



## The Legal Conditions for Water Utilities Eco-innovation as Energy Smart Water Utilities

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### ABSTRACT

Instead of solely collecting, transporting and cleaning wastewater, the energy smart water utilities are also reducing their carbon footprint by energy efficiency, material recovery and energy generation. This paper will give a picture of the complex environment of the political, legal and institutional forces that taken together influences the water utilities' possibility of delivering on green growth as energy smart water utilities. The paper will examine the EU and Danish policy and legislation to answer the question if it is possible for the Danish public owned utilities to deliver more environmental benefits to society by capturing their wastewater solids to electricity methane, and by generating clean renewable energy by use of biogas at their facilities. Innovative market uptake solutions call on such knowledge of the regulatory environment as a successful transformation of the utilities to energy smart water utilities depends on a co-ordination between different policy areas (e.g. water, climate, energy, and competition) at the EU as well as the national levels. The paper will examine the EU and Danish policy and legislation and assess whether the existing rules are well designed to account for multi-media assessment of energy and resource recovery in the wastewater facilities. One of the central features is to avoid counterproductive legal principles, traditions and overlaps of instruments and to design a combination of market-based instruments (pricing, taxes, feed-in tariffs, etc.) and non-market-based instruments (norms, standards, planning, information, etc.).

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