include Prepaid card system vender machines.
- Put control philosophy for the project and prepare all hard ware signals to SCADA calibrate and commissioning Motor Operated Valves with complete coordination supervision.
- Design, supply , install , programming and commissioning all SCADA and Communication works
- Engineering, Supply and, install, test Fiber optic cable.
- Commissioning, Testing, 90 Days Trail Operation and Maintenance works completion.
- Provide advice and recommendation on the design to the main contractor regarding air valve at pipeline (type, Quantity, and location) Orifice plate (location, size, design, and detailed fabrications), and Flow Control Valves.

**Project Name: DESIGN, SUPPLY, AND INSTALL CONTROL SYSTEM FOR WATER CONDUCTIVITY AND MONITORING SYSTEMS OF BARKA PUMPING STATION**

<b>Project Number</b>	36/2009	<b>Contract Value</b>	150,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	Mott MacDonal & Company	<b>Contractor</b>	Mazoun Electromechanical Co. LLC

***Project Description and Value Delivered***

- 2 Submersible Pumps
- Pipe network and valves
- 6 Conductivity Sensors.
- 2 Flow meter
- Low voltage motor control switchgear
- SCADA system

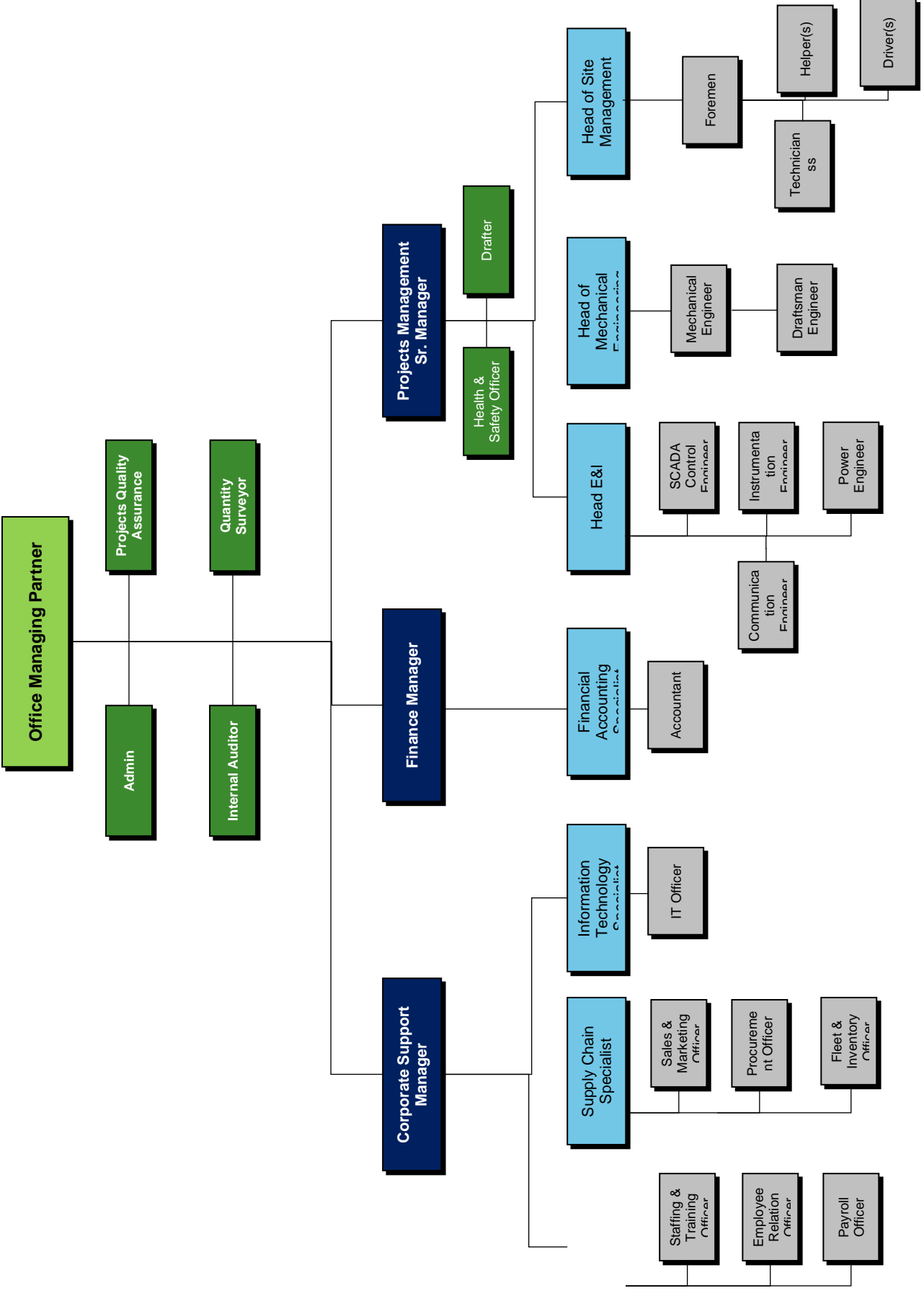
<b><i>Project Name:</i></b> CENTRAL DESALINATION PLANT AT SUR WATER SCHEME AT AL-SHARQYAH REGION			
<b>Project Number</b>	136/2005	<b>Contract Value</b>	4,475,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	Energoprojekt Entel LLC	<b>Contractor</b>	Societe Egyptian D'Entrprises
<b><i>Project Description and Value Delivered</i></b>			
<ul style="list-style-type: none"> <li>• 18 pumping station transfer through pipeline water to 18 different locations (55 pump units with motors from 18 KW up to 600 KW low voltage and medium voltage)</li> <li>• 4 Fire Fighting pumps system (45 kW )</li> <li>• 17 Domestic Pumps</li> <li>• 15 Sump pumps</li> <li>• 12 Surge Protection Systems</li> <li>• 14 Tanker Filling Stations (3 bays)</li> <li>• 30 (Cat and Mouse Level indicator) for Ground Reservoirs</li> <li>• 5 Overhead EOT Cranes (capacity from 2 Ton up to 6.3 Ton )</li> <li>• 4 Monorail Cranes 1, and 1.5 Ton</li> <li>• 1 Diesel Generator 650KVA</li> <li>• Medium Voltage and Low voltage Switchgear MCC's, Capacitors, 30 V.DC. Source battery charger and batteries including designing drawing electrical calculations colorations study protection study, with all necessary interfacing with SCADA</li> </ul>			

<b><i>Project Name:</i></b> CONSTRUCTION OF SEWERAGE NETWORK AND SEWAGE TREATMENT PLANT AT SUMAIL TOWN			
<b>Project Number</b>	136/2005	<b>Contract Value</b>	375,000.000 OMR
<b>Client</b>	Public Ministry of Regional Municipalities & Water Resources	<b>Project Status</b>	Completed
<b>Consultant</b>	National Engineering Services Pakistan & Partners (NESPAK)	<b>Contractor</b>	ERKO Oman LLC
<b><i>Project Description and Value Delivered</i></b>			
<ul style="list-style-type: none"> <li>• Sewage treatment plant includes `Grit channel, Oxidation ditch, Clarifiers, pump station recycle, feeding pumps Irritation pumps filter tanks</li> <li>• 3 pump stations ( Main Lift Station , Lift Station 1 , and Lift Station 2)</li> <li>• 3 Odor Control System</li> <li>• 4 diesel generators</li> </ul>			

<b><i>Project Name:</i></b> WATER SUPPLY OF BIDBID FANJA, SUMIL TOWN PHASE 2			
<b>Project Number</b>	132/2005	<b>Contract Value</b>	2,178,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	Mott MacDonal & Company LLC	<b>Contractor</b>	ERKO Oman LLC
<b><i>Project Description and Value Delivered</i></b>			
<ul style="list-style-type: none"> <li>• 3 pumping stations:               <ul style="list-style-type: none"> <li>○ MPS (4 x 1650 KW pump units )</li> <li>○ BPS1 (4 x 1250 KW pump units)</li> <li>○ BPS2(4x 850 KW pump units )</li> </ul> </li> </ul>			

<b><i>Project Name:</i></b> WATER SUPPLY OF SUMAIL IZKI NIZWA TOWN			
<b>Project Number</b>	141/2005	<b>Contract Value</b>	1,369,000.000 OMR
<b>Client</b>	Public Authority for Water	<b>Project Status</b>	Completed
<b>Consultant</b>	NJS Consultants (Sumail to IZKI) Energoprojekts Entel LLC (IZKI to Nisswa)	<b>Contractor</b>	ERKO Oman LLC
<b><i>Project Description and Value Delivered</i></b>			
<ul style="list-style-type: none"> <li>• 2 pumping stations:               <ul style="list-style-type: none"> <li>○ BPS3 (4 x 1250 KW pump units)</li> <li>○ BPS4 (5x 500 KW pump units )</li> </ul> </li> </ul>			

# **Organization Chart & Key Staff**



# **MEMCO | Quality Manual**

# **MEMCO | Registration Documents**

# **MEMCO | Completion Certificates**