

PARTIAL LIST OF DESALINATION PROJECTS

CLIENT/LOCATION	PROJECT DESCRIPTION	CAPACITY	SCOPE
Saline Water Conversion Corporation (SWCC), Saudi Arabia	Installation of new SWRO Plants at Haql, Duba and Al-Wajh with product Water Transmission System	9,000 m ³ /day net export capacity at each plant	Site investigation, preparation of planning report, preliminary engineering, tender specification and tender documents and tendering services including evaluation
Vietnam Oil and Gas Group (PVN), Long Phu – Song Hau Power Plant Projects Management Board (LPSHMB), Vietnam	2 X 600 MW Super Critical Thermal Power Project, Long Phu 1 – Plant water and De-Ionized (DI) water of highest quality as power cycle make up.	Brackish water RO System (2 X 0.75 MGD) for production of plant water from a tidal river with high seasonal salinity, complete with pretreatment plant. RO permeate from this plant will be treated further in another high purity RO plant (2 X 0.45 MGD) to feed a Deionization plant of Continuous Electro Deionization type and this RODI plant will prepare power cycle make up water of ultra-high purity for the super critical thermal power plant.	Site investigations, preparation of Front End Engineering Design (FEED) documentation complete with detail drawings, basic engineering, cost estimate and preparation of specifications and bill of materials as Request For Proposal (RFP) which was issued to Engineering, Procurement and Construction (EPC) Vendors.
Saline Water Conversion Corporation (SWCC), Saudi Arabia	Installation of New SWRO Plant (Phase – 3) at existing Jeddah plant	53 MIGD SWRO plant	Tender Document Preparation, Issue and Evaluation of Tenders
Saline Water Conversion Corporation (SWCC), Saudi Arabia	To increase the total production in the three (3) R.O. Plants in Umm-Lujj, Haqual, and Duba	To integrate into the existing SWRO plant with proposed alternative arrangements using Nano-Filtration (NF), new Beach Well water supply, Energy Recovery Devices, Toray Brine Conversion RO Membrane (BCM) in BCS arrangements.	Study, primary engineering, preparation of tendered specifications and tender documents for the production of upgrading in the three (3) R.O. Plants
Ministry of Works, Power and Water Manama, Bahrain	Ras Abu Jarjur Desalination Plant	10 MGD R.O. to be expanded to 15.84 MGD Desalination Plant	Design, Engineering, Procurement including Specification, Bid Evaluation, Vendor Drawing Review, Shop Inspection, Construction Supervision and Supervision of Testing and Commissioning



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Ministry of Works, Power and Water, Manama, Bahrain	Rehabilitation Study for 10 MGD Ad Dur R.O. Desalination Plant	10 MGD	Study on Rehabilitation for Improvement of Production, Furnishing Recommendations and Preparing Outline Specifications and Detailed Cost Estimate
Jordan Electricity Authority Jordan	Reverse Osmosis Water Treatment Plant	0.45 MGD	Design, Engineering, Preparation of Bid Evaluation, Construction Supervision, Shop Inspection, P&A Testing and Post Commissioning Warranty Period Assistance
Public Utility Board, Singapore	State-of-the Art Desalination Study for Large Scale Desalination SWRO Plant	50 MGD Desalination project to augment existing Water Supply of Singapore	Study to evaluate the viability of seawater as an alternate source to meet future demand of potable water, economic and technical aspects of desalination assessment of available resources, screening of desalting processes, conceptual design of the plant for large-scale desalination plants to meet future water requirement
Saline Water Conversion Corporation (SWCC), Saudi Arabia	Installation of New MED Desalination Plants at 3 Nos. West coast sites of Haql, Duba & Al Wajh and an East coast site of Al Khafji (Later Haql, Duba and Rabigh)	Haql – 2x1 MIGD Duba – 2x1 MIGD Al Khafji – 2x3.3 MIGD Al Wajh – 3x1 MIGD	Tender Document Preparation, Issue and Evaluation of Tenders
MARAFIQ, Jubail City Saudi Arabia	Feasibility and Optimization Study for Marafiq Power and Desalination Plant	Power generation in combined cycle mode for 2400 MW/66 MIGD MSF(Phase I) and 1800 MW/22 MIGD MSF (Phase II) power generation and seawater desalination	Inception Report, Feasibility Study with Optimization Study including Detailed Marine Recirculation Study, Optimization Study for Power and Seawater Desalination including Intake Selection, Conceptual Design, Cost Estimates, Economic and Financial Analysis, Implementation Schedule and Study Report



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Saline Water Conversion Corporation, (SWCC), Saudi Arabia	Medina-Yanbu Power and Desalination Plant	2x81 MW Power, 15x2.25 MGD R.O. Desalination Plant and 4x7.9 MGD MSF Desalination Plant	Post Contract Engineering including Review of Vendor Drawings and Documents, Vendor Shop Inspection, Construction Supervision and Supervision of Start-up and Commissioning. Services including training of SWCC Engineers
Saudi Consulting Services/Water and Sanitation Drainage (WSD) Authority, Riyadh, Saudi Arabia	Two Water Treatment Plants at Salbroukh and Bowaib	60,000 m ³ /day each including reverse osmosis	Review Vender's Design Drawings in the areas of Process, Mechanical, Electrical and Instrumentation and Controls
Ministry of Electricity and Water, Dubai, U.A.E.	Power and Desalination Plant	MSF Desalination Units 2x5 MGD at Galliah 2x5 MGD at New Qidfa and 2x5 MGD at Rafah	Study, Optimization Preliminary Engineering and Cost Estimate
Project Preparation Unit (PPU) Ministry of Finance and Economic Planning, Government of Sudan (Funded by African Development Bank)	Combined Power and Desalination Plant at Port Sudan and Suaikin Area	21.1 MGD MSF Desalination 240 MW Power	Feasibility Study including Demand Forecast, Evaluation and Assessment of Existing Facilities, Techno-Economic Evaluation of various Alternatives to meet the Demand, Recommendation Best Alternative, Preliminary Engineering and Feasibility and Design of Selected Alternative, Cost Estimate, Financial Analysis, and Review of Commercial Operations of both Institutions on Power and Water
Saudi Consolidated Electric Company, Saudi Arabia	Qurayyah Desalination/Power Plant	3x1.06 MGD MSF for Plant Makeup, 2x600 MW Power	Post Contract Engineering including Audit of Vendor Design Drawings and Documents, Supervision of Construction, Startup and Commissioning
Saline Water Conversion Corporation (SWCC), Saudi Arabia	Al-Jubail III Desalination/Power Complex	24MGD MSF Desalination 2x65 MW Power Documents	Site Selection, Design, Engineering, Tender Document Preparation
Saline Water Conversion Corporation Tabuk Saudi Arabia	Tabuk Desalination/Power Plant	43 MGD Desalination (MSF) 210 MW Power	Site Selection, Design, Engineering and Tender Document



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Al Rajhi International/ Al Khorayef Group/ Saudi Masader Co. for Water & Power, Saudi Arabia, Arab Bank	Ras Az-Zawr Independent Water and Power Project (IWPP) in Saudi Arabia	850 MW-1100 MW Power and 1,000,000 m ³ /day MSF Seawater Desalination	Technical Advisory (TA) services prior to bidding
Saline Water Conversion Corporation (SWCC), Saudi Arabia	Al-Jubail II, Desalination/Power Complex	240 MGD Sea water MSF Desalination 10 X 130 MW Power	Site selection, study report, design engineering, preparation of specification, tender evaluation, inspection at manufacturers' shops, supervision of construction, pre-commissioning, commissioning and start-up, initial operation and training of Owner's personnel.
Malakoff (Malaysia), Project Location – Bahrain	Al-Hidd Power and Desalination IWPP Independent Water and Power Project	1100 MW Power and 100 MGD MSF Seawater Desalination	Technical Advisory (TA) Services prior to bidding
Empresa Nacional de Luz y Fuerza, Puerto Somoza, Nicaragua	Puerto Somoza Desalination/Plant Complex	0.60 MGD Desalination 106 MW Power	Plant Layout, Conceptual Design, Preparation of Technical Specifications and Review of Vendor Drawings
Ministry of Electricity & Water United Arab Emirates	Desalination/Power Plant	150-200 MW 15-20 MGD MSF	Feasibility Study including projection of future demand for water in the region vs. supplies, determination of plant size and phasing, screening of desalination processes for techno-economic viability, process optimization, site selection and investigations, conceptual plant layout and design for the dual purpose facility, cost estimate and project schedule
Saudi Consolidated Electric Company Saudi Arabia	Jizan Power/Desalination Project	600-800 MW 40-60 MGD MSF	Feasibility Study including a Techno-Economic comparison between a conventional steam power plant and a combined cycle power plant, in both single purpose and dual purpose plant configuration with production of potable water by seawater desalination.



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Ministry of Electricity and Water, United Arab Emirates	Qidfa Desalination/ Power Complex Connected to exhaust of existing Gas Turbine Plant	10.0 MGD Desalination (MSF) 4.25 MW Power	Site Investigation, Conceptual Design Report, Design, Engineering and Tender Document Preparation and Bid Evaluation
Italmimpianti Societa Italiana Impianti P.A. Genoa, Italy Sitra, Bahrain	MSF Desalination Plants, Units 2, 3 and 4 at Sitra	Three MSF Desalination units each of 5 / 6.5 MIGD in low / high temperature operation	Analysis of cause of premature failure of Cupro Nickel Tubes in the heat reject section of all three desalination units. Included site visit, collection of samples, extensive laboratory analysis, establishing the cause of failure and suggesting remedial measures
Ministry of Electricity and Water Oman	Masirah Island Desalination Plant	830 M ³ /hr seawater intake including pretreatment	Field Investigation, Modeling, Study Report, Design Criteria, Preparation of Tender Specification and Bid Evaluation
Electricity and Water Authority (EWA), Manama, Bahrain	Sitra Power and Water Station	1X25 MW Gas Turbine and 3X6.5 MIGD + 1X5 MIGD MSF Desalination Plant	Rehabilitation of the Phase-II Power and Phase-II and Phase-III Desalination plants for life extension by 15 years. Also new potabilisation plant and auxiliary boiler with feed heating and pumping. Scope includes data collection from site, preparation of Planning Report, specifications for Non-Destructive Testing (NDT), Emergency Civil and Structural works and EPC specification for carrying out Rehabilitation, bid evaluation, assisting Owner to select Vendor, review of Vendor drawings, site services for supervision of erection, testing and commissioning.
Westinghouse Electric Corp/Malta Electricity Board, Malta	Marsa Creek Desalination Plant	3.6 MGD	Plant Layout, Heat and Material Balances, Equipment Sizing and Preparation of Specifications
Asiatic Petroleum Electrica Siciliana Palermo, Italy	Puerto Miranda Desalination/Power Plant	0.9 MGD	Design and Engineering, Preparation of Specifications, and Bid Evaluation



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KTI, Inc Maine	Overseas Location Desalination Plant	Power/Desalination Complex	Feasibility Study including Selection of Process, Sizing of Plant, Concept Design and Cost Estimate
Florida Keys Aqueduct Authority Key West, Florida USA	Key West Desalination Plant	2.62 MGD	Design & Engineering of Desalination Plant Expansion
Harvey Aluminum St. Croix Virgin Islands	Desalination Plant	1.25 MGD	Plant Layout, Heat and Material Balances, Equipment Sizing and Preparation of Specification
Globespan Corporation New York USA	Floating Desalination Facility	36 MGD	Feasibility Study
Ministry of Works New Providence Island Bahamas	Water/Power Facility	Power/Desalination Complex	Master Plan for Water and Power Production
Birch De Jongh & Farrelly St. Thomas Virgin Islands	St. Thomas Desalination Plant	2.5 MGD	Plant Design Analysis and Review of Operating Procedures
Cable Beach Service Company (Nassau Beach Hotel)	Alternate Desalination System for a new Desalination Plant	Desalination Plant	Feasibility Study
Princess Hotels International	Desalination Facility for Southampton Princess Hotel, Bermuda	Desalination/Water Resource Management	On Site Evaluation of Desalination Operation
AES/Ohana Inc Virginia, USA	Desalination Plant in Hawaii using steam from a Cogeneration Plant	1 MGD and 5 MGD	Feasibility Study including Selection of Process, Finalization of Parameters, Concept Design and Cost Estimate
ABB Energy Ventures New Jersey, USA	Desalination Plant in Hawaii using steam from a cogeneration plant	5 MGD and 10 MGD	Study on Finalization of Scheme and Performance and Preparation of Concept Design and Cost Estimate

