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Governance challenges of decarbonising residential heating in Britain

Ewan Archer-Brown^{1*}, Gavin Killip², Jake Barnes¹, Tina Fawcett¹

1: University of Oxford, Environmental Change Institute, 3 South Parks Rd, Oxford OX1 3QY, UK

2: University of Oxford, Department of Education, 15 Norham Gardens, Oxford, OX2 6PY

* Corresponding Author

Abstract

Transitioning away from fossil fuel-based heating systems entails fundamental changes for the technologies, actors and buildings involved in its provision. It presents a distinct policy problem: it is large-scale, highly complex, place-based, characterised by significant uncertainty, and implicates a wide range of stakeholders. Steering such a socio-technical transition in both a centralised and liberalised manner will be difficult, and decarbonisation is likely to strain existing governance. Governance arrangements are understood here to be the sets of institutions, interactions, and resources through which collective goals are pursued. The aim of this paper is to examine the governance challenges in decarbonising residential heating.

Drawing on contemporary theory of governance failures, and evidence from stakeholder focus groups ($n > 50$), we develop an operational understanding of governance challenges in the case of residential heat decarbonisation in Britain. Participants identified key points of friction, where existing governance arrangements are poorly aligned with the requirements of low-carbon heating. From these discussions, we identify five challenge areas: 1) the structure of formal governments, including the distribution of authority and resources; 2) the design and regulation of markets and associated incentives; 3) incumbent power and lobbying practices; 4) the development of skills and accreditation standards; and 5) the potential for meaningful citizen participation in governance processes.

Across the five challenges, two overarching tensions are apparent. The first concerns the need to provide long-term planning and policy certainty within a predominantly liberal-market context. The second relates to the balance between place-based decision-making and centralised coordination. Such tensions recur across multiple challenge areas and will be important in characterising how governance needs to change in response to decarbonisation challenges.

By conceptualising governance challenges as points of friction between contextually specific sets of governance arrangements and the requirements of collective goals, we offer a novel perspective on known issues in the heat transition and identify opportunities for innovative governance to bolster progress on decarbonisation.