

# Utility Management Training

## MODULE 5: Energy Management and Energy Efficiency (EMEE)

### Institutional Partners



### EMEE Module Team

**Module Development Partner:**  
Econoler

**Trainer:**  
Albert Williams

**Utility Partner:**  
Tirana Water Utility, Durres Water Utility,  
Korca Water Utility

**Thematic Support and Materials:**  
D-LeaP EE Program



## EMEE Module Logistics

**Format and Venue:** One-week residential course, Tirana, Durres & Korca, Albania

**Module timeline:** April – June 2022

**Core training week:** May 16 – May 20

**Post-module webinar:** June 10 2022



## EMEE Module Outline

The purpose of the **Energy Management and Energy Efficiency (EMEE)** module is to bridge technical knowledge such as pumps, motors, curves and field measurements with the wider management perspective on energy – utility-wide energy balance, constraint to implementation of EE projects, project cycles, etc.

The module starts with an **Introduction to Energy Management and Energy Efficiency** – a session that builds awareness on energy balancing, motivation and barriers to EE projects, etc. Straight after this session, the module gets quite technical with a **(Technical) Introduction to Pump Systems**. This chapter gets deeply into the features of pumps and motors, specific curves and their optimal points, hydraulic and energy calculations, etc. Technical background is beneficial for this session, but not mandatory.

Next, the module places an emphasis on the **Organization of a Field Measurement Campaign**. Sequentially, this session provides awareness on measuring equipment, basic rules to roll it out within a real on-site campaign and H&S requirements. An important element is the knowledge on the EE Software – MEASUR. This session includes a half-day practical exercise on a pumping station at which the participants are encouraged to themselves install some of the equipment.

Once the field measurements are collected, the module moves towards **EE Project Structuring** and design of an **EE Business Case**. This is a one-day hard work with the figures collected on the previous day including the development of a series of scenarios within MEASUR. The ultimate goal is to develop a proposal for an investment based on technical and financial metrics.

As the module cannot grasp every energy-related aspect in a single week, a group of technical and organizational aspects, such as maintenance of electrical equipment, implementation of energy management systems (ISO) are summarized within a single session with **Other EE Aspects**.

Last but not least, the UMT participants are introduced to **Energy Market** concepts – liberalization of the electricity markets, transformation of the contractual and regulatory models, etc.

Throughout the module the utility hosts, participants and corporate partners give various examples related to EE at WWTPs, on-site solar generation and best practices for condition monitoring - overall a deep and close look into practical applications of the studied thematic.

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