Moving Towards Whole Settlement Energy Self-Sufficiency in Rural Communities 2015

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Abstract

Energy has become an important issue for governments, communities and individuals, as concerns about energy prices, security of supply and climate change increase. Community scale low carbon energy systems could play an important role in future energy systems, but until recently UK government policy focussed on centralised energy systems. A number of rural communities elsewhere in Europe have made transformational whole settlement transitions from fossil fuel dependent towards renewable powered energy systems; however, the number of these in the UK is limited.

Using a case study approach of European and UK cases, this research examines: reasons why rural communities embark on journeys towards whole place energy self-sufficiency; what capacities are present and contributions of these on outcomes achieved; whether there are similarities or differences between Europe and the UK and whether these are generalisable. European cases are examined using secondary and UK cases mainly primary data sources.

Cases had varying rationales for embarking on whole settlement approaches to energy self-sufficiency. Whilst these don't appear to determine the degree of energy self-sufficiency achieved, a whole sentiment approach was considered important. No cases achieved energy self-sufficiency, but most made significant progress towards this and the idea did function as a boundary object. A number of capacities were present across the cases, but none were present in all and there was no duplication of combinations of capacities. Some capacities were present in most cases, such as public funding for energy system delivery and differences in capacities between the European and UK cases included leadership by local government. If the UK is serious about whole place energy self-sufficiency there needs to be; a commitment to public funding and resolving whether local authorities at their current scale and resourcing can provide leadership, or if alternative forms of local governance need to be found.