

## Desalination Technology

### Projects and Studies done or in execution

<b>Client/Location</b>	<b>Project</b>	<b>Services</b>	<b>Year</b>
KFW/Lahmeyer/ SONED (Germany / Tunisia)	<b>Consulting Services Tunisia</b>	Coupling of Desalination and Energy Systems for a Program of 6 desalination systems for water supply improvement in Southern Tunisia	2013
DME e.V. Germany	<b>Conceptual Study</b>	Report e-learning concept	2013
Technical University Münich (TUM)	<b>Competition for students:</b>  <b>“More Water made out of Salty Water”</b>	Jury Member	2013
BMBF (Federal Ministry of Education and Research)	<b>Assessor of Project applications</b>	Evaluation of Project Applications of a Federal Research and Development Program	2013
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Confidential Germany	<b>Strategic Consultancy</b>	Membrane Recycling	2012
Fischer Eco Solutions	<b>Market Development</b>	Re-Powering of existing MSF and MED Plants with new Heat Exchange Systems	2012
Bilfinger und Berger	<b>Strategic Consultancy</b>	Evaluation and Presentation of the Desalination Markets in respect of the implication to the company profile	2012
ThyssenKrupp	<b>Strategic Consultancy</b>	Evaluation and Presentation of the Desalination Markets in respect of the implication of stainless Steel.	2012
MEDESA	<b>Strategic Consultancy</b>	Data collection, Market research and technical comparison	2012

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ENEC (Emirates Nuclear Energy Company) (UAE) United Arabian Emirates	<b>Strategic Consultancy</b>	Strategic Techno and Economic Study on Water Desalination	2012
HCM Cyprus	<b>Consultancy services</b>	10 MWel parabolic trough solar thermal power plant. Evaluation of the overall efficiencies, the plant's flow sheet and the initial Capex estimation.	2011
KA-CARE Kingdom of Saudi Arabia	<b>Subject Matter Expert Renewable Energy (CSP, PV, Waste) and Desalination Consultancy services</b>	Building up the new Organization, it's role and obligations for the Kingdom of Saudi Arabia being the Expert for CSP, PV, Waste and desalination plants all over the Saudi Kingdom.	2011
King Abdulaziz Univ. Kingdom of Saudi Arabia	<b>Technical Advisor</b>	Consulting Researchers and Scientists of King Abdulaziz Univ. for Desalination Technology powered by Renewable Energy	2011
KBA Germany	<b>Expert Consultancy</b>	Evaluation of Companies and their Technologies for KBA	2011
BMBF (Federal Ministry of Education and Research)	<b>Assessor of Project applications</b>	Evaluation of Project Applications of a Federal Research and Development Program	2011
KFW/Lahmeyer/SONED (Germany / Tunisia)	<b>Consulting Services Tunisia</b>	Coupling of Desalination and Energy Systems for a Program of 6 desalination systems for water supply improvement in Southern Tunisia	2011
Heidelberger Cement / Caspi Cement LLC (Germany/Kasachstan)	<b>Technical and Market consultancy</b>	Evaluation of various technical solutions to feed an industrial plant with desalinated feed water and producing zero liquid discharge	2011
Dr. Breit GmbH (Germany)	<b>Consulting Services</b>	Conceptual strategic evaluation and design of new desalination products	2011

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Confidential Client (Danmark)	<b>Consulting Services</b>	Conceptual strategic evaluation and design of new desalination technologies	2011
Confidential Client (Germany, KSA)	<b>Due Dilligence, KSA</b>	Technical and Operational Due-diligence of a 30.000 m <sup>3</sup> Reverse Osmosis Plant	2011
Saumweber Holding (England/Australia)	<b>Sundrop Farm, Australia</b>	Conceptual Design of a CSP (Concentrated Solar Power) driven desalination system for Greenhouses	2011
DME e.V. (Germany)	<b>E-Learning Program in Arabic language</b>	Preparation and realisation of a international e-learning program in desalination.	2011
Pöyry Energy GmbH	<b>Technical Market Information</b>	Preparation and evaluation of a statistic regarding “energy consumption in RO, MF/UF”	2010
Pöyry Energy GmbH	<b>Commercial Market Information</b>	Preparation and evaluation of a statistic regarding “desalination plants worldwide”	2010
BMZ (Federal Ministry for Economic Cooperation and Development) (Germany)	<b>Assessor</b>	Long term cooperation and participation in desalination development in West Asia (Middle East)	2010
DME e.V. (Germany)	<b>E-Learning Program in English</b>	Preparation of learning program. Short introduction of water availability worldwide, general information about use of water, main methods of desalination	2010

Marubeni Corporation Qingdao, China	<b>Supervision and Review consultancy</b> Technical and Financial Pre-Feasibility	Development of a technical and commercial Pre-Feasibility Study of 30.000 m <sup>3</sup> /d in a new desalination option (Thermal or Membrane) into ongoing industrial processes.	2009
Marubeni Corporation Sur, Oman	<b>Supervision and Review consultancy</b> Investment and O&M Supervision of 70.000 m <sup>3</sup> RO Plant	Supervision of given technical and commercial concepts and review of O&M concept and contracts. Privatisation of an existing Desalination Plant and integration into a 70.000 m <sup>3</sup> /d new Reverse Osmosis plant.	2009
DME e.V. (Germany)	<b>E-Learning Program in German</b>	Short introduction of water availability worldwide, general information about use of water, main methods of desalination. Preparation of learning program.	2009
Confidential Client Turkey	<b>Strategic Consultancy and Business Development</b>	Strategic Consultancy and Business Development for desalination Plants in Istanbul (500.000 m <sup>3</sup> /d) and Izmir (350.000 m <sup>3</sup> /d).	2007
Marafiq Independent Water And Power Project Kingdom of Saudi Arabia	<b>Design, heat and water balance review of the thermal and membrane desalination plant</b>	Design of the Desalination Plant (Water Capacity and Cost Aspects)	2005
Yanbu Power and Desalination Plant Kingdom of Saudi Arabia	<b>Pre-feasibility study</b> Implementation of a Power and Desalination Plant in Yanbu Industrial City (YIC) with a capacity of maximum 960 MW Power and 225 MIGD Desalination	Assessment of production capacity, investment cost, and space requirements of desalination alternatives for various co-generation schemes including gas turbine and steam power plants, as well as MSF and RO desalination units, description of typical design and arrangements of MSF and RO desalination plants, assessment of expected environmental impacts of the considered plant configurations	2005
Taweelah, Abu Dhabi, United Arab Emirates	<b>Technical advisory</b>	Evaluation in thermal desalination and evaluation of techniques to be used an process integration	2005