

Responsible Sustainable Leadership in the German Water Sector

THOMAS PIEPER, MARLEN ARNOLD

Water-supply and distribution companies are characterized through a high need of energy. The challenges of a sustainable development and the climate change as well as the necessity to reduce climate relevant emissions and develop adaptation strategies are aimed at a drastic reduction of energy costs and the development of intelligent sustainability-oriented infrastructure and management systems by using innovative capacity (Palme 2009; Pinske and Kolk 2010). To achieve these goals local strategic planning processes and sustainability transitions in the infrastructure sector water supply are needed (Truffer et al. 2010). In the energy sector, the climate change will influence the transportation ways and risks, change the availability of resources and raw material supply as well as restructure the value chains, cooperation and specific division of labor. In order to be able to meet the requirements of a sustainable development and look after their social responsibility water-supply and distribution companies should develop strategic options because of the coupling from energy demand and a high quality of water treatment and wastewater disposal. In addition, the interconnections between the two sectors - known as the energy-water-nexus - should get more attention (Hussey and Pittock 2012).

Therefore, integrating sustainable energy procurement and sustainability as well as CSR requirements into strategic management are necessary. The water supply enterprises (WSE) face these challenges differently. In general, there is a need for governmental regulation in order to secure sustainable transformation, e.g. by target-setting regarding renewable energy supply in the water sector. Policy could help to enhance a sustainable energy procurement and transformation within the water sector by transferring the renewables' contribution to the water sector in Germany. In this context, the aim of this study is to analyze challenges and barriers as well as good practice solutions for sustainable strategies and decision-making processes of the water supply companies in the German Water Sector. This study investigates to what extent water supply companies implement sustainability management tools and norms (e.g. ISO 14001, ISO 9001, ISO 16001, ISO 50001, Balanced Scorecard etc.) as well as confirm ISO 26000 (Munoz-Torres et al. 2009). In this context, the central research question is how water companies implement sustainability and CSR requirements in their management. Therefore, 65 German WSE and their energy strategies, environmental management and CSR aspects were analyzed. Methods used were internet analysis, web analysis, contingency analysis, surveys and interviews.

Triggers for a sustainable energy use and a sustainable management (e.g. avoiding and minimizing risks in purchasing energy, ensure environmental standards by energy suppliers) were just marginally determined. Moreover, the results make obvious that there are big differences between municipal and private WSE facing sustainability requirements as well as regarding the management of local or centralized water supply. For transforming water

supply systems towards more sustainability and climate change protection the combination and integration of energy and water supply in order to foster a sustainable development could be one solution. Our results highlight isolated networks and strategic partnerships in regional networks as the first good practice of a market opening up to regional partners. In particular, there are central differences in the way of co-operating with energy suppliers and integrating the market development requirements, e.g. adopting and investing in new infrastructures. In total there are new management tools and policy options necessary. Moreover, there is a lack in CSR communication and making CSR credible to public.

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Thomas Pieper MBA PhD cand.

Department of Ecological Economics

Carl von Ossietzky University of Oldenburg

26111 Oldenburg

tpieper@aqua-sustainament.de

Dr. Marlen Arnold

Carl von Ossietzky University of Oldenburg

26111 Oldenburg

marlen.arnold@uni-oldenburg.de