

**Regulating the diffusion of renewable energy technologies:
Interactions between community energy and the feed-in tariff in the
UK**

Submitted by Colin Nolden to the University of Exeter

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The difficulty lies, not in the new ideas, but in escaping from the old ones

John Maynard Keynes (1936)

Regulating the diffusion of renewable energy technologies: Interactions
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An ever increasing body of legislation and regulation is transforming the UK's energy system and its surrounding national energy framework. Depending on the mechanisms that result from this process, new forms of engagement with energy, particularly electricity, might emerge. The current trajectory of UK energy policy leans towards a centralised scenario with a portfolio of centralised renewable energy technologies (i.e. geographically concentrated such as offshore wind), nuclear power stations and gas fired power stations with the option of Carbon Capture and Storage technologies if it becomes a commercially viable option (CCC, 2011). Forecasts predict that a combination of these technologies could place the UK on the right path to reach its 2050 carbon reduction commitments (UKERC, 2008). However, this approach fails to take broader benefits of decentralisation and localisation into account and many official documents such as the Microgeneration Strategy (DECC, 2011a) and those surrounding Community Energy Online (DECC, 2011b) point to a need for greater public engagement in the generation of energy in order to 'derive greater benefits locally' (DECC, 2011a: 45). The question remains in how far these diverging objectives can be achieved within the current regulatory environment as there is a lack of coordinated incentives in place to facilitate the development of new scales and ownership structures capable of promoting new forms of engagement at scales below the point at which economies of scales apply. This thesis seeks to establish what barriers are preventing community energy with the capacity to increase acceptance of renewable energy technologies while also contributing towards climate change action, energy security and the strengthening of local economic cycles from becoming more widely embedded in the UK. The main focus is on how 'niche creation' policies such as the feed-in tariff might provide the basis for overcoming these barriers

by diffusing new scales and ownership structures of renewable energy technologies. Accompanying social innovations could potentially include more meaningful engagement with energy in general and renewable energy in particular, while also enabling communities willing to invest in renewable energy technologies to build resilient local energy infrastructures with the capacity to reduce the impact of increasing energy insecurity, fossil-fuel depletion and climate change constraints. In order to appreciate the potential of community energy in the UK, parallels are drawn to the governance of national energy frameworks in other European countries, Germany and Denmark in particular, that have provided the basis for successful community energy engagement.

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Table of Content

Acknowledgements	4
List of Tables and Figures	9
Abbreviations	10
Chapter 1 – Introduction to Community Energy in the UK	11
1 Introduction.....	11
1.1 Challenges to the UK energy system.....	12
1.2 General energy system challenges.....	14
1.3 Putting renewable energy support into context	15
1.4 Community energy.....	16
1.5 Scales and ownership structures of renewable energy technologies	19
1.6 Escaping lock-in and path-dependency	22
1.7 Situating communities in the UK energy policy landscape	24
1.8 What is UK community energy?.....	25
1.9 Thesis structure	29
Chapter 2 – Theories of Governance and Innovation	32
2 Introduction.....	32
2.1 Governance and multi-level perspectives	32
2.1.1 Environmental governance	34
2.1.2 Energy governance.....	36
2.1.3 The governance of new technologies	38
2.1.4 The governance of the diffusion of innovations	40
2.1.5 The governance of diffusion niches	41
2.2 The governance of decentralised energy generation	43
2.2.1 Market incentive programmes and the diffusion of innovations	45
2.2.2 The governance of community energy	47
2.2.3 International comparisons of local and community governance	49
2.3 Multi-level perspectives of the socio-technical regime.....	52
2.3.1 Socio-technical regimes.....	54
2.3.2 Socio-technical innovation in the energy sector	55
2.3.3 The diffusion of innovations	57
2.3.4 Moving from technological to social innovation	60
2.3.5 The transition to a Low Carbon Economy	61
2.3.6 Reframing the diffusion of innovations theory	63
2.4 The role of change agents in climate change response	64

2.4.1	Change agents and the socio-technical system	66
2.4.2	Change agents in the diffusion of renewable energy technologies.....	67
2.5	Scales of change	68
2.5.1	Commitment to change.....	70
2.6	Conclusion.....	72
	Chapter 3 – The Policy Framework.....	73
3	Introduction.....	73
3.1	UK renewable energy policy and community energy since 1990.....	73
3.2	The two strands of energy policy	74
3.2.1	The development of quantity-based support mechanisms in the UK.....	76
3.2.2	The RO and Microgeneration.....	77
3.2.3	Reforming the RO.....	78
3.2.4	The birth of the Feed-in Tariff	79
3.3	The Feed-in Tariff	80
3.3.1	The Feed-in Tariff and community energy	81
3.3.2	The Feed-in Tariff and new entrants	82
3.4	Scales of energy policy determination and provision.....	83
3.5	The framework surrounding community energy development.....	85
3.5.1	Liberalisation and non-market based challenges	85
3.5.2	Abandoning the invisible hand – re-regulating renewable energy	87
3.5.3	Regulation and the diffusion of decentralised renewable energy technologies	89
3.5.4	The economics of supporting small-scale generation.....	92
3.5.5	International community energy experiences	93
3.5.6	The transferability of success stories	96
3.5.7	Changing perceptions of renewable energy technologies	98
3.6	Conclusion.....	99
	Chapter 4 – Methodology	102
4	Introduction.....	102
4.1	The study area.....	103
4.2	Previous Studies.....	106
4.3	Rationale for the methodological approach	108
4.3.1	Strengths of methodological approach.....	108
4.3.2	Weaknesses of methodological approaches	111
4.3.3	The methodological approach.....	112
4.3.4	Evidence and contribution to knowledge.....	114
4.4	Interviewee categorisation	115

4.4.1	Details of the interviewee sample	118
4.4.2	Sampling strategy	121
4.5	The framework for analysis.....	122
4.6	Constraints	125
4.7	Data analysis and presentation.....	126
4.8	Positionality and ethics	129
Chapter 5	– Community energy, change agents and the UK NEF	131
5	Introduction.....	131
5.1	Bottom-up community energy within the UK’s National Energy Framework	131
5.1.1	Community energy and energy policy	132
5.1.2	The community energy investment landscape	135
5.2	Planning and energy policy interaction.....	138
5.2.1	Reforms to the planning system – The Localism Act.....	140
5.2.2	Reforms to the planning system – Permitted Development Rights.....	142
5.3	Change agent interaction and community energy	143
5.3.1	Change agents and bottom-up community-led developments.....	144
5.3.2	Scaling-up community energy.....	146
5.4	Decentralised energy and alternative ownership structures and scales	149
5.4.1	Hybrid and public-private approaches to community energy	150
5.4.2	Local authorities and community energy.....	152
5.4.3	Commercial renewable energy developments and communities.....	155
5.4.4	Community engagement.....	158
5.4.5	Energy Supply Companies and new business models.....	159
5.4.6	Utilities and enhancing replicability	161
5.5	Multiple pathways for community energy	163
5.6	Where next for community energy?	166
Chapter 6	– Embedding community energy innovation.....	167
6	Introduction.....	167
6.1	The diffusion of technological innovation	167
6.2	Scales of renewable energy provision and regulatory interaction.....	168
6.2.1	Ownership over scale	169
6.2.2	Scale over ownership	172
6.2.3	Which regulation for which scale and ownership structure?.....	174
6.2.4	Which scale and ownership structure for which regulation?.....	176
6.3	The diffusion of community energy innovations	177
6.4	Governing diffusion.....	180
6.4.1	Regulatory state diffusion facilitators	181

6.4.2	Regulatory state diffusion niches	183
6.4.3	International innovation diffusion niches	184
6.5	Consolidating the innovation diffusion niche	188
6.6	FiTs and fuel poverty - Is community energy just for the Muesli-belt?	191
6.7	The diffusion of policy innovation	194
6.8	The diffusion of social innovations: How to go about setting up successful community development in the UK	199
6.9	The diffusion of renewable energy and associated social practices induced by regulatory incentives: A concerted transition effort or just the icing on the cake? ..	202
Chapter 7 – Conclusion		205
7.1	Discussion of aims and objectives	205
7.1.1	First objective – To identify how energy policy, specifically the feed-in tariff and the surrounding national energy framework, influence the diffusion of community energy	206
7.1.2	Second objective – To critically examine the role of change agents in developing the niche for technological and social innovation associated with the diffusion of community energy within a changing energy policy landscape embedded in a liberalised energy market.....	207
7.1.3	Third objective – To evaluate the capacity of community energy within the wider national energy framework in relation to the diffusion of decentralised renewable energy technologies	209
7.2	Discussion of theories.....	212
7.3	Conclusion.....	215
7.4	Outlook and recommendations	220
Appendices		224
References		230

List of Tables and Figures

- 20: Table 1.1: Ownership structures of wind turbines in selected countries
- 21: Table 1.2: Offshore wind turbine deployment and installed capacities
- 22: Table 1.3: Onshore wind turbine densities and installed capacities
- 26: Table 1.4: Engagement with renewable energy technologies according to technology
- 27: Table 1.5: Engagement with project aims
- 50: Table 2.1: Modes of governing and local climate change policy
- 53: Figure 2.1: Multi-level perspective of innovation
- 59: Figure 2.2: The process of diffusion
- 61: Figure 2.3: Socio-technical axis of innovation focus
- 69: Figure 2.4: Multi-level perspective of energy provision
- 89: Figure 3.1: Approaches to energy and climate change policies
- 104: Figure 4.1: Overarching framework in which the interviewees are considered embedded for the sake of this research
- 105: Figure 4.2: Categorisation of community energy projects
- 119: Table 4.1: Interviewee categorisation
- 120: Figure 4.3: Centralised/decentralised diffusion system divide
- 169: Figure 6.1: The UK community energy innovation system
- 203: Figure 6.2: Scales of decentralised development
- 211: Figure 7.1: The UK community energy innovation system
- 213: Figure 7.2: The UK community energy related NEF