

Case Study

SWKA Karlsruhe
Germany

"WATENER CONSOLIDATES THE INITIAL PROMISE OF SAVING **5 TO 7%** OF ENERGY FOR THE NETWORK PUMPS OF OUR WATER WORKS BY OPTIMIZING THE PUMPING SCHEDULE"

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About Karlsruhe Drinking Water Supply System

400,000
inhabitants served

914 km
water pipe system

24 Hm³
supplied per year

4 main
pumping
stations

Case Study Summary

Stadtwerke Karlsruhe (SWKA) is a German municipal Water Utility which serves a region with 400,000 inhabitants and distributes about 24 Hm³ of water per year. The water is supplied from four treatment plants and main pumping stations and it is distributed by more than 900 km of pipeline.

The primary objective of the Watener implementation was to **improve the network's operational management in order to reduce the energy consumption of the water distribution system**. In a supply system made up of

modern and up-to-date infrastructures and managed by highly qualified technical staff, Watener has provided added value as a global solution for network management.

Watener has been evaluated and tested by technical experts in the area, engineers of SWKA and used by the staff of the control center (24/7) highlighting a precise Demand Forecast System (DFS) per District Metered Areas (DMA) and efficient planning for the pumping schedules in order to reduce the energy consumption and costs.

Benefits & Results

The Watener platform provides an important set of components for the management of SWKA: visualization of essential operating data, a planning tool for pumping schedules, accurate water demand forecast, efficient use of the hydraulic network model, automatic detection of anomalies, etc.

The outcome of the Watener implementation at the SWKA The Water Supply System, was presented on October 25th at the "Energy Efficiency in the Water Supply" Congress organized by the Water Technology Center of Karlsruhe (TZW). The results show a **reduction of energy consumption of 5-7% and energy costs savings up to 50,000 € per year**.



Energy savings
5%– 7%



Economical energy savings
50,000 € per year



Precise Demand Forecast
System per DMA



Improvement of daily
operation and management