



# Energy Efficiency in Water and Wastewater Utilities



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## Energy Efficiency in Water and Wastewater Utilities

### Cost Savings

- Payments for energy (kWh, GJ or mmBtu of gas, etc.);
- Payments for peak power demand (kW);
- Operation and maintenance costs;
- Power factor charges.

### Potential Ancillary Benefits

- Productivity and competitiveness ameliorations;
- Install new and modern equipment;
- Optimization of equipment operations;
- Longer equipment life;
- More reliable facility operation.



# Energy Efficiency in Water and Wastewater Utilities

## Environmental Concerns

- Greenhouse gas emissions related to global climate change;
- Local pollution of air, water and land.

## Addressing Risk

- Future liability for pollution and emissions;
- Fuel cost volatility.



## The Program

This 18-month Program will:

- provide technical assistance and capacity building to improve the energy efficiency of water utilities.

The focus will be on helping those utilities:

- developing energy audits;
- taking their efficiency improvement packages to the market for financing and implementation.



## The Value

- World-class training on EE;
- Exposition to regional best practices through a regional training activity and several workshops at national level;
- Development of an energy audit and EE action / investment plan based on training received and proven templates and software;
- Technical support from national experts throughout the development of the audit and plan;
- Additional support to secure financing .



## The Approach

A designated team of two senior professionals will:

- Participate in a regional training event in Sofia, Bulgaria from April 8 to 11, 2014;
- Lead their utility in the preparation of energy audit and EE action plan / investment plan;
- Participate at local technical training workshops;
- seek financing from the commercial or public market for the implementation of the plan.



## The Mandated Consultants

Econoler, a world renowned consulting firm with more than 30 years of experience in the Energy Efficiency field, in collaboration with the Alliance to Save Energy (ASE), which brings additional expertise to the team through its Watergy program:

- Over the past two decades, Econoler and ASE combined have provided support to more 150 water utilities in 40 countries to realize significant energy, water and monetary savings through technical and managerial changes in water supply systems.







Case Study: Barbados Water Authority, 2012  
Econoler, completed energy audits to assess the EE enhancement opportunities within the BWA's water and wastewater stations. Main outcome:

- development of an action plan to increase EE in all key water and wastewater facilities.



## Case Study: Barbados Water Authority, 2012

### Results:

- the whole auditing process led to the identification of potential energy savings of almost 10 GWh/year, i.e. approximately 25 percent of the BWA's total electricity consumption.
- The implementation of the proposed EE measures would achieve USD 2.5 million of energy cost savings and would involve a payback period of only 6 months.