



## Announcement

### Energy Efficiency in the Water Sector– learning from international experiences and practices

#### Study Tour in Germany on the occasion of the Wasser Berlin International

**Date: 22 to 27 April, Berlin, Germany**

Dear ACWUA members,

The Arab Countries Water Utilities Association (ACWUA) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) would like to inform you about a 1-week study tour to Germany in April 2013. The study tour will be organized back-to-back with the Berlin Wasser International – the trade fair and congress for water and wastewater<sup>1</sup>. Apart from seminar-style learning modules, we have guided visits to selected exhibitors and consulting companies and we will attend the International Forum ([www.wasser-berlin.de/en/](http://www.wasser-berlin.de/en/)).

GIZ is implementing the training program MENA WANT jointly with ACWUA and its members in the MENA region to enhance the performance of water utilities, on behalf of the German Ministry for Economic Cooperation and Development, BMZ. The study tour is the start of a series of activities under the MENA WANT program to enhance the capacity in the region to improve the energy efficiency in the water sector. The topic was identified by ACWUA and its technical working groups as a priority action field to contribute to water security in the region.

Water production, treatment and its distribution to consumers is an energy intensive task. Additional energy is required to collect, treat and dispose wastewater to safeguard hygienic and environmental standards. In general, electricity consumption for pumping can make up to 90% of the total energy use, and up to 60% of the overall expenses of water and wastewater utilities. Therefore, saving energy and using water more efficient in urban water supply and wastewater treatment systems is a win-win situation with potentially positive impacts at macro-economic level as well as cost savings at utility and individual household levels. In addition, adverse climate change impacts from gashouse emissions call for effective energy conservation measures, if we consider that the water sector account for about 10% of the global energy consumption - with considerably higher levels in some MENA countries. The energy footprint of the water sector can significantly be reduced and budget constraints will be eased to allow more investments in water infrastructure assets or better O&M. Innovative technological solutions can even create a triple-win situation if we consider the potential of biogas production in modern wastewater management plants.

Energy efficiency solutions need to address all relevant parameters in an integrated manner, ranging from optimized designs, innovative technology and efficient operating procedures, towards an enabling environment with effective institutional arrangements, regulation and policy incentives.

<sup>1</sup> ACWUA is the strategic partner with Wasser Berlin International for year 2013

ACWUA and GIZ will invite up to 12 experts, senior managers and experienced trainers from their network of members. They are from Water and Wastewater Utilities, from Ministries and Regulators. The following issues will be in the focus of learning experiences to discussions innovative ideas towards more energy efficiency in the water sector:

- Energy efficiency improvements in the water sector
- From identifying opportunities to implementation
- Energy audits
- Economic and risk analysis of improvement options
- Energy saving measures: e.g. pumping systems, water treatment, distribution systems, system automation and remote control, measures and verification
- Development of energy saving action plans
- Energy Performance Contracting
- Development Partnership with the private sector (PPP)
- Sustainability, effective up-scaling and roll-out.

The expected outputs of the study tour are:

1. Participants are informed on innovative techniques and integrated energy efficiency solutions in the water sector
2. Participants elaborated a proposal to ACWUA-GIZ to establish a new informal learning and regional networking initiative on energy efficiency in the MENA water sector.

#### Tentative Agenda

21 April		Arrival in Berlin Hotel: Citadines Kurfürstendamm, Olivaer Platz		
22 April	BBK Akademie	<b>Seminar on energy efficiency in the water sector</b> Day 1: Focus on wastewater management and reusewater supply systems: <ul style="list-style-type: none"> <li>• Basics, concepts and approaches</li> <li>• case studies from MENA countries</li> <li>• Performance indicators, Energy audits</li> <li>• Etc.</li> </ul>	Moderation: Eng. Hans Hartung	Resource persons: Participants; Prof. Barjenbruch (TU Berlin)
23 April	BBK Akademie	Day 2: Water production and supply systems <ul style="list-style-type: none"> <li>• case study from Jordan, MENA countries</li> <li>• German experience: City of Stuttgart</li> <li>• Etc.</li> </ul>	Moderation: Eng. Hans Hartung	Resource persons: Participants; Eng. Juergen Clauss
24 April	Wasser Berlin Fair	Overview and guided visits: selected exhibitors International Forum (selected sessions) ACWUA (Get together)		
25 April	Wasser Berlin Fair	International Forum (selected sessions) Arab Day (Organized by ACWUA and GWP) Selected exhibitors cont'd		
26 April	Wasser Berlin Fair	Selected exhibitors cont'd		
27 April	BBK Akademie	09-13 h: Lessons learnt and the way forward (ACWUA and regional learning perspective) p.m. free Berlin tour	Moderation: Hartung, Petermann	Resource persons: all participants
28 April		Return to home country		

Responsible: Mustapha Nasereddin and Ahmad Abu Saleem (ACWUA); Thomas Petermann (GIZ). 1<sup>st</sup> Draft 14<sup>th</sup> Feb 2013