

Resource-efficient wastewater treatment plants



An overview of the potential for improving energy efficiency, heat recovery, energy production and both nitrogen and phosphorus recovery at wastewater treatment plants (WWTPs) in Switzerland – presented in technical fact sheets.

Wastewater and sludge treatment systems which are optimized for greater resource efficiency can contribute to a green economy and a sustainable supply of energy in Switzerland. A range of new technologies is available for increasing energy efficiency, heat recovery, energy production and both nitrogen and phosphorus recovery at WWTPs. EBP has drafted fact sheets to explain and assess each of the new technologies. These sheets contain information about the current use of and the medium-term potential associated with the technologies. Furthermore, the fact sheets contain assessments of the technical viability and any potential conflicts (e.g. with other WWTP functions) of the technologies.

Based on the assessment of the regulatory framework it is concluded that there is no urgent need for further regulatory measures in order to promote the resource efficiency of WWTPs in Switzerland. The existing and foreseeable regulatory framework as well as the associated funding instruments provide sufficient incentives and specifications for a stepwise implementation of the identified measures towards greater resource efficiency. With the exception of phosphorus recovery, this process will occur steadily in accordance with the long renewal cycles of the corresponding infrastructure. While measures designed to increase energy efficiency and lower carbon emissions have been codified into law and

extensively incentivized, the legislative changes that will be

Client

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Facts

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Contact persons

Dr. Andy Spörri andy.spoerri@ebp.ch

lvo Fölmli ivo.foelmli@ebp.ch necessary to regulate phosphorus recovery have taken shape in the form of the revised Ordinance on the Avoidance and Disposal of Waste (VVEA) and other currently ongoing regulatory reforms.