

Configuring sustainable systems of provision

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Science and technology studies analyses of infrastructures and technical systems have consistently pointed to the deficit of exclusive supply side perspectives which have long dominated economic and policy thinking and to the inseparability of technological artifacts and social practices, social understandings of normality, actor interests and expectations and broader cultural and institutional contexts. Concepts such as systems of provision or sustainable systems of consumption and production emphasize the interdependency of production and supply structures with social practices of consumption. Such perspectives also help us develop a better understanding of requirements for green growth, a notion which has recently gained political esteem and attention and stresses the aim to move beyond an exclusive focus on GDP and quantitative growth orientation. Implicitly such a re-orientation also means putting more emphasis on sufficiency and the limits of resource-consuming growth in addition to efficiency improvements and ecological modernization. A socio-material integration of production-consumption systems also helps us bridge the separation of strategies to increase production efficiency and more sustainable lifestyles and consumption patterns.

The core idea of our paper is that it is possible to identify and devise socio-technical configurations of production and consumption which inherently link energy and resource efficiency with a greater inclination towards sufficiency oriented (social) practices. While focusing on large-scale wind power development in combination with policies of sustainable consumption would be an example of a socio-technically separated approach, micro-generation in combination with changed usage patterns of electricity and heat would be an example of a socio-technical configuration which more closely connects sustainable practices of production and consumption. This is not only an issue of scale: a closer socio-technical integration of production and consumption can also be achieved e.g. by energy cooperatives and joint ownership of renewable energy production. Other examples would be neighbourhood energy management systems combining and balancing different modes of consumption and production in spatial vicinity or, in the field of sustainable food systems, urban gardening in various organizational forms. We do not propose that such forms of socio-technical integration of efficiency and sufficiency are a substitute for large-scale renewable energy generation or sustainable food production, but they may serve as important models and orientation marks for green growth strategies. Moreover, such integrated approaches may also be more independent from changes in the socio-economic contexts, such as times of financial crises and times of greater affluence. In our presentation we want to explore this idea further and build on our own empirical research in the field of energy and the built environment, but also take examples from fields such as sustainable food production and consumption.