

POTENTIALS OF ENERGY OPTIMIZATION AT WASTEWATER TREATMENT PLANTS IN THE BALTIC SEA REGION

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Abstract

Wastewater treatment includes energy consuming processes. Due to ending of fossil resources and climate change approaches for reduction of energy consumption are encouraged. In practice energy decrease also provides lower operational costs. Still the achievements of the past decades regarding high level nutrient removal have to be kept or further improved. Operators of wastewater treatment plants can choose from a large variety of solutions. But as each WWTP has its specific design and boundary conditions, the first step is to carefully analyze the process.

The Project IWAMA aims at improving the wastewater management in the Baltic Sea Region by capacity development of the operators and implementation of pilot investments in energy efficiency and sludge handling. In this article the planned actions regarding efficient use of energy at highest feasible nutrient removal rates are presented.

Keywords

Energy-Nutrient-Nexus; Nutrient removal; Energy optimization; Wastewater treatment.