

# Energy Efficient Water Sector (EEWS)

Collaboration for enhanced energy management and effective Nexus Dialogue

## The Challenge

Chronic water scarcity is one of the key obstacles to Jordan’s development. Efforts to reform the supply situation in recent years have been outweighed by the effects of a growing population and the high demand. This rapid population growth, along with agricultural expansion and the impacts of global climate change, have increased the pressure on Jordan’s scarce water resources, which have been heavily overused for years. Also, have increased energy costs for the water sector where the operation cost reached more than 50% of the water sector bill in 2021.

Against this backdrop of growing demand from several directions for an increasingly scarce resource, the Jordanian government is very interested in harnessing the potential of Renewable Energy (RE) technologies and improving energy efficiency (EE) in the water sector to improve financial sustainability.

## Our Approach

The project aims to support the water sector to improve energy management to increase EE and increase the RE share. This shall lead to achieving the EE & RE policy targets and to reduce the high energy costs. This is to be done by strengthening the capacities of the water sector, anchoring standardized EnMS, and enhancement of the Nexus dialogue with the energy sector.

The project includes five major fields of action represented in figure 1 below.

## The benefits

The project combines energy-related, methodological, and process consulting with measures to optimize energy management and renewable energy deployment in selected operational units (multi-level and multi-stakeholder approaches) of the water sector. The relevant actors, i.e., WAJ, the MWI, and the Water Supply Companies (WSCs) are strengthened in their respective roles and functions. Cooperation with the private sector is facilitated where feasible, e.g., as investors in EE/RE measures or as service providers, for example through performance-based maintenance contracts.

Project name	Energy Efficient Water Sector (EEWS)
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	Jordan
Political partner	Ministry of Water and Irrigation (MWI)
Target group	Water Authority of Jordan (WAJ) and Water Supply Companies (WSCs)
Duration	2021 – 2025
Contribution to SDGs	SDG 6 (affordable drinking water), SDG 7 (access to sustainable modern energy), SDG 8 (inclusive and sustainable economic growth), SDG 13 (combating climate change).

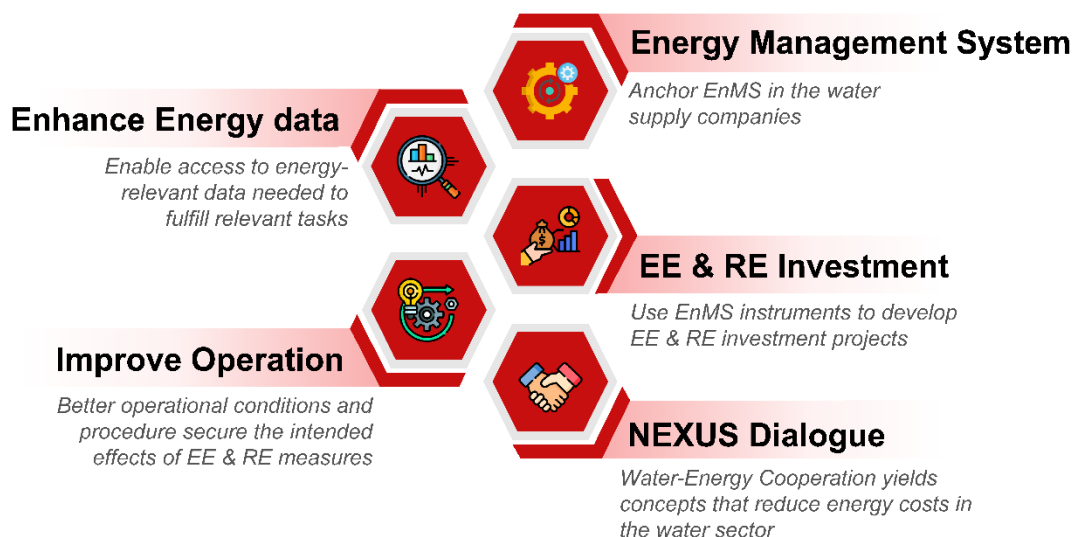


Figure 1: EEWS main fields of action

## Success factors

Along with providing sustainable electricity and increasing the use of RE in the water sector, the project will help to mitigate climate change by directly reducing greenhouse emissions. The project's also helps the improvement of operations of the water facilities and internal planning and implementation processes towards higher EE. Furthermore, through effective EnMS, the water sector will be enabled to monitor and evaluate its performance for optimization.

## Impact in figures



Figure 3: Training on the use of Energy Audit mobile lab equipment (Thermal Camera)



Figure 2: Training on Energy Management System

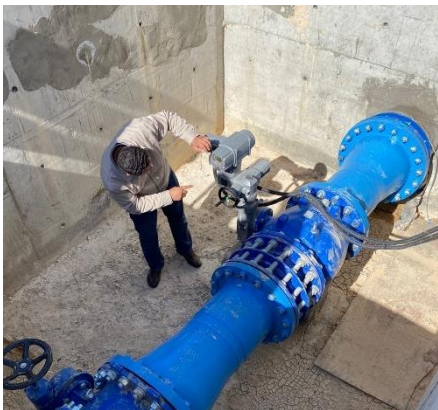


Figure 5: Implementation of ESO (installation of power meter) in Samneh PS



Figure 6: YWC Energy Team using energy audit mobile lab equipment (power analyzer)



Figure 4: Wadi AlSeer 77 kWp PV system