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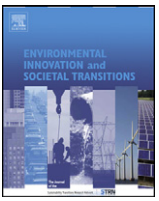

Social housing and low carbon transitions in Ljubljana, Slovenia

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ABSTRACT

In the context of a growing interest on cities as agents of change for low carbon futures, there is a question about the integration of climate change concerns into municipal sectoral policies, in particular, to what extent low carbon innovations can be incorporated into social housing policies. The paper presents a case study in Ljubljana (Slovenia), where the Municipal Housing Fund has implemented initiatives to advance low carbon innovation and to address energy vulnerabilities in the city. The analysis interrogates to what extent these experiments contribute to achieve a low carbon transition in Ljubljana and to what effect, through the application of a framework to understand how low carbon innovations are made, maintained and lived. The analysis suggests that whilst these experimental project enable the development of alternative visions of a low carbon urban future, they should be understood within the existing contradictions of the urban landscape in Ljubljana.

1. Introduction

During the last decade, cities have emerged as key actors in responding to climate change (Bulkeley and Betsill, 2003; Betsill and Bulkeley, 2007; Bulkeley, 2010). As international negotiations have languished, international attention has turned to cities putting forward alternatives for action, through city networks (such as the association of Local Governments for Sustainability (ICLEI) and the C40 group promoted by the Clinton Foundation) or through concrete interventions which seek to intervene in specific aspects of the city. Cities constitute spaces where multiple forms of low carbon innovation

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occur (UN-Habitat, 2011). One of the limitations of city-based climate change governance, however, is that high expectations generated by urban policies have not always been translated into tangible results (Betsill and Bulkeley, 2007; Bulkeley, 2010).

Often, local governments are assumed to lead the bulk of climate change actions within cities. Local governments may have the opportunity to intervene in different urban sectors, which enable new forms of low carbon innovation (UN-Habitat, 2011). This paper turns attention to the potential of interaction of climate change and energy policies with other municipal sectoral policies, in particular housing. In doing so, the questions asked are: can climate change policies be incorporated into socially progressive sectoral policies within municipal governments, specially housing? If so, does this open up new spaces for climate change innovation and societal transitions?

These questions are asked by examining the case study of social housing in Ljubljana. The Public Housing Fund of the Municipality of Ljubljana (hereafter the Fund) provides rental social housing for disadvantaged groups in Ljubljana, both by maintaining the existing municipal-owned stock and by building new dwellings. Ljubljana is a cold city with average temperatures about $-2\,^{\circ}C$ in January. The local government has responsibilities for providing energy for heating and managing the energy demand during the winter. Regarding social housing, the Fund has carried out energy efficiency refurbishments and newly built projects which, apart from contributing to the overarching goal of providing homes for disadvantaged groups, have established a precedent for high quality low carbon housing in the city.

The Fund representatives argue that their work builds upon a long history of engagement with energy efficiency and social housing provision, but growing interest on low carbon projects has intensified their activities in this area during the last decade. This raises specific questions about the contribution of these projects to achieving a socially just low carbon transition in Ljubljana.

The example is examined in the context of recent critiques of system innovation theory, drawing attention to the need of spatialise theory in order to engage with aspects of political struggle and justice in low carbon transitions. In particular, the following section focuses on the experimental character of these interventions, in the sense that they involve tentative courses of action to demonstrate and learn something new but where the outcome is not always certain (Bulkeley and Castán Broto, in preparation-a,b). This is followed by an introduction to the context of urban planning, social housing and energy vulnerability in Ljubljana and an analysis of current low carbon housing policies in this city. Focusing on the experimental nature of these interventions, the empirical analysis examines low carbon innovation as resulting from three inter-related processes of making, maintaining and living low carbon. The analysis focuses on the potential of low carbon innovation in social housing to promote systemic change towards a low carbon transition in Ljubljana.

2. Urban low carbon transitions and energy vulnerabilities

Energy systems can be conceived of as socio-technical systems resulting from the simultaneous co-evolution of material and semiotic components. In studying transitions to sustainability, the literature of systems innovation has focused on how large-scale social transformations – transitions – can be brought about by key targeted interventions in localised spaces (Elzen et al., 2004). The multi-level perspective proposes a model of socio-technical systems divided in levels with increased degrees of stability (see for example Geels, 2004; Geels and Kemp, 2007; Geels and Schot, 2007; Smith et al., 2010). In this model, the socio-technical regime refers to a relative stable configuration of technical and social elements which is re-arranged during the transition. Regimes occur within a more structured landscape, over which actors have less agency. In addition, niches emerge outside the mainstream regimes, with less structural pressures, where innovations resulting from actors' agency can flourish, posing a challenge to the incumbent regime. The model explains how socio-technical systems obdurate and the potential for innovations to break through relative stable systems. In this analysis, niches emerge as key spaces were innovation can be deliberately fostered by key actors in the regime, so that they can bring about a systemic, rapid and abrupt transformation towards low carbon energy systems. A common critique of the multi-level perspective is that, for the most part, it has not engaged with the places and spaces of transitions (Hodson and Marvin, 2010).