

Desalination Technology

Projects and Studies done or in execution

Client/Location	Project	Services	Year
System Suppliers (global and confidential)	Desalination Consulting	Strategic consultancy (20 MLD to 1.000 MLD)	2017 -
Component suppliers (global and confidential)	Desalination Consulting	Development (0,1 MLD to 1.000 MLD)	2016 -
Lenders Services (Europa and confidential)	Desalination Consulting	Internal desalination Training of technical teams (0,1 MLD to 1.000 MLD)	2016 -
Operator Services (global and confidential)	Desalination Consulting	Optimization of SWRO plants (20 MLD to 50 MLD)	2014 -
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2021</u>	<u>2021</u>	<u>2021</u>	
Golgohar Trade and Technology GmbH (Goltec)	Desalination Senior Expert Consulting	200 MLD SWRO Plant P3	2021
Golgohar Trade and Technology GmbH (Goltec)	Project Management	200 MLD SWRO Plant P2	2019 - 2021
System Suppliers (global and confidential)	Desalination Consulting	Strategic consultancy	2017 -
Component suppliers (global and confidential)	Desalination Consulting	Development	2016 -
Lenders Services (Europa and confidential)	Desalination Consulting	Internal desalination Training of technical teams	2016 -

Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
Operator Services (global and confidential)	Desalination Consulting	Optimization of SWRO plants	2014 -
<u>2020</u>	<u>2020</u>	<u>2020</u>	
System Suppliers (global and confidential)	Desalination Consulting	Strategic consultancy	2017 -
Component suppliers (global and confidential)	Desalination Consulting	Development	2016 -
Lenders Services (Europa and confidential)	Desalination Consulting	Internal desalination Training of technical teams	2016 -
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<u>2019</u>	<u>2019</u>	<u>2019</u>	
Ministry of Agriculture, Water and Forestry (Namibia)	Desalination Senior Expert Consulting	Evaluation (M&A) of ERENGO desalintion Plant (Areva) 50 MLD	2016 - 2019
PWT Wasser- und Abwassertechnik GmbH	Desalination Senior Expert Consulting	Strategic consultancy	2017 - 2019
Passavant Energy & Environment GmbH	Desalination Senior Expert Consulting	Strategic consultancy	2019

KfW Bank (FZ)	Desalination Senior Expert Consulting	Lenders Services Design, Build 150 MLD capacity desalination Plant based on SWRO at Nemmeli, East Coast Road, Chennai, Tamil Nadu & Operation and Maintenance for 20 years	2017 - 2019
Messe München GmbH	IFAT Afrika 2019	Preparation and fulfillment of Desalination Pavilion including Desalination Forum at IFAT Africa	2019
BMBF (Federal Ministry of Education and Research)	Assessor of Project applications	Evaluation of project applications of a federal research and development program	2019
System Suppliers (global and confidential)	Desalination Consulting	Strategic consultancy	2017 -
Component suppliers (global and confidential)	Desalination Consulting	Development	2016 -
Lenders Services (Europa and confidential)	Desalination Consulting	Internal desalination Training of technical teams	2016 -
Operator Services (global and confidential)	Desalination Consulting	Optimization of SWRO plants	2014 -
LANXESS Deutschland GmbH	Component testing - Rebuild of side	Rebuild of side including shut down of units, exchange of existing membranes and de-installation of additional equipment as proposed. This rebuild price will also be charged in case of an whatever forced braking off of the tests at fixed price	2016 - 2017
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2018</u>	<u>2018</u>	<u>2018</u>	



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System Suppliers (global and confidential)	Desalination Consulting	Strategic consultancy	2017 -
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2017

2017

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TÜV Süd	Comparison of Membrane Technology	Comparison for a number of technical membrane components globally produced and used	2014 - 2015
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<u>2015</u>	<u>2015</u>	<u>2015</u>	
Operator Services (global and confidential)	Desalination Consulting	Optimization of SWRO plants	2014 -
DME e.V. Germany	Desalination WIKI	Development of a <i>Desal Wiki</i> available via the internet	2014 -
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2014</u>	<u>2014</u>	<u>2014</u>	
Service & Component suppliers (global and confidential)	Desalination Consulting	Development of a global desalination Data base	2012 - 2014
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2013</u>	<u>2013</u>	<u>2013</u>	
KFW/Lahmeyer/ SONED (Germany / Tunisia)	Consulting Services Tunisia	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	Conceptual Study	Report e-learning concept	2013
Technical University Munich (TUM)	Competition for students: "More Water made out of Salty Water"	Jury Member	2013
BMBF (Federal Ministry of Education and Research)	Assessor of Project applications	Evaluation of project applications of a federal research and development program	2013
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<u>2012</u>	<u>2012</u>	<u>2012</u>	
BMBF (Federal Ministry of Education and Research)	Assessor of Project applications	Evaluation of project applications of a federal research and development program	2012
Confidential Germany	Strategic Consultancy	Membrane Recycling	2012
Fischer Eco Solutions	Market Development	Re-Powering of existing MSF and MED plants with new heat exchange systems	2012
Bilfinger und Berger	Strategic Consultancy	Evaluation and presentation of the desalination markets in respect of the implication to the company profile	2012
ThyssenKrupp	Strategic Consultancy	Evaluation and presentation of the desalination markets in respect of the implication of stainless steel.	2012
MEDESA	Strategic Consultancy	Data collection, market research and technical comparison	2012

ENEC (Emirates Nuclear Energy Company) (UAE) United Arabian Emirates	Strategic Consultancy	Strategic techno and economic study on water desalination	2012
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<u>2011</u>	<u>2011</u>	<u>2011</u>	
HCM Cyprus	Consultancy services	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	Subject Matter Expert Renewable Energy (CSP, PV, Waste) and Desalination Consultancy services	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	Technical Advisor	Consulting researchers and scientists of King Abdulaziz Univ. for Desalination Technology powered by renewable energy	2011
KBA Germany	Expert Consultancy	Evaluation of companies and their technologies for KBA	2011
BMBF (Federal Ministry of Education and Research)	Assessor of Project applications	Evaluation of project applications of a federal research and development program	2011
KfW/Lahmeyer/ SONED (Germany / Tunisia)	Consulting Services Tunisia	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)	Technical and Market consultancy	Evaluation of various technical solutions to feed an industrial plant with desalinated feed water and producing zero liquid discharge	2011
Dr. Breit GmbH (Germany)	Consulting Services	Conceptual strategic evaluation and design of new desalination products	2011
Confidential Client (Danmark)	Consulting Services	Conceptual strategic evaluation and design of new desalination technologies	2011
Confidential Client (Germany, KSA)	Due Dilligence, KSA	Technical and operational due- diligence of a 30.000 m ³ RO Plant	2011
Saumweber Holding (England/Australia)	Sundrop Farm, Australia	Conceptual Design of a CSP (Concentrated Solar Power) driven desalination system for greenhouses	2011
DME e.V. (Germany)	E-Learning Program in Arabic language	Preparation and realisation of a international e-learning program in desalination.	2011
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2010</u>	<u>2010</u>	<u>2010</u>	
Pöyry Energy GmbH	Technical Market Information	Preparation and evaluation of a statistic regarding "energy consumption in RO, MF/UF"	2010
Pöyry Energy GmbH	Commercial Market Information	Preparation and evaluation of a statistic regarding "desalination plants worldwide"	2010

BMZ (Federal Ministry for Economic Cooperation and Development) (Germany)	Assessor	Long term cooperation and participation in desalination development in West Asia (Middle East)	2010
DME e.V. (Germany)	E-Learning Program in English	Preparation of learning program. Short introduction of water availability worldwide, general information about use of water, main methods of desalination	2010
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<u>2009</u>	<u>2009</u>	<u>2009</u>	
Marubeni Corporation Qingdao, China	Supervision and Review consultancy Technical and Financial Pre-Feasibility	Development of a technical and commercial pre-feasibility study of 30.000 m ³ /d in a new desalination option (thermal or membrane) into ongoing industrial processes.	2009
Marubeni Corporation Sur, Oman	Supervision and Review consultancy Investment and O&M Supervision of 70.000 m ³ 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 ³ /d new RO plant.	2009
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<u>2008</u>	<u>2008</u>	<u>2008</u>	
DME e.V. (Germany)	E-Learning Program in German	Short introduction of water availability worldwide, general information about use of water, main methods of desalination. Preparation of learning program.	2008
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -

<u>2007*</u>	<u>2007*</u>	<u>2007*</u>	
* Services provided by founding and predecessor association Deutsche Meerwasserentsalzung e.V. "DME"			
Confidential Client Turkey	Strategic Consultancy and Business Development	Strategic consultancy and business development for desalination plants in Istanbul (500.000 m ³ /d) and Izmir (350.000 m ³ /d).	2007
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2006*</u>	<u>2006*</u>	<u>2006*</u>	
DME e.V. (Germany)	Desalination Congress Program in German	Short introduction of water availability worldwide, general information about use of water, main methods of desalination. Preparation of learning program.	2006
Training (in person and digital)	Seminars and Training	Planing and execution of public and internal desalination Seminars and training	2003 -
<u>2005*</u>	<u>2005*</u>	<u>2005*</u>	
Marafiq Independent Water And Power Project Kingdom of Saudi Arabia	Design, heat and water balance review of the thermal and membrane desalination plant	Design of the Desalination Plant (Water Capacity and Cost Aspects)	2005
Yanbu Power and Desalination Plant Kingdom of Saudi Arabia	Pre-feasibility study 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



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Taweelah, Abu Dhabi, United Arab Emirates	Technical advisory	Evaluation in thermal desalination and evaluation of techniques to be used in process integration	2005
Training (in person and digital)	Seminars and Training	Planning and execution of public and internal desalination Seminars and training	2003 -
