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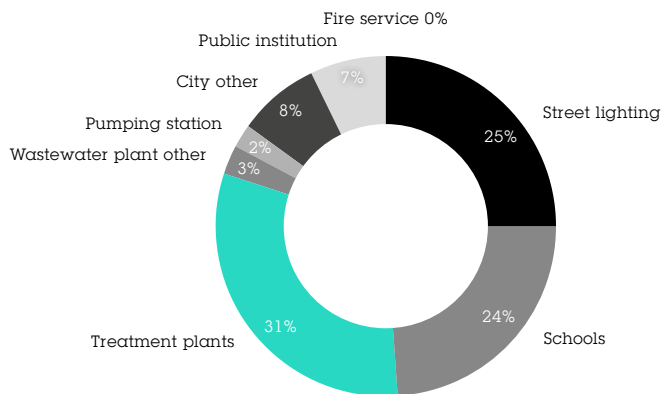
Maximise your efficiency, minimise your costs

Aqualogic® – Intelligent energy saving with maximum operational reliability for wastewater treatment

**Wastewater
treatment plants:
Largest single energy
consumer in a
municipality**

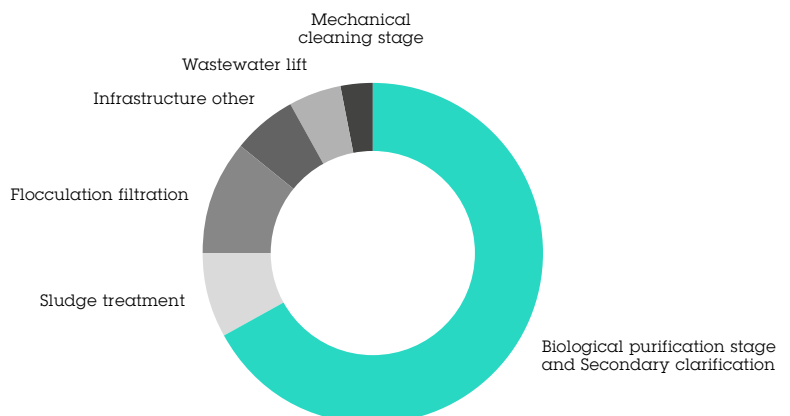
On average, wastewater treatment plants consume around 20% to 30% of a municipality's electricity. Aeration, which is known to be part of the biological treatment stage, requires 40% to 60% of the treatment plant's energy supply depending on the size and degree of modernisation of the treatment plant – counting for 8% to 20% of the total municipal energy consumption.

Electricity consumption of a municipality



Source: Klärwerk.info

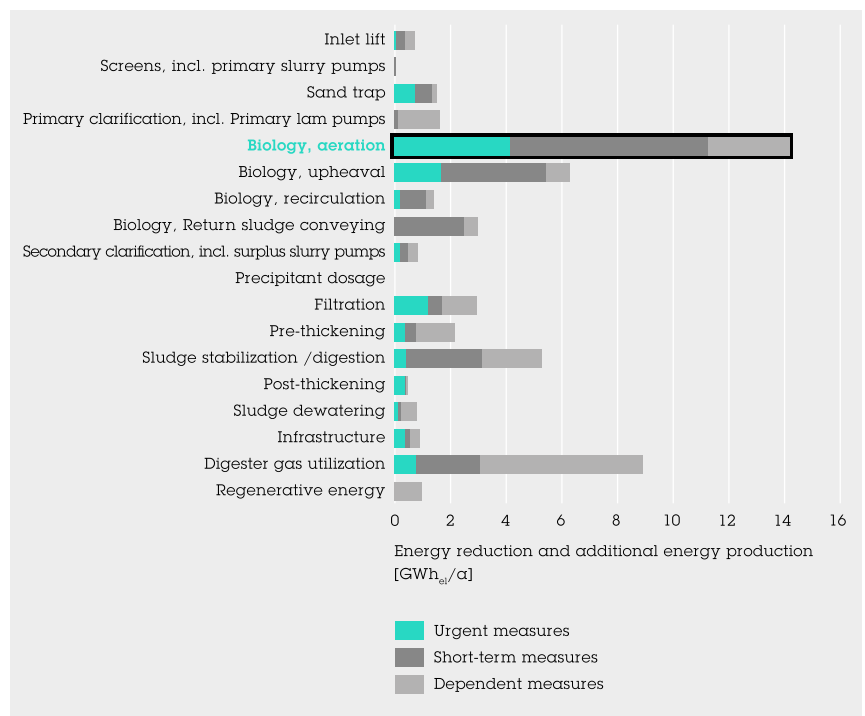
Energy requirements of wastewater treatment plants



Source: Federal Environment Agency

Energy saving potential at wastewater treatment plants

As can be seen from the graph, there is great energy saving potential through immediate and short-term measures, especially with regard to aeration in the biological treatment stage, which also includes retrofitting with the help of the Aqualogic® controller system.



Source: NRW State Agency for Nature, Environment and Consumer Protection

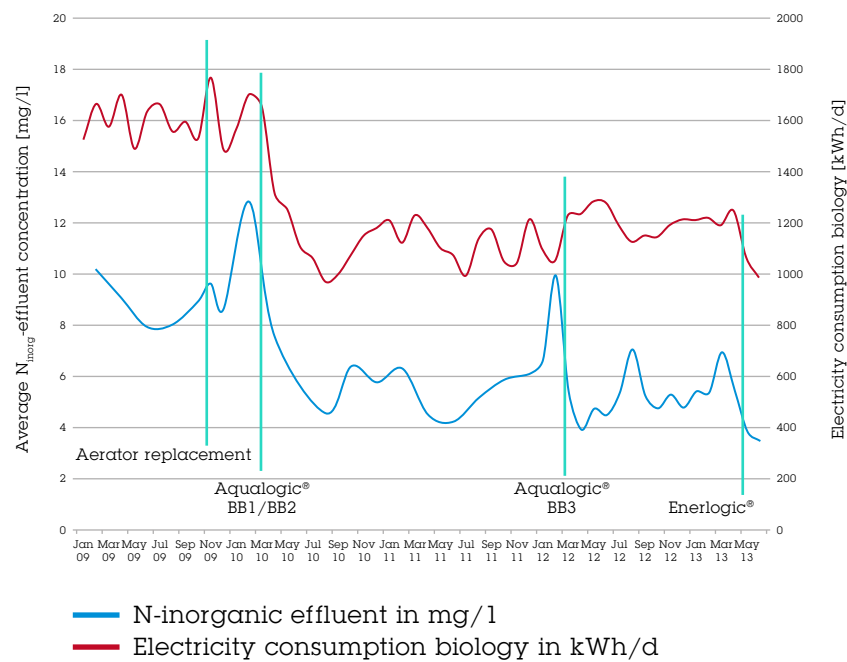
Energy saving using Aqualogic® compared to PLC controls specifically designed for a wastewater treatment plant

The Aqualogic® control system allows these energy-intensive processes to be controlled according to demand, thus saving 10% to 30% of energy in the biological treatment stage of a 'conventional' wastewater treatment plant. High energy savings are possible, especially in comparison to PLC controls that have been specially created for a plant (see examples below). **In many cases, this is several percent of a municipality's total energy consumption!**

Example of energy savings using Aqualogic® at the Oschersleben wastewater treatment plant:

Average Electricity consumption BB1 (Aqualogic®)	627 kWh/Day
Average Electricity consumption (PLC)	722 kWh/Day
Average Electricity savings by Aqualogic®	95 kWh/Day or. 13%
Potential savings for both aeration basins in in kWh per year	ca. 69,000 kWh/Year
Potential savings for both aeration basins in in € per year (Dec 22)	29,877 €/Year

Example of energy flow during the installation of Aqualogic® at the Ginsheim-Gustavsburg wastewater treatment plant:



Example calculation

Electricity consumption of wastewater treatment plants	33 kWh per PE per year	€0.4/kWh
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Example calculation for a wastewater treatment plant with 20,000 population equivalents:

Power consumption of the entire system	660,000 kWh	€264,000
Power consumption in the bioreactor	442,200 kWh	€176,880
Energy saving	up to 132,660 kWh	up to €53,100

As can be seen from the calculation example in the table, an energy saving of 132,660 kWh can be achieved with Aqualogic® in an indicative wastewater treatment plant with 20,000 PE, which corresponds to savings of up to €53,100*.

*Assuming an electricity price of €0.4/kWh

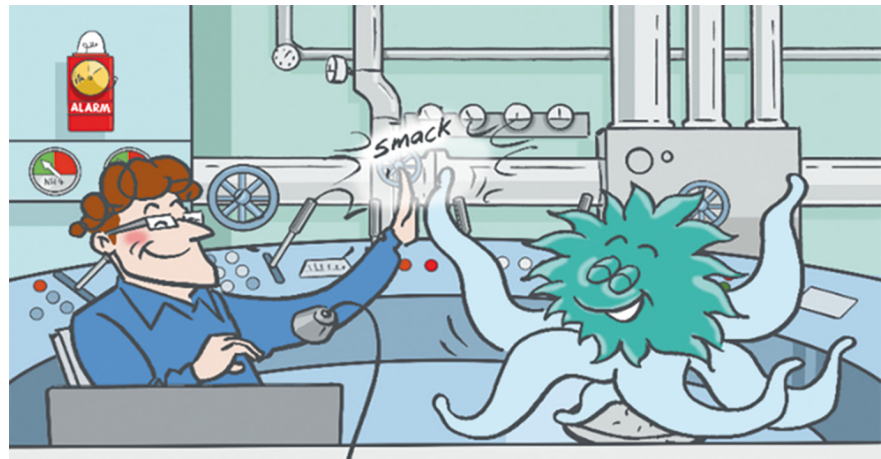
Client comments



„Water4All carries out energy optimisation of wastewater treatment plants and Aqualogic® is the most important tool here for Water4All.“

Zsolt Eszes,
CEO Water4All Zrt.*

*Water4All is a partner of Passavant-Geiger in Hungary, Romania and Poland for Aqualogic®



Let's save energy together with Fuzzy and make an active contribution to a sustainable wastewater supply!

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The technical data stated in this brochure are indicative only and have to be determined for each individual case.
Reserve technical changes.